NOAA Technical Memorandum NMFS-AFSC-259

Community Profiles for North Pacific Fisheries - Alaska

Volume 6

by
A. Himes-Cornell, K. Hoelting, C. Maguire, L. Munger-Little,
J. Lee, J. Fisk, R. Felthoven, C. Geller, and P. Little

U.S. DEPARTMENT OF COMMERCE
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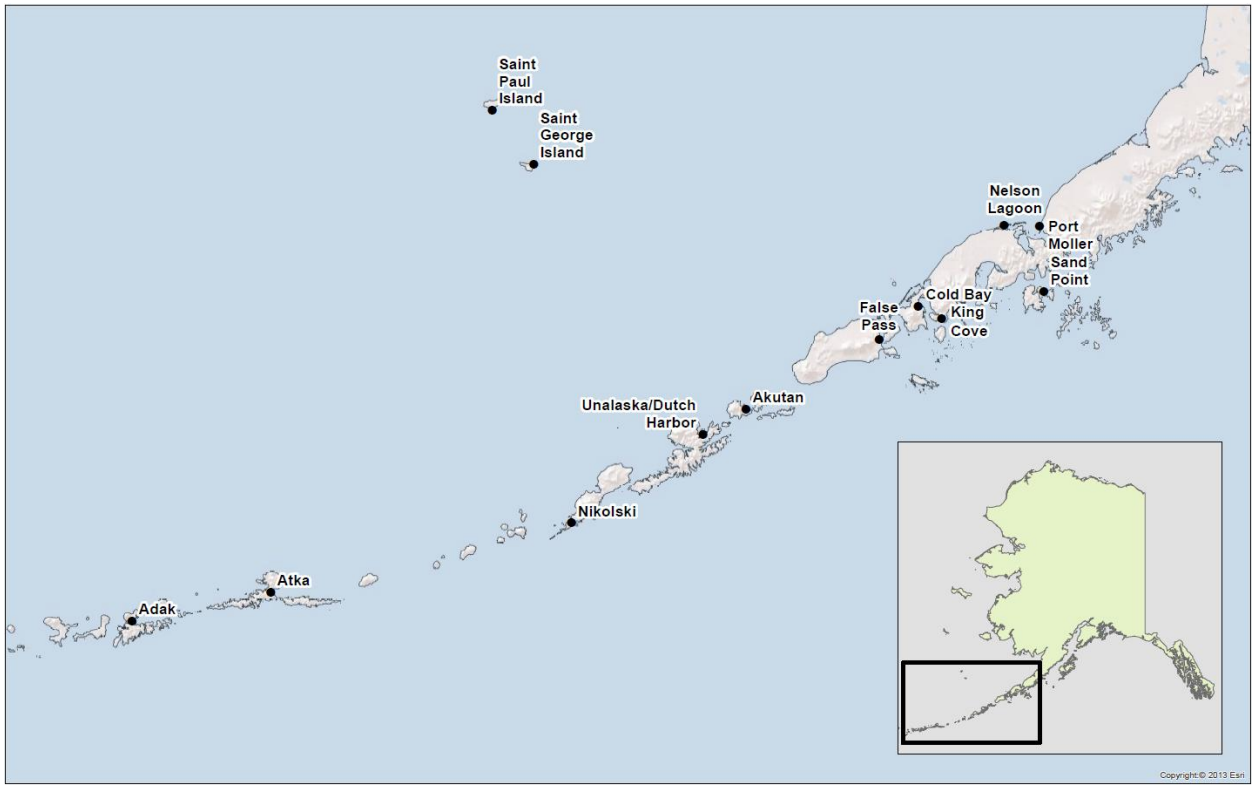
Aleutian and Pribilof Islands

Regional Introduction: Aleutian and Pribilof Islands

Communities

Adak
Akutan
Atka
Cold Bay
False Pass
King Cove
Nelson Lagoon
Nikolski
Port Moller
Saint George
Saint Paul
Sand Point
Unalaska/Dutch Harbor



People and Place

Location

The Aleutian Island chain stretches approximately 1,200 miles southwest from the end of the Alaska Peninsula at False Pass, toward the Kamchatka Peninsula in Russia. The chain itself consists of 14 large volcanic islands and 55 smaller ones located between 51° and 55° N latitude and 172° E and 163° W longitude. A total of 13 communities were selected to be profiled from this region, all of which are located within either the Aleutians East Borough or the Aleutians West Census Area. Saint George and Saint Paul are located within the Pribilof Island group, 200 miles north of Unalaska.

Demographic Profile

Of the 13 communities profiled, only 4 had populations exceeding 500 residents as of 2010. In that year, the total regional population was 8,498; 51.5% of which lived in Unalaska/Dutch Harbor. However, it should be noted that 2010 Census figures are misleading as seasonal seafood processor employees were tallied for the communities of Unalaska and Akutan. In the case of Akutan, the inflated population figure is extremely misrepresentative of the total number of permanent residents.[1]

Because of its robust seafood processing sector, the region has a highly diversified population in terms of race or ethnicity. In 2010, 23.1% of residents identified themselves as at least part American Indian or Alaska Native, 34.4% as at least part Asian, 31.3% as White, and 7.0% as at least part Black or African American. In addition, 13.1% identified themselves as Hispanic or Latino.[2] Again, those demographics may not have been representative of residents living in the region permanently.

The Aleutian and Pribilof Islands area is highly dependent on commercial fishing and seafood processing. Most economic activity comes from communities where large seafood processors are operating and/or commercial fishing fleets are staged. In larger fishing ports, most jobs are seasonal and are related to commercial fishing, fish processing, or support services. The communities of Atka, Nelson Lagoon, Saint George, and Saint Paul are largely dependent on subsistence activities to supplement limited wage employment opportunities. The community of Adak is somewhat unique in that it is in the process of reinventing its economy from a military installation to a more diversified transportation service and commercial fishing hub. In 2010, the overall regional per capita income was estimated at $26,100, while the estimated median household income was $63,646.[3]

[1] U.S. Census Bureau (2010). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2010 (Demographic Profile SF) Decennial Census. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.
[2] Ibid.
[3] 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.

History

There is evidence of human occupation of the Aleutian Islands dating back at least 8,000 to 9,000 years; however, it is believed that humans were populating the Americas at least 13,000 years ago during the end of the last glacial maximum. Archaeological sites dating back over 11,000 years have been found on Prince of Wales Island, lending evidence to a possible coastal migration route.[4] Archaeological sites on Anangula Island, near Nikolski, are thought to be around 8,000 years old and are some of the earliest evidence of human occupation of the area.[5]

Russian ships first reached the Aleutians in 1741, lured by the abundance of fur bearing animals. During the beginning of Russian occupation, many social and cultural upheavals took place in the Aleutians, often to the detriment of the indigenous population. Many local inhabitants were placed into slavery, while most others feel victim to diseases brought from Europe.[6]

By the late eighteenth century, the Aleutians had for the most part been abandoned by Russians in favor of eastern trapping grounds. American influence in Alaska increased as people migrated northward; drawn by furs, fishing, and whaling. Unalaska and Dutch Harbor flourished in the 1880s as a coaling station and commercial trade center. The Gold Rush of the 1890s brought many ships to Dutch Harbor, lured by its position as a gateway to the gold fields of northwest Alaska. Many prospectors traveled through Dutch Harbor on their way to goldfields in Nome. By the turn of the twentieth century, several seafood processors may have been in operation processing herring, salmon, and whale meat.[7]

Interest in fishery resources of the Aleutians began to increase around 1950 with the harvesting and processing of halibut, salmon, and king crab. The growth of the king crab fishery in the early 1960s greatly improved local economic conditions. Today, the region is dependent mainly on commercial and subsistence fisheries tied to the Bering Sea, which is home to productive cod and crab fisheries.[8]

Natural Resources and Environment

The Aleutian and Pribilof Islands are located in Alaska's maritime climate zone, with winter temperatures ranging from 10 to 35° F and cool summers with temperatures from 45 to 65° F. Precipitation averages 20 to 25 inches annually. Wind and fog are frequent, and communities which face the Bering Sea experience average winds of 15 knots year-round, with severe winter storms bringing winds in excess of 100 miles per hour. The warm Japanese Current keeps Bering Sea ports ice-free during all seasons and contributes to one of the richest marine ecosystems on earth.

The Aleutian Range was formed by volcanic outpourings which began around sixty million years ago, and which have continued to shape the region since. Much of the eastern region of the Aleutians was glaciated during the last ice age, covering portions of Unimak and

[4] National Park Service. (n.d.). *Archaeological Overview of Alaska.* Retrieved May 30, 2012 from: http://www.nps.gov/akso/akarc/early.htm.
[5] Trych, Nyman and Hayes (1977). *City of Unalaska, Alaska: Recommended Community Development Plan.* Retrieved June 12, 2012 from: http://www.commerce.state.ak.us/dca/plans/Unalaska-CP-1977.pdf.
[6] Ibid.
[7] Ibid.
[8] Ibid.

Unalaska islands and leaving behind a layer of gravel moraine and till in some areas. Overall, subsurface geology consists of volcanic basalts and lahar deposits. Soil is generally thin and unproductive. Topography is characterized by moderate relief alpine tundra and flat coastal meadows.[9] Much of the region is covered by the Alaska Maritime National Wildlife Refuge (AMNWR), which covers approximately 3.4 million acres.[10]

There are no terrestrial mammals endemic to AMNWR, although foxes, rats, caribou, cattle, and ground squirrels have been introduced. Marine mammals include sea otter, Steller sea lion, northern fur seal, harbor seal, walrus, and beluga, blue, bowhead, gray, humpback, and killer whales. Marine fish include lampreys, mackerel sharks, skates, all five species of Pacific salmon, Dolly Varden, smelts, toothed cod, Pacific cod, walleye pollock, stickleback, rockfish, sablefish, greenling, mackerel, sculpin, Pacific halibut, sole, and flounder. Marine invertebrates include king, Tanner and Dungeness crab, shrimp, scallop, razor clam, and hardshell clam. Finally, AMNWR provides critical birding habitat for approximately 40 million seabirds.[11]

Governance

The Aleutian and Pribilof Islands region is comprised of one borough and one census area. The Aleutians East Borough seat is located in Sandpoint, a city of 976 residents and the largest within the Borough. In 2010, the Aleutians East Borough administered at 2% raw fish tax, and took in $6.4 million in total revenue.[12] The Aleut Corporation is the regional Alaska Native Claims Settlement Act (ANCSA) chartered for-profit corporation with 66,000 acres of surface and 1.57 million acres of subsurface land holdings. Unalaska is the largest city in the Aleutian and Pribilof Islands region as well as the economic center. The city is the western-most container terminal in the United States and a regional shipping hub.[13]

The Aleutian Pribilof Island Community Development Association is the regional Community Development Quota (CDQ) group that operates in the region. CDQ groups distribute a portion of commercial fishing proceeds to their various communities and sponsor economic and infrastructural development. Most communities in this region are not eligible to participate in the Community Quota Entity (CQE) program given their geographic location outside of the Gulf of Alaska. However, one entity has been formed. Aleutia Incorporated is the CQE representing Sand Point. CQE groups are eligible to purchase fishing quota share on behalf of residents of their respective communities.

In addition, there are a number of ANCSA chartered village corporations and Indian Reorganization Act recognized tribal governments.

[9] Wilson, F. H., S. Mohadjer, and D. M. Grey. (2006). *Reconnaissance Geologic Map of The Western Aleutian Islands, Alaska.* Retrieved May 30, 2012 from: http://pubs.usgs.gov/of/2006/1302/waleut_text.pdf.
[10] National Park Service. (n.d.). *Alaska Maritime National Wildlife Refuge.* Retrieved May 30, 2012 from: http://alaskamaritime.fws.gov/
[11] Ibid.
[12] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.
[13] City of Unalaska. (2012). *2012 Economic Report.* Retrieved November 21, 2012 from: http://www.unalaska-ak.us/vertical/sites/%7B0227B6A7-A82F-4BFC-9D02-A4B2D3A8BC35%7D/uploads/2012_brochure%281%29.pdf.

Involvement in North Pacific Fisheries

Shoreside seafood processing plants are located in Adak, Akutan, Atka, False Pass, King Cove, Port Moller, Saint Paul, Sand Point, and Dutch Harbor (Unalaska).[14] Dutch Harbor is a base of operation for approximately 300 licensed vessels that fish within the Bering Sea.[15] Target species for the commercial fleet include pollock, Pacific cod, halibut, mackerel, sole, rockfish, herring Pacific salmon, and crab.[16,17]

In 2010, over 1.1 billion pounds of seafood was landed at Aleutian/Pribilof communities, accounting for roughly a quarter of total landings made in Alaska that year. Pollock accounted for most landings in 2010, at 846.6 million pounds of total. Pacific cod accounted for 149.8 million pounds, and the two species combined made up approximately 91% of total landings in the region.[18] Aleutian and Pribilof Islands residents held 7.9 million shares of halibut quota, 1.1 million shares of sablefish quota, and 46.4 million shares of crab quota in 2010.[19]

Sportfishing is limited compared to other parts of Alaska. Most recreational fishing takes place in marine waters or on various drainages found throughout the islands. Most sportfishing activity is based out of Unalaska where 1,163 of the region's 1,405 sportfishing licenses were sold in 2010. In that year, residents held 762 sportfishing licenses.[20] Popular species targeted by recreational anglers include greenling, black bass, halibut, Pacific cod, flounder, Dolly Varden, and all five species of Pacific salmon.[21,22]

Subsistence fishing and hunting form a major part of residents' livelihoods, especially in communities that are dependent on subsistence resources to supplement their incomes and diet. Common subsistence species include halibut, Pacific cod, salmon, rockfish, sculpin, greenling, flatfish, king and Tanner crab, razor clams, butter clams, chitons, limpets, mussels, and

[14] 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.]
[15] 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.]
[16] City of Unalaska. (2012). *Official 2012 Visitors Guide.* Retrieved November 21, 2012 from: www.unalaska.info/files/documents/CVBVGfinal.pdf.
[17] 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.]
[18] Ibid.
[19] 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.]
[20] 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.]
[21] City of Unalaska. (2012). *Official 2012 Visitors Guide.* Retrieved November 21, 2012 from: www.unalaska.info/files/documents/CVBVGfinal.pdf.
[22] 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).

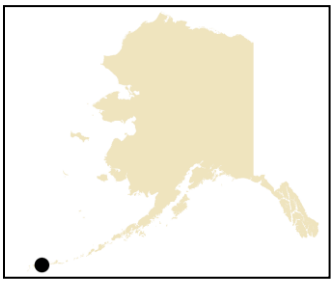
octopus.[23] In 2008, residents reported harvesting 133,671 lbs of salmon, of which approximately 76% were sockeye. Chinook salmon also made up a significant portion of salmon harvested at 11% of fish reported. Sockeye salmon were the most frequently harvested species of Pacific salmon, accounting for 8,285 of the reported 15,751 salmon harvested in 2008.[24] In 2008, an estimated 61,473 pounds of halibut was harvested by Aleutian and Pribilof Island residents. In that year, residents of Sand Point harvested more than any other community with an estimated 25,013 pounds.[25] Marine mammals harvested by residents include Steller sea lions, harbor seals, sea otters, and walrus.[26,27]

Regional Challenges

The region's heavy dependence on commercial fishing often places communities at the whim of ever-changing market conditions and management regimes. According to community surveys administered by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, several communities throughout the region expressed frustration over Pacific cod and Atka mackerel closures in the Western Aleutians resulting from depressed Steller sea lion populations. Measures limiting bycatch are also seen as overly restrictive by several communities. As with many remote areas of Alaska, developing fishery-related infrastructure can be cost prohibitive in many situations, as is being experienced in Adak.

If current trends continue, the potential opening of a seasonal shipping route through the Arctic could create unique challenges as well as opportunities for communities in the Aleutian and Pribilof Islands. As Arctic sea ice retreats as a result of climate change, there is the potential for seasonal shipping routes to open, subsequently connecting the Aleutian Islands with ports in New York, Europe, and Russia. It is believed that these theoretical routes can reduce shipping times significantly, and could allow Aleutian ports to become major transportation hubs.[28,29]

[23] 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).
[24] 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.
[25] 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.
[26] Wolfe, R.J., J. A. Fall, 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.
[27] 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.
[28] Rodrigue, J-P. (2012). *The Geography of Transport Systems.* Retrieved November 21, 2012 from: http://people.hofstra.edu/geotrans/eng/ch1en/conc1en/polarroutes.html.
[29] Paulin, J. (2012). Adak Hopes Oil, Trans-Arctic Shipping will Revitalize Island. *The Dutch Harbor Fisherman.* Retrieved November 21, 2012 from: http://www.thedutchharborfisherman.com/article/1238adak_hopes_oil_trans-arctic_shipping_will.



Adak (*A-dack*)

People and Place

Location [30]

Adak is located on Kuluk Bay on Adak Island. It lies 1,300 mi southwest of Anchorage and 350 mi west of Unalaska in the Aleutian Island Chain. Flight time to Anchorage is 3 hours. Adak is the southern-most community in Alaska, on the latitude of Vancouver Island in Canada. The area encompasses 122.4 sq mi of land and 4.9 sq mi of water. Adak was incorporated as a city in 2001, is located in the Aleutians West Census Area, and is not under the jurisdiction of a borough.

Demographic Profile [31]

In 2010, there were 326 residents living in Adak, which ranked the community156th of 352 Alaska communities in terms of population size. Between 1990 and 2010, the population declined by 93.0%. Between 2000 and 2009, the population declined by 47.8% with an average annual growth rate of 8.1% which was much higher than the statewide average of 0.75% and indicative of a significantly variable population. Information regarding population trends can be found in Table 1.

In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that the permanent population in Adak was estimated to be between 120 to 140 residents. Typically there are seasonal residents living in Adak from January through April as well as June through October. Peaks in population seen in July and January through April are entirely attributed to employment in fisheries sectors.

Adak's racial and ethnic composition was relatively mixed in 2010. In that year, 52.5% or residents identified themselves as Asian, compared to 9.8% in 2000; 19.6% identified themselves as White, compared to 49.7% in 2000; 10.7% identified themselves as two or more races, compared to 2.2% in 2000; 5.5% identified themselves as American Indian or Alaska Native, compared to 35.1% in 2000; 4.0% identified themselves as Black or African American, compared to 1.3% in 2000; 1.5% identified themselves as Native Hawaiian or Other Pacific Islander, compared to 1.9% in 2000; and 6.1% identified themselves as some other race, compared to 0% in 2000. In addition, 8.9% of residents identified themselves as Hispanic of Latino in 2010, compared to 5.1% in 2000. Information regarding racial and ethnic trends can be found in Figure 1.

Although unconfirmed, it is highly likely that the 2010 U.S. Census captured a large population of seasonal workers. This would explain the significant variation in racial

[30] 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.

[31] 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.

composition between 2000 and 2010, and the discrepancy between 2010 Census population figures and local and state estimates. Locally, more of the population is identified as White, with American Indian or Alaska Native residents comprising the second largest racial or ethnic group.

The average household size in 2010 was 2.48, compared to 3.10 in 1990 and 1.99 in 2000. In that year there were a total of 500 housing units, compared to 1,051 in 1990 and 884 in 2000. Of the households surveyed in 2010, 6% were owner-occupied, compared to 0% in 2000; 3% were renter-occupied, compared to 18% in 2000; 85% were vacant, compared to 81% in 2000; and 7% were occupied seasonally, compared to 1% in 2000.

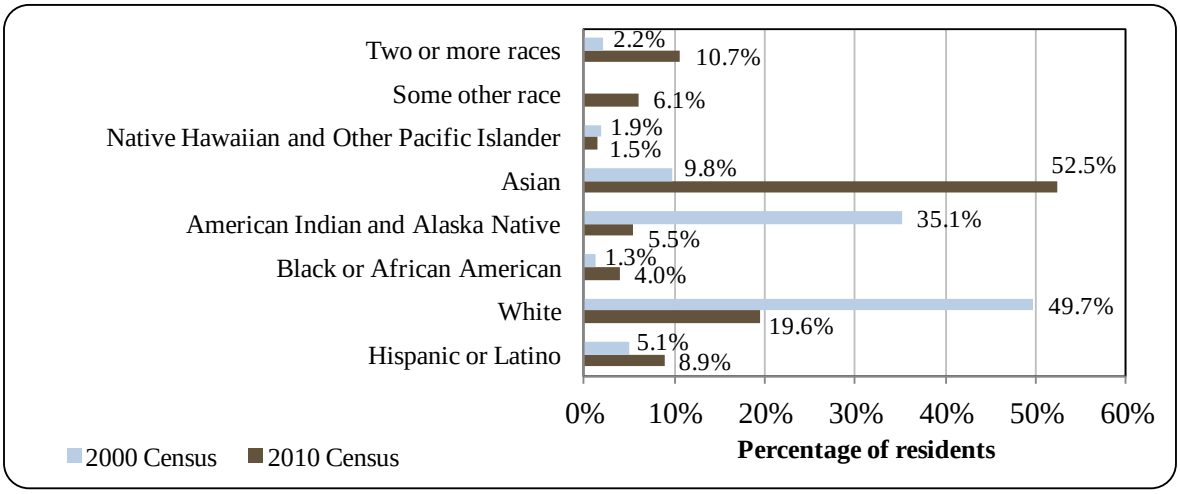
Table 1. Population in Adak from 1990 to 2010 By Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	4,633	-
2000	316	-
2001	-	153
2002	-	166
2003	-	74
2004	-	70
2005	-	167
2006	-	146
2007	-	137
2008	-	178
2009	-	165
2010	326	-

[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.

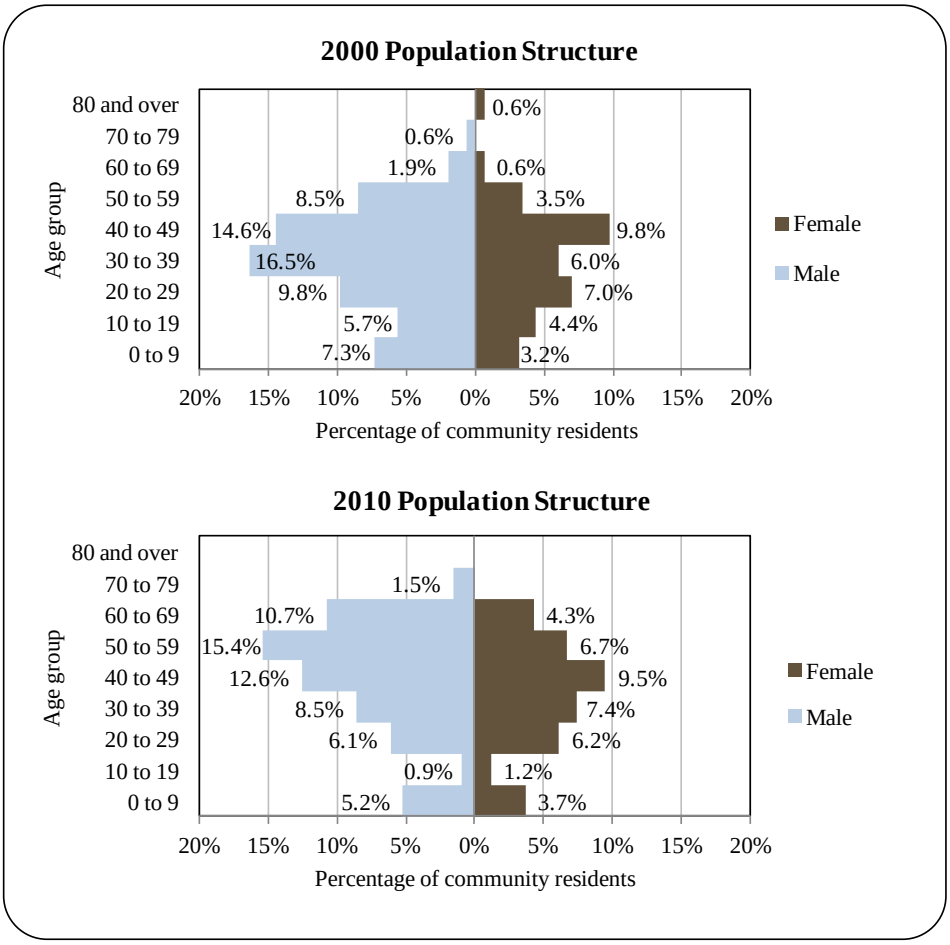
Figure 1. Racial And Ethnic Composition, Adak: 2000-2010 (U.S. Census).



The gender distribution in 2010 was moderately skewed at 61.0% male and 39.0% female. This was significantly more skewed then the distribution statewide (52.0% male, 48.0% female), and somewhat less skewed than the distribution in 2000 (64.9% male, 35.1% female). The median age in 2010 was 45.5 years, which was significantly older than the statewide median of 33.8 years and 2000 median of 35.2 years. Gender distribution by age cohort was more even in 2010 than in 2000, with male biases among most age ranges. In that year, the greatest absolute gender difference occurred within the 50 to 59 range (15.4% male, 6.7% female), followed by the 60 to 69 (10.7% male, 4.3% female) and 40 to 49 (12.6% male, 9.5% female) ranges. Of those three, the greatest relative gender difference occurred in the 60 to 69 range.

Compared with the year 2000, the population structure was less expansive in 2010, with older cohorts showing age transitions consistent with a stable population; meaning that overall, older cohorts appeared to age with little attrition compared with younger cohorts. In 2010, 11.0% of residents were under the age of 20, compared to 20.6% in 2000; 16.5% were over the age of 59, compared to 3.7% in 2000; 60.1% were between the ages of 30 and 59, compared to 58.9% in 2000; and 12.3% were between the ages of 20 and 29, compared to 16.8% in 2000. It should be noted that seasonal workers captured in the 2010 Census may have affected Adak's population structure. Because of this, determining a trend may be difficult. Information regarding population structure can be found in Figure 2.

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



In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)[32] estimated that 97.6% of residents aged 25 and older held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaskan residents overall. Also in that year, an estimated 2.4% had less than a 9th grade education, compared to an estimated 3.5% of Alaskan residents overall; and estimated 46.3% had some college but no degree, compared to an estimated 28.3% of Alaskan residents overall; an estimated 2.4% held an Associate's degree, compared to an estimated 8.0% of Alaskan residents overall; an estimated 7.3% held a Bachelor's degree, compared to an estimated 17.4% of Alaskan residents overall; and an estimated 12.2% held a graduate or professional degree, compared to an estimated 9.6% of Alaskan residents overall.

History, Traditional Knowledge, and Culture[33]

There is evidence of human occupation of the Aleutian Islands dating back at least 8,000 years; however, it is believed that humans were populating the Americas at least 13,000 years

[32] 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.
[33] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

ago during the end of the last glacial maximum. Archaeological sites dating back over 11,000 years have been found on Prince of Wales Island, lending evidence to a possible coastal migration route.[34] Archaeological evidence in the vicinity of Clam Lagoon shows that confirmed occupation of Adak Island dates back approximately 6,000 years.[35]

The island was abandoned in the early 17th Century when Aleut hunters moved or were forced eastward because of the Russian fur trade. The Native people continued to use the island as a place to fish and hunt until the beginning of World War II. The island had been designated in 1913 as part of the Aleutian Island Reservation, but in the 1940's became "a key operations and supply location for United States military forces after the Japanese occupation of Kiska and Attu Islands during World War II". Adak's population in the spring of 1944 was made up of at least 32,000 military personnel, peaking at approximately 90,000 during the early staging periods of the war. After World War II, Adak was developed into a Naval Air Station and played an important role during the Cold War as a submarine surveillance center. The navy base housed 6,000 personnel and their families during its peak, but harsh cut-backs occurred in 1994 and navy family housing and schools were closed. Adak Naval Station officially closed on March 31, 1997. Aleut Corporation acquired the majority of Adak's facilities in 2004 in a land transfer agreement and in 1998 about 30 families with children (mostly Aleut Corp. shareholders) relocated to Adak.[36]

[34] National Park Service. (n.d.). *Archaeological Overview of Alaska.* Retrieved May 30, 2012 from: http://www.nps.gov/akso/akarc/early.htm.
[35] West, D. (n.d.). *The Prehistory of Clam Lagoon.* Retrieved May 30, 2012 from: http://www.adakdiscovery.org/.
[36] 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.

Natural Resources and Environment[37]

Located in Alaska's maritime climate zone, Adak's weather is characterized by frequent and intense storms in the winter and extensive fog in the summer. Temperatures average from 20 °F (-7 °C) to 60 °F (16 °C). Total precipitation is 64 inches annually, with an average accumulated snowfall of 100 inches, primarily in the mountains.

Adak Island is located in the Alaska Maritime National Wildlife Refuge (AMNWR), which includes over 3,000 islands, islets, rocks, pinnacles, and headlands covering 3.4 million acres. Subsurface geology on Adak Island consists primarily of volcanic basalts and lahar deposits. Soils are generally thin, and there is evidence of Holocene age moraine deposits.[38] Much of Adak's local topography is characterized by steep to moderate relief alpine tundra. Coastal regions consist of lowland tundra and meadows. Vegetation includes grasses, sedges, lichens, mosses, wildflowers, and heath plants.[39] Trees are few in number and limited to introduced spruce.

There are no terrestrial mammals endemic to AMNWR although foxes, rats, caribou, cattle, and ground squirrels have been introduced. Marine mammals include sea otter, Steller sea lion, northern fur seal, harbor seal, walrus, and beluga, blue, bowhead, gray, humpback, and orca whales. Marine fish include lampreys, mackerel sharks, skates, all five species of Pacific salmon, Dolly Varden, smelts, toothed cod, Pacific cod, walleye pollock, stickleback, rockfish, sablefish, greenling, mackerel, sculpin, Pacific halibut, sole, and flounder. Marine invertebrates include king, Tanner and Dungeness crab, shrimp, scallop, razor clam, and hardshell clam. Finally, AMNWR provides critical birding habitat for approximately 40 million seabirds.[40]

Although Adak does not have a hazard mitigation plan, the Aleutians East Borough identified several natural hazards with the potential to impact Aleutian communities, including volcanic eruptions, earthquakes, coastal flooding and erosion, ground failure, tsunami, and extreme weather. All of these hazards have records of occurrence in the area and have a high potential for future occurrence.[41]

Since the closure of the Adak Naval Station in 1997, the U.S. Navy and U.S. Environmental Protection Agency has been performing Superfund clean-up and restoration of Adak. Contamination was the result of hazardous substances including PCBs (polychlorinated biphenyl), petroleum, chlorinated solvents, and contaminates sourced from discarded batteries that were released over a 40-year period during base operation.[42] Site cleanup was still in progress as of 2010.[43]

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[37] Ibid.
[38] Wilson, F. H.; Mohadjer, S.; and Grey, D. M. (2006). *Reconnaissance Geologic Map of The Western Aleutian Islands, Alaska*. Retrieved May 30, 2012 from: http://pubs.usgs.gov/of/2006/1302/waleut_text.pdf.
[39] Heusser, C. J. (1978). Postglacial Vegetation on Adak Island, Aleutian Islands, Alaska. *Bulletin of the Torrey Botanical Club, 105*,18-23.
[40] National Park Service. (n.d.). *Alaska Maritime National Wildlife Refuge.* Retrieved May 30, 2012 from:
[41] Aleutians East Borough. (2010). *Multi-Jurisdictional Hazards Mitigation Plan.* Retrieved December 28, 2011 from: http://www.aleutianseast.org/vertical/Sites/%7BEBDABE05-9D39-4ED4-98D4-908383A7714A%7D/uploads/%7B5F7E9057-83A3-4DBA-B144-073C3F6461D6%7D.PDF.
[42] U.S. Environmental Protection Agency. (2002). *Adak Naval Air Station, Alaska EPA ID# AK4170024323 (EPA Region 10, Aleutian Islands, Adak).* Retrieved May 30, 2012 from: http://yosemite.epa.gov.
[43] U.S. Environmental Protection Agency (n.d.). *Superfund Information Systems.* Retrieved May 30, 2012 from: http://cfpub.epa.gov/supercpad/cursites/csitinfo.cfm?id=1000128#CleanupProgress.

Current Economy[44]

Adak provides a fueling port and crew transfer facility for foreign fishing fleets, and an airport, dock, housing facilities, restaurant, grocery store, and ship supply store are available. Adak has a shore-based processing plant capable of processing more than 500,000 lbs of fish per day.[45,46] However, the plant closed in 2013 because of concerns over the viability of the Aleutian Pacific cod resource.[47] A land exchange between Aleut Corp., the U.S. Navy, and the Department of the Interior has transferred most of the naval facilities to the Aleut Corporation. A portion of the island remains within the AMNWR, managed by the U.S. Fish & Wildlife Service. A portion of northern Adak Island is still held by the U.S. Navy. In a survey conducted by the AFSC in 2011, community leaders reported that Adak's economy is reliant on fishing, fuel sales (predominately related to fishing), ecotourism, sportfishing and hunting, and historical tourism. Top employers[48] in 2010 included: Adak Seafoods LLC, City of Adak, Adak Petroleum LLC, Lakloey Inc., Eastern Aleutian Tribes Inc., State of Alaska, TDX Adak Generating LLC, Adak General Store LLC, the Aleutian Region School District, and Adak Eagle Enterprises.

According to the 2006-10 ACS,[49] the estimated per capita income was $36,947 and the estimated median household income was $75,417, compared to $31,747 and $52,727 in 2000, respectively. However, after adjusting for inflation by converting 2000 values into 2010 dollars,[50] the real per capita income ($41,747) and real median household income ($69,335) indicate that individual earnings declined while household earnings increased. In that year, Adak ranked 22nd of 305 communities from which per capita income was estimated, and 33rd of 299 communities from which median household income was estimated.

It should be noted that Adak's small population size may have prevented the ACS from accurately portraying economic conditions. Another understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development. According to the ALARI database, total wages based on state and private employers in 2010 was $1.60 million.[51] When compared with the 2010 Census population, the per capita income equals $4,921, indicating an extreme decrease compared to per capita income values reported by the U.S. Census in 2000.[52]

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[44] Unless otherwise noted, all monetary data are reported in nominal values.
[45] Personal correspondence.
[46] 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.
[47] Bristol Bay Times. (2013). *Adak Loses Private Fish Processor.* Retrieved July 7, 2013 from: http://www.thebristolbaytimes.com/article/1317adak_loses_private_fish_processor_1.
[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] 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.
[50] Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gove/research/cpi/inflationcalc.htm).
[51] ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.
[52] 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/.

According to 2006-2010 ACS estimates, 90.9% of residents aged 16 and older were part of the civilian labor force. Between 2006 and 2010, unemployment was estimated at 2.3%, compared to an estimated 5.9% statewide. In addition, 1.7% of residents were estimated to be living below the poverty line, compared to an estimated 9.5% of Alaskan residents overall. However, ALARI estimates 22.6% unemployment.[53] Of those employed between 2006 and 2010, an estimated 74.4% worked in the private sector and 25.6% worked in the public sector.

By industry, Adak's economy was relatively diverse between in 2010. In that year, most (17.9%) employed residents were estimated to work in information sectors; followed by construction sectors (15.4%); education service, health care, and social assistance sectors (12.8%); and arts, entertainment, recreation, accommodations, and food service sectors (12.8%) (Figure 3). By occupation type, most (41.0%) employed residents were estimated to hold natural resources, construction, or maintenance positions; followed by management or professional positions (17.9%); production, transportation, or material moving positions (17.9%); sales or office positions (12.8%); and service positions (10.3%) (Figure 4). Overall, there was significant variation in industry sector representation between 2000 and 2010. There were notable declines in the proportion of residents employed in professional, scientific, management, administrative, waste management, and retail trade sectors. Conversely there were notable increases in construction, information, education services, health care, social assistance, arts, entertainment, recreation, accommodations, and food service sectors. While this may be attributed to shifts in economic regimes, ACS sampling methods may not have captured accurate conditions. According to 2010 ALARI estimates,[54] 15.0% if residents worked in construction sectors; 2.5% worked in manufacturing sectors; 25.0% worked in trade, transportation, and utilities sectors; 2.5% worked in information sectors; 2.5% worked in financial service sectors; 7.5% worked in education and health service sectors: 2.5% worked in leisure and hospitality sectors; 7.5% worked in state government; 20.0% worked in local government; and 15.0% worked in undetermined sectors.

Finally, it should be noted that no individuals characterized themselves as working in natural resource based industries, which includes fishing, in 2010. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in the farming, fishing, and forestry industries may be underestimated by census statistics as fishermen may hold another job and characterize their employment accordingly.

[53] See footnote 48.
[54] Ibid.

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

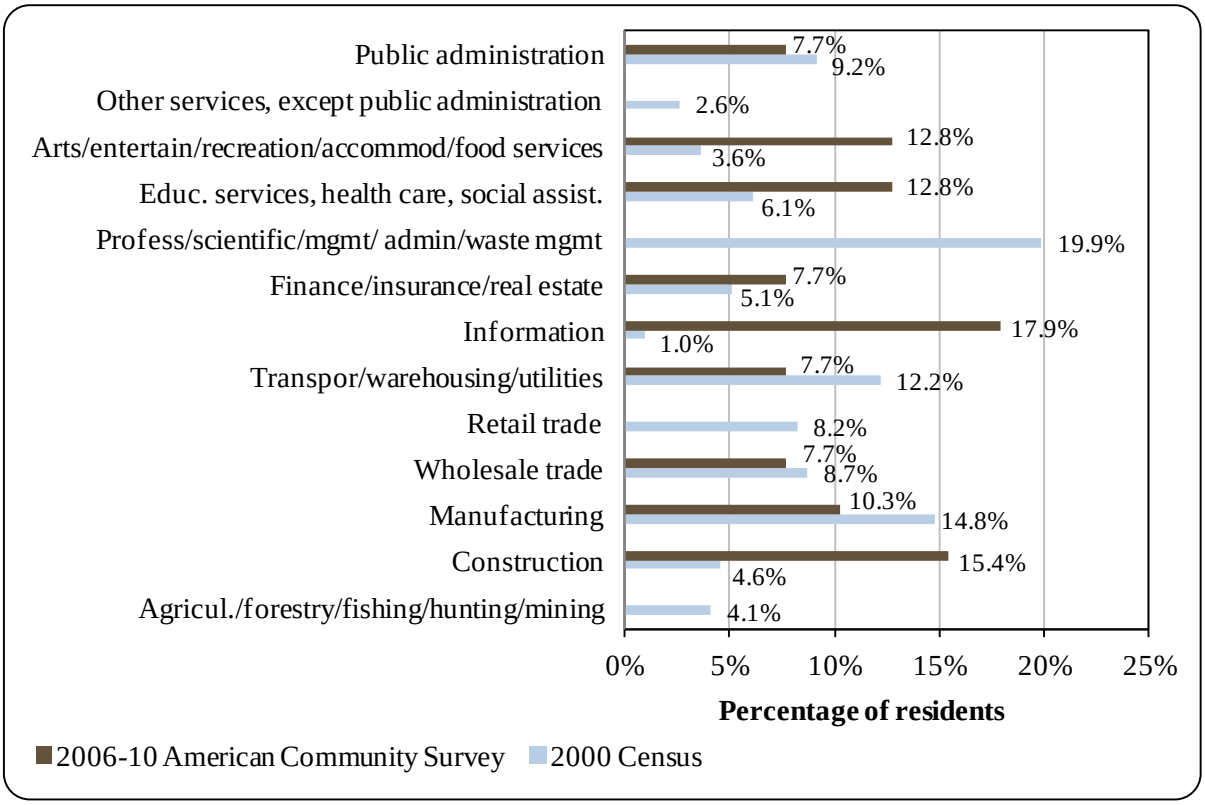
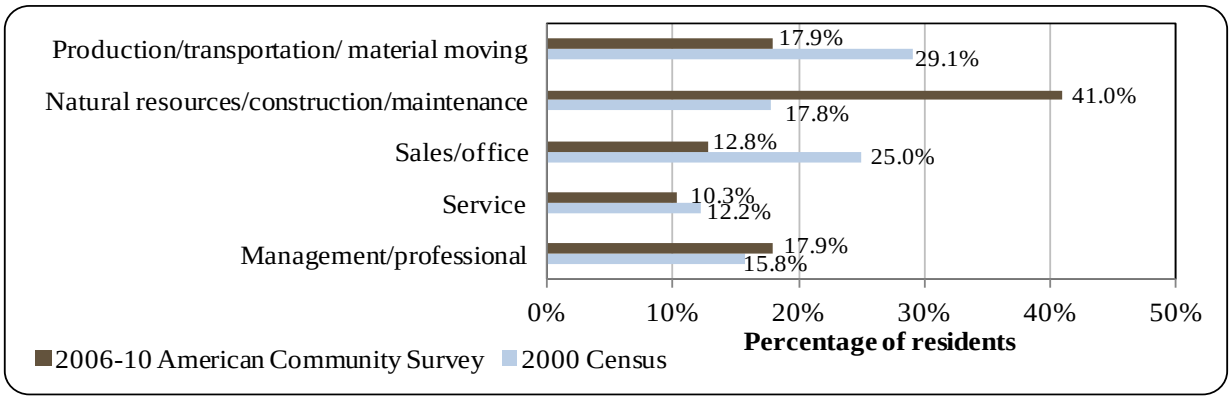


Figure 4. Local Employment by Occupation in 2000-2010, Adak (U.S. Census).



Governance

The City of Adak has a manager form of government which includes a mayor (elected from the council), a seven-member city council, and eight municipal employees, including a City Manager. The City is not part of an organized borough.

Adak was not included in Alaska Native Claims Settlement Act (ANCSA) and is not federally recognized as a Native village. However, the Aleut Corporation has taken a very active role in the development of the city in tandem with the City government, taking over

responsibilities of almost all services to the community, the ownership of a large amount of the land, and taking action to bring new businesses to the community.

The closest Bureau of Citizenship and Immigration Services office, National Marine Fisheries Service (NMFS) office, Office of Sustainable Fisheries, and Alaska Department of Fish and Game (ADF&G) office are all located in Dutch Harbor, 350 mi east.

Adak administers a 4% sales tax, and 5% transient lodging tax. The total municipal budget in 2010 was $877,545, compared to $594,420 in 2002. Total municipal revenues peaked in 2004 at $1.63 million. Sales tax accounted for 25.1% of total municipal revenues in 2010, compared to 73.6% in 2002. In addition, State allocated Community Revenue Sharing accounted for 7.4% of total municipal revenues that year, compared to 2.0% in 2003 when the State Revenue Sharing program was still active. State and federal fisheries-related grants awarded to Adak between 2000 and 2010 include $7.1 million in harbor projects, $5.7 million in small vessel harbor projects, and $300,000 for port improvement projects. Information regarding municipal finances can be found in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Adak 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	$594,420	$571,978	n/a	$300,000
2003	$3,198,200	$570,978	$30,245	n/a
2004	$2,511,256	$660,000	n/a	$2,428,530
2005	$2,628,478	$632,817	n/a	$3,328,530
2006	$2,857,315	$660,000	n/a	$2,000,000
2007	$3,160,210	$900,000	n/a	n/a
2008	$2,784,968	$528,697	n/a	n/a
2009	$1,604,646	$128,212	$105,081	n/a
2010	$877,545	$411,815	$104,275	$1,600,000

[1] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from 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, 2011from 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, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

Infrastructure

Connectivity and Transportation[55]

Adak is only accessible by air or by sea. Alaska Airlines provides twice weekly non-stop service from Anchorage. The price of a roundtrip flight between Anchorage and Adak in June, 2012 was $1,198.00.[56] Along with fishing and cargo vessels, Adak also provides services to various personal craft. Peak visits of these vessels typically coincide with the tourism season. Shortened periods of sea-ice cover in the Arctic associated with climate change have increased the possibility that a seasonal northern shipping route might open in the future. Adak hopes that if trends continue, the community can grow as an international shipping hub connecting Europe and the Eastern United States with Asian markets.[57]

Facilities

The city operates water, sewer, and landfill services. Water is derived from Lake Bonnie Rose, Lake De Marie, and Nurses Creek, stored in any of the four water tanks throughout the community, and piped to facilities and housing units. The wastewater treatment system discharges through a marine outfall line to Kuluk Bay. Husky Road landfill is class III permitted. Aleut Corporation (Adak Petroleum) owns nine fuel storage tanks with the combined capacity of 22 million gallons. Accommodations include Aleut Real Estate (D/B/A Adak Island Inn) and Little Michaels Lodges. Public safety is provided by City Public Safety, and Alaska state troopers based in King Salmon. Fire and rescue services are provided by Adak Volunteer Fire Department and supported by the State of Alaska Airport. Additional public facilities include a City Hall with gymnasium, Olympic size swimming pool, community center, weight room, and racquetball court. Communication services include local and long distance telephone, internet, cellular services, and local and cable television.[58]

In a survey conducted by the AFSC in 2011, community leaders reported on completed and in progress infrastructure projects. These projects included broadband internet access, warehouse facilities, cable television, and improvements to current water and sewer systems, water treatment, community center, public safety, emergency response systems, fire department, school, and telephone services. Projects planned for completion within 10 years included sewage treatment, new landfill, and airport updates (glideslope antennae). Port facilities completed or in progress included fish cleaning stations, dockside electricity and water, harbor dredging, dock structure improvements, pilings, and a barge landing area. Port facility projects planned for completion within 10 years included electrical system upgrades and replacement, hydroelectricity, new dock space, additional dock improvements, additional pilings, additional harbor dredging, dry dock space, haul-out facilities, completion of a small boat harbor, and an EPA-certified cleaning station.

[55]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.
[56] Airfare was determined using lowest fare. (Retrieved November 7, 2011 from: www.alaskaair.com.)
[57] Paulin, J. (2012). *Adak Hopes oil, trans-Arctic shipping will revitalize island.* The Dutch Harbor Fisherman. Retrieved November 13, 2012 from: http://www.thedutchharborfisherman.com/article/1238adak_hopes_oil_trans-arctic_shipping_will.
[58]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.

Services supporting the fisheries sector include processing plants, boat welding services, small vessel haulout facilities, commercial and recreational vessel moorage, tackle and bait sales, commercial cold storage, drydock, fish lodges, fishing related bookkeeping, fishing gear storage, and ice sales. Fisheries related businesses and services include fish processing, vessel repair (welding), small vessel (<60 ft) haulout facilities, commercial fishing vessel moorage, recreation vessel moorage, tackle sales, bait sales, commercial cold storage, drydock storage, fish lodges, vessel fuel sales, fishing gear storage, and ice sales. Additional businesses include a United Parcel Service (UPS) station, post office, housing rentals, grocery store, liquor store, vehicle rentals, bar and grill, food bank, and marine logistics. Residents typically travel to Unalaska, King Cove, Sandpoint, Anchorage, or Seattle for services not available locally.

As of 2010, Adak was capable of handling vessels of all sizes, including rescue vessels, cruise ships, ferries, fuel barges, cargo vessels, barges, and vessels containing hazardous materials. Between 2005 and 2010, community leaders noticed that there were a significant reduction in the number of visits by charter boats, commercial fishing boats, vessels between 35 and 125 ft, and vessels over 125 ft. In addition, there was an increase in the number of visits by private pleasure boats, and no change in the number of visits by vessels under 35 ft.

Medical Services[59]

Health care is provided by the Adak Community Health Center, operated by Eastern Aleutian Tribes. Adak Community Health Center is a qualified Emergency Care Center and Primary Health Care facility. The clinic is staffed by a physician's assistant and Community Health Aide/Practitioner(s) who provide emergency care family practice and referral services. Lab, pharmacy, behavioral health, and public health services are available. Adak is an isolated town/sub-regional center located in the Southern EMS (Emergency Medical Services) Region. Emergency Services have coastal and airport access to Adak. Alternate health care is provided through the City via the Adak Volunteer Fire Department.

Educational Opportunities[60]

The Adak Public School offers preschool through 12th grade instruction. As of 2011, there were 20 students enrolled with 2 teachers and 3 teacher aides employed.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries[61]

The Aleuts of the region were the first to be involved in North Pacific fisheries through their participation in subsistence activities. Historically, salmon, cod, herring, and other fish were targeted throughout the Aleutian chain. Subsistence fish stocks were more abundant in the

[59] Ibid.
[60] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[61] Atkinson, C.E. (n.d.). A Brief Review of the Salmon Fishery in the Aleutian Islands Region. Retrieved May 20, 2012 from: http://www.npafc.org/new/inpfc/INPFC%20Bulletin/Bull%20No.1/Bull1%20p93-104%20(Atkinson).pdf.

eastern part of the Aleutians, and became less abundant further to the west. Subsistence fishing was typically done by beach seines and hooks.

Previous to Alaska's purchase in 1867, American schooners were fishing for cod in the Aleutian Islands and Okhotsk Sea regions. By the end of the nineteenth century, salmon canneries were being established in western Alaska and on the eastern portion of the Alaska Peninsula. No large-scale commercial seafood processing operation was undertaken in the Aleutian area during those years however. In 1916, Pacific American Fisheries, Inc. established a cannery at Makushin Bay, Unalaska. In those days, adverse weather conditions typically kept the small seine fleet close to Unalaska and Umnak islands.

Following the 1924 White Act, newly protected fisheries began to proliferate throughout the Aleutian region. The implementation of a 1928 Executive Order removed Akun, Akutan, Tigalda, Umnak, and Unalaska Islands from an earlier established wildlife reserve, opening up further opportunities.

The International Packing Company fished the Aleutian area between 1924 and 1942 and operated a floating processor in the region through 1941. Pink, sockeye, and chum salmon were popular species.

Although historically not a fishing community, the cessation of military operations in Adak led to economic diversification which included an increase in commercial, recreational, and subsistence fishing participation. As of 2010, several residents held commercial fishing permits, and Adak Seafood LLC operated a seafood processing plant (see *Commercial Fishing* section below).

In a survey conducted by the AFSC in 2011, community leaders reported that community representatives participate in North Pacific Fishery Management Council as well as Federal Subsistence Board/Federal Subsistence Regional Advisory Council processes. The community is located in Federal Reporting Area 541, International Pacific Halibut Commission (IPHC) Regulatory Area 4B, and the Aleutian Islands Sablefish Regulatory District. Adak is eligible for participation in the Community Quota Entity (CQE) program and is represented by the Adak Community Development Corporation. The impetus for the CQE program followed the implementation of the halibut and sablefish Individual Fishing Quota (IFQ) program in 1995. The IFQ program restructured fixed gear halibut and sablefish fisheries into a catch share program which issued transferable quota shares that allocated and apportionment of the annual Total Allowable Catch to eligible vessels and processors. Although the IFQ program resulted in many benefits to fishermen, processors, and support businesses, an unintended consequence was that many quota holders in smaller Alaskan communities either transferred quota outside the community or moved out themselves. In addition, as quota became increasingly valuable, entry into halibut or sablefish fisheries became difficult. In many cases, it was more profitable for small-scale operators to sell or lease their quota rather than fish it due to low profit margins and high quota value. These factors lead to decreased participation in communities traditionally dependent on the halibut or sablefish fisheries. To address this issue, the North Pacific Fishery Management Council implemented the CQE program in 2005. Under the program, eligible communities could form a non-profit corporation to purchase and manage quota share on their behalf.[62]

[62] North Pacific Fishery Management Council (2010). *Review of the Community Quota Entity (CQE) Program under the Halibut/Sablefish IFQ Program.* Retrieved October 23, 2012 from: http://www.fakr.noaa.gov/npfmc/PDFdocuments/halibut/CQEreport210.pdf.

Processing Plants

After Adak Seafoods LLC closed in 2011, Icicle Seafoods took over on-shore seafood processing in Adak. Cod is the principal species purchased, and product is processed, frozen, and distributed globally.[63] In addition to cod, Icicle Seafoods processed halibut and crab during its cod season. In 2013, Icicle announced that it would cease operations in Adak due to economic uncertainty.

Fisheries-Related Revenue

In 2010, Adak received fisheries-related revenue from Shared Fisheries Business Taxes, Fisheries Resource Landing Taxes, fuel transfer taxes, bulk fuel transfer fees, and harbor usage fees. In that year, revenues totaled $314,200, compared to $56,600 in 2002. Fisheries-related revenue peaked in 2010 at $749,058. It should be noted that based on figures given in Table 3, 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 reported municipal budget. Information regarding fisheries-related revenue trends can be found in Table 3.

In a survey conducted by the AFSC in 2011, community leaders reported fisheries-related taxes and fees are put towards harbor maintenance, emergency response services, water and wastewater systems, and public safety services.

Commercial Fishing

In a survey conducted by the AFSC in 2011, community leaders reported that commercial vessels ranging 35 to over 125 feet use Adak as a base of operation during fishing seasons (generally January through November depending on species). Gear types being used include trawl, pots, longlines, jigs, and circle hooks.

In 2010, three residents, or 1% of the population, held 10 permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, four residents held seven CFEC permits. Of the permits held in 2010, 10% were for salmon, compared to 0% in 2000; 40% were for groundfish, compared to 100% in 2000; 20% were for sablefish, compared to 0% in 2000; and 30% were for halibut, compared to 0% in 2000. In addition, two residents held Federal Fisheries Permits (FFP) and three residents held three License Limitation Program (LLP) groundfish permits. Residents held 288,494 shares of halibut quota on two accounts in 2010, compared to 0 in 2000; and 451,426 shares sablefish quota on one account, compared to 0 in 2000. No residents held crab quota between when the program began in 2005 and 2010.

Nine residents held commercial crew licenses in 2010, compared to two in 2000. In addition, residents held majority ownership of two vessels that year, compared to four in 2000. Of the CFEC permits held in 2010, 50% were actively fished, compared to 86% in 2000. This varied by fishery from 67% of halibut permits, to 50% of both sablefish and groundfish permits

[63] Icicle Seafoods, Inc. (n.d.). *Adak.* Retrieved November 13, 2012 from: http://www.icicleseafoods.com/locations/adk/.

and 0% of salmon permits. Fisheries prosecuted by Adak residents in 2010 included: statewide longline halibut and statewide longline miscellaneous saltwater finfish.[64]

In 2010, 800,992 lbs of fish valued at $583,005 ex-vessel were landed in Adak, compared to 11.16 million lbs valued at $12.44 million landed in 2000. In that year, Adak ranked 40th of 67 communities in terms of total lbs landed and 42nd in terms of ex-vessel revenue from landings. By species type, 2010 landings are considered confidential with the exception of halibut, which totaled 100,103 lbs and was valued at $399,256 ex-vessel. All landings reported by residents of Adak are considered confidential for 2010. Information regarding commercial fishing trends can be found in Table 4 through 10.

[64] 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 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community of Adak: 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	$70,000	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	$293,220	$429,776	$430,442	$367,616	$245,313	$228,759	$379,277	$116,000[2]
Fisheries Resource Landing Tax[1]	n/a	n/a	n/a	$108,081	$77,584	$155,078	$125,016	$179,193	$170,205	$259,551	$64,000[2]
Fuel transfer tax[2]	n/a	n/a	$50,600	$24,000	$43,200	$36,000	$144,000	$240,000	$36,000	$36,000	$28,800
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	$100,000
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	$6,000	$12,000	$42,000	n/a	n/a	n/a	n/a	n/a	$5,400
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
Total fisheries-related revenue[4]	*n/a*	*n/a*	*$56,600*	*$507,301*	*$592,560*	*$621,520*	*$636,632*	*$664,506*	*$434,964*	*$674,828*	*$749,058**
Total municipal revenue[5]	*n/a*	*n/a*	*$594,420*	*$3.20 M*	*$2.51 M*	*$2.63 M*	*$2.86 M*	*$3.16 M*	*$2.78 M*	*$1.60 M*	*$877,545*

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

**Total fisheries-related revenue figure was amended according to profile edits provided by the community of Adak.*

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

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	0	0	0	0	1	1	1	2	3	3	3
	Active permits	0	0	0	0	0	0	0	0	2	2	2
	% of permits fished	n/a	n/a	n/a	n/a	0%	0%	0%	0%	66%	66%	66%
	Total permit holders	0	0	0	0	1	1	1	2	3	3	3
Crab (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits [1]	Total permits	0	0	0	0	1	1	1	1	1	2	2
	Fished permits	0	0	0	0	1	1	1	1	1	2	2
	% of permits fished	n/a	n/a	n/a	n/a	100%	100%	100%	100%	100%	100%	100%
	Total permit holders	0	0	0	0	1	1	1	1	1	2	2
Crab (CFEC) [2]	Total permits	0	1	0	0	0	0	0	0	0	0	0
	Fished permits	0	1	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	100%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	1	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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	0	1	2	0	1	1	1	2	2	3	3
	Fished permits	0	1	1	0	1	1	1	2	2	2	2
	% of permits fished	n/a	100%	50%	n/a	100%	100%	100%	100%	100%	67%	67%
	Total permit holders	0	1	2	0	1	1	1	2	2	3	3
Herring (CFEC) [2]	Total permits	0	1	0	0	3	1	1	1	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	0%	n/a	n/a	0%	0%	0%	0%	n/a	n/a	n/a
	Total permit holders	0	1	0	0	3	1	1	1	0	0	0

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	0	0	1	0	1	1	1	1	2	2	2
	Fished permits	0	0	1	0	1	1	1	1	0	1	1
	% of permits fished	n/a	n/a	100%	n/a	100%	100%	100%	100%	0%	50%	50%
	Total permit holders	0	0	1	0	1	1	1	1	2	2	2
Groundfish (CFEC) [2]	Total permits	7	7	5	3	5	4	6	3	3	3	4
	Fished permits	6	4	2	0	1	2	2	1	2	1	2
	% of permits fished	86%	57%	40%	0%	20%	50%	33%	33%	67%	33%	50%
	Total permit holders	4	5	3	2	3	2	5	2	2	2	2
Other Finfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) [2]	Total permits	0	0	0	0	3	1	1	2	0	0	1
	Fished permits	0	0	0	0	1	0	0	1	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	33%	0%	0%	50%	n/a	n/a	0%
	Total permit holders	0	0	0	0	2	1	1	2	0	0	1
Total CFEC Permits[2]	*Permits*	*7*	*10*	*8*	*3*	*13*	*8*	*10*	*9*	*7*	*8*	*10*
	Fished permits	*6*	*6*	*4*	*0*	*4*	*4*	*4*	*5*	*4*	*4*	*5*
	% of permits fished	*86%*	*60%*	*50%*	*0%*	*31%*	*50%*	*40%*	*56%*	*57%*	*50%*	*50%*
	Permit holders	*4*	*5*	*4*	*2*	*6*	*3*	*6*	*4*	*2*	*3*	*3*

[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 Adak: 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 Adak[2]	Total Net Lbs Landed In Adak[2,5]	Total Ex-Vessel Value Of Landings In Adak[2,5]
2000	2	4	2	4	1	69	11,160,828	$12,439,240
2001	7	6	2	5	4	74	11,415,239	$12,583,504
2002	3	3	2	3	4	69	--	--
2003	18	3	2	3	4	72	--	--
2004	12	3	2	8	4	49	--	--
2005	21	2	1	6	4	38	--	--
2006	7	2	1	6	7	32	--	--
2007	7	1	1	4	5	52	--	--
2008	9	1	1	2	7	46	--	--
2009	6	3	2	2	6	24	--	--
2010	9	7	2	2	3	10	800,992	$583,005

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 Adak: 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	2	44,154	5,478
2008	3	226,362	39,268
2009	5	332,648	54,381
2010	2	288,494	52,181

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 Adak: 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	1	215,541	20,130
2009	1	215,541	18,207
2010	1	451,426	37,303

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 Adak: 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 Adak: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	100,103
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	--	--	*100,103*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	$399,256
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	--	--	*$399,256*

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.

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	296,511	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	*296,511*	--	--	--	--	--	--	--	--	--
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	$81,572	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	*$81,572*	--	--	--	--	--	--	--	--	--

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

Recreational fishing is limited in Adak due to its remote location. Several sport fish guide businesses operated locally between 2000 and 2008; however, as of 2010 there were none registered. Also in that year, residents were sold 27 sportfishing licenses, compared to 68 in 2000. No sportfishing licenses were sold in the community between 2000 and 2010.

Adak is located within the Alaska Peninsula and Aleutian Islands ADF&G Harvest Survey Area which includes all Alaskan waters, including drainages, between Cape Douglas and the community of Naknek. In 2010, angler days fished totaled 5,297 for saltwater fisheries and 33,635 for freshwater fisheries. In that year, non-Alaska resident anglers accounted for 38.4% of saltwater and 58.4% of freshwater angler days fished, compared to 15.8% and 39.5% in 2000, respectively. According to ADF&G Harvest Survey data,[65] local private anglers target coho salmon, Pacific halibut, and Pacific cod. In a survey conducted by the AFSC in 2011, community leaders reported that recreational fishers target pink, Chinook, coho, and sockeye salmon, halibut, crab, sablefish, clams, mussels, Dolly Varden, and flounder. No kept/released charter information is available for Adak. Information regarding recreational fishing trends can be found in Table 11.

Subsistence Fishing

Subsistence is an important part of Adak's economy. In 2007, Adak's status as a federally recognized rural place was revised, and the community became eligible to participate in the Federal Subsistence program on Federal public lands.[66] According to a survey conducted by the AFSC in 2011, community leaders reported salmon, halibut, crab, seal, sea lion, duck, and geese as important subsistence resources.

Information on subsistence participation is limited, and data on participation by household is unavailable. Of the species listed by ADF&G in Table 13, sockeye salmon were harvested the most often. In 2008, residents reported harvesting 369 salmon, compared to 346 in 2000. Reported salmon harvests peaked in 2001 at 479 fish. In 2009, 26 residents held Subsistence Halibut Registration Certificates, compared to six in 2003. In that year an estimated 377 lbs of halibut was harvested on four SHARC cards, compared to an estimated 687 harvested on six in 2003. Estimated halibut harvests peaked in 2008 at 3,058 lbs harvested on 12 SHARC cards. Between 2000 and 2008, an estimated seven sea otters were harvested. In addition, an estimated 11 sea lions and 22 harbor seals were harvested in those years. Information regarding subsistence trends can be found in Tables 12 through 15.

[65] 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).

[66] Federal Register. (2007). *Subsistence Management Regulations for Public Lands in Alaska, Subpart C; Non-rural determinations.* Retrieved November 18, 2011 at http://www.federalregister.gov/articles/2007/05/07/07-2205/subsistence-management-regulations-for-public-lands-in-alaska-subpart-c-nonrural-determinations

Table 11. Sport Fishing Trends, Adak: 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 Adak[2]
2000	0	0	68	0
2001	0	0	51	0
2002	0	0	30	0
2003	2	2	16	0
2004	2	2	38	0
2005	0	0	41	0
2006	0	0	47	0
2007	1	0	40	0
2008	1	0	27	0
2009	0	0	13	0
2010	0	0	27	0

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).

Table 12. Subsistence Participation by Household and Species, Adak: 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 (Lbs)
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, Adak: 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	12	12	n/a	n/a	4	72	270	n/a	n/a
2001	16	14	14	n/a	18	14	433	n/a	n/a
2002	4	4	n/a	n/a	n/a	n/a	230	n/a	n/a
2003	5	5	n/a	n/a	n/a	n/a	238	n/a	n/a
2004	7	5	n/a	n/a	n/a	n/a	340	n/a	n/a
2005	2	2	n/a	n/a	n/a	n/a	138	n/a	n/a
2006	1	1	n/a	n/a	n/a	1	74	n/a	n/a
2007	7	6	n/a	n/a	2	29	292	n/a	n/a
2008	7	6	n/a	n/a	n/a	14	355	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, Adak: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	6	6	687
2004	13	3	185
2005	13	1	370
2006	12	2	508
2007	30	16	1,540
2008	29	12	3,058
2009	26	4	377
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, Adak: 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	5	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	1	4	n/a
2004	n/a	n/a	n/a	n/a	2	n/a	n/a
2005	n/a	1	n/a	n/a	4	12	n/a
2006	n/a	1	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	4	n/a
2008	n/a	n/a	n/a	n/a	4	2	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

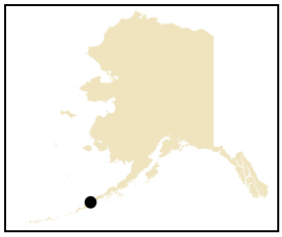
[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.

Additional Information

In a survey conducted by the AFSC in 2011, community leaders reported that commercial fishing restrictions prompted by measures to protect western Steller sea lion populations, attempts to keep fisheries open, opening a new fish plant, a lack of essential services, and a lack of support businesses are challenges to Adak's fisheries economy. Negative effects that fisheries management or policies have had on Adak include "Olympic-style" fishing, low processing capacity, a struggling business sector, declines in fish tax revenues, population declines, and unemployment. Positive effects that fisheries management or policies have had on Adak include Adak specific quota and small boat fisheries. Community leaders expressed that Steller sea lion restrictions deter potential growth and increase the cost of living and doing business in Adak.

In addition, Adak continues to face challenges regarding funding for fishery infrastructure and service projects. Community leaders noted a downward trend in vessel visitations and home-porting which has put strain on local revenues and the fishing industry.

Akutan (*ACK-oo-tan*)



People and Place

Location [67]

Akutan is located on Akutan Island in the eastern Aleutians, one of the Krenitzin Islands of the Fox Island group. It is 35 mi east of Unalaska and 766 mi southwest of Anchorage. The area occupies 14.0 sq mi of land and 4.9 sq mi of water. The community was incorporated as a Second-class city in 1979 and is under the jurisdiction of the Aleutians East Borough.

Demographic Profile [68]

As of 2010, there were 1,027 residents, ranking Akutan 64th of 355 Alaskan communities in terms of population size (this population count captured a large number of non-permanent residents). Between 1990 and 2010, the population grew by 74.4%. Between 2000 and 2009, the population grew by 18.7% with an average annual growth rate of 0.61%, which was similar to the statewide average of 0.75% and reflective of the small increases and declines in population over time. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that there were an estimated 85 permanent and 900 seasonal residents living in Akutan in 2010. Seasonal workers typically live in Akutan from January through April with the population peaking in May. Peaks in Akutan's population are mostly driven by seasonal employment in fisheries sectors. Information regarding population trends can be found in Table 1.

Akutan was a racially and ethnically diverse community in 2010. In that year, 43.3% of residents identified themselves as Asian, compared to 38.6% in 2000; 23.3% identified themselves as White, compared to 23.6% in 2000; 17.9% identified themselves as Black or African American, compared to 2.1% in 2000; 5.5% identified themselves as American Indian or Alaska Native, compared to 15.7% in 2000; 1.5% identified themselves as Native Hawaiian or Other Pacific Islander, compared to 0.3% in 2000; 4.7% identified themselves as two or more races, compared to 1.5% in 2000; and 3.9% identified themselves as some other race, compared to 18.2% in 2000. In addition, 20.8% of residents identified themselves as Hispanic or Latino, compared to 20.8% in 2000. Information regarding racial and ethnic trends can be found in Figure 1.

In 2010, the average household size was 2.25, compared to 2.80 in 1990 and 3.0 in 2000. Total housing units that year was 44, compared to 34 in 1990 and 38 in 2000. Of the households surveyed between in 2010, 30% were owner-occupied, compared to 74% in 2000, 61% were renter occupied, compared to 16% in 2000, 9% were vacant, compared to 11% in 2000, and no

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

[68] 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.

houses were occupied seasonally. A total of 937 residents were living in group quarters, compared to 638 in 2000.

In 2010 the gender distribution of Akutan was heavily skewed towards males at 76.9% male and 23.1% female. This was similar to the gender distribution in 2000 (77.0% male, 23.0% female) and markedly more skewed than the distribution statewide (52.0% male, 48.0% female). The median age in 2010 was 44.1 years, which was older than both the Alaska median of 33.8 years and 2000 median of 40.2 years.

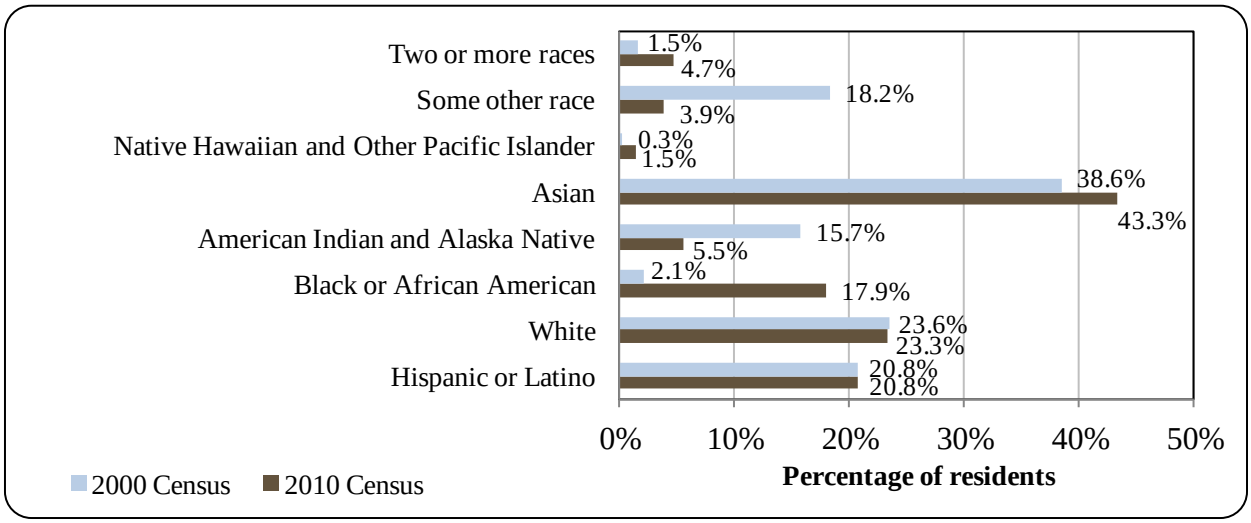
Table 1. Population In Akutan From 1990 To 2010 By Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	589	-
2000	713	-
2001	-	708
2002	-	748
2003	-	807
2004	-	789
2005	-	773
2006	-	745
2007	-	859
2008	-	796
2009	-	846
2010	1,027	-

[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.

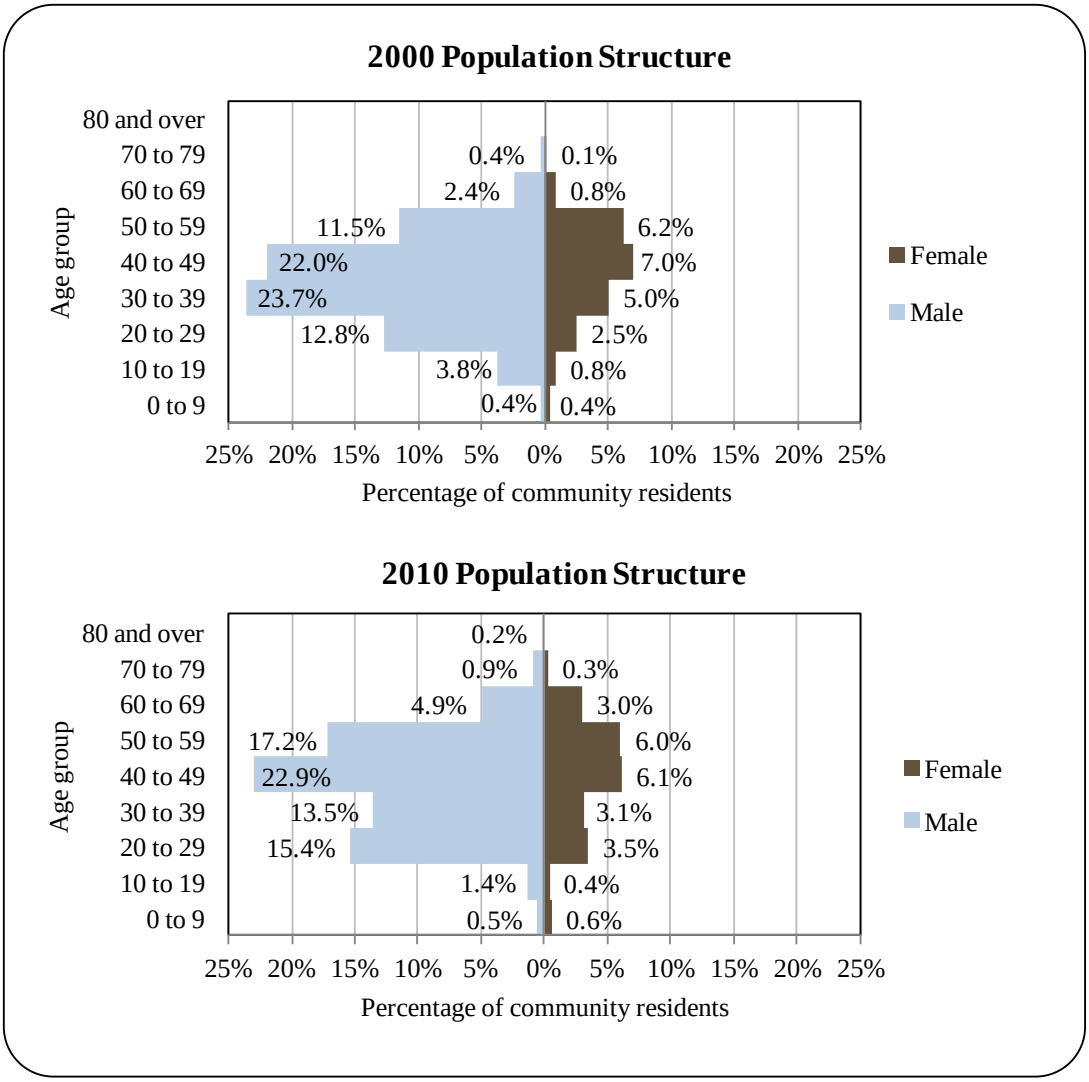
Figure 1. Racial and Ethnic Composition, Akutan: 2000-2010 (U.S. Census).



The population structure for both 2000 and 2010 was highly constrictive due to the seasonally based population. In 2010, 2.9% of residents were under the age of 20, compared to 5.4% in 2000; 9.3% were over the age of 59, compared to 3.7% in 2000; 68.8% were between the ages of 30 and 59, compared to 75.4% in 2000; and 18.9% were between the ages of 20 and 29, compared to 15.3% in 2000.

Gender distribution by age cohort was similar in both 2000 and 2010 with heavy male biases among almost every age range. The greatest absolute gender difference in 2010 occurred within the 40 to 49 (22.9% male, 6.1% female) range, followed by the 20 to 29 (15.4% male, 3.5% female) and 50 to 59 (17.2% male, 6.0% female) ranges. Of those three, the greatest relative gender difference occurred within the 20 to 29 range. Information regarding Akutan's population structure can be found in Figure 2.

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



In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)[69] estimated that 59.5% of residents aged 25 and older held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaska residents overall. Also in that year, an estimated 21.4% of residents had less than a 9th grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 19.1% had a 9th to 12th grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 24% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 5.1% had an Associate's degree, compared to an estimated 8% of Alaska residents overall; and an estimated 9.2% had a Bachelor's degree compared to an estimated 17.4% of Alaska residents overall. No residents were estimated to have a graduate or professional degree.

History, Traditional Knowledge, and Culture[70,71]

Occupation of the area dates back approximately 8,500 years to the early Anangula tradition, and evidence is represented by an archaeological site located on Anangula Island. However, that site was abandoned following a volcanic eruption which blanketed the area with a thick layer of ash. Evidence of an early Aleutian tradition was found on Umnak Island dating back approximately 5,400 years.

The Krenitzin Islands were first visited by Russian fur traders in 1766. The first camp was established on Akun Island, which had been occupied by Aleuts since around 780 CE. At the time of contact, every habitable region within the Unalaska District was occupied, and in 1792, five villages existed on Akutan Island. In 1806, a severe disease epidemic impacted a large portion of the Krenitzin Island group and by 1834, only one village remained on Akutan Island; two small dwellings occupied by 13 people. Following the small pox outbreak in 1838, the Unangan population of the area was all but decimated, and many survivors relocated. Between 1866 and 1879, people returned to Akutan and in 1878, the Western Fur and Trading Company established a sea otter trading post and a Russian Orthodox Church and school were built. Alexander Nevsky Chapel was built in 1918 to replace the original structure. The Pacific Whaling Company built a whale processing station across the bay from Akutan in 1912. It was the only whaling station in the Aleutians and operated until 1939.

After the Japanese attacked Unalaska in June 1942, the U.S. government evacuated Akutan residents to the Ketchikan area. The village was re-established in 1944, although many villagers chose not to return. This exposure to the outside world brought many changes to the traditional lifestyle and attitudes of the community. The Wakefield Seafood Processors began to processes king crab in 1948. In 1979, Seawest, Inc. purchased Wakefield operations, which triggered rapid expansion of Akutan's shore-based facilities. Historic and cultural resources documented in the area include the Ugathigana archaeological site and St. Alexander Nevsky

[69] 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.
[70] Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[71] Bold Peak Archaeological Services. (2005). *Akutan Harbor Access Road Literature Review & Documentation.* Retrieved February 3, 2012 from:
http://www.dowlhkm.com/projects/akutanharborrd/documents/pdf%20doc/Akutan_S106_report[2].pdf

Chapel, both which have been recommended as eligible for listing in the National Register of Historic Places (NRHP).[72]

Natural Resources and Environment

Akutan lies in a maritime climate zone, characterized by mild winters and cool summers. Mean temperatures range from 22 to 55 °F (-5 to 13 °C) and precipitation averages 28 inches per year. High winds and storms are frequent in the winter, and fog is common in the summer.

Akutan Island and neighboring Akun Island predominately consist of moist and alpine tundra and barren ground. There are meadows along the sand and gravel shorelines consisting of various grasses and forbs. Sedge marshes can be found around the head of Akutan Harbor. There are limited trees on the islands due to shallow and unproductive soils. There are several streams on Akutan Island that support anadromous fish.[73]

Terrestrial wildlife documented in the area includes an abundance of bird species, red fox, tundra voles, domestic rabbits, arctic fox, ground squirrel, Norway rat, and Greenland collared lemming. In addition, the Aleut Corporation owns cattle, which they allow to graze on Akun Island.[74] Aquatic wildlife documented in the area includes harbor seals, Steller sea lion, northern sea otter, Pacific cod, walleye pollock, Atka mackerel, sole, sculpins, skates, red crab, king crab, Tanner crab, coho salmon, chum salmon, pink salmon, sockeye salmon, and orca and humpback whale.[75]

Natural hazards which threaten the community include tsunamis, earthquakes, storm surges, coastal erosion, coastal flooding, riverine erosion and volcanoes.[76] According to the Aleutians East Borough Hazard Mitigation Plan,[77] there is a high probability of an earthquake or volcanic event affecting the community, while there are moderate chances of tsunami, severe weather, and erosion events occurring. As of 2010, erosion was threatening the impoundment pond carrying the community's water supply.[78]

According to the Alaska Department of Environmental Conservation (DEC), there were no significant environmental remediation projects active in Akutan as of 2010.[79]

[72] National Park Service. (n.d.) *National Register of Historic Places Inventory, Russian Orthodox Church Buildings and Sites in Alaska.* Retrieved December 2011 from http://pdfhost.focus.nps.gov/docs/NRHP/Text/80000738.pdf.
[73] HDR Alaska, Inc. (2006). *Biological Assessment of the Northern Sea Otter* Enhydra lutris kenyoni *for the Akutan Airport Project*. Retrieved December 8, 2011 from: http://alaska.fws.gov/fisheries/mmm/Chukchi_Sea/pdf/biological_assessment_northern_sea_otter.pdf
[74] Alaska Department of Transportation and Public Facilities (n.d.). *Akutan Airport Environmental Assessment.* Retrieved December 8, 2011 from: http://dot.alaska.gov/project_info/index.shtml
[75] Ibid.
[76] WH Pacific. (2010). *Communities of Aleutians East Borough Multi-Jurisdictional, Multi-Hazards Mitigation Plan.*
[77] Ibid.
[78] Ibid.
[79] Alaska Department of Environmental Conservation. (n.d.). *Contaminated Sites Program.* Retrieved June 7, 2012 from: http://dec.alaska.gov/spar/csp/list.htm#Aleutians.

Current Economy[80]

Akutan's economy is largely based on the commercial fishing industry and subsistence. Trident Seafoods' Akutan plant is the largest facility in North America, processing over three million pounds of product per day and capable of housing up to 825 employees.[81] Top employers in 2010[82] included Trident Seafood Corp., the City of Akutan, Akutan Corp., Akutan Traditional Council, Aleutians East Borough School District, Akutan Roadhouse Inc., Akutan Rural Power System Upgrade Project, and Aleutian Housing Authority.

In 2010,[83] per capita income in Akutan was estimated at $22,099 and the median household income was estimated at $34,375, compared to $12,258 and 33,750 in 2000, respectively. After accounting for inflation by converting the 2000 values to 2010 dollars,[84] the real per capita income ($16,119) and real median household incomei ($42,381) indicate a rise in individual earnings and drop in household earnings. In 2010, Akutan ranked 134th of 305 communities from which per capita income was estimated, and 217th of 299 communities from which median household earnings was estimated.

It should be noted that Akutan's small permanent population size may have prevented the ACS from accurately portraying economic conditions.[85] Another understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development. According to the ALARI database, residents earned $3.47 million in total wages in 2010.[86] When matched with the estimated number of permanent residents reported by community leaders in the AFSC 2011 Community Survey, the per capita earnings equal $40,824, which was significantly more than inflation adjusted per capita values reported in the 2000 Census.[87]

According to the 2006-10 ACS,[88] an estimated 98.2% of residents aged 16 and older were part of the civilian labor force in 2010. In that year, unemployment was estimated at 2.7%, compared to an estimated 5.9% statewide; and an estimated 11.4% of residents were estimated to be living below the poverty level, compared to an estimated 9.5% of Alaska residents overall. Of those employed in the civilian labor force, an estimated 97.8% worked in the private sector, an estimated 0.9% worked in the public sector, and an estimated 1.4% were self-employed.

By industry, most (96.6%) were estimated to be employed in manufacturing sectors, followed by wholesale trade (2.2%). By occupation type, most (80.0%) employed residents were estimated to hold production, transportation, or material moving positions; followed by sales or office positions (9.9%); natural resources, construction, or maintenance positions (4.0%); service positions (3.9%); and management or professional positions (2.2%). Between

[80] Unless otherwise noted, all monetary data are reported in nominal values.
[81] Trident Seafoods. (n.d.). Retrieved from: http://www.tridentseafoods.com/company/plants_alaska.php
[82] 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/.
[83] U.S. Census. American Community Survey, 2006-10 estimates.
[84] Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved January 5, 2012) from the Alaska Department of Labor, http://labor.alaska.gove/research/cpi/inflationcalc.htm).
[85] See footnote 69.
[86] ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.
[87] See footnote 82.
[88] See footnote 69.

2000 and 2010, estimated employment in manufacturing sectors experienced substantial proportional growth while all other sectors declined. By occupation type, estimated production, transportation, and material moving positions experienced proportional growth between 2000 and 2010, while management, professional, and service positions declined. According to 2010 ALARI estimates, most (62.0%) of those employed worked in manufacturing sectors; followed by local government sectors (21.7%) and financial service sectors (9.3%). No individuals characterized themselves as working in natural resource based industries that include fishing. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in the farming, fishing, and forestry industries may be underestimated by census statistics as fishermen may hold another job and characterize their employment accordingly. Information regarding employment trends can be found in Figures 3 and 4.

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

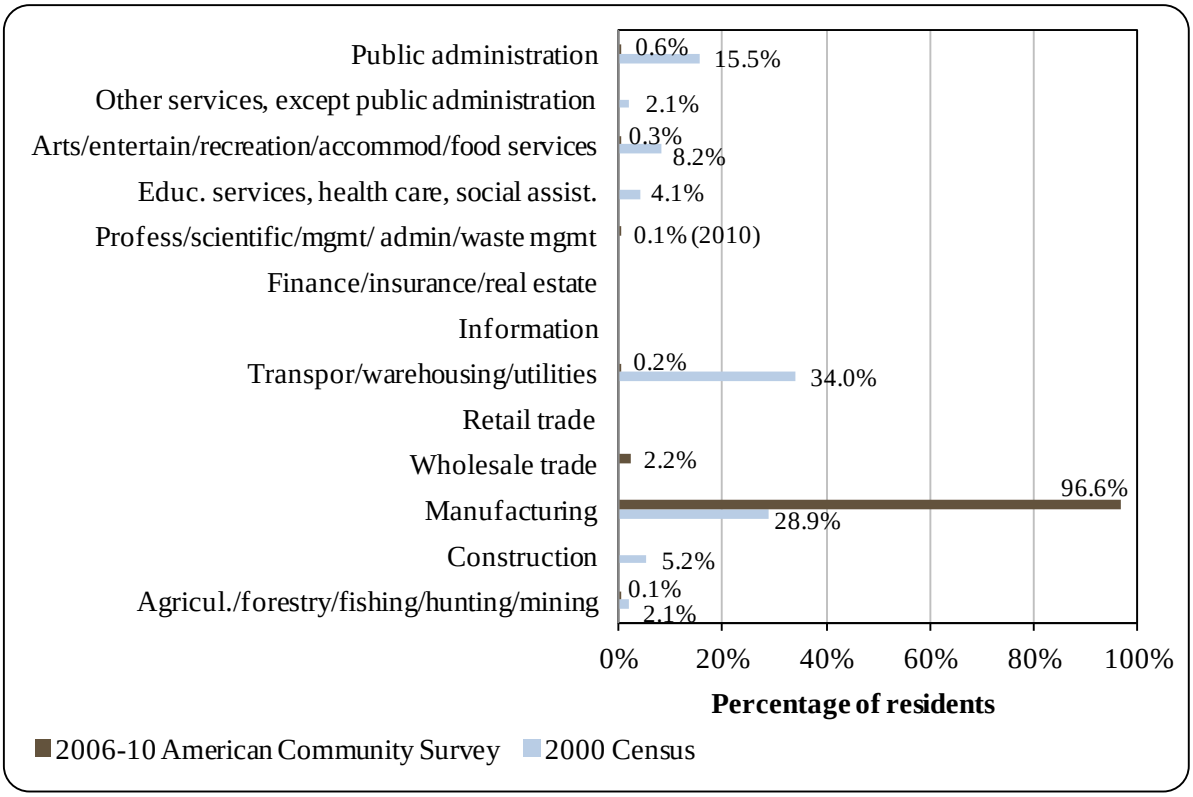
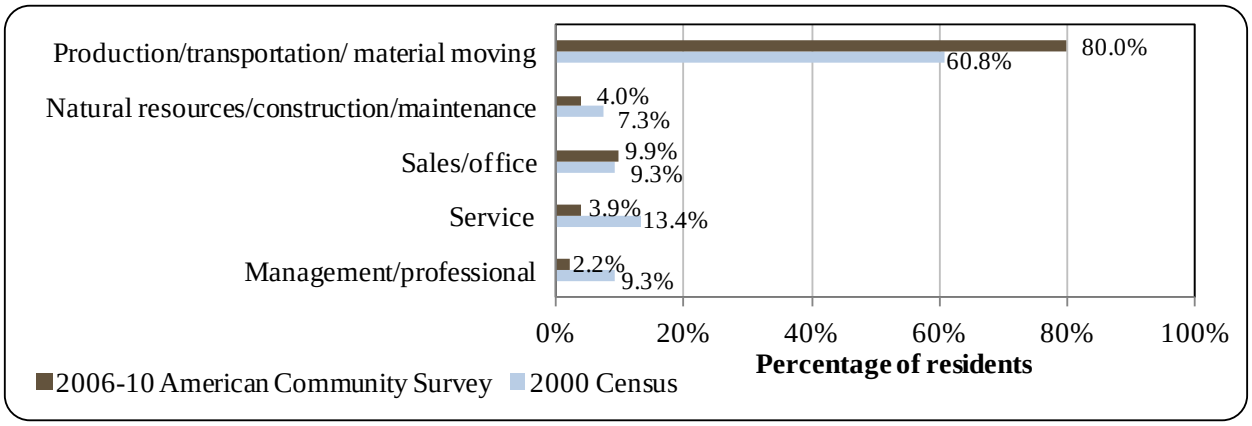


Figure 4. Local Employment by Occupation in 2000-2010, Akutan (U.S. Census Bureau).



Governance

Akutan is a Second-class city with a mayoral form of government. The Akutan Corporation is the local Alaska Native Claims Settle Act (ANCSA) chartered village corporation, and the Aleut Corporation is the regional ANCSA chartered corporation. The closest Alaska Department of Fish and Game (ADF&G), U.S. Bureau of Citizenship and Immigrant Services (BCIS), and National Marine Fisheries Service (NMFS) offices are located in Unalaska, 35 mi west.

In 2010, the city administered a 1% raw fish tax in addition to the borough administered 2% raw fish tax. Other community taxes include a 1% sales tax. The total municipal budget for 2010 was $2.65 million, compared to $1.02 million in 2000.[89] In that year, state allocated Community Revenue Sharing accounted for 5.2% of the total municipal budget, compared to 2.6% in 2000 from State Revenue Sharing. State and federal fisheries-related grants awarded between 2000 and 2010 included $3.1 million for a harbor access road project, $434,000 for port and ferry dock improvements, $100,000 for a skiff moorage facility, and $22.5 million for harbor construction. Information regarding municipal finances can be found in Table 2.

[89] Inflation calculated using Anchorage CPI for 2010 from Alaska DOL: http://labor.alaska.gov/research/cpi/cpi.htm.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Akutan 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	$1,016,600	n/a	$25,969	n/a
2001	$1,452,963	n/a	$24,986	n/a
2002	$1,815,003	n/a	$24,987	$7,500,000
2003	$1,180,486	n/a	$25,614	$15,000,000
2004	$1,730,756	n/a	-	n/a
2005	$1,948,921	n/a	-	$100,000
2006	$1,769,963	n/a	-	n/a
2007	$1,767,260	n/a	-	$3,534,000
2008	$2,557,788	n/a	-	n/a
2009	$2,651,656	n/a	$136,607	n/a
2010	$2,651,682	n/a	$138,428	n/a

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

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

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

[3] Alaska Department of Revenue (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Accessed at www.tax.state.ak.us. Data retrieved April 15, 2011.

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

[5] Alaska Department of Community and Rural Affairs. (n.d.). Community Funding Database. Retrieved at http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm. Data retrieved April 15, 2011.

Infrastructure

Connectivity and Transportation

Boats and amphibious aircraft are the only means of transportation into Akutan. A 200-ft dock and a small boat mooring basin are available. The state ferry operates from Kodiak bi-monthly between May and October. Cargo is delivered weekly by freighter from Seattle and the city owns and operates a landing craft. A 10,000-ft by 1,000-ft seaplane base is available and open to the public, and as of 2011 there was an airstrip under construction on Akun Island.[90] In June 2012, roundtrip airfare between Anchorage and Unalaska was $958.[91] Seaplane charters are available by appointment.

Facilities

Water is supplied by a local stream and dam, originally constructed in 1927. Water is treated and piped into all homes and sewage is piped to a community septic tank, with effluent

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

[91] Airfare was calculated using lowest fare. Source: http://www.travelocity.com (retrieved November 22, 2011).

discharge through an ocean outfall. Refuse is collected three times a week and taken to the landfill. The city recycles aluminum. Trident Seafoods operates its own water, sewer, and electric facilities.[92]

General infrastructure located in Akutan includes police and fire services, youth center, community center, city and school library, café, telephone services, post office, broadband internet services, and several hotels. In a survey conducted by the AFSC in 2011, community leaders indicated that a fish cleaning station, barge landing area, dockside utilities, pilings, breakwater, jetty, dry dock space, haul out facilities, and a U.S. Environmental Protection Agency (EPA) certified boat cleaning station exist within the community. In addition, there is 350 ft of public dock space for permanent and transient moorage and vessels up to 400 ft in length can use the community's mooring facilities. Regulated vessels which the port of Akutan is capable of handling include rescue vessels, cruise ships, ferries, and fuel barges. Local businesses and services supporting the local fishing industry include a processor, bait sales, and boat fuel sales. Residents typically go to Unalaska, King Cove, and Sand Point for services that are not available in Akutan.

Medical Services[93]

Basic health care is provided by Anesia Kudrin Memorial Clinic. The clinic is a Primary Health Care facility, qualified Emergency Care Center, and Community Health Aid Program (CHAP) site. The closest hospital is located in Unalaska.

Educational Opportunities[94]

There is one school in Akutan offering a preschool through 12th grade education. As of 2011, there were eight students enrolled and two teachers employed.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Historically, Aleut fishermen would harvest salmon, cod, herring, and other abundant local species. The Russian American Company moved Aleutians by the early 1800s and by 1855, was awarded a contract to deliver ice, fish, coal, and timber to a company in San Francisco. However, the venture was a total failure. Prior to Alaska's purchase in 1867, American schooners were fishing for cod in Aleutians.[95] Today, cod are fished throughout the Bering Sea and Aleutian Islands regions using trawl, longline, pot, and jig gear types. Trawl catcher vessels range from 60 to 180 ft in length, while catcher processor vessels typically range

[92] See footnote 90.
[93] Ibid.
[94] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[95] Atkinson, C. E. (n.d.). *A Brief Review of the Salmon Fishery in the Aleutian Islands Area.* Retrieved July 13, 2012 from: http://www.npafc.org/new/inpfc/INPFC%20Bulletin/Bull%20No.1/Bull1%20p93-104%20(Atkinson).pdf

from 107 to 295 ft. Smaller vessels typically fish longline, pot, or jig gear. Pollock are fished in nearshore waters as a mid-water trawl fishery.[96]

Aleutian herring typically congregate within the vicinity of Unalaska Island, where the Togiak-spawning herring reside during the summer feeding period. An early food and reduction fishery was established in at Dutch Harbor between 1929 to 1939. The Dutch Harbor herring fishery resumed in 1982, primarily as a bait fishery. Other areas along the Alaska Peninsula host smaller and more sporadic harvests.

Crab fisheries began in 1930 and accelerated in size and scope in the 1950s, when king crab fisheries developed in the Bering Sea. Red king crab is found throughout the Bering Sea and Aleutian Islands (BSAI) area, while blue king crab is found in small populations around the Pribilof Islands. Golden king crab is found along the continental slopes. Hair crabs are mostly found near the Pribilof Islands. Tanner grab is distributed widely throughout the BSAI region. Snow crab is found throughout the Bering Sea along continental slopes, and Dungeness crab is found throughout estuaries and intertidal zones. King crab harvests peaked in the 1970s and early 1980s, but declined significantly along with biomass. Although management has tightened, many populations are still considered depressed. Snow crab replaced king crab in terms of harvest size, and several peaks were seen in the 1990s. Today, crab harvests remain at low levels compared to years past.

According to survey conducted by the AFSC in 2011, community leaders reported that the community's economy relies heavily on fisheries. The community is approximately 40 mi closer to fishing grounds than Unalaska and is one of the busiest fishing ports in the world.[97] Akutan's proximity to the Bering Sea brought the crab and fish processing industry in the late 1940s, at first through floating processors, followed by the construction of a shore-based processing plant in the 1980s by Trident Seafoods.[98] In addition, community leaders reported that commercial vessels up to 125 ft in length use Akutan as their base of operation during fishing seasons. In addition, there was an increase in the number of visits by commercial vessels under 125 ft in Akutan between 2005 and 2010. However, visits by vessels 125 ft and over became less frequent during those years.

Akutan is eligible to participate in the Community Development Quota (CDQ) program and is represented by the Aleutian Pribilof Islands Community Development Association. The CDQ program was implemented to help alleviate economic distress in rural communities in western Alaska by allocating a percentage of halibut, crab, and groundfish to six CDQ non-profit organizations representing 65 communities in the Bering Strait and Aleutian Islands region.[99] Managers of CDQ organizations authorize individual fishermen and fishing vessels to harvest a certain portion of the allocated CDQ. The community is located in Federal Reporting Area 519, International Pacific Halibut Commission (IPHC) Regulatory Area 4B, and the Aleutian Islands Sablefish Regulatory Area.

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[96] Marine Stewardship Council. (n.d.). *Fisheries in the MSC program.* Retrieved February 1, 2013 from: http://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/pacific/bsai-pollock.

[97] Aleutians East Borough. (n.d.). Retrieved December 9, 2011 from: http://www.aeboro.org/index.asp?Type=B_BASIC&SEC=%7B8500EDE0-9F88-43B2-AEE0-E3919CE04345%7D

[98] Ibid.

[99] Fina, M. (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.

Processing Plants

Trident Seafoods Corporation was founded in 1973, and by the year 2000 was employing 4,000 people annually throughout Alaska and the Pacific Northwest. It is a remote and self-contained facility on the island of Akutan at the eastern end of the Aleutian Islands chain and is the largest seafood production facility in North America, processing pollock, cod, halibut and crab.[100] During its peak seasons in the winter and summer it can accommodate as many as 825 employees. Trident employees and stockholders funded the 1998 creation of the village of Akutan's 14,000 sq-ft Safe Harbor Church and Community Center. In addition Trident continues to fund non-profit community services, fishing vessel safety training, school activities, and scholarship programs in the Akutan community. The Akutan facility provides room and board at a nominal cost, as well as air transportation to Akutan from Seattle and back to its seafood processors.[101] According to a survey conducted by the AFSC in 2011, the plant employs a maximum of 1000 workers and does not rely on public infrastructure or services, as it is located outside the city limits of Akutan. From Akutan, the plant can be reached by road or boat.

Fisheries-Related Revenue

The majority of fisheries-related revenue collected between 2000 and 2010 came from Shared Fisheries Businesses Taxes, although revenue also came from raw fish taxes, Fisheries Resource Landings Taxes, Extraterritorial Fish Taxes, boat haul fees, and harbor usage fees. In 2010, Akutan received $1.40 million in fisheries-related revenue, compared to $1.24 million in 2000; a 13% decrease after adjusting for inflation.[102] However, it should be noted that data regarding revenue acquired from raw fish taxes was not available for 2010. Fisheries-related revenue peaked in 2006 at $2.09 million. In a survey conducted by the AFSC in 2011, community leaders reported that Akutan received $12,000 in funding and grants from APICDA (their CDQ entity) in 2010. Information regarding fisheries-related revenue can be found in Table 3.

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

Commercial Fishing

In a survey conducted by the AFSC in 2011, community leaders reported that crab, pollock, cod, and halibut are the major commercial fisheries prosecuted by residents of Akutan. The crab fishery runs from October to December, pollock is fished from January to May, cod is fished from January to May, and halibut fishing runs from March to November. Gear types used by residents include trawl, pots, and longline.

[100] Alaska Seafood Marketing Institute. (2011). Directory of Alaska Seafood Suppliers. Retrieved December 12, 2011 from http://www.alaskaseafood.org/industry/suppliers/index.cfm.
[101] Trident Seafoods. (n.d.). Retrieved from: http://tridentseafoods.com.
[102] Inflation calculated using Anchorage CPI for 2010 from Alaska DOL: http://labor.alaska.gov/research/cpi/cpi.htm.

In 2010, 11 residents, or 12.9% of the estimated permanent population, held 13 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 8 residents held 13 CFEC permits. Of the CFEC permits issued 2010, 54% were for halibut, compared to 31% in 2000; 38% were for groundfish, compared to 46% in 2000; and 8% were for salmon, compared to 8% in 2000. In addition, 4 residents held 4 Federal Fisheries Permits (FFP) and 6 residents held 6 License Limitation Program (LLP) groundfish permits. In 2010, residents held 288,622 shares of halibut quota on nine accounts, compared to 73,959 shares on six accounts in 2000. No residents held sablefish quota in 2010; however, 428,834 shares was held on one account between 2000 and 2003. No residents held crab quota between 2010 and when the program began.

Of the CFEC permits issued in 2010, 77% were actively fished, compared to 62% in 2000. This varied by fishery from 100% of halibut permits, to 60% of groundfish and 0% of salmon permits. In addition, 50% of FFP and 33% of LLP groundfish permits were actively fished in that year. Fisheries prosecuted by residents of Akutan in 2010 included statewide longline halibut and statewide mechanical jig miscellaneous saltwater finfish fisheries.[103]

Residents held 19 commercial crew licenses in 2010, compared to 18 in 2000. In addition, residents held majority ownership of 6 vessels that year, compared to 7 in 2000. In 2010, Akutan ranked 3rd of 67 communities reporting landings in terms of total pounds landed and 4th of 67 communities in terms of ex-vessel revenue earned from landings in the community. In that year, 152 vessels landed 315.60 million lbs total, representing a 35% reduction in lbs landed compared to 2002. However, ex-vessel revenue increased during that time from $66.32 million to $82.66 million. Revenue from landings peaked in 2005 at $84.19 million. By fishery, 48.66 million lbs of Pacific cod valued at $11.34 million ex-vessel was landed in Akutan in 2010, compared to 32.82 million lbs valued at $6.82 million in 2002; a decrease of $0.07 per pound landed after adjusting for inflation.[104] Other landings made in Akutan for 2010 are considered confidential. Residents landed 51,119 lbs of halibut valued at $230,393 ex-vessel in 2010 and 179,296 lbs of Pacific cod valued at $105,535 ex-vessel in 2009. All other landings made by Akutan residents between 2000 and 2010 are considered confidential. Information regarding commercial fishing trends can be found in Table 4 through 10.

[103] 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.]

[104] Inflation calculated using 2010 Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, http://www.bls.gov/ppi/#data

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax[1]	$729,000	$576,565	$596,183	$734,653	$713,568	$784,220	$895,000	$420,784	$420,784	n/a	n/a
Shared Fisheries Business Tax[1]	$471,396	$608,271	$722,455	$664,084	$726,704	$805,674	$800,320	$912,683	$905,045	$951,055	$1.09 M
Fisheries Resource Landing Tax[1]	$38,036	$53,967	$59,443	$53,668	$67,556	$111,004	$118,678	$234,365	$165,290	$218,721	$307,561
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	$70,000	$100,000	$60,000	$60,000	n/a	$274,731	$240,000	$270,000	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	$5,400	n/a	n/a	n/a	n/a	n/a
Harbor usage[2]	$2,000	$2,000	$2,000	$6,500	$4,000	$6,000	$2,604	$5,700	$3,700	$4,000	$4,000
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
Total fisheries-related revenue[4]	*$1.24 M*	*$1.31 M*	*$1.48 M*	*$1.52 M*	*$1.57 M*	*$1.71 M*	*$2.09 M*	*$1.81 M*	*$1.76 M*	*$1.17 M*	*$1.40 M*
Total municipal revenue[5]	*$1.02 M*	*$1.45 M*	*$1.82 M*	*$1.18 M*	*$1.73 M*	*$1.95 M*	*$1.77 M*	*$1.77 M*	*$2.56 M*	*$2.65 M*	*$2.65 M*

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

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

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

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

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

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

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	6	6	6	6	6	6	6	6	6	6	6
	Active permits	0	0	1	1	1	1	0	0	1	1	2
	% of permits fished	0%	0%	16%	16%	16%	16%	0%	0%	16%	16%	33%
	Total permit holders	6	6	6	6	6	6	6	6	6	6	6
Crab (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits [1]	Total permits	n/a	n/a	n/a	1	1	1	2	2	2	3	4
	Fished permits	n/a	n/a	n/a	1	1	1	1	2	2	2	2
	% of permits fished	n/a	n/a	n/a	100%	100%	100%	50%	100%	100%	67%	50%
	Total permit holders	n/a	n/a	n/a	1	1	1	2	2	2	3	4
Crab (CFEC) [2]	Total permits	2	0	0	0	1	0	0	0	0	0	0
	Fished permits	2	0	0	0	1	0	0	0	0	0	0
	% of permits fished	100%	n/a	n/a	n/a	100%	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	1	0	0	0	1	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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	4	5	5	7	7	7	7	7	7	8	7
	Fished permits	4	3	5	5	7	6	7	7	5	6	7
	% of permits fished	100%	60%	100%	71%	100%	86%	100%	100%	71%	75%	100%
	Total permit holders	4	5	5	7	7	7	7	7	7	8	7
Herring (CFEC) [2]	Total permits	0	0	0	1	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	0%	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	1	0	0	0	0	0	0	0

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	0	0	0	0	0	2	2	0	0	0	0
	Fished permits	0	0	0	0	0	0	1	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	0%	50%	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	2	2	0	0	0	0
Groundfish (CFEC) [2]	Total permits	6	4	4	5	4	4	2	2	5	5	5
	Fished permits	2	0	1	1	1	1	0	2	3	2	3
	% of permits fished	33%	0%	25%	20%	25%	25%	0%	100%	60%	40%	60%
	Total permit holders	6	3	3	4	3	4	2	2	5	5	5
Other Finfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) [2]	Total permits	1	1	1	1	1	1	1	1	1	1	1
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	1	1	1	1	1	1	1	1	1	1	1
Total CFEC Permits[2]	*Permits*	*13*	*10*	*10*	*14*	*13*	*14*	*12*	*10*	*13*	*14*	*13*
	Fished permits	*8*	*3*	*6*	*6*	*9*	*7*	*8*	*9*	*8*	*8*	*10*
	% of permits fished	*62%*	*30%*	*60%*	*43%*	*69%*	*50%*	*67%*	*90%*	*62%*	*57%*	*77%*
	Permit holders	*8*	*8*	*8*	*11*	*10*	*11*	*9*	*9*	*11*	*11*	*11*

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

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

[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 Akutan: 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 Akutan[2]	Total Net Lbs Landed In Akutan[2,5]	Total Ex-Vessel Value Of Landings In Akutan[2,5]
2000	18	3	1	7	8	118	--	--
2001	8	3	1	5	8	100	--	--
2002	19	5	1	6	8	106	482,482,064	$66,322,070
2003	23	3	1	5	7	122	--	--
2004	15	3	1	4	5	125	--	--
2005	10	5	1	7	6	134	492,576,883	$84,185,627
2006	14	3	1	4	4	101	--	--
2007	15	3	1	4	3	110	--	--
2008	15	3	1	7	6	136	--	--
2009	16	4	1	6	5	130	294,394,455	$77,094,939
2010	19	4	1	6	5	152	315,596,221	$82,664,747

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 Akutan: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (pounds)
2000	6	73,959	25,343
2001	6	73,959	25,343
2002	6	73,959	25,343
2003	7	169,635	57,797
2004	7	169,635	40,352
2005	8	249,255	58,781
2006	8	249,255	57,242
2007	8	249,255	49,382
2008	8	249,255	52,970
2009	8	249,255	43,573
2010	9	288,622	46,101

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 Akutan: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (pounds)
2000	1	428,834	43,177
2001	1	428,834	44,409
2002	1	428,834	45,309
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 Akutan: 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 Akutan: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	32,815,837	--	--	--	--	--	--	--	48,661,516
Pollock	--	--	445,304,392	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	478,120,229	--	--	--	--	--	--	--	48,661,516
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	$6,818,283	--	--	--	--	--	--	--	$11,340,438
Pollock	--	--	$46,432,867	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	*$53,251,150*	--	--	--	--	--	--	--	*$11,340,438*

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.

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	51,119
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	179,296	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	*179,296*	--	*51,119*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	$230,393
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	$105,535	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	*$105,535*	--	*$230,393*

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

Due to its remote location, non-Alaska resident sportfishing is limited in Akutan. In 2010, there were three sportfishing licenses sold to residents, none of which were sold in the community. The number of sportfishing licenses sold to residents of Akutan peaked at 13 in 2004, which was the same year the Alaska Peninsula-Aleutian Islands ADF&G Harvest Survey Area saw the greatest number of resident angler days fished. There were no sport fish or charter businesses operating in the community between 2000 and 2010. In 2010, angler days fished totaled 5,297 for saltwater fisheries, compared to 10,534 in 2000. In that year, non-Alaska resident anglers accounted for 38.4% of saltwater angler days fished, compared to 15.8% in 2000. In addition, there were 33,635 total freshwater angler days fished in 2010, compared to 44,976 in 2000. In that year, non-Alaska residents accounted for 58.4% of freshwater angler days fished, compared to 39.6% in 2000.

In a survey conducted by the AFSC in 2011, community leaders reported the presence of shore-based recreational fishing by residents and non-Alaska residents, as well as by private

boat. Local private anglers typically target pink, chum, coho, and sockeye salmon, halibut, and rockfish. Information regarding sportfishing trends can be found in Table 11.

Subsistence Fishing

Subsistence resources are used by residents of Akutan to supplement their incomes and diet. In a survey conducted by the AFSC in 2011, community leaders reported that the three most important subsistence resources to the community are seals, ducks, and salmon. There is also considerable amount of halibut harvested by residents.

According to a 2009 ADF&G survey, salmon, non-salmon fish, and marine invertebrates made up an estimated 80% of subsistence harvests in Akutan. Also in that year, marine mammals made up an estimated 8% of subsistence harvests, and terrestrial mammals, birds, eggs, and wild plants made up and estimated 12%.[105] Information on salmon subsistence somewhat limited, and residents reported harvesting only 30 fish between 2000 and 2009. In 2010, 16 residents held Subsistence Halibut Registration Certificates (SHARC). In that year, residents reported harvesting 790 lbs of halibut on nine SHARC, compared to 9,612 lbs on 39 SHARC in 2003. Reported subsistence halibut harvests declined sharply since they peaked in 2005 (15,011 lbs). Halibut harvesting peaked in 2005 when an estimated 15,011 lbs of halibut was harvested on 47 SHARC. Marine mammals are harvested extensively in Akutan. An estimated 52 Steller sea lions and 111 harbor seals were harvested between 2000 and 2008. In addition, one sea otter was reported harvested in 2004. According to ADF&G's *Community Subsistence Information* System,[106] species that have been harvested and/or used by residents of Akutan includes mussels, butter clams, cockles, Dungeness crab, hair crab, horse clams, king crab, limpets, octopus, Pacific littleneck clams, razor clams, chitons, scallops sea cucumber, sea urchin, shrimp, snails, Tanner crab, blue whale, fur seals, humpback whale, mike whale, sei whale, Steller sea lion, rockfish, sculpin, Dolly Varden, flounder, grayling, greenling, herring, mackerel, Pacific cod, rainbow trout, sablefish, smelt, sole, and pollock. Information regarding subsistence trends can be found in Tables 12 through 15.

[105] Fall, J. A. (2011). *Continuity and Change in Subsistence Harvests in Three Bering Sea Communities: Akutan, Emmonak, and Togiak.* Retrieved July 6, 2012 from: http://seagrant.uaf.edu/conferences/2011/wakefield-people/presentations/fall-akutan-emmonak-togiak.pdf

[106] 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 11. Sport Fishing Trends, Akutan: 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 Akutan[2]
2000	0	0	8	3
2001	0	0	2	3
2002	0	0	4	5
2003	0	0	1	3
2004	0	0	13	1
2005	0	0	5	1
2006	0	0	4	0
2007	0	0	1	5
2008	0	0	0	2
2009	0	1	5	0
2010	0	0	3	0

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).

Table 12. Subsistence Participation by Household and Species, Akutan: 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, Akutan: 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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	2	2	n/a	n/a	n/a	n/a	2	n/a	n/a
2004	3	3	1	n/a	n/a	n/a	28	n/a	n/a
2005	1	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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, Akutan: 2003-2010.

Year	SHARC issued	SHARC fished	SHARC halibut lbs harvested
2003	50	39	9,612
2004	50	41	14,985
2005	49	47	15,011
2006	47	38	12,412
2007	46	16	3,603
2008	17	13	6,029
2009	17	9	2,993
2010	16	3	790

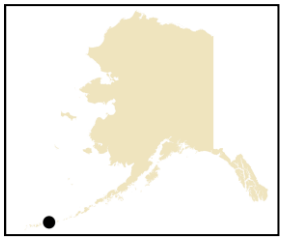
Note: n/a indicates that no data were reported for that year.
Source: Fall, J.A. and D. Koster. 2011. Subsistence harvests of Pacific halibut in Alaska, 2009. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 357, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

Table 15. Subsistence Harvests of Marine Mammal Resources, Akutan: 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	4	26	n/a
2001	n/a	n/a	n/a	n/a	15	14	n/a
2002	n/a	n/a	n/a	n/a	3	10	n/a
2003	n/a	n/a	n/a	n/a	9	11	n/a
2004	n/a	1	n/a	n/a	5	10	n/a
2005	n/a	n/a	n/a	n/a	5	9	n/a
2006	n/a	n/a	n/a	n/a	2	2	n/a
2007	n/a	n/a	n/a	n/a	5	12	n/a
2008	n/a	n/a	n/a	n/a	4	17	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.
[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.
[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.
[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.

Atka (*AT-ka*)



People and Place

Location [107]

Atka is located on Atka Island, 1,200 mi southwest of Anchorage and 350 mi west of Unalaska. The area encompasses 8.7 square mi of land and 27.4 square mi of water. Atka was incorporated as a Second-class city in 1988, is located in the Aleutians West Census Area, and is not under the jurisdiction of a borough.

Demographic Profile [108]

In 2010, there were 61 residents, ranking Atka 288th of 352 communities in Alaska in terms of population size. Between 1990 and 2010, the population declined by 16.4%. Between 2000 and 2009, the population fell by 22.8% with an average annual growth rate of -2.68%, which was well below the statewide average annual growth rate of 0.75% and indicative of a steadily declining population. In a survey conducted by the Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that the estimated number of permanent residents was 72 in 2010, while the estimated number of seasonal or transient residents was 12. Atka typically has seasonal workers living in the community between March and August with the population peaking from April through July. This peak in population is thought to be entirely driven by employment in the fisheries sectors. Information regarding population trends can be found in Table 1.

Atka was predominately an Aleut (Unangas) community in 2010. In that year, 95.1% of the population reported themselves as American Indian or Alaska Native, compared to 80.4% in 2000; and 4.9% identified themselves as White, compared to 6.5% in 2000. Those identifying themselves as two or more races dropped from 10.9% in 2000 to 0% in 2010. No residents reported themselves as Hispanic or Latino in 2010. Information regarding racial and ethnic trends can be found in Figure 1.

The average household size in 2010 was 2.54, compared to 3.60 in 1990 2.69 in 2000. In that year there were 43 total housing units, compared to 26 in 1990 and 41 in 2000. Of the households surveyed in 2010, 23.3% were owner-occupied, compared to 63.4% in 2000; 32.6% were renter-occupied, compared to 14.6% in 2000; 37.2% were vacant, compared to 12.2% in 2000; and 7% were occupied seasonally, compared to 9.8% in 2000. There were no residents living in group quarters in 2010, compared to six in 2000.

The gender distribution of Atka residents was relatively skewed in 2010 at 59.0% male, and 41.0% female. This was less even than both the distribution statewide (52.0% male, 48.0%

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

[108] 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.

female), and in 2000 (50.0% male, 50.0% female). The median age that year was 35.5 years, which was somewhat higher than the statewide median of 33.8 years and identical to the median in 2000.

Compared to 2000, the population structure in 2010 was more irregular. In that year, 31.2% of residents were under the age of 20, compared to 31.4% in 2000; 16.4% were over the age of 59, compared to 13.0% in 2000; 39.6% were between the ages of 30 and 59, compared to 44.5% in 2000; and 13.2% were between the ages of 20 and 29, compared to 10.8% in 2000.

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

Year	U.S. Decennial Census[1]	Alaska Department of Labor Estimate of Permanent Residents[2]
1990	73	-
2000	92	-
2001	-	92
2002	-	102
2003	-	94
2004	-	93
2005	-	90
2006	-	73
2007	-	74
2008	-	73
2009	-	71
2010	61	-

[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, Atka: 2000-2010 (U.S. Census).

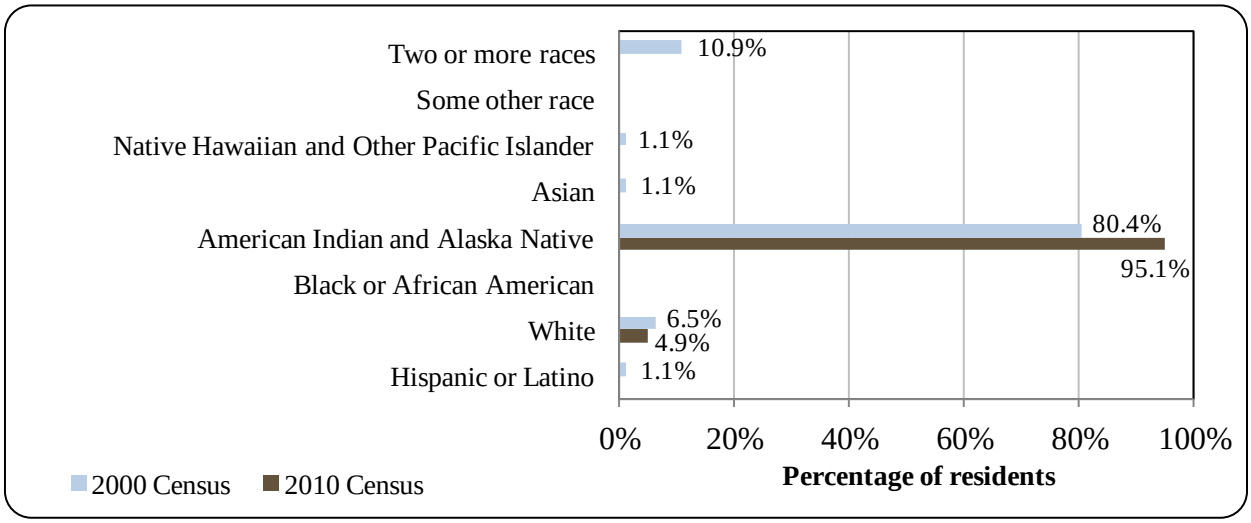
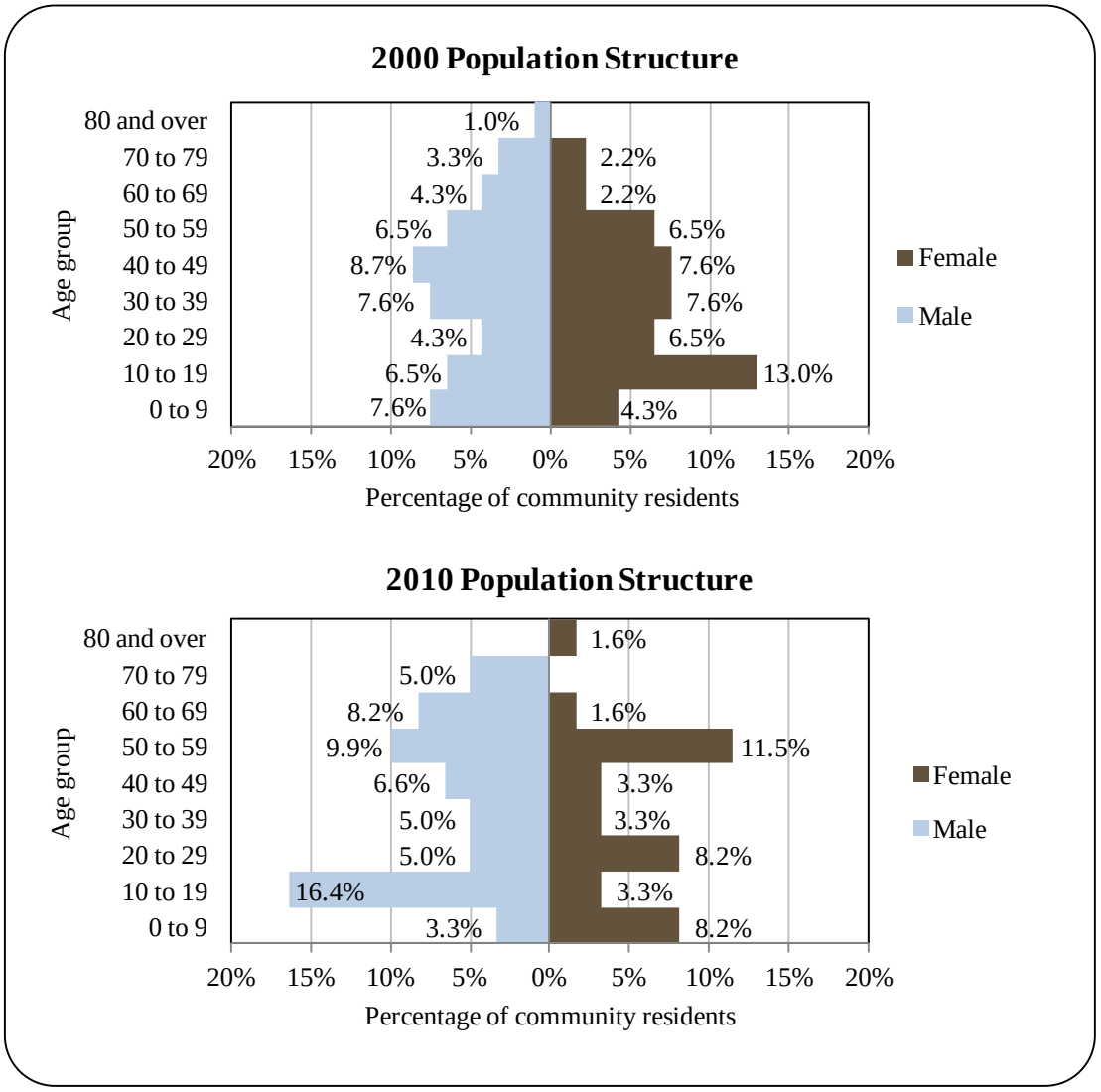


Figure 2. Population Age Structure in Atka Based on the 2000 and 2010 U.S. Decennial Census.



Gender distribution by age cohort was significantly less even in 2010 than in 2000, with notable male biases among many age ranges. In 2010, the greatest absolute gender difference occurred in the 10 to 19 range (16.4% male, 3.3% female), followed by the 60 to 69 (8.2% male, 1.6% female) and 70 to 79 (5.0% male, 0.0% female) ranges. Of those three, the greatest relative gender difference occurred in the 70 to 79 range. Information regarding Atka's population structure can be found in Figure 2.

According to the U.S. Census' 2006-2010 American Community Survey (ACS),[109] an estimated 71.4% of residents aged 25 years and older held a high school diploma or higher

[109] 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.

degree in 2010, compared to an estimated 90.7% of Alaska residents overall. Also in that year, an estimated 14.3% had less than a 9th grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 14.3% had a 9th to 12th grade education but no degree, compared to an estimated 5.8% of Alaska residents overall; and an estimated 14.3% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall. No residents were estimated to hold a post-secondary degree in 2010.

History, Traditional Knowledge, and Culture[110]

There is evidence of human occupation of the Aleutian Islands dating back at least 8,000 years; however, it is believed that humans were populating North America at least 13,000 years ago during the end of the last glacial maximum. Archaeological sites dating back over 11,000 years have been found on Prince of Wales Island, lending evidence to a possible coastal migration route.[111]

The island has been occupied by Unangas for at least 2,000 years. Unangas speak the western dialect, known since the Russian era as "Aleut". Recent archaeological evidence indicates that the present village site may have had human use since prehistoric times. The first contact with Russians occurred in 1747, and Atka became an important trade site and safe harbor for Russians. In 1787, a number of hunters were enslaved and relocated to the Pribilofs to work in the fur seal harvest. The townsite was settled in the 1860s. After the end of the sea otter hunting era in the late 1800s, Atka had no viable cash economy. Reindeer were introduced to the island in 1914. During the 1920s, Atka became relatively affluent due to fox farming. After the Japanese attacked Unalaska and seized Attu and Kiska in June 1942, the U.S. Government evacuated Atka residents to the Ketchikan area and burned it to the ground to prevent Japanese forces from using it and advancing. The community was rebuilt by the U.S. Navy after the war, and residents were allowed to return. Many Attu villagers, released from imprisonment in Japan in 1945, relocated to Atka. This exposure to the outside world brought many changes in the traditional culture and attitudes in the community.

Natural Resources and Environment

Atka lies in a maritime climate zone and temperatures range from 20 to 60 °F (-7 to 16 °C). Precipitation averages 60 inches per year, and snowfall averages 61 inches per year. There are frequent winds and severe storms in the winter and calm, foggy weather in summer.[112]

Atka Island is part of the Aleutian Islands Unit of the Alaska Maritime National Wildlife Refuge (AMNWR), which covers 3.4 million acres of the Aleutian Islands, Pribilof Islands, and areas around the Chukchi Sea.[113] The local environment is characterized by tundra which transitions to upland mountainous regions. Steep topographical relief and shallow soils prevent

[110] Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[111] National Park Service. (n.d.). *Archaeological Overview of Alaska.* Retrieved May 30, 2012 from: http://www.nps.gov/akso/akarc/early.htm.
[112] See footnote 110.
[113] US Fish and Wildlife Service.(n.d.) *Alaska Maritime National Wildlife Refuge.* Retrieved December 28, 2011 from: http://alaska.fws.gov/nwr/akmar/units.htm.

many trees from growing in the Aleutians, and trees that are found often consist of introduced spruce. Local flora includes many grasses, sedges, lichens, mosses, wildflowers, and heath plants. Wild rye often grows near beaches. Marine fish are diverse and abundant, and include pollock, herring, skates, smelt, cod, rockfish, sablefish, greenling, sculpin, halibut, flounder, crab, shellfish, shrimp, and all five species of Pacific salmon. Freshwater species include whitefish, arctic lamprey, Dolly Varden and arctic char, sculpin, arctic grayling, northern pike, burbot, and sheefish. Marine mammals include 11 species of whale, dolphin, porpoise, sea otter, fur seal, Steller sea lion, walrus, harbor seal, and elephant seal. Over 250 species of birds migrate through the Aleutian Islands Unit of the AMNWR.[114]

Although Atka does not have a hazard mitigation plan, the Aleutians East Borough identified several natural hazards which potentially impact Aleutian communities, including volcanic eruptions, earthquakes, coastal flooding and erosion, ground failure, tsunami, and extreme weather. All of these hazards have records of occurrence in the area and have a high potential for future occurrence.[115]

According to the Alaska Department of Environmental Conservation (DEC),[116] there were no significant environmental remediation projects active within Atka in 2010.

Current Economy[117]

Atka's economy is based on subsistence living and wages earned from the halibut fishery. A small local fish processing plant, Atka Pride Seafoods, operates seasonally to serve the local fleet. They currently process halibut and sablefish. A number of offshore fish processors carry out crew changes through Atka. Year-round income opportunities in the village are limited to education- and government-related work. A reindeer herd of over 2,500 head provides a source of food.[118] Top employers in 2010[119] included the City of Atka, Village Safe Water, Aleutian Pribilof Island Association, Atka Pride Seafoods Inc. Aleutian School District, Aleutian Pribilof Islands Community Development Association (APICDA), Atka Native Store, and Atxam Corporation. In a survey conducted by the AFSC in 2011, community leaders reported that the community's economy is reliant on commercial fishing and recreational hunting/fishing.

In 2010,[120] the estimated per capita income was $27,542 and the estimated median household income was $90,000, compared to $17,980 and $30,938 in 2000, respectively.[121] After adjusting for inflation by converting 2000 values to 2010 dollars,[122] the real per capita income

[114] Ibid.
[115] Aleutians East Borough. (2010). *Multi-Jurisdictional Hazards Mitigation Plan.* Retrieved December 28, 2011 from: http://www.aleutianseast.org/vertical/Sites/%7BEBDABE05-9D39-4ED4-98D4-908383A7714A%7D/uploads/%7B5F7E9057-83A3-4DBA-B144-073C3F6461D6%7D.PDF.
[116] Alaska Department of Environmental Conservation (n.d.). *Contaminated Sites Program.* Retrieved June 6, 2012 from: http://dec.alaska.gov/spar/csp/list.htm
[117] Unless otherwise noted, all monetary data are reported in nominal values.
[118] See footnote 110.
[119] 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/.
[120] 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.
[121] See footnote 109.
[122] Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gove/research/cpi/inflationcalc.htm).

($22,460) and real median household income ($40,683) indicate significant increases in both individual and household earnings. In 2010, Atka ranked 83rd of 305 communities from which per capita income was estimated, and 14th of 299 communities from which median household income was estimated.

It should be noted that Atka's small population size may have prevented the ACS from accurately portraying economic conditions.[123] A potentially more accurate understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). According to the ALARI database, total wages earned by Atka residents in 2010 was $1.03 million.[124] When compared with the 2010 population, per capita income equals $16,834; suggesting that caution should be used when comparing 2010 ACS estimates with the 2000 Census.[125] The per capita income estimate based on ALARI data is likely more accurate than the 2010 ACS estimate, as $90,000 was confirmed as unlikely based on estimates given by the community directly.

According to 2006-2010 ACS estimates,[126] 68.4% of residents aged 16 years and over were part of the civilian labor force in 2010. In that year, unemployment was estimated at 0.0%, compared to an estimated 5.9% statewide; and an estimated 4.2% of residents lived below the poverty line, compared to an estimated 9.5% of Alaska residents overall. Of those employed, an estimated 76.9% worked in the private sector and an estimated 23.1% worked in the public sector. Again, it is likely that the 2010 ACS misrepresented economic conditions within Atka due to the community's small population size. According to 2010 ALARI employment data, the unemployment rate was 18.4% based on unemployment insurance claimants.

By industry, most (38.5%) employed residents were estimated to work in finance, real estate, or insurance sectors; followed by public administration sectors (23.1%) and non-public administration service sectors (15.4%). By occupation type, most (46.2%) employed residents were estimated to hold management or professional positions; followed by natural resource, construction, or maintenance positions (30.8%); sales or office positions (15.4%); and production, transportation, or material moving positions (7.7%). Information regarding employment trends can be found in Figures 3 and 4.

Overall there were strong variations among most industry sectors and occupation types between 2000 and 2010. There was a significant increase in the proportion of residents employed in finance, insurance, real estate, and non-public administration sectors; while there was a significant decrease in arts, entertainment, recreation, accommodations, food services, education services, health care, and social assistance sectors. By occupation type, there was a significant increase in the proportion of management, professional, natural resources, construction, and maintenance positions; while there was a significant decrease in the proportion of service, sales, and office positions. It should be noted that while it is possible that the significant shifts can be attributed to economic regime changes, it is also likely the ACS sampling methods were unable

[123] 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.
[124] ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.
[125] 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/.
[126] See footnote 123.

to capture economic conditions accurately. ALARI estimated that in 2010, most (58.5%) private or state employees worked in local government sectors; followed by education or health service sectors (14.6%); manufacturing sectors (12.2%); financial sectors (7.3%); and professional or business sectors (7.3%).

In 2010, no individuals characterized themselves as working in natural resource-based occupations or industries that include fishing. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in the farming, fishing, and forestry industries may be underestimated by census statistics as fishermen may hold another job and characterize their employment accordingly.

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

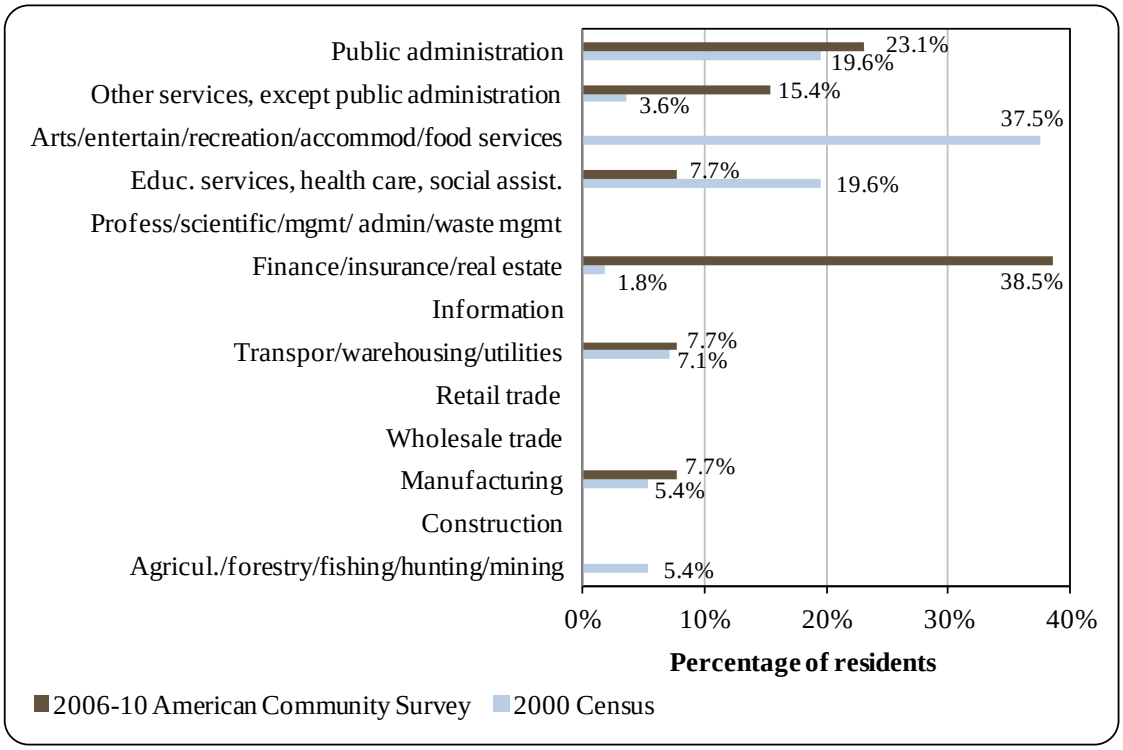
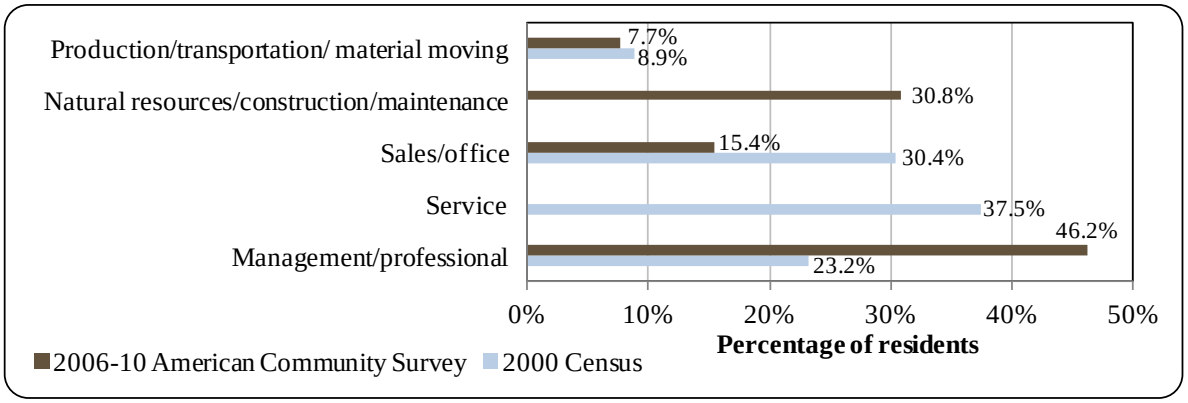


Figure 4. Local Employment by Occupation in 2000-2010, Atka (U.S. Census).



Governance[127]

Atka is a Second-class city with a mayoral form of government. The community has a seven member city council and 10 municipal employees which include a fire chief, Village Public Safety Officer (VPSO), and Anchorage-based City Administrator. In addition, there is a U.S. Bureau of Indian Affairs (BIA) recognized Tribal government, and an Alaska Native Claims Settlement Act (ANCSA) chartered Native village corporation (Atxam Corporation). The regional ANCSA chartered Native Corporation representing Atka is the Aleut Corporation. Total ANCSA land entitlement in the area is over 100,000 acres. The closest National Marine Fisheries Service (NMFS), U.S. Bureau of Citizenship and Immigration Services (BCIS), and Alaska Department of Fish and Game (ADF&G) offices are located in Unalaska, 350 mi east. As of 2010, the city administered a 10% bed tax and 2% raw fish tax.

In 2010, total municipal revenue was $833,779, compared to $243,643 in 2000; a 165% increase after adjusting for inflation.[128] In addition, the community was allocated $99,561 from the state Community Revenue Sharing program, which accounted for approximately 12% of the municipal budget that year. In contrast, Atka received $27,706 in State Revenue Sharing in 2000, which accounted for approximately 11% of the municipal budget that year. Municipal revenue estimates include only general fund revenues, and include capital project and business related funds. Information regarding municipal finances can be found in Table 2.

Infrastructure

Connectivity and Transportation

Atka has a state-owned, city-maintained 4,800-ft by 100-ft asphalt, lighted runway. Scheduled air services are available three times weekly from Unalaska. Planes can be chartered from Cold Bay or Unalaska. Freight service is provided from April to October. The city dock and port facility is located 5 mi from town in Nazan Bay.[129] Roundtrip airfare between Anchorage and Unalaska in June 2012 was $958.[130]

Facilities

The community system was constructed in 1978 and was expanded in 1982 to a new housing area. Water is supplied by a stream and wooden reservoir dam northwest of the city. Water is treated and stored in a 130,000-gal water tank before distribution. All homes are connected to the piped water and sewer system and are plumbed. Sewage is piped to a central septic system. Wastewater flows untreated through outfall lines into Nazan Bay. Garbage is collected twice a week.[131]

[127] Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[128] Inflation calculated using Anchorage CPI from Alaska DOL: http://labor.alaska.gov/research/cpi/cpi.htm
[129] Ibid.
[130] Airfare was calculated using lowest fare. Source: http://www.travelocity.com (retrieved November 22, 2011).
[131] See footnote 127.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Atka 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	$243,643	n/a	$27,706	n/a
2001	$249,155	n/a	$26,744	n/a
2002	$306,036	n/a	$26,736	n/a
2003	$245,396	n/a	$26,840	n/a
2004	$301,820	n/a	-	n/a
2005	$288,960	n/a	-	n/a
2006	$306,160	n/a	-	n/a
2007	$418,695	n/a	-	n/a
2008	$693,672	n/a	-	n/a
2009	$736,251	n/a	$99,724	n/a
2010	$833,779	n/a	$99,561	n/a

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

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

[2]Alaska Department of Community and Econ Development (n.d.). *Alaska Taxable (2000-2010).* Retrieved at http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm. Data retrieved April 15, 2011.

[3]Alaska Department of Revenue (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Accessed at www.tax.state.ak.us. Data retrieved April 15, 2011.

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

[5]Alaska Department of Community and Rural Affairs. (n.d.). *Community Funding Database*. Retrieved at http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm. Data retrieved April 15, 2011.

In a survey conducted by the AFSC in 2011, community leaders reported on general and fisheries-related infrastructure and services present or under development in the community. These include a fishing cleaning station, barge landing area, dock improvements, dock utilities, dock access, pilings, broadband internet access, road improvements, airport improvements, general utility improvements, alternative energy projects, emergency response systems, telephone service, fire department, post office, and fire department improvements. In addition, there are plans for dockside fuel tanks, a breakwater, harbor dredging, a jetty, dry dock space, haulout facilities, U.S. Environmental Protection Agency (EPA) certified cleaning station, sewage treatment station, and a new landfill. Fisheries-related businesses located in the community include fish processors, fishing gear sales, boat repair (machine shop, mechanical services, and hydraulics), small vessel haulout facilities (less than 60 tons), commercial fishing vessel moorage, tackle sales, bait sales, commercial cold storage facilities, marine refrigeration, boat fuel sales, fishing gear storage, ice sales, water taxi, and air taxi.

According to a Community Development Plan created by the City of Atka in 2006,[132] development projects completed or marked as ongoing include housing improvements and

[132] City of Atka. (2006). *Community Development Plan.* Retrieved December 28, 2011 from: http://www.commerce.state.ak.us/dca/plans/Atka-GCP-2006.pdf.

repair, a new clinic, ambulance services, road and bridge repair, community enrichment programs, fish marketing, processor improvements, a restaurant, and a new post office. Projects that the community would like to pursue include an airport terminal, additional rental housing, a recreation center, and a larger general store.

Medical Services

The Atka Village Clinic is a Primary Health Care Facility, regional Emergency Medical Service provider, and Community Health Aid Program (CHAP) site. Acute and long-term care is provided in Unalaska.

Educational Opportunities[133]

Yakov E. Netsvetov School provides Kindergarten through 12th grade instruction. As of 2011, there were 10 students enrolled and one teacher employed.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Unangas have occupied Atka Island for at least 2,000 years and perhaps as long as 4,500 years.[134] During this time, the local inhabitants have relied extensively on a subsistence lifestyle. Today, residents of Atka participate heavily in commercial, recreational, and subsistence fisheries.

Previous to Alaska's purchase in 1867, American schooners were fishing for cod in the Aleutian Islands and Okhotsk Sea regions. By the end of the nineteenth century, salmon canneries were being established in western Alaska and on the eastern portion of the Alaska Peninsula. No large-scale commercial seafood processing operation was undertaken in the Aleutian area during those years however. In 1916, Pacific American Fisheries, Inc. established a cannery at Makushin Bay, Unalaska. In those days, adverse weather conditions typically kept the small seine fleet close to Unalaska and Umnak islands. Following the 1924 White Act, newly protected fisheries began to proliferate throughout the Aleutian region. The implementation of a 1928 Executive Order removed Akun, Akutan, Tigalda, Umnak, and Unalaska Islands from an earlier established wildlife reserve, opening up further opportunities. The International Packing Company fished the Aleutian area between 1924 and 1942 and operated a floating processor in the regional through 1941. Pink, sockeye, and chum salmon were popular species.[135] In 1982, local residents formed the Atka Fishermen's Association and began fishing commercially for halibut. The first seafood processing plant was built in 1987, and Atka Pride Seafoods was formed following Atka's entry into the Community Development Quota (CDQ) program. Dock

[133] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[134] Veltre, D. W. (1998). Prehistoric Maritime Adaptations in the Western and Central Aleutian Islands, Alaska. *Arctic Anthropology, 35*(1), 223-233.
[135] Atkinson, C.E. (n.d.). A Brief Review of the Salmon Fishery in the Aleutian Islands Region. Retrieved May 20, 2012 from: http://www.npafc.org/new/inpfc/INPFC%20Bulletin/Bull%20No.1/Bull1%20p93-104%20(Atkinson).pdf.

facilities were completed in 1997.[136] Popular commercial fisheries within the Bering Sea and Aleutian Islands Management Area include red king crab, snow crab, walleye pollock, golden king crab, Tanner crab, weathervane scallops, Dungeness crab, Pacific cod, flatfish, sablefish, Pacific salmon, Pacific herring, and halibut.

Arial surveys of Pacific herring biomass began in the Alaska Peninsula and Aleutian Islands region in 1979, when large congregations of herring were documented in coastal waters between Adak and Port Heiden. No herring sac roe harvests have occurred within the Aleutian Islands region due to lack of interest. Herring food and bait fisheries began in the Eastern Aleutian Islands area in 1929, occurring intermittently until 1981, when a Dutch Harbor food and bait fishery began operating annually. In 2004, and exploratory herring fishery was established in the vicinity of Adak Island. This fishery has attracted very little interest, and no harvests have occurred since it was established.[137]

Groundfish were first commercially harvested in the Bering Sea and Aleutian Islands (BSAI) region in 1864, when a single schooner fished for Pacific cod in the Bering Sea. Most fishing effort during the early cod fishery was concentrated north of Unimak Island and the Alaska Peninsula. Pacific halibut was commercially harvested within the region as early as the late 1800s as well; however, halibut did not reach North American markets until 1928. Foreign fleets had a large presence within the BSAI region throughout much of the 20th century, targeting pollock, sablefish, turbot, perch, and other groundfish. Foreign fleets were phased out during the 1980s as fishing fleets became increasingly "Americanized". Today, walleye pollock is the largest groundfish fishery in the BSAI region in terms of lbs landed and ex-vessel value. Pacific cod is the second largest fishery, followed by various flatfish including arrowtooth flounder, rock sole, and yellowfin sole. Other important commercial species include sablefish, rockfish, and Atka mackerel.[138]

According to a survey conducted by the AFSC in 2011, community leaders reported that Atka participates in the fisheries management process in Alaska through a paid staff member who attends North Pacific Fishery Management Council (NPFMC) meets and/or Board of Fisheries meetings. In addition, Atka relies on regional organizations to provide information on fisheries management issues.

Atka is located in Federal Reporting Area 541, International Pacific Halibut Commission (IPHC) Regulatory Area 4A, and the Aleutian Islands Sablefish Regulatory District. Atka is eligible for participation in the CDQ program and is represented by APICDA. The CDQ program was established in an effort to address social and economic hardships imposed on BSAI fishing communities from cost prohibitive entry requirements into groundfish, halibut, and crab fisheries. Non-profit corporations, created under CDQ program requirements, are provided with an apportionment of quota allowing for direct investments by CDQ entities into local infrastructure and services.[139]

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[136] See footnote 132.
[137] Bernard, A. C. (2011). *Alaska Peninsula-Aleutian Islands Management Area Herring Sc Roe and Food and Bait Fisheries: Annual Management Report 2010.* Alaska Department of Fish and Game. Fishery Management Report No. 11-06. Retrieved February 4, 2013 from: http://www.adfg.alaska.gov/FedAidPDFs/FMR11-06.pdf.
[138] North Pacific Fishery Management Council. (2012). *Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area.* Retrieved February 4, 2013 from: http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/fmp/BSAI/BSAI.pdf.
[139] Ibid.

Processing Plants

Atka Pride Seafoods is a subsidiary of APICDA. Since 1994, Atka Pride has processed seafood on the island of Atka in the western region of the Aleutian Islands chain. From June through September Atka Pride processes halibut and sablefish. In regard to local infrastructure projects, APICDA has constructed a small dock (and attendant floating barges), a major dock facility, a water catchment system and pipeline to the city dock, and a hydro-electricity facility. Between 2006 and 2008, its infrastructure plans included construction of a boat harbor, widening of the face of the Atka City Dock, development of a fuel supply business, and extension of the local airport runway.[140] The plant relies on public docks, water services, and power/electricity (except in summer months), and in 2010 employed a maximum of seven workers.[141]

According to the 2010 Alaska Department of Fish and Game's Intent to Operate list, the Atxam Corporation, operates a fish processing plant in Atka and shares a mailing address with Atka Pride Seafoods, although its port location code is listed as Adak.

According to a survey conducted by the AFSC in 2011, community leaders reported that three residents are employed permanently in the seafood processing sector.

Fisheries-Related Revenue

Overall, Atka received $449,358 in fisheries-related taxes and fees in 2010. This represented a 141% increase in fisheries-related revenue from 2000 after adjusting for inflation by converting 2000 values to 2010 dollars.[142] During that time, Atka saw large increases in revenue received from Fisheries Resource Landing Taxes, and harbor fees. In 2010, Fisheries Resource Landing Taxes made up almost half of fisheries-related revenue that year.

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

In a survey conducted by the AFSC in 2011, community leaders reported that services funded by fisheries-related revenue include harbor maintenance, road construction and maintenance, water and wastewater systems, law enforcement, and fire protection. In 2010, the community received $100,000 from its CDQ entity (APICDA). Information regarding fisheries-related revenue trends can be found in Table 3.

Commercial Fishing

In 2010, four residents, or 6.6% of the population, held a total of four permits issued by the Commercial Fisheries Entry Commission (CFEC), all of which were for halibut. This represented a decline from 2000 when 9 residents held 17 CFEC issued permits. In that year, 53% were for halibut, 24% were for sablefish, 18% were for groundfish, and 6% were for salmon. In addition, residents held 228,323 shares of halibut quota on nine accounts in 2010, compared to 234,999 shares held in 2000. Residents held 257,848 shares of sablefish quota on one account in 2000. Between 2000 and 2010, no residents held Federal Fisheries Permits (FFP)

[140]Aleutian Pribilof Island Community Development Association. (n.d.) Retrieved from: http://apicda.com/.
[141] This information is based on the results of a processing plant survey conducted by the Alaska Fisheries Science Center in 2011.
[142] Inflation calculated using Anchorage CPI from Alaska DOL: http://labor.alaska.gov/research/cpi/cpi.htm

or License Limitation Program (LLP) permits for groundfish or crab. No residents held crab quota between 2010 and when the program began.

In 2010, residents held 7 commercial crew licenses, compared to 19 in 2000. In addition, residents held majority ownership of three vessels that year, compared to six in 2000. Of the CFEC permits held in 2010, 100% were actively fished, compared to 59% in 2000. The only fishery prosecuted by residents of Atka that year was for statewide longline halibut.

In 2010, Atka ranked 41st of 67 communities in terms of total lbs landed and 35th in terms of ex-vessel value of landings. Total lbs landed and ex-vessel value of landings in Atka between 2000 and 2010 are considered confidential, with the exception of 2009 when no landings were reported. Landings reported by Atka residents between 2000 and 2010 are also considered confidential. Information regarding commercial fishing trends can be found in Tables 4 through 10.

In a survey conducted by the AFSC in 2011, community leaders reported that between 2005 and 2010, the community did not see a change in the number of commercial vessels or vessels smaller than 60 ft visiting Atka. In addition, vessels larger than 60 ft, charter/party boats, and private vessels typically do not visit the community.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax[1]	$5,776	$20,441	n/a	$25,989	$32,795	$23,169	$22,350	$26,085	$74,740	$15,181	$26,000
Shared Fisheries Business Tax[1]	$105,484	$102,961	$124,299	$108,606	$123,586	$148,210	$146,589	$141,586	$127,498	$138,302	$180,824
Fisheries Resource Landing Tax[1]	$26,598	$41,259	$46,089	$33,872	$34,767	$70,807	$82,080	$158,278	$101,137	$142,545	$201,634
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]	$6,150	$7,000	$5,400	$5,200	$4,000	$10,000	$6,000	$6,300	$6,000	$36,828	$40,900
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
Total fisheries-related revenue[4]	*$144,007*	*$171,661*	*$175,788*	*$173,667*	*$195,148*	*$252,186*	*$257,019*	*$332,249*	*$309,374*	*$332,856*	*$449,358*
Total municipal revenue[5]	*$243,643*	*$249,155*	*$306,036*	*$245,396*	*$301,820*	*$288,960*	*$306,160*	*$418,695*	*$693,672*	*$736,251*	*$833,779*

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

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

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

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

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

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

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	9	9	8	6	7	6	3	7	4	2	4
	Fished permits	7	6	6	5	5	4	3	7	4	1	4
	% of permits fished	78%	67%	75%	83%	71%	67%	100%	100%	100%	50%	100%
	Total permit holders	9	9	8	6	7	6	3	7	4	2	4
Herring (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	4	5	1	4	5	4	1	2	2	0	0
	Fished permits	3	4	0	3	3	3	0	1	1	0	0
	% of permits fished	75%	80%	0%	75%	60%	75%	0%	50%	50%	n/a	n/a
	Total permit holders	4	5	1	4	5	4	1	2	2	0	0
Groundfish (CFEC) [2]	Total permits	3	2	1	1	1	1	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	n/a	n/a	n/a	n/a	n/a
	Total permit holders	3	2	1	1	1	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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) [2]	Total permits	1	1	1	1	1	1	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	n/a	n/a	n/a	n/a	n/a
	Total permit holders	1	1	1	1	1	1	0	0	0	0	0
Total CFEC Permits[2]	*Permits*	*17*	*17*	*11*	*12*	*14*	*12*	*4*	*9*	*6*	*2*	*4*
	Fished permits	*10*	*10*	*6*	*8*	*8*	*7*	*3*	*8*	*5*	*1*	*4*
	% of permits fished	*59%*	*59%*	*55%*	*67%*	*57%*	*58%*	*75%*	*89%*	*83%*	*50%*	*100%*
	Permit holders	*9*	*9*	*8*	*6*	*7*	*6*	*3*	*7*	*4*	*2*	*4*

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

[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 Atka: 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 Atka[2]	Total Net Lbs Landed In Atka[2,5]	Total Ex-Vessel Value Of Landings In Atka[2,5]
2000	19	1	1	6	6	10	--	--
2001	17	1	1	5	5	9	--	--
2002	3	2	1	4	4	9	--	--
2003	10	2	1	3	2	7	--	--
2004	9	2	1	3	2	6	--	--
2005	3	1	1	3	2	5	--	--
2006	2	1	1	2	2	7	--	--
2007	7	1	1	2	2	6	--	--
2008	10	1	1	2	3	6	--	--
2009	2	0	1	1	2	0	--	--
2010	7	1	1	3	4	10	--	--

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 Atka: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (pounds)
2000	9	234,999	83,584
2001	9	125,230	52,933
2002	9	212,209	76,419
2003	9	211,952	76,333
2004	9	211,952	51,316
2005	9	211,952	41,282
2006	9	211,952	30,517
2007	9	215,775	26,788
2008	9	215,775	34,592
2009	9	228,323	36,791
2010	9	228,323	42,487

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 Atka: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (pounds)
2000	1	257,848	25,961
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 Atka: 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 Atka: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	--	--	--
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	--	--	--

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.

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	--	--	--
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	--	--	--

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

Recreational fishing by non-Alaska resident anglers is limited in Atka due to its remote location. No sportfishing licenses were sold in the community between 2000 and 2010. In addition, no sport fish guide businesses were registered to be active in the community during that time. Only three Atka residents held sportfishing licenses in 2010.

Atka is located in the Aleutian Islands ADF&G Harvest Survey Area, which includes all Alaskan waters, including drainages, between Cape Douglas and the community of Naknek. In 2010, angler days fished totaled 5,297 for saltwater fisheries and 33,635 for freshwater fisheries. In that year, non-Alaska resident anglers accounted for 38.4% of saltwater and 58.4% of freshwater angler days fished, compared to 15.8% and 39.5% in 2000, respectively. Between 2000 and 2010, there were no reports of charter businesses operating within Atka.
According to a survey conducted by the AFSC in 2011, community leaders reported that species targeted by shore-based and private vessel based anglers include all five species of Pacific

salmon, halibut, rockfish, and clams. Information regarding recreational fishing trends can be found in Table 11.

Table 11. Sport Fishing Trends, Atka: 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 Atka[2]
2000	0	0	3	0
2001	0	0	0	0
2002	0	0	6	0
2003	0	0	2	0
2004	0	0	1	0
2005	0	0	1	0
2006	0	0	4	0
2007	0	0	2	0
2008	0	0	1	0
2009	0	0	3	0
2010	0	0	3	0

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

Subsistence Fishing

Salmon, halibut, and cod have been important subsistence resources in the Aleutian Islands for thousands of years. On average, Aleutian Island households harvest 1,292 lbs of fish, game, wild plants, and marine mammals each year.[143]

According to 2005 interviews conducted by the U.S. Fish and Wildlife Service (USFWS),[144] the community historically harvested sockeye salmon at Korovin Bay during the summer. In the past, community members would set up camps and traps on the shore until USFWS shut them down around 1949. Another fish trap was built in 1991 and used for several years but was abandoned when subsistence users switched to gill nets. Elders reported that sockeye salmon were abundant in Korovin Lake and that in some years the lake filled to capacity. Some people in Atka travel west to Adak in private vessels to troll for Chinook salmon. Nuclear tests on Amchitka Island are perceived by many subsistence users to have been seriously detrimental to the fish in the region.

In a survey conducted by the AFSC in 2011, community leaders reported that Atka residents harvest fish, hunt marine and terrestrial birds and mammals, and gather local vegetation for subsistence purposes. In addition, a reindeer herd is maintained on Atka Island as a local source of meat. Information provided by the ADF&G is limited and data on household subsistence participation and subsistence salmon harvests are not available.

According to the ADF&G *Community Subsistence Information System,*[145] species which residents of Atka have used and/or harvested include chitons, mussels, butter clams, cockles, Dungeness crab, hair crab, horse clams, limpets, octopus, Pacific littleneck clams, pinkneck clams, razor clams, rock jingles, scallops, sea anemone, sea cucumber, sea urchin, shrimp, snails, squid, Tanner crab, king crab, fur seal, harbor seal, ringed seal Steller sea lion, whale, arrowtooth flounder, Atka mackerel, black rockfish, brook trout, sculpin, Dolly Varden, Arctic grayling, greenling roe, herring (roe and food/bait), lingcod, mahi mahi, Pacific cod, rainbow trout, Irish lord, red rockfish, sablefish, steelhead, swordfish, sole, shark, tuna, and walleye pollock. In 2010, 1 resident held a Subsistence Halibut Registration Certificate (SHARC), although there were no reported harvests between 2006 and 2010. In 2008, an estimated 7,000 lbs of marine mammals were harvested, a significant increase from 2000 when an estimated 942 lbs were harvested. Marine mammal harvests peaked in 2003 at an estimated 16,986 lbs harvested. Between 2000 and 2008, an estimated 503 marine mammals were harvested. Data regarding sea lion and seal harvests are unavailable. Information regarding subsistence trends can be found in Tables 12 through 15.

Additional Information

In a survey conducted by the AFSC in 2011, community leaders reported that expanding the community's seafood processor is one of the current challenges for the portion of Atka's

[143] U.S. Fish and Wildlife Service. (2005). *Subsistence Fisheries Harvest Assessment and Traditional Ecological Knowledge, Lower Alaska Peninsula and Aleutian Islands.* Retrieved June 13, 2012 from: http://alaska.fws.gov/asm/pdf/fisheries/reports/02-032Final.pdf.
[144] Ibid.
[145] 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).

economy that is based on fishing. In addition, above all other management actions the creation of the CDQ program has had the greatest impact on the community.

Table 12. Subsistence Participation by Household and Species, Atka: 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, Atka: 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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	1	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, Atka: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	13	4	1,625
2004	13	9	1,032
2005	12	4	795
2006	4	n/a	n/a
2007	4	n/a	n/a
2008	3	n/a	n/a
2009	3	n/a	n/a
2010	1	n/a	n/a

Note: n/a indicates that no data were reported for that year.
Source: Fall, J.A. and D. Koster. 2011. Subsistence harvests of Pacific halibut in Alaska, 2009. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 357, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

Table 15. Subsistence Harvests of Marine Mammal Resources, Atka: 2000-2010.

Year	# of Beluga Whales[1]	# of Sea Otters[2]	# of Walrus[2]	# of Polar Bears[2]	# of Steller Sea Lions[3]	# of Harbor Seals[3]	# of Spotted Seals[3]
2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	1	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.

Cold Bay

People and Place

Location [146]

Cold Bay is located in the Izembek National Wildlife Refuge (NWR) at the western end of the Alaska Peninsula. It lies 634 mi. southwest of Anchorage and 180 mi northeast of Unalaska. The area encompasses 54.4 sq mi of land and 16.6 sq mi of water. It was incorporated as a Second-class city in 1982 and is under the jurisdiction of the Aleutians East Borough.

Demographic Profile [147]

In 2010, there were 108 residents, ranking Cold Bay 240th of 352 Alaskan communities in terms of population size. Between 1990 and 2010, the population declined by 27%. Between 2000 and 2009, the population declined by 4.55% with an average annual growth rate of -3.31%, which was much lower than the statewide average of 0.75% and reflective of the steep decline following a population spike in 2002. In a survey conducted by the Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that there were an estimated 60 permanent residents living in Cold Bay in 2010. The community's population reaches its annual peak in September and is somewhat driven by employment in fishing sectors. Information regarding population trends can be found in Table 1.

The racial and ethnic composition of Cold Bay is relatively mixed, with the majority of residents (74.1%) identifying themselves as White in 2010, compared to 71.6% in 2000. Also in that year, 12.0% of residents identified themselves as American Indian or Alaska Native, compared to 17.0% in 2000; 1.9% identified themselves as Black or African American, compared to 3.4% in 2000; 1.9% identified themselves as Asian, compared to 4.5% in 2000; 9.3% identified themselves as two or more races, compared to 1.1% in 2000; and 0.9% identified themselves as some other race, compared to 0.0% in 2000. In addition, 4.6% of residents identified themselves as Hispanic or Latino in 2010, compared to 2.4% in 2000. Racial and ethnic composition remained somewhat unchanged between 2000 and 2010. Information regarding trends in race and ethnicity in Cold Bay can be found in Figure 1.

In 2010, the average household size was 2.33, compared to 2.7 in 1990 and 2.28 in 2000. In that year, there were 82 total housing units, compared to 73 in 1990 and 98 in 2000. Of the households surveyed in 2010, 6% were owner-occupied, compared to 3% in 2000; 50% were renter-occupied, compared to 34% in 2000; 7% were vacant, compared to 46% in 2000; and 37% were occupied seasonally, compared to 17% in 2000. In 2010 there was one person living in group quarters, compared to six in 2000.

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

[147] 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.

Gender distribution in Cold Bay was skewed in 2010 at 61.2% male and 38.8% female. This was significantly less even than the statewide distribution (52% male, 48% female), and slightly more even than the 2000 distribution (64.7% male, 35.3% female). The median age that year was 44.8 years, which was significantly older than the statewide median of 33.8 years and 2000 median of 34 years.

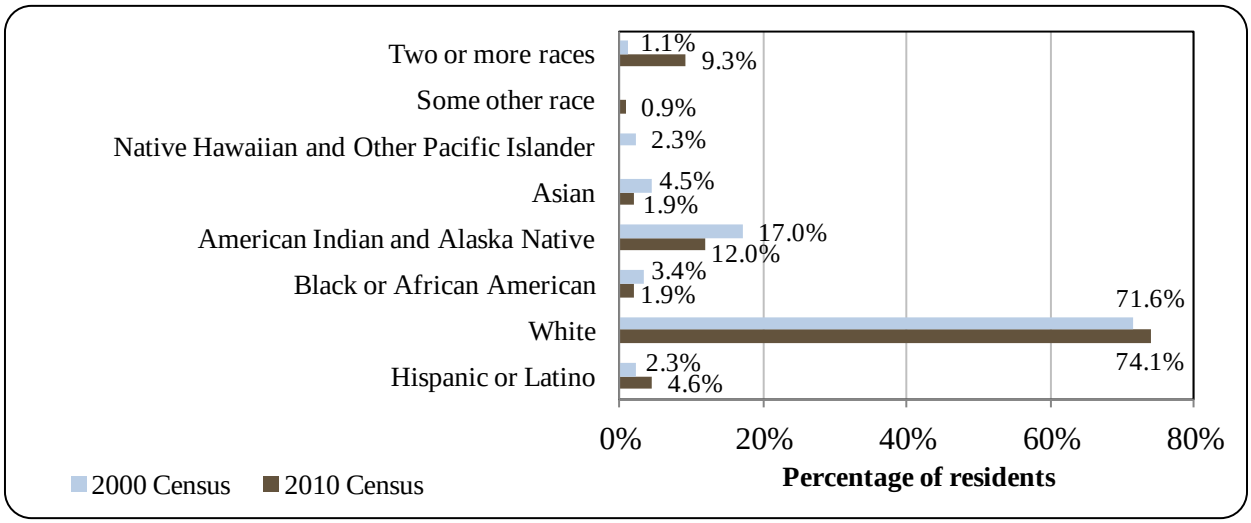
Table 1. Population in Cold Bay from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Department of Labor Estimate of Permanent Residents[2]
1990	148	-
2000	88	-
2001	-	75
2002	-	117
2003	-	95
2004	-	89
2005	-	89
2006	-	87
2007	-	72
2008	-	89
2009	-	84
2010	108	-

[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.

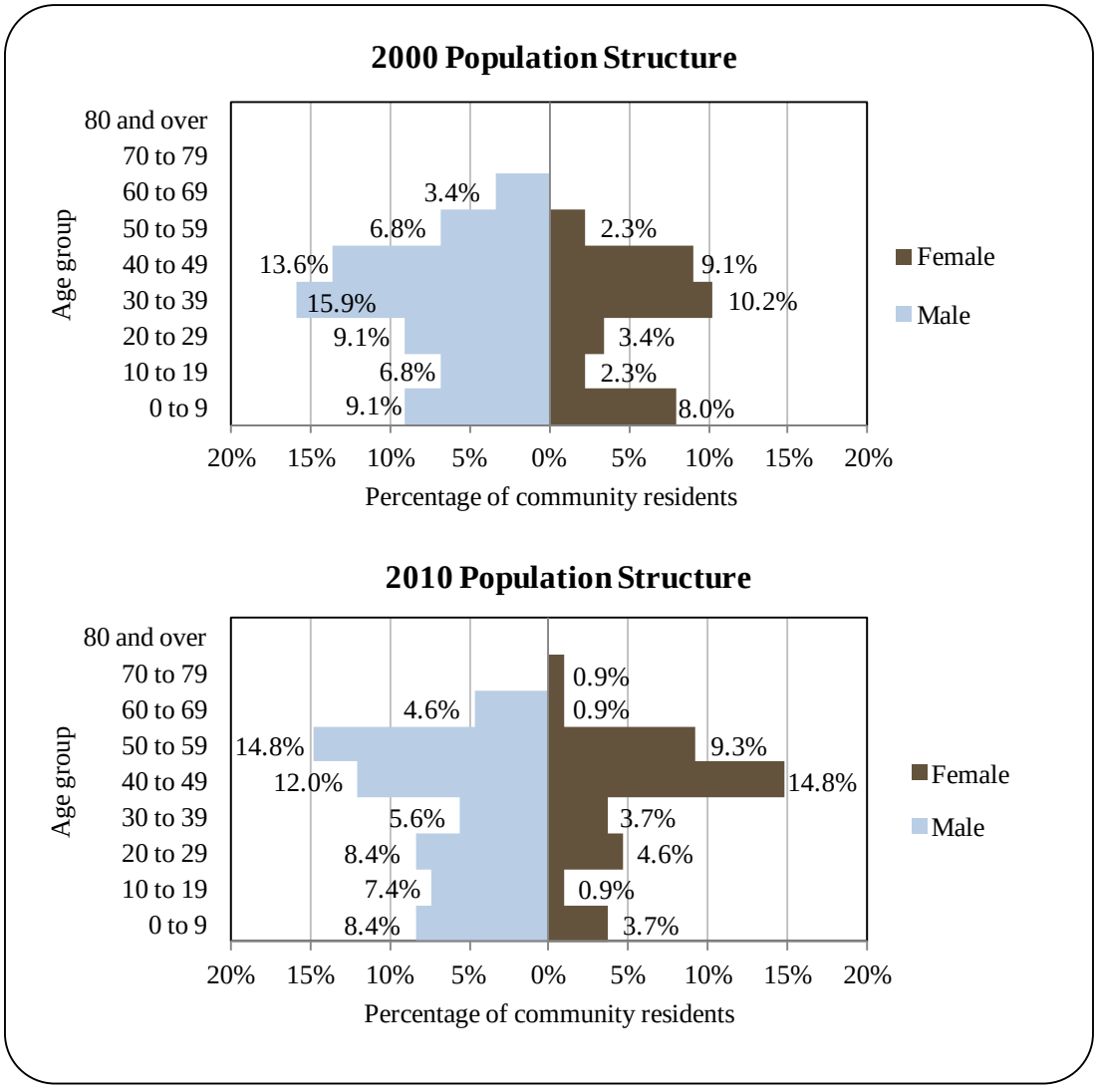
Figure 1. Racial and Ethnic Composition, Cold Bay: 2000-2010 (U.S. Census).



The population structure in 2010 was slightly more constricted than it was in 2000 as the population aged. In that year, 20.4% of residents were under the age of 20, compared to 26.2% in 2000; 6.4% were over the age of 59, compared to 3.4% in 2000; 60.7% were between the ages of 30 and 59, compared to 57.9% in 2000; and 13.0% were between the ages of 20 and 29, compared to 12.5% in 2000.

Overall gender distribution by age cohort was about the same in both 2000 and 2010. In 2010, the greatest absolute gender difference occurred within the 10 to 19 range (7.4% male, 0.9% female), followed by the 50 to 59 (14.8% male, 9.3% female) and 0 to 9 (8.4% male, 3.7%) ranges. Of those three, the greatest relative gender difference occurred within the 10 to 19 range. Information regarding trends in Cold Bay's population structure can be found in Figure 2.

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



In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)[148] estimated that 100% of residents aged 25 years and higher held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaska residents overall. In this same time period, an estimated 25% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; and estimated 20% had an Associate's degree, compared to an estimated 8% of Alaska residents overall; and an estimated 35% of residents had a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall. No residents were estimated to hold a graduate or professional degree between 2000 and 2010.

History, Traditional Knowledge, and Culture

Archaeological sites dating to the last ice age indicate the area around Cold Bay was once inhabited by a large Eastern Aleut population.[149] Additional archaeological data indicates that the first inhabitants of the area may have arrived approximately 6,000 years ago. The first historic record of the area is from 1827, when the Russian captain Count Feodor Petrovich Lutke named the largest lagoon to the north of Cold Bay after his surgeon, Karl Izembek. Additional features in the area were also named after crew aboard the Russian sloop "Moller," including Moffet Lagoon and Cape Glazenap. During World War II, the U.S. military established a base at Cold Bay, staffing it with 40,000 soldiers during its lifetime. At its peak, Cold Bay was home to approximately 9,000 military personnel (although estimates have gone as high as 60,000). By 1942, the base supported military aircraft, communications equipment, and other facilities. The military facilities were abandoned in 1950; however, the U.S. Air Force did maintain a presence in support of a Distant Early Warning Station built at Grant Point in 1958. In that year, the Federal Aviation Administration (FAA) established facilities at Outer Marker Road, and the remainder of the military land was transferred to the FAA and Bureau of Land Management (BLM) in 1961. The Izembek NWR was established in 1960 and the Izembek State Game Refuge in 1971.[150]

Natural Resources and Environment

The community has a maritime climate, with temperatures ranging from 25 to 60 °F (-4 to 16 °C). The average annual rainfall is 36 inches, and average annual snowfall is 55 inches. Wind speeds of 30 mph are common for Cold Bay.[151]

Cold Bay resides in the Izembek NWR, which was designated a Globally Important Bird Area in 2001.[152] The local surface geology consists primarily of glacial outwash and alluvium

[148] 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.
[149] Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[150] Alaska Department of Fish and Game. (2010). *Izembek State Game Refuge Management Plan.* Retrieved February 16, 2012 from:
http://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/izembek_plan.pdf.
[151] See footnote 149.
[152] U.S. Fish and Wildlife Service. (n.d.). *Izembek National Wildlife Refuge.* Retrieved February 16, 2012 from: http://izembek.fws.gov/wildland.htm.

consistent with coastal plains in the region. The lagoons to the north of Cold Bay are thought to have formed by emerging coastlines formed from tectonic activity, wind, and offshore currents. Lowland areas are commonly made up of volcanic ash, unconsolidated sands, silts, and gravel. Upland soils mostly consist of volcanic ash. Organic soils consist of sedge peat and moss.[153] Vegetation is limited due to unproductive shallow or poorly drained soils. Vegetation types are consistent with low shrub tundra, wetlands, and moist herbaceous meadows. There are scattered alder stands in mid-slope areas east of Cold Bay.[154] Terrestrial wildlife present in the area include brown bears, caribou, moose, wolverine, red foxes, river otters, wolves, mink, porcupine, hares, shrews, voles, lemmings, mice, and ground squirrels. Local fish include all five species of Pacific salmon, Arctic char, Dolly Varden, stickleback, steelhead trout, Pacific sand lance, yellowfin sole, sculpin, turbot, smelt, greenling, cod, whitefish, and herring. Marine mammals present in the area include sea otters, northern fur seals, walrus, harbor seals, mike whales, killer whales, gray whales, and Steller sea lions. There are also approximately 80 species of birds that frequent the area as well. [155]

Localized mineral resources include titanium sands, iron, and gold concentrations in the Moffet Lagoon and Moffet Point areas. However, mineral prospecting in the Izembek NWR is advised against. In addition, the 2005 Bristol Bay Area Plan designated tidelands adjacent to the Izembek NWR off-limits to new mineral prospects. Uplands are closed to mining or mineral entry under federal law and currently development can only be approved offshore. Cold Bay is located close to oil and gas exploration areas of interest, although of the 26 test wells drilled around the Alaska Peninsula between 1902 and 1985, none produced commercially viable quantities of either. However, there are several coal bed methane sites which could prove viable in the future.[156]

Cold Bay is susceptible to natural hazards including earthquakes, volcanoes, tsunamis, and severe weather events. According to the *Aleutians East Multi-Jurisdictional, Multi-Hazards Mitigation Plan*, damage from an earthquake, volcanic eruption, or tsunami would be critical with a projected 25% of critical facilities damaged or destroyed. Severe weather events could result in limited damage, and would not likely result in severe casualties or extensive damage to infrastructure. There is a high probability of an earthquake or volcanic event occurring, while the probability of a tsunami or severe weather event is moderate.[157]

The Alaska Department of Environmental Conservation is in the process of cleaning up contaminants left from the now defunct Fort Randall. During World War II, the military base was consistently supplied with 4,000 to 5,000 fifty-five gal drums containing heating oil, lubricants, solvents, pesticides, and volatile fuels. In 1998, 2,138 buried drums were removed from a disposal area, and in 2001 approximately 4,760 cubic yards of contaminated soil were

[153] See footnote 150.
[154] U.S. Fish and Wildlife Service. (2004). *Impact Analysis of Off-Road Vehicle Use for Subsistence Purposes on Refuge Land and Resources Adjacent to the King Cove Access Project.* Retrieved February 16, 2012 from: http://izembek.fws.gov/pdf/impanalysis.pdf.
[155] See footnote 150.
[156] Ibid.
[157] WHPacific. (2010). *Communities of the Aleutians East Borough Multi-Jurisdictional Multi-Hazards Mitigation Plan.* Retrieved February 16, 2012 from: http://www.aleutianseast.org/vertical/Sites/%7BEBDABE05-9D39-4ED4-98D4-908383A7714A%7D/uploads/%7B5F7E9057-83A3-4DBA-B144-073C3F6461D6%7D.PDF.

treated and backfilled. Other cleanup projects in the area include asphalt seeps and underground fuel tank leaks near the airport.[158]

Current Economy[159]

Cold Bay's local economy is complex and tied to the region as a whole. Although a federal presence has been reduced greatly following the closing of Fort Randall, the state owned airstrip remains an active resupply and emergency stop for air traffic crossing the Pacific Ocean. The deep water port has the potential to be developed into a regional center as well. The Izembek NWR provides recreational opportunities for bird and hunting enthusiasts, and tourism is a top development priority in Cold Bay. Finally, Cold Bay is part of a commercial fishing network connecting King Cove, Sand Point, and False Pass. However, in a survey conducted by the AFSC in 2011, community leaders reported that there is not a fishing industry in Cold Bay. There have been efforts towards economic diversification in the region following the Bristol Bay commercial salmon crash of the late 1990s, and because of the city's past reliance on federal employment.[160] Top employers in 2010[161] included Peninsula Airways, State of Alaska, City of Cold Bay, Aleutians East Borough School District, G&K Inc., Eastern Aleutian Tribes Inc., Frosty Fuels LLC, CK Enterprises LLC, and Aleutians East Borough.

In 2010,[162] the estimated per capita income was $26,136 and the estimated median household income was $44,167, compared to $20,037 and $55,750 in 2000, respectively. However, after accounting for inflation by converting the 2000 values to 2010 dollars,[163] the real per capita income ($26,358) and real median household income ($73,310) indicate that while individual earnings remained relatively unchanged, household earnings decreased significantly. In 2010, Cold Bay ranked 94th of 305 Alaskan communities from which per capita income was estimated, but only 166th of 299 Alaskan communities for from which median household income was estimated.

Cold Bay's small population size may have prevented the ACS from accurately portraying economic conditions.[164] Another understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). According to the ALARI database, residents earned $1.48 million in total wages in 2010.[165] When matched with the population in 2010, the per capita income equals $13,720, which is significantly less than the 2010 ACS estimate, suggesting that caution should be used when comparing 2010 ACS and 2000 Census figures.[166] It should be noted that ALARI and

[158] Alaska Department of Environmental Conservation. (n.d.). *Contaminated Sites Program.* Retrieved February 16, 2012 from: http://www.dec.state.ak.us/spar/csp/sites/coldbayftr.htm.
[159] Unless otherwise noted, all monetary data are reported in nominal values.
[160] Stadum Group. (1999). *Overall Economic Development Plan.* Retrieved February 16, 2012 from: http://www.commerce.state.ak.us/dca/plans/Cold%20Bay-VP-1999.pdf.
[161] Alaska Department of Labor (n.d.). *Alaska Local and Regional Information Network.* Retrieved January 20, 2012 from: http://live.laborstats.alaska.gov/alari/.
[162] U.S. Census American Community Survey 2006-10 Estimates.
[163] Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gove/research/cpi/inflationcalc.htm).
[164] See footnote 148.
[165] ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.
[166] See footnote 161.

Census income figures are based on wage earnings and do not take into account the value of subsistence to the community.

According to 2006 to 2010 estimates,[167] 65% of residents aged 16 years or older were part of the civilian labor force in 2010. In that year, unemployment was estimated at 0.0%, compared to 5.9% statewide; and an estimated 8.3% of residents were living below the poverty line, compared to 9.5% statewide. Because of Cold Bay's small population size, it is possible that the 2010 ACS misrepresented local unemployment. The 2010 ALARI database estimated that, based on unemployment insurance claimants, the unemployment rate was 8.3%.[168]

Of those employed in 2010, an estimated 61.5% worked in the public sector, while an estimated 38.5% worked in the private sector. By industry, most (53.8%) were estimated to be working in public administration sectors in that year; followed by wholesale trade sectors (23.1%), transportation, warehousing, and utilities sectors (15.4%), and professional, scientific, management, administrative, and waste management sectors (7.7%). By occupation type, most (38.5%) were estimated hold sales or office positions, followed by management or professional positions (30.8%), natural resource, transportation, or material moving positions (15.4%), and service positions (15.4%). Overall, the 2006-10 ACS purported a strong shift towards public administration and wholesale trade sectors between 2000 and 2010. However, it should be noted that sampling techniques may not have captured the true scope of industry representation. This may account for the apparent reduction in economic diversity in those years. According to 2010 ALARI estimates, most (26.8%) employed residents worked in trade, transportation, and utilities sectors; followed by local government sectors (26.8%); and state government sectors (12.2%). Information regarding employment trends can be found in Figures 3 and 4.

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

[167] See footnote 148.
[168] See footnote 161.

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

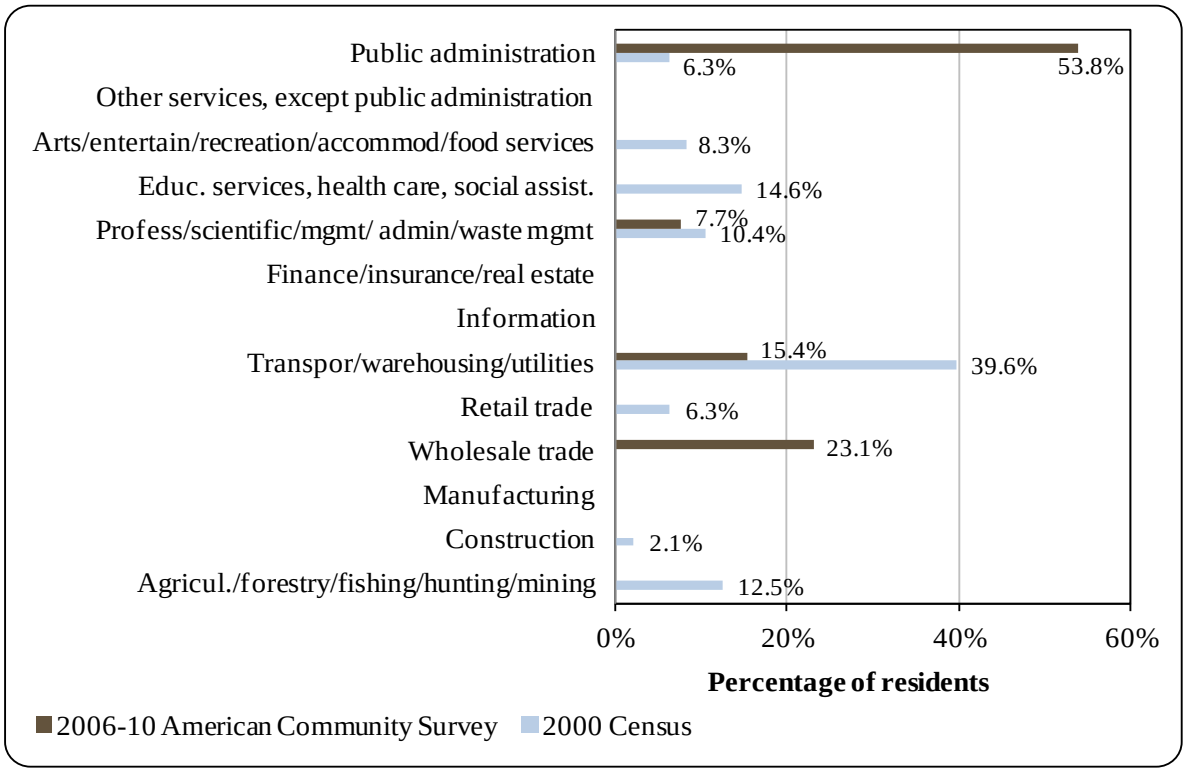
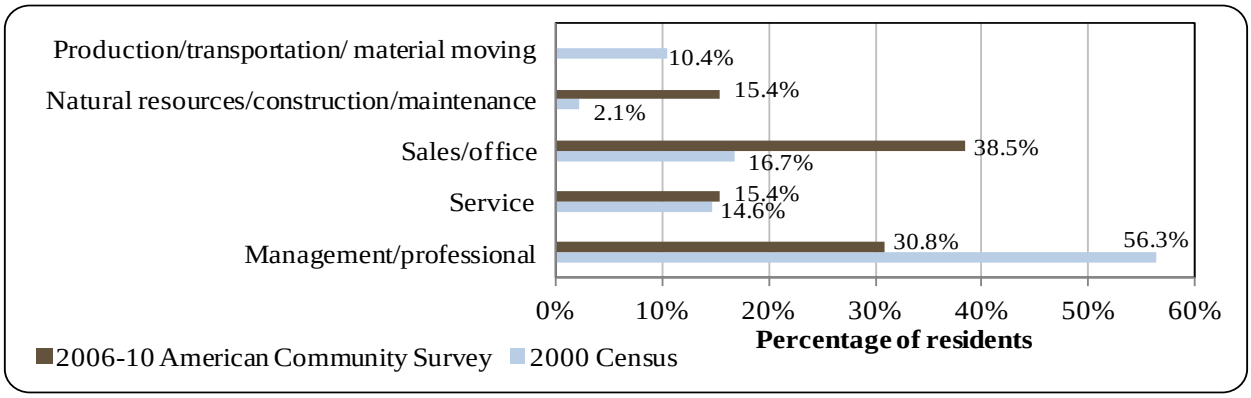


Figure 4. Local employment by occupation in 2000-2010, Cold Bay (U.S. Census).



Governance

Cold Bay is a Second-class city with a mayoral form of government. The community was not included in the Alaskan Native Claims Settlement Act (ANCSA) and does not have a federally recognized Tribal government. The closest National Marine Fisheries Service (NMFS) and U.S. Bureau of Citizenship and Immigration Services (BCIS) offices are located in Unalaska, 179 mi southwest. There is a seasonally operated Alaska Department of Fish and Game (ADF&G) office located in the community, which is open during summer months. The closest permanent ADF&G office is located in Sand Point, 90 mi to the east.

Taxes administered by the city in 2010 included a 10% accomodations tax and $0.04 per gallon fuel tax. The borough administers a 2% raw fish tax. When adjusted for inflation,[169] total municipal revenues increased 100.2% between 2000 and 2010 from $248,547 to $643,343. In 2010, most locally generated revenues were collected from utilities rents and local tax revenues. In addition, $171,324 was collected that year from insurance reimbursements for dock repairs. Most outside revenues were generated from Community Revenue Sharing and raw fish tax refunds. In that year, Cold Bay received $100,591 in state allocated Community Revenue Sharing, which accounted for 15.6% of the municipal budget. This was a proportional increase from 2000, when $29,470 in State Revenue Sharing accounted for 11.9% of the municipal budget. Fisheries-related state and federal grants received by the City included a $26,316 for a state matching grant for the city dock and $25,000 for construction of dockside electrical utilities. Information regarding municipal finances can be found in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Cold 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	$248,547	n/a	$29,470	$51,316
2001	$259,540	n/a	n/a	n/a
2002	$439,345	n/a	$26,000	n/a
2003	$603,171	n/a	$28,500	n/a
2004	$358,583	n/a	-	n/a
2005	$349,769	n/a	-	n/a
2006	$395,600	n/a	-	n/a
2007	$418,382	n/a	-	n/a
2008	$662,862	n/a	-	n/a
2009	$607,546	n/a	$99,711	n/a
2010	$643,343	n/a	$100,591	n/a

[1] Alaska Department of Community and Rural Affairs. (n.d.). *Financial Documents Delivery System.* Retrieved April 15, 2011from http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.
[2]Alaska Department of Community and Economic Development. (n.d.). *Alaska Taxable (2000-2010).* Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.
[3]Alaska Department of Revenue. (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Retrieved April 15, 2011from https://www.tax.state.ak.us.
[4] The State Revenue Sharing program ceased in 2003 and was replaced by the Community Revenue Sharing program starting in 2009.
[5]Alaska Department of Community and Rural Affairs. (n.d.). Community Funding Database. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

[169] Inflation calculated using the 2010 Anchorage CPI from the Alaska Department of Labor: http://labor.alaska.gov/research/cpi/cpi.htm.

Infrastructure

Connectivity and Transportation

A state-owned 10,415-ft long by 150-ft wide paved and lighted runway with a 6,235-ft long by 150-ft wide paved crosswind runway, an FAA flight service station, and a seaplane base are available. Cold Bay is a regional transportation center and provides scheduled flights to surrounding communities. The community has a dock but wants to develop a breakwater, boat harbor, and boat launch. Marine cargo services are available monthly from Seattle, but not from Anchorage. The state ferry operates bi-monthly from Kodiak to Cold Bay between May and October. There are approximately 40 mi. of local gravel roads.[170] In 2009, a new Public Lands Bill was signed into law that could allow for the construction of an access road connecting Cold Bay and King Cove in exchange for expansions of the Izembek NWR.[171] The price for roundtrip airfare between Cold Bay and Anchorage in June 2012 was $831.[172]

Facilities

Water is supplied to the community by one well and stored in a 213,000-gal tank. Most residents are connected to a piped water and sewer system. A few homes have individual wells and septic systems. The sewage treatment plant can process up to 45,000 gal a day. Residents transport their own refuse to the landfill, located 1.5 mi north of the community.[173] In a survey conducted by the AFSC in 2011, community leaders reported that infrastructure projects completed since 2000 or under development include a fish cleaning station, dockside electrical and water utilities, dock improvements, broadband internet access, road improvements, water treatment facilities, landfill improvements, community center improvements, school improvements, telephone service, and post office improvements. There is 650 ft of dock space for transient moorage; however, there is no space available for permanent moorage. Vessels up to 320 ft long can use moorage in Cold Bay. Cold Bay facilities can accommodate the following Coast Guard regulated vessels, rescue vessels, cruise ships, ferries, and fuel barges. The community currently lacks a harbor or breakwater, although there are plans for future development. Fisheries-related businesses and services located in the community include fishing gear sales, small vessel (less than 60 tons) haulout facilities, tackle sales, recreational fishing vessel moorage, bait sales, fish lodges, and boat fuel sales. Residents of Cold Bay typically go to Unalaska, King Cove, and Sandpoint for fisheries-related services and businesses that are not available locally. Public services available in the community include medical services and a public library. Visitor accommodations include the Cold Bay Lodge, Bayview Bed and Breakfast, and the Bearfoot Inn. Public safety services are provided by local State Troopers. Fire and rescue services are provided by the Alaska Department of Transportation and Cold Bay Fire and Rescue.[174]

[170] Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[171] Aleutians East Borough. (n.d.). Retrieved February 17, 2012 from: http://www.aleutianseast.org/index.asp?Type=B_BASIC&SEC={F01C70F6-028E-4181-83DD-90BC0F27E9FE}.
[172] Airfare was calculated using lowest fare from www.orbitz.com. (Retrieved November 22, 2011).
[173] See footnote 170.
[174] Ibid.

Medical Services[175]

Anna Livingston Memorial Clinic provides general healthcare and is a Community Health Aid Program site. Nearby King Cove Medical Clinic is a qualified Emergency Care Center.

Educational Opportunities[176]

Cold Bay School offers preschool through twelfth grade instruction. As of 2011, there were 13 students enrolled and two teachers.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Previous to Alaska's purchase in 1867, American schooners were fishing for cod in the Aleutian Islands and Okhotsk Sea regions. By the end of the nineteenth century, salmon canneries were being established in western Alaska and on the eastern portion of the Alaska Peninsula. No large-scale commercial seafood processing operation was undertaken in the Aleutian area during those years however. In 1916, Pacific American Fisheries, Inc. established a cannery at Makushin Bay, Unalaska. In those days, adverse weather conditions typically kept the small seine fleet close to Unalaska and Umnak islands. Following the 1924 White Act, newly protected fisheries began to proliferate throughout the Aleutian region. The implementation of a 1928 Executive Order removed Akun, Akutan, Tigalda, Umnak, and Unalaska Islands from an earlier established wildlife reserve, opening up further opportunities. The International Packing Company fished the Aleutian area between 1924 and 1942 and operated a floating processor in the regional through 1941. Pink, sockeye, and chum salmon were popular species.[177]

Popular commercial fisheries within the Bering Sea and Aleutian Islands Management Area include red king crab, snow crab, walleye pollock, golden king crab, Tanner crab, weathervane scallops, Dungeness crab, Pacific cod, flatfish, sablefish, Pacific salmon, Pacific herring, and halibut. Arial surveys of Pacific herring biomass began in the Alaska Peninsula and Aleutian Islands region in 1979, when large congregations of herring were documented in coastal waters between Adak and Port Heiden. No herring sac roe harvests have occurred within the Aleutian Islands region due to lack of interest. Herring food and bait fisheries began in the Eastern Aleutian Islands area in 1929, occurring intermittently until 1981, when a Dutch Harbor food and bait fishery began operating annually. In 2004, and exploratory herring fishery was established in the vicinity of Adak Island. This fishery has attracted very little interest, and no harvests have occurred since it was established.[178]

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[175] Ibid.
[176] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[177] Atkinson, C.E. (n.d.). A Brief Review of the Salmon Fishery in the Aleutian Islands Region. Retrieved May 20, 2012 from: http://www.npafc.org/new/inpfc/INPFC%20Bulletin/Bull%20No.1/Bull1%20p93-104%20(Atkinson).pdf.
[178] Bernard, A. C. (2011). *Alaska Peninsula-Aleutian Islands Management Area Herring Sc Roe and Food and Bait Fisheries: Annual Management Report 2010.* Alaska Department of Fish and Game. Fishery Management Report No. 11-06. Retrieved February 4, 2013 from: http://www.adfg.alaska.gov/FedAidPDFs/FMR11-06.pdf.

Groundfish were first commercially harvested in the Bering Sea and Aleutian Islands (BSAI) region in 1864, when a single schooner fished for Pacific cod in the Bering Sea. Most fishing effort during the early cod fishery was concentrated north of Unimak Island and the Alaska Peninsula. Pacific halibut was commercially harvested within the region as early as the late 1800s as well; however, halibut did not reach North American markets until 1928. Foreign fleets had a large presence within the BSAI region throughout much of the twentieth century, targeting pollock, sablefish, turbot, perch, and other groundfish. Foreign fleets were phased out during the 1980s as fishing fleets became increasingly "Americanized." Today, walleye pollock is the largest groundfish fishery in the BSAI region in terms of lbs landed and ex-vessel value. Pacific cod is the second largest fishery, followed by various flatfish including arrowtooth flounder, rock sole, and yellowfin sole. Other important commercial species include sablefish, rockfish, and Atka mackerel.[179]

Cold Bay's history is associated with its establishment as a military base; therefore, there was very little historical participation in North Pacific Fisheries. The community's efforts to diversify its economy following the closure of the military base included commercial fishing as residents began participating in salmon, halibut, and groundfish fisheries. However, in a survey conducted by the AFSC in 2011, community leaders reported that no commercial fishing vessels use Cold Bay as a base of operations during fishing seasons and most residents likely fish out of King Cove. In addition, the community does not participate actively in the fisheries management process in Alaska. In 2010, Cold Bay became eligible for participation in the Community Quota Entity program. However, it has not yet formed a non-profit entity eligible to purchase quota shares. The impetus for the CQE program followed the implementation of the halibut and sablefish Individual Fishing Quota (IFQ) program in 1995. The IFQ program restructured fixed gear halibut and sablefish fisheries into a catch share program which issued transferable quota shares that allocated and apportionment of the annual Total Allowable Catch to eligible vessels and processors. Although the IFQ program resulted in many benefits to fishermen, processors, and support businesses, and unintended consequence was that many quota holders in smaller Alaskan communities either transferred quota outside the community or moved out themselves. In addition, as quota became increasingly valuable, entry into halibut or sablefish fisheries became difficult. In many cases, it was more profitable for small-scale operators to sell or lease their quota rather than fish it due to low profit margins and high quota value. These factors lead decreased participation in communities traditionally dependent on the halibut or sablefish fisheries. To address this issue, the North Pacific Fishery Management Council implemented the CQE program in 2005. Under the program, eligible communities could form a non-profit corporation to purchase and manage quota share on their behalf.

Cold Bay is located in Federal Reporting Area 610, International Pacific Halibut Commission (IPHC) Regulatory Area 3B, and the Western Gulf of Alaska (GOA) Sablefish Regulatory District.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, Cold Bay does not have a registered processing plant. The closest seafood processor is located in King Cove.

[179] North Pacific Fishery Management Council. (2012). *Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area.* Retrieved February 4, 2013 from: http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/fmp/BSAI/BSAI.pdf.

Fisheries-Related Revenue

The majority of Cold Bay's fisheries-related revenue comes from port and dock usage fees. Revenues from this source increased steadily from $6,000 in 2000 to $34,000 in 2010. Other sources of fisheries-related revenue come from a Shared Fisheries Business Tax and Fisheries Resource Landings Tax. In 2010, the community received $56,153 in fisheries-related taxes and fees, compared to $21,433 in 2000. In a survey conducted by the AFSC in 2011, community leaders reported that revenue raised by fisheries-related taxes and fees goes towards port infrastructure projects and maintenance. Information regarding fisheries-related revenue trends can be found in Table 3.

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

Commercial Fishing

In 2010, 2 residents, or 1.9% of the population, held 4 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 3 residents held 3 CFEC permits. Of the CFEC permits held that year, 50% were for salmon, compared to 100% in 2000; 25% were for groundfish, compared to 0% in 2000; and 25% were for halibut, compared to 0% in 2000. Also in that year, 2 residents held 2 License Limitation Program (LLP) groundfish permits. No residents held Federal Fisheries Permits (FFP) between 2000 and 2010. Residents held 64,445 shares of halibut quota on 1 account between 2006 and 2010. No residents held sablefish or crab quota share between 2010 and when the programs began.

In 2010, 6 residents held commercial crew licenses, compared to 1 in 2000. In addition, residents held majority ownership of 3 vessels, compared 6 in 2000. Of the CFEC permits held that year, 75% were actively fished, compared to 100% in 2000. This varied by fishery from 100% of groundfish and halibut permits, to 50% of salmon permits. Fisheries prosecuted by residents in 2010 included Alaska Peninsula set gillnet salmon, Gulf of Alaska longline miscellaneous saltwater finfish and statewide longline halibut.[180]

No landings were reported in the community between 2000 and 2010, although landings were reported by residents. Those landings are considered confidential with the exception of salmon landings in 2001. In that year, residents landed 161,948 lbs of salmon valued at $79,835 ex-vessel, which amounts to approximately $0.70 per pound ex-vessel after accounting for inflation[181] and without taking species composition into consideration. In a survey conducted by the AFSC in 2011, community leaders reported that an average halibut season lasted July through November, an average coho or sockeye salmon season runs from August through September. Information regarding commercial fisheries trends can be found in Tables 4 through 10.

[180] 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.]

[181] Inflation calculated using Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics. Retrieved March 15, 2011 from http://www.bls.gov/ppi/#data.

Table 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community of Cold 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]	$15,433	$10,863	$8,027	$7,028	$8,056	$9,569	$10,498	$11,969	$9,508	$11,827	$11,734
Fisheries Resource Landing Tax[1]	n/a	n/a	n/a	$14	$854	$629	$1,468	$1,001	$2,538	$1,731	$2,813
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	$7,606*
Port/dock usage[2]	$6,000	n/a	$2,500	$15,000	$22,200	$33,000	$33,000	$33,000	$35,000	$18,375	$34,000
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
Total fisheries-related revenue[4]	*$21,433*	*$10,863*	*$10,527*	*$22,042*	*$31,110*	*$43,198*	*$44,966*	*$45,971*	*$47,046*	*$31,933*	*$56,153*
Total municipal revenue[5]	*$248,547*	*$259,540*	*$439,345*	*$603,171*	*$358,583*	*$349,769*	*$395,600*	*$418,382*	*$662,862*	*$607,549*	*$643,343*

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

**Source: Alaska Fisheries Science Center 2011 Community Surveys.*

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

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

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

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

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

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	1	1	1	1	1	1	2	2	2	2	2
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	1	1	1	1	1	1	2	2	2	2	2
Crab (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	0	1	0	0	1	1	1	1	1	1	1
	Fished permits	0	1	0	0	1	1	1	1	1	1	1
	% of permits fished	n/a	100%	n/a	n/a	100%	100%	100%	100%	100%	100%	100%
	Total permit holders	0	1	0	0	1	1	1	1	1	1	1
Herring (CFEC) [2]	Total permits	0	0	0	0	1	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	0%	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	1	0	0	0	0	0	0

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	0	1	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	0%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	1	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) [2]	Total permits	0	2	0	0	4	1	0	1	1	1	1
	Fished permits	0	0	0	0	2	0	0	0	0	0	1
	% of permits fished	n/a	0%	n/a	n/a	50%	0%	n/a	0%	0%	0%	100%
	Total permit holders	0	1	0	0	1	1	0	1	1	1	1
Other Finfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) [2]	Total permits	3	4	3	3	4	4	4	4	2	3	2
	Fished permits	3	4	3	3	3	3	2	2	1	1	1
	% of permits fished	100%	100%	100%	100%	75%	75%	50%	50%	50%	33%	50%
	Total permit holders	3	4	3	3	4	4	4	3	2	3	2
Total CFEC Permits[2]	*Permits*	*3*	*8*	*3*	*3*	*10*	*6*	*5*	*6*	*4*	*5*	*4*
	Fished permits	*3*	*5*	*3*	*3*	*6*	*4*	*3*	*3*	*2*	*2*	*3*
	% of permits fished	*100%*	*63%*	*100%*	*100%*	*60%*	*67%*	*60%*	*50%*	*50%*	*40%*	*75%*
	Permit holders	*3*	*4*	*3*	*3*	*4*	*4*	*4*	*3*	*2*	*3*	*2*

[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 Cold 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 Cold Bay[2]	Total Net Lbs Landed In Cold Bay[2,5]	Total Ex-Vessel Value Of Landings In Cold Bay[2,5]
2000	1	0	0	6	3	0	0	$0
2001	1	0	0	4	0	0	0	$0
2002	2	0	0	3	0	0	0	$0
2003	4	0	0	2	0	0	0	$0
2004	11	0	0	2	0	0	0	$0
2005	8	0	0	5	1	0	0	$0
2006	6	0	0	3	0	0	0	$0
2007	4	0	0	4	2	0	0	$0
2008	4	0	0	3	2	0	0	$0
2009	3	0	0	4	2	0	0	$0
2010	6	0	0	3	2	0	0	$0

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

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

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

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

[5] Totals only represent non-confidential data.

Table 6. Halibut Catch Share Program Participation by Residents of Cold 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	1	64,445	12,898
2007	1	64,445	10,962
2008	1	64,445	12,959
2009	1	64,445	12,959
2010	1	64,445	11,770

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 Cold 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 Cold 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 Cold Bay: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
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
Total[2]	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
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
Total[2]	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*

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.

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	161,948	--	--	--	--	--	--	--	--	--
Total[2]	--	*161,948*	--	--	--	--	--	--	--	--	--
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	$79,835	--	--	--	--	--	--	--	--	--
Total[2]	--	*$79,835*	--	--	--	--	--	--	--	--	--

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

Recreational fishing has been growing in popularity in Cold Bay as the Izembek NWR continues to draw a diverse range of visitors to the region. While the community's remote location makes travel to Cold Bay costly, the port is capable of handling cruise ships, which visit periodically. In 2010, ADF&G reported there were no active sport fish guide businesses registered within the community, although the Cold Bay Lodge does advertize sportfishing services.[182] Between 2000 and 2010, between 2 and 3 sport fish guide licenses were held in Cold Bay, with the exception of 2008 when only 1 was held. In 2010, residents were sold 62 sportfishing licenses, compared to 57 in 2000; and 72 sportfishing licenses were sold in the community, compared to 82 in 2000. Sportfishing license sales within the community peaked in 2002 at 121.

[182] Cold Bay Lodge. (n.d.). *Homepage.* Retrieved February 17, 2012 from: http://coldbaylodge.com/default.aspx.

Cold Bay is located within the Alaska Peninsula and Aleutian Islands ADF&G Harvest Survey Area which includes all Alaskan waters, including drainages, between Cape Douglas and the community of Naknek. In 2010, overall angler days fished totaled 5,297 for saltwater fisheries, compared to 10,534 in 2000; and 33,635 for freshwater fisheries, compared to 44,976 in 2000. In that year, non-Alaska residents accounted for 38.4% of saltwater and 58.4% of freshwater angler days fished, compared to 15.8% and 39.5% in 2000, respectively. According to ADF&G Harvest Survey data, private anglers in Cold Bay target coho, sockeye, pink, and chum salmon, Dolly Varden char, halibut, lingcod, and Pacific cod. There is no kept/released charter information available for Cold Bay. In a survey conducted by the AFSC in 2011, community leaders reported that local recreational anglers on private boats typically target coho and sockeye salmon, and halibut. Information regarding sportfishing trends can be found in Table 11.

Subsistence Fishing

Cold Bay is federally designated as rural, and therefore eligible for subsistence harvesting on federal lands. While there is a grocer available in town, subsistence resources are still relied upon as supplies are limited. In a survey conducted by the AFSC in 2011, community leaders reported that residents rely on halibut, salmon, and waterfowl mostly for subsistence. Subsistence participation data is limited, and information on household participation is unavailable. According to species documented by ADF&G, sockeye salmon are harvested the most by residents, followed by coho, chum, pink, and Chinook salmon (Table 13). In 2008, 489 total salmon were reported harvested, compared to 630 reported in 2000. In 2010, 35 residents were issued Subsistence Halibut Registration Certificates (SHARC), compared to 18 in 2003. In that year, 3,760 lbs of halibut were reported harvested, compared to 2,265 reported in 2003. Reported halibut harvests peaked in 2010. In terms of subsistence marine mammal harvest, sea otters were the only species reported in ADF&G records. In 2007, 5 sea otters were reported harvested, compared to 1 reported in 2000. A total of 9 sea otters have been reported harvested between 2000 and 2010. No data are available regarding Steller sea lion, harbor seal, and spotted seal harvests. Information regarding subsistence trends can be found in Tables 12 through 15.

Table 11. Sport Fishing Trends, Cold 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 Cold Bay[2]
2000	1	2	57	82
2001	1	2	48	101
2002	1	2	61	121
2003	2	3	52	108
2004	2	3	50	68
2005	1	2	52	88
2006	0	2	54	84
2007	1	2	59	98
2008	1	1	50	89
2009	2	2	58	82
2010	0	3	62	72

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).

Table 12. Subsistence Participation by Household and Species, Cold 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, Cold 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	16	16	n/a	26	50	1	553	n/a	n/a
2001	17	16	n/a	n/a	27	n/a	597	n/a	n/a
2002	21	20	n/a	15	n/a	n/a	497	n/a	n/a
2003	20	15	n/a	13	n/a	1	593	n/a	n/a
2004	24	24	5	23	35	n/a	729	n/a	n/a
2005	29	29	6	2	158	6	501	n/a	n/a
2006	30	26	n/a	25	25	7	601	n/a	n/a
2007	31	27	n/a	2	151	n/a	552	n/a	n/a
2008	29	23	n/a	18	n/a	16	455	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, Cold Bay: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	18	13	2,265
2004	17	13	2,711
2005	24	14	2,772
2006	23	17	3,341
2007	28	16	2,060
2008	26	13	1,737
2009	24	15	2,996
2010	35	17	3,760

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, Cold 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	1	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	2	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	1	n/a	n/a	n/a	n/a	n/a
2007	n/a	5	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.
[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.
[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.
[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.

False Pass

People and Place

Location [183]

The community of False Pass is located on the eastern shore of the easternmost Aleutian Island, Unimak, on Isanotski Strait, midway between the Bering Sea and the Gulf of Alaska. Located 646 air mi southwest of Anchorage, False Pass encompasses 26.8 sq mi of land and 41.4 sq mi of water. False Pass was incorporated as a Second-class city in 1990, and is under the jurisdiction of the Aleutians East Borough. It is included in the Aleutian Islands Recording District.

Demographic Profile [184]

In 2010, there were 35 residents, making False Pass the 311th largest community in Alaska out of 352 total communities. Between 1990 and 2010, the population declined by 48.5%. Between 2000 and 2009, the population fell by 35.9%, with an average annual growth rate of -4.2% indicating a steady rate of decline (Table 1).

False Pass is predominately Unangan. In 2010, 77.1% of residents identified themselves as American Indian or Alaska Native, compared to 62.5% in 2000; 20.0% identified themselves as White, compared to 26.6% in 2000; and 2.9% identified themselves as Asian, compared to 0.0% in 2000. Further information regarding racial and ethnic trends within False Pass can be found in Figure 1.

In 2010, the average household size in False Pass was 2.33, compared to 2.90 in 1990 and 2.91 in 2000. In that year, there were a total of 40 housing units, compared to 36 in 1990 and 40 in 2000. Of the households surveyed in 2010, 20% were owner-occupied, compared to 28% in 2000; 18% were renter-occupied, compared to 28% in 2000; 58% were vacant, compared to 40% in 2000; and 5% were occupied seasonally, compared to 5% in 2000. No residents lived in group quarters between 1990 and 2010.

In 2010, the gender makeup in False Pass was 54.3% male and 45.7% female, which was more uneven than both the statewide distribution (52.0% male, 48.0% female) and distribution in 2000 (50.0% male, 50.0% female). The median age that year was 32.8 years, which was lower than the statewide median of 33.8 years, but higher than the 2000 median of 31.5 years.

False Pass' population structure was irregular in both 2000 and 2010. While this may be attributed to a relatively small population size, it may also point towards a transient and variable population. This is supported by False Pass' role as an operating center for the Bristol Bay and Bering Sea fishing fleets.[185] Because of this, it is difficult to discern a trend in the community's

[183] Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[184] 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.
[185] See footnote 183.

population structure. In 2010, 31.5% of residents were under the age of 20, compared to 37.5% in 2000; 20.2% were over the age of 59, compared to 6.3% in 2000; 40.3% were between the ages of 30 and 59, compared to 45.3% in 2000; and 8.7% were between the ages of 20 and 29, compared to 11.0% in 2000.

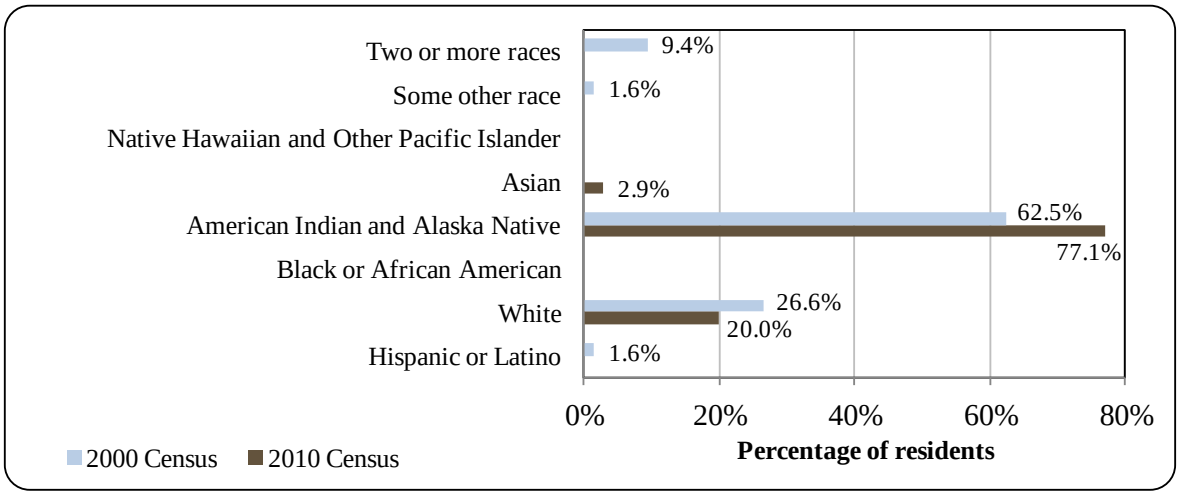
Table 1. Population in False Pass from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Department of Labor Estimate of Permanent Residents[2]
1990	68	-
2000	64	-
2001	-	69
2002	-	79
2003	-	69
2004	-	63
2005	-	63
2006	-	54
2007	-	45
2008	-	39
2009	-	41
2010	35	-

[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.

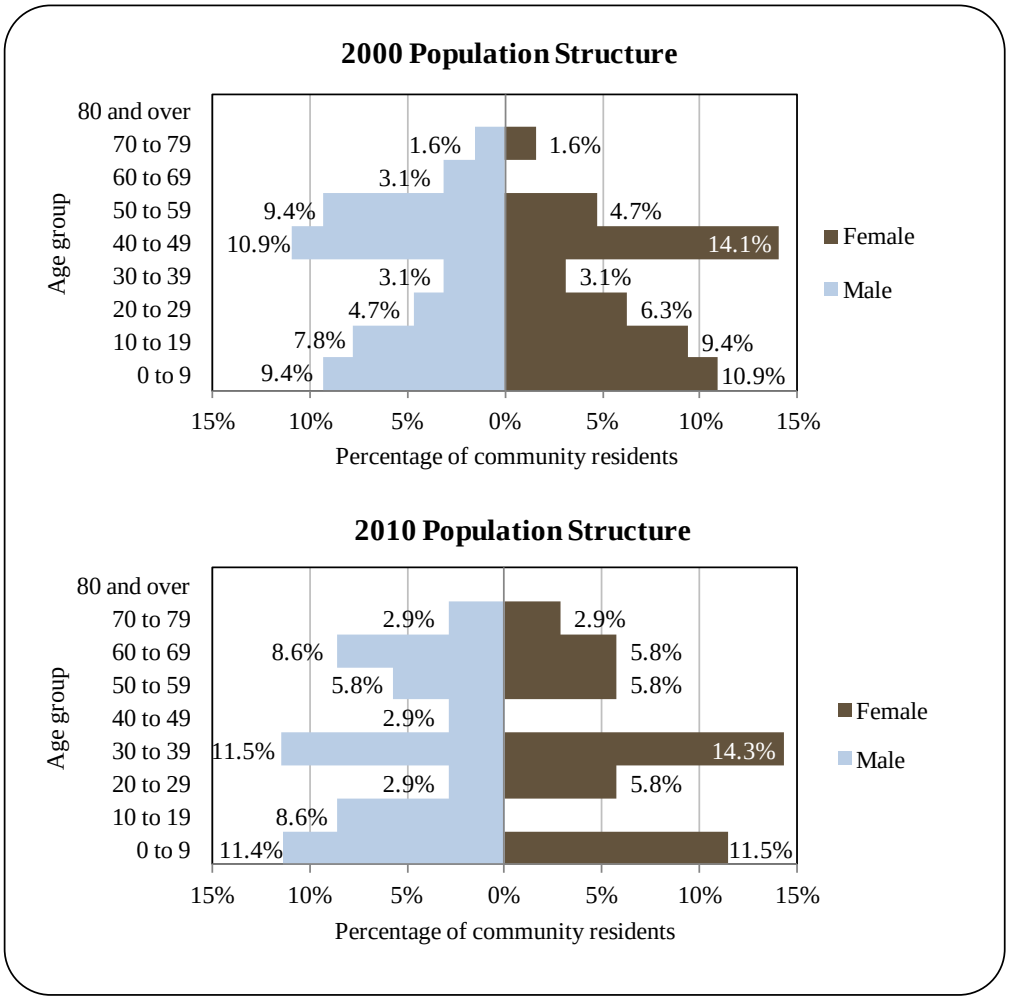
Figure 1. Racial and Ethnic Composition, False Pass: 2000-2010 (U.S. Census).



Gender distribution by age cohort was less even in 2010 than in 2000. In that year, the greatest absolute gender difference occurred within the 10 to 19 range (8.6% male, 0.0% female), followed by the 20 to 29 (5.8% female, 2.9% male) and 40 to 49 (2.9% male, 0.0% female) ranges. Of those three, the greatest relative gender difference occurred within the 10 to 19 range. Information regarding False Pass' population structure can be found in Figure 2.

In terms of educational attainment, an estimated 100% of residents aged 25 and over held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaska residents overall, according to the 2006-10 American Community Survey (ACS).[186] Also in that year, an estimated 60.0% of residents had some college but no degree, compared to an estimated 28.3% of Alaska residents overall. No residents were estimated to hold a post-secondary degree in 2010.

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



[186] 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[187]

The False Pass area has been inhabited since prehistory by Aleuts or Unangan. At the time of Russian contact during the fur trade in the eighteenth Century, the area had the largest population of Aleuts anywhere in the Aleutian Islands, with twelve Aleut settlements on Unimak Island alone. Disease and war during the Russian fur trade destroyed most of the Aleut settlements in the area, and the Russians consolidated the remnants of the surviving villages into one newly created village on the tip of the Alaska Peninsula on Isanotski Strait, opposite the present community of False Pass. This village was called Morzhovoi.

The P.E. Harris Company from Seattle established a salmon cannery in False Pass in 1919, and the community grew with an increasingly large and diverse population. Alaska Natives immigrated from Akutan, Unalaska, Morzhovoi, Sanak Island, Ikatan and elsewhere, attracted to the opportunities provided by the cannery. A local post office was established at this time. After Alaska became a U.S. Territory, new immigrants, mostly of Scandinavian origin, began to settle in the area. They brought with them commercial fishing and fish preservation technologies, most importantly salting. The first commercial fisheries in the area were thus focused on salted cod and salmon. In addition, hunting and trapping has been an important means of subsistence for the people of False Pass. People from this area have often moved between nearby towns in the area in response to cannery and school closures. History, family ties and social networks continue to provide links between local Native communities in the area, and intra-community cohesion is strong.[188]

Isanotski Strait, accessible by vessels up to 200 ft in length, is the major pass between the Gulf of Alaska and the Bering Sea. For this reason, both Isanotski Strait and the community of False Pass have long been called "the Pass" by fishermen from all over southwestern Alaska. Despite its name, there is nothing "false" about the pass; because the north entrance to Isanotski Strait is shallow, it was historically very difficult for non-motorized sailing vessels to navigate the channel, so the sailing ship captains gave it the name "False Pass" and the name stuck. False Pass is situated in a volcanic region, but this is not considered to pose an immediate threat.

Natural Resources and Environment

False Pass lies in the maritime climate zone. Temperatures range from 11 to 55 °F (-12 to 13 °C). Annual snowfall averages 56 inches, with total annual precipitation of 33 inches. Prevailing southeast winds are constant and often strong during winter. Fog is common during summer months.[189] Unimak Island's maritime climate subjects it to frequent cyclonic storms

[187] Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[188] Black, Lydia T. et al. (1999). *The History and Ethnohistory of the Aleutians East Borough.* Richard Pierce, Katherine L. Arndt, and Sarah McGowan (eds.). Fairbanks, AK: Limestone. See also Reedy-Maschner, K. (2009). Entangled Livelihoods: Economic Integration and Diversity in the Western Arctic. *Alaska Journal of Anthropology* 7(2):135-146; and Reedy-Maschner, K. (2010). *Aleut Identities: Life and Society among Indigenous Commercial fishermen of the North Pacific*. McGill-Queen's University Press.
[189] See footnote 187.

which cross the Pacific Ocean into the Bering Sea. The warmer Japanese Current regulates what would otherwise be a more frigid climate.[190]

False Pass rests on a base of volcanic material which has been subsequently eroded by ice and water over time, even though the eastern end of Unimak Island, where False Pass is located, is the area of lowest volcanic activity on the island. Round Top volcano lies just west of False Pass and dominates the head of the broad glacial valley on which the community was built. Other volcanoes on eastern Unimak Island include Isanotski and Shishaldin peaks. Today, Isanotski is highly eroded and now represents just the core of the older mountain and is locally known as Ragged Jack.[191]

False Pass is largely surrounded by the Unimak Wilderness Area (designated in 1980) of the Izembek National Wildlife Refuge, which was designated a Globally Important Bird Area in 2001.[192] The landscape of False Pass and Unimak Island is rugged and marked by a young geomorphology that is prone to earthquakes. In fact, the U.S. Geological Survey's Earthquake Hazards Program that has installed a continuously operating drum recorder seismograph in False Pass to monitor earthquake activity in the area. This seismograph is part of a large network of sensors that now make it possible to notify the public very quickly of potential destructive earthquake hazards.[193]

The Bering Sea lowland on the north side of the island consists of a gently sloping plain rising gradually from the sea. The hilly north side is characterized by a dense growth of vegetation and numerous lakes, streams, and marshes.[194] Lowland areas are commonly made up of volcanic ash, unconsolidated sands, silts, and gravel. Upland soils mostly consist of volcanic ash. Organic soils consist of sedge peat and moss.[195] Major vegetation community types found on Unimak Island are consistent with dry coastal and mesic meadows, alpine tundra, and bog environments. Plant species range from grasses and sedges, to herbaceous and deciduous shrub thickets. Willow and green alder populate shrub thickets.[196]

Terrestrial mammals found on Unimak Island include caribou, brown bear, wolf wolverine, river otter, red fox, mink, weasels, Arctic ground squirrel, dusky shrew, collared lemming, and root vole. Unimak Island is the only island within the Aleutian chain that supports an indigenous caribou herd. There are many species of birds which nest on Unimak Island; however, two Species of Conservation Concern are present, including the Aleutian Tern and

[190] U.S. Fish and Wildlife Service. (2010). *Management Alternatives for the Unimak Island Caribou Herd – Environmental Assessment.* Retrieved July 24, 2012 from: http://alaska.fws.gov/nwr/planning/nepa/pdf/izembek_ea.pdf.

[191] Black, Lydia T. et al. (1999). *The History and Ethnohistory of the Aleutians East Borough.* Richard Pierce, Katherine L. Arndt, and Sarah McGowan (eds.). Fairbanks, AK: Limestone. See also Reedy-Maschner, K. (2009). Entangled Livelihoods: Economic Integration and Diversity in the Western Arctic. *Alaska Journal of Anthropology* 7(2):135-146; and Reedy-Maschner, K. (2010). *Aleut Identities: Life and Society among Indigenous Commercial fishermen of the North Pacific*. McGill-Queen's University Press.

[192] U.S. Fish and Wildlife Service. (n.d.). *Izembek National Wildlife Refuge.* Retrieved February 16, 2012 from: http://izembek.fws.gov/wildland.htm.

[193] Ibid.

[194] See footnote 190.

[195] Alaska Department of Fish and Game. (2010). *Izembek State Game Refuge Management Plan.* Retrieved February 16, 2012 from: http://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/izembek_plan.pdf.

[196] See footnote 190.

Short-eared Owl. In addition, there is an endemic population of Tundra Swans living on the Island.[197]

Fisheries resources in the vicinity include all five species of Pacific salmon, Dolly Varden, steelhead trout, herring, halibut, cod, sablefish, yellowfin sole, walleye pollock, sandlance, and several rockfish species. Shellfish include crab, bidarkis (chitons), octopus, shrimp, razor clam, and sea urchins. Marine mammals include Steller sea lion, walrus, whales, porpoise, sea otter, and seals.[198]

According to the Alaska Department of Environmental Conservation (DEC), there were no significant environmental remediation sites active within or around False Pass in 2010.[199]

Current Economy[200]

False Pass' economy, like its neighbors, is reliant on salmon, herring, halibut, and crab fisheries. The local economy is mainly driven by commercial salmon fishing and fishing-related services, and is supplemented by subsistence practices and government. False Pass' central location at the end of the Alaskan Peninsula makes it an important refueling and supply stop for the Bristol Bay, Bering Sea and northern Gulf of Alaska fishing fleets. Top employers in 2010[201] included: the City of False Pass, Isanotski Corp., Bering Pacific Seafoods LLC, and Aleutians East Borough School District.

In 2010,[202] the estimated per capita income was $25,147 and the estimated median household income was $19,688, compared to $21,465 and $49,375 in 2000, respectively, However, after adjusting for inflation by converting 2000 values into 2010 dollars,[203] the real per capita income ($28,226) and real median household income ($64,927), indicating a decline in both individual and household earnings. In 2010, False Pass ranked 106th of 305 communities from which per capita income was estimated, and 278th if 299 communities from which median household income was estimated.

False Pass' small population size may have prevented the American Community Survey from accurately portraying economic conditions.[204] Another understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). According to the ALARI database, residents aged 18 and over earned $301,674 in

[197] Ibid.
[198] The Stadum Group. (1999). *Overall Economic Development Plan.* Retrieved July 24, 2012 from: http://www.commerce.state.ak.us/dca/plans/FalsePass-EDP-1999.pdf.
[199] Alaska Department of Environmental Conservation. (n.d.). *Contaminated Sites Program.* Retrieved July 24, 2012 from: http://dec.alaska.gov/spar/csp/list.htm#Aleutians.
[200] Unless otherwise noted, all monetary data are reported in nominal values.
[201] 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/.
[202] 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.
[203] Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gove/research/cpi/inflationcalc.htm).
[204] 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.

total wages in 2010.[205] When matched with the total Decennial Census population for 2010, the per capita income equals $8,619, which is significantly less than the 2010 ACS estimate, suggesting that caution should be used when comparing 2010 ACS and 2000 Decennial Census figures.[206] However, it should be noted that False Pass was not recognized as "distressed" by the Denali Commission, which estimated that greater than 30% of residents earned more than $16,120 in 2010.

According to 2006-2010 ACS estimates, 90% of residents aged 16 and older were part of the civilian labor force in 2010. In that year, unemployment was estimated at 20%, compared to an estimated 5.9% statewide, and no residents were estimated to live below the poverty level, compared to an estimated 9.5% of Alaska residents overall. Again, it should be noted that it is possible that the 2006-2010 ACS misrepresented employment figures. According to ALARI estimates, the unemployment in 2010 was 11.8% based on unemployment insurance claimants.[207]

By industry, most (28.6%) employed residents were estimated to work in professional, scientific, management, administrative, and waste management sectors; followed by retail trade sectors (28.6%); manufacturing sectors (28.6%); and agriculture, forestry, fishing, hunting, and mining sectors (14.3%) (Figure 3). By occupation type, most (28,6%) employed residents were estimated to hold production, transportation, or material moving positions; followed by sales or office positions (28.6%); service positions (28.6%); and natural resources, construction, or maintenance positions (14.4%) (Figure 4). Employment by industry sector varied significantly between 2000 and 2010 (Figure 3); displaying a homogenization of industry employment in 2010, compared to 2000. Again, this may likely be attributed to False Pass' small population preventing the 2006-2010 ACS from accurately capturing economic conditions. Employment by occupation type may have been affected as well. There were significant proportional declines in the number of management, professional, natural resources, construction, and maintenance positions, while there were significant proportional increases in production, transportation, material moving, and service positions. According to 2010 ALARI estimates, most (41.2%) of those employed worked in local government sectors; followed by financial service sectors (17.6%); manufacturing sectors (11.8%); trade transportation, and utilities sectors (11.8%); and educational and health service sectors (11.8%).

[205] ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.
[206] See footnote 201.
[207] Ibid.

Figure 3. Local Employment by Industry in 2005-2009, False Pass (U.S. Census).

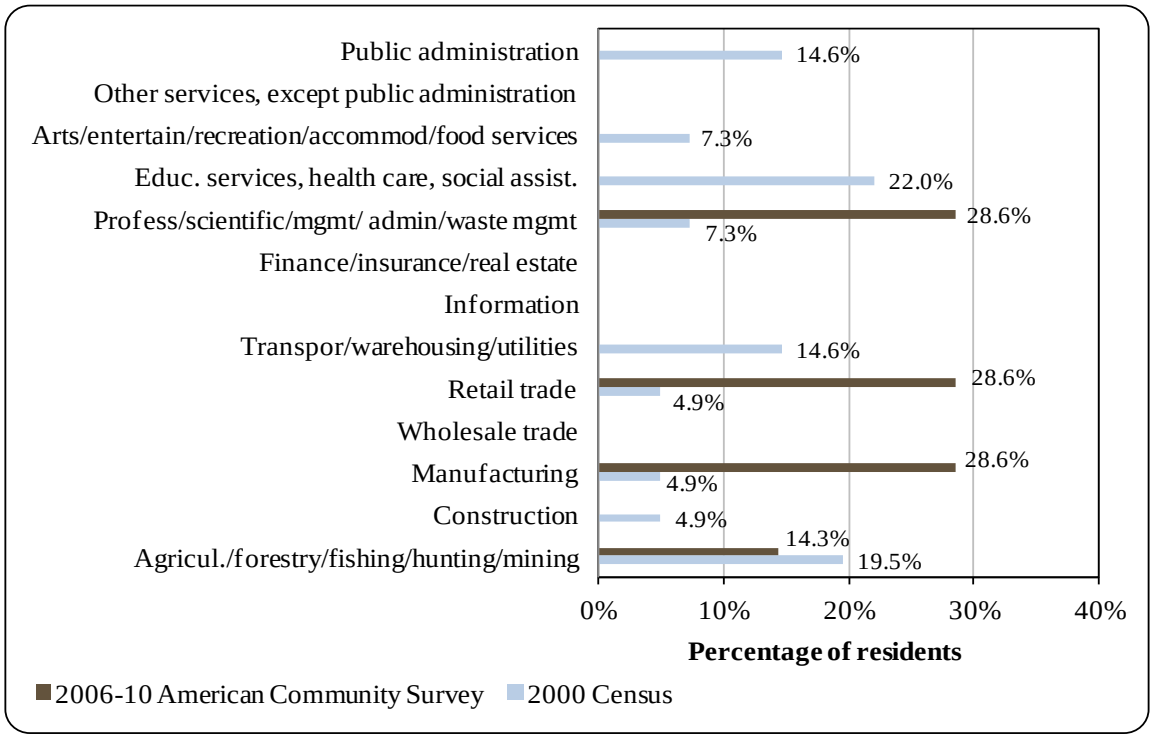
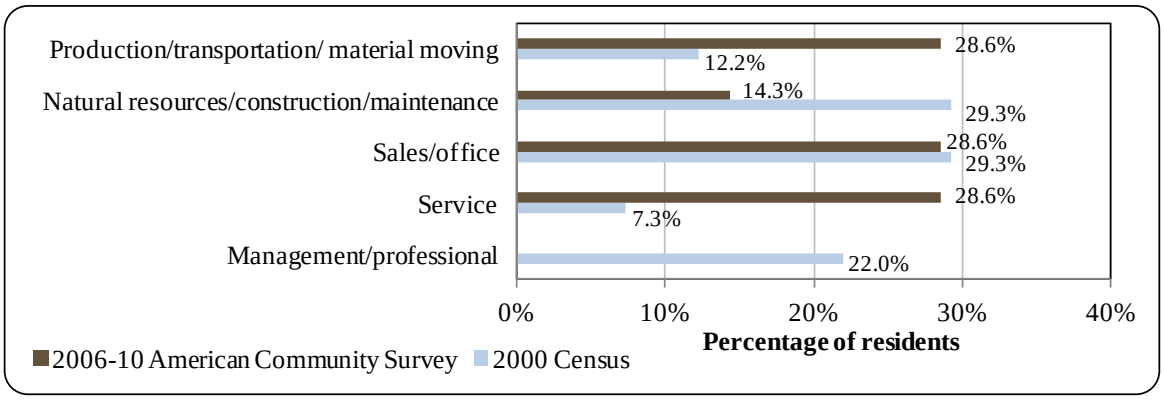


Figure 4. Local Employment by Occupation in 2005-2009, False Pass (U.S. Census).



Governance

False Pass is a Second-class city and was incorporated in 1990. It is governed locally by a mayor and seven-member city council that meets monthly. Taxes in False Pass include a 6% bed tax and a 2% fish tax implemented by the city on local commercial landings and a 3% Sales and Use Tax on goods and services. There is also a 2% raw fish tax from the borough based on all landings in the borough. The Aleutian Pribilof Islands Association, Inc., a federally recognized non-profit tribal organization of the Aleut people in Alaska which contracts with federal, state and local governments, also provides services in False Pass including public safety (Village

Public Safety Officers) and health programs (emergency, elders, behavioral, outreach and advocacy oriented programs).

False Pass is a member of the regional for-profit Aleut Corporation under the Alaska Natives Claims Settlement Act (ANCSA). Isanotski Corporation is the local Native village corporation. The total land entitlement under ANCSA is almost 80,000 acres. The False Pass Tribal Council is federally recognized and eligible for funding and services from the Bureau of Indian Affairs (BIA). False Pass belongs to the Aleutians East Borough, which is responsible for many services.

The nearest National Marine Fisheries Service Regional Office is in Unalaska, as is the nearest Bureau of Citizenship and Immigration Services. The nearest Alaska Department of Fish and Game (ADF&G) office is seasonally located in Cold Bay (between May and October), while the nearest permanent office is located in Unalaska.

Table 2. Selected Municipal, State, or Federal Revenue Streams for False Pass Municipal Government 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	$572,853	$20,299	$25,946	n/a
2001	$626,668	$9,350	$24,978	n/a
2002	$579,441	$6,485	$24,979	$2,500,000
2003	$1,183,061	$15,970	$25,507	$4,000,000
2004	$1,165,020	$20,280	n/a	$10,000,000
2005	$624,844	$15,433	n/a	n/a
2006	$471,281	$15,804	n/a	n/a
2007	$476,253	$12,008	n/a	$1,020,000
2008	$974,058	$30,541	n/a	n/a
2009	$547,977	$54,797	$97,989	n/a
2010	$464,111	$30,541	$98,056	n/a

Note: n/a indicates that no data were reported for that year. Cells showing – indicate that the data are considered confidential.

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

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

[3]Alaska Department of Revenue (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Accessed at www.tax.state.ak.us. Data retrieved April 15, 2011.

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

[5]Alaska Department of Community and Rural Affairs. (n.d.). Community Funding Database. Retrieved at http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm. Data retrieved April 15, 2011.

When adjusted for inflation,[208] total municipal revenues declined by 37.4% between 2000 and 2010, from $571,853 to $464,111. Total revenues peaked in both 2003 ($1.18 million) and 2004 ($1.17 million) thanks to sizable capital grants and contributions. In 2010, most locally generated revenues was collected from utility rents, marine service fees, sales taxes, raw fish taxes, and clinic fees. Most outside revenues were generated from state revenue sharing and Aleutian Pribilof Island Community Development Association (APICDA) contributions.

In 2010, sales tax accounted for 6.6% of the total municipal budget, compared to 3.5% in 2000. Also in that year, state allocated Community Revenue Sharing accounted for 21.1% of total municipal revenues, compared to 4.5% from State Revenue Sharing in 2000. Sales tax revenue peaked in 2009 at $54,797. Fisheries-related federal and state grants awarded between 2000 and 2010 included: $1.02 million for boat harbor rehabilitation, $10.5 million for harbor construction, and $1.5 million for small boat harbor construction. Further information regarding municipal revenues can be found in Table 2.

Infrastructure

Connectivity and Transportation

False Pass is accessible only by air and sea. Its location offers protection from ocean swells, and coves within the pass itself provide safe anchorages during severe weather. The pass is almost always free of sea ice. Unimak Pass, at the western end of Unimak Island, is used only by the largest oceangoing ships; the north channel of Isanotski Strait into the Bering Sea has navigation buoys so that passage is routine and safe. The price for roundtrip airfare between Cold Bay (the closest large airport) and Anchorage in June 2012 was $831.[209] Peninsula Airways provides service to False Pass via Cold Bay. Reeve Aleutian Airways ceased scheduled service to False Pass in 2000.[210]

Facilities

There are no hotels in False Pass, but short-term accommodations are available at the Isanotski Bed and Breakfast, which opened in 1974. Water is derived from a nearby spring and reservoir and is treated and stored in a 60,000-gal tank. Most homes are connected to the piped water system. Residents use individual septic tanks for sewage disposal; the city operates a septic sludge tanker and sludge disposal site. All homes are fully plumbed. Wastewater from seafood processing flows directly into an outfall line. The City collects refuse twice a week. There is a public library and a local post office was established around 1919.[211]

The City Dock accommodates the Alaska State Ferry and is also used for general cargo. At the base of the dock are the Isanotski Grocery Store and Tribal Warehouse. Farther north is a recently constructed small boat harbor. Next to the small boat harbor is the Bering Pacific

[208] Inflation calculated using Anchorage CPI from Alaska DOL: http://labor.alaska.gov/research/cpi/cpi.htm.
[209] Airfare was calculated using lowest fare from www.orbitz.com. (Retrieved November 22, 2011).
[210] The Stadum Group. (1999). *Overall Economic Development Plan.* Retrieved July 24, 2012 from: http://www.commerce.state.ak.us/dca/plans/FalsePass-EDP-1999.pdf.
[211] Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

Seafoods plant (see *Processing Plants* section below). To the north of the processing plant is a gear (crab pot) storage area.[212]

Medical Services

Local healthcare is provided by the King Cove Medical Clinic, which is operated by the Eastern Aleutian Tribes Inc. Public safety is provided by city police and Village Public Safety Officers associated with the Aleutian Pribilof Islands Association, Inc. Because of its isolated location, False Pass is part of the Southern Emergency Medical Services Region. Emergency Services have coastal and air access. Emergency service is provided by volunteers and health aides. The closest emergency care center is located in Unalaska. The closest major hospital is located in Anchorage.

Educational Opportunities[213]

False Pass is within the Aleutians East School District and in 2011, two teachers instructed 12 students in levels kindergarten through 12th grade at the False Pass School.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries[214,215]

The residents of False Pass have long been engaged in North Pacific fisheries, beginning with Aleuts or Unangan peoples who fished and continue to fish in the waters surrounding False Pass. Scandinavians, Scots, and other northern Europeans moved into the Eastern Aleutians around the late nineteenth century. Around that time, Sand Point, King Cove, False Pass, and Nelson Lagoon were established around newly formed commercial fisheries. As mentioned earlier, the P.E. Harris & Co. from Seattle established a salmon cannery in False Pass in 1919. That event invoked the growth and diversity of the community. Alaska Natives immigrated from Akutan, Unalaska, Morzhovoi, Sanak Island, Ikatan and elsewhere, attracted to the opportunities provided by the cannery. After Alaska became a U.S. Territory, new immigrants, mostly of Scandinavian origin, began to settle in the area. They brought with them commercial fishing and fish preservation technologies, most importantly salting. The first commercial fisheries in the area were thus focused on salted cod and salmon.

Sockeye salmon caught by fish trap was supplied to the P.E. Harris cannery for many years until traps were outlawed following statehood in 1959. Salmon was also purchased from independent seiners and gillnetters. In 1962, P.E. Harris & Co. changed its name to Peter Pan Seafoods, Inc. The company's regional influence grew in 1965 when it purchased the western operations of Pacific American Fisheries, which included canneries in King Cove and Port Moller.

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[212] City of False Pass. (n.d.). Community Page. Retrieved July 24, 2012 from: http://unimak.us/city_false_pass.shtml.
[213] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[214] Martinson, C. (n.d.). Unimak Area Website. Retrieved July 25, 2012 from: http://unimak.us/contact.shtml.
[215] See footnote 212.

In 1981, the Peter Pan cannery burned, putting an end to salmon processing in False Pass. Following the fire, local salmon fishermen delivered catch to the processing plant in King Cove. Facilities that survived the fire provided support for the salmon fleet until Peter Pan Seafoods closed the property in 2004. In 2008, Bering Pacific Seafoods, LLC began processing salmon in a plant owned by its parent company, APICDA.

Commercial cod fishing began in the late nineteenth century and continued until the middle 1930s when declining cod stocks made it unprofitable to fish commercially. Cod stocks became so depressed that local fishermen could not even catch enough for subsistence purposes. By 1972, cod numbers began to increase, with the most abundant populations near Sanak Island, 15 mi from False Pass. The modern cod fishery developed in 1997, when the state took over cod management in Gulf of Alaska (GOA) waters. The state Board of Fisheries allocates a percentage of GOA cod to smaller pot or jig gear vessels, which along with reducing bycatch, allows smaller entrants more access to the fishery. Important cod fishing areas include the Ikatan-Sanak area outside of False Pass, and Shumagin Island area outside of Sandpoint.

Halibut has been an important subsistence fish in the Eastern Aleutians for thousands of years. However, a commercial halibut fishery did not develop in False Pass until after World War II, when a market for halibut finally developed. Commercial halibut fishing in the North Pacific began in 1888 off the coast of Washington state. Following its inception, the fishery expanded up the Pacific coast through British Columbia, Canada, and Southeast Alaska. Fishing effort was initially conducted by two-person dories that delivered catch to small sailing vessels, were the fish was processed and stored. During the 1920s, the commercial halibut fishery extended to Unimak Pass as schooners began to be outfitted with diesel engines and mechanical gear. The initial False Pass area halibut fishery was conducted by Washington based schooners that would transport their catch directly back to the Seattle area. Halibut stocks were becoming depressed as early as 1915 due to over-fishing. Negotiations by both the United States and Canada lead to the signing of the *Halibut Convention of 1923.* However, halibut stocks remained low in years following its signing. The Magnuson-Stevens Fisheries Conservation and Management Act of 1976 helped to quasi-nationalize the fishery; however, derby-style fishing effort was still stressing halibut stocks. An effort to limit access to the fishery in 1982 was met with opposition until 1995 when a halibut quota share system was introduced.

Crab fisheries, like groundfish, are managed by the state within a 3 nautical mile (nmi) zone extending from the coast. Fisheries within the remainder of the 200 mi Exclusive Economic Zone (EEZ) are federally managed. Golden king crab populate areas of high relief along the continental shelf surrounding the Aleutian Islands and Bering Sea. Red king crab is found in abundance within Bristol Bay, as well as along the northern Aleutian Islands region.

ADF&G manages commercial salmon fisheries in the False Pass regions, and local fishermen typically conduct fishing effort within the Northwestern, Southwestern, and Unimak districts. The Limited Entry Salmon Fishing Permit designation for the area is "Area M". False Pass is involved in the Community Development Quota (CDQ) program under APICDA, which provides mechanisms for the distribution of money from a fishing quota in the Bering Sea to community development initiatives. The CDQ program was implemented to help alleviate economic distress in rural communities in western Alaska by allocating a percentage of halibut, crab, and groundfish to six CDQ non-profit organizations representing 65 communities in the

Bering Strait and Aleutian Islands region.[216] Managers of CDQ organizations authorize individual fishermen and fishing vessels to harvest a certain portion of the allocated CDQ.

False Pass is located between Federal Reporting Area 610 and 518, and next to International Pacific Halibut Commission (IPHC) Regulatory Area 3B. In addition, it is located adjacent to Western Gulf of Alaska and Bering Sea Sablefish Regulatory Districts.

Processing Plants

Bering Pacific Seafoods is operated by APICDA in False Pass. APICDA's Bering Sea sablefish quota and its Bristol Bay Red King crab quota are processed at the facility, as are sockeye salmon and halibut. APICDA funded a project to extend power and water to the local dock due to the absence of a small boat harbor. It also secured money to construct a boat harbor in False Pass in 2006, which is the location of the present Bering Pacific Seafoods facility. APICDA's other infrastructure projects have included: a gear storage warehouse (owned by the False Pass Tribal Council); improvements to the airport and runway; and development of the False Pass Store, Fuel Farm, and Ship Supply.[217]

Fisheries-Related Revenue

False Pass received fisheries-related revenue from several sources between 2000 and 2010 included raw fish taxes, Shared Fisheries Business Taxes, Fisheries Resource Landings Taxes, and port/dock usage fees. In 2010, the community received a total of $75,777 in known fisheries-related revenue, mostly from raw fish taxes. This represented a decline in revenues from 2000, when $277,609 was raised. Known fisheries-related revenue dropped to its lowest level in 2006 before recovering somewhat between 2007 and 2010. Information regarding fisheries-related revenue trends can be found in Table 3. It should be noted that a direct comparison between fisheries-related revenue and total municipal revenue cannot reliably be made as not all fisheries-related revenue sources are included in the municipal budget. However, municipal revenue is provided in Table 3 as a reference point.

Commercial Fishing

In 2010, 6 residents, or 17.1% of the total population, held 13 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 12 residents held 25 CFEC permits. Of the CFEC permits held in 2010, 54% were for salmon, compared to 40% in 2000; 15% were for groundfish, compared to 24% in 2000; 8% were for herring, compared to 29% in 200; 15% were for halibut, compared to 12% in 200; and 8% were for crab, compared to 0% in 2000. In addition, one resident held one License Limitation Program (LLP) groundfish permit, and two residents held two Federal Fisheries Permits (FFP). Residents held 246,444 shares of halibut quota on three accounts in 2010, compared to 309,631 shares held on three accounts in 2000. In addition, residents held 190,306 shares of sablefish quota in 2001 and

[216] Fina, M. (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.
[217] Aleutian Pribilof Island Community Development Association. (n.d.). *Company Website*. Retrieved September 16, 2011 from: http://www.apicda.com/.

70,805 shares in 2000. No residents held crab quota between 2010 and when the program began in 2005.

Residents held 7 commercial crew licenses in 2010, compared to 13 in 2000. Also in that year, residents held majority ownership of 13 vessels, compared to 15 in 2000. Of the CFEC permits held in 2010, 77% were actively fished, compared to 76% in 2000. This varied by fishery from 100% of halibut and crab permits, to 86% of salmon permits, 50% of groundfish permits, and 0% of herring permits. Fisheries prosecuted by False Pass residents in 2010 included: Alaska Peninsula pot Tanner crab, statewide longline halibut, GOA miscellaneous saltwater finfish, and Alaska Peninsula purse seine, drift gillnet, and set gillnet salmon.[218] Landings made in False Pass between 2000 and 2010 are considered confidential; however, 31 vessels made landings in the community, compared to 8 in 2000. No landings were made in 2003, 2005, 2006, 2007, and 2008. In 2010, False Pass ranked 46th out of 67 communities that received landings that year and 45th overall in terms of total ex-vessel revenue earned.

Landings by False Pass residents in were considered confidential in 2010, with the exception of salmon landings. In that year, residents landed 992,925 lb of salmon valued at $523,854 ex-vessel; compared to 1.11 million pounds valued at $507,312 ex-vessel in 2000; a decline of $0.10 per pound landed after adjusting for inflation[219] and without considering the species composition of landings. In addition, residents landed 986,694 lb of Pacific cod valued at $234,049 in 2004. Further information regarding commercial fishing trends can be found in Tables 4 through 10.

[218]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.]

[219] Inflation calculated using Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, http://www.bls.gov/ppi/#data

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax[1]	$225,354	$208,419	$200,000	$160,000	$85,000	$167,000	$6,380	$6,000	$10,000	$10,000	$35,832
Shared Fisheries Business Tax[1]	$38,827	$95,546	$68,371	$13,866	$13,195	$8,725	$9,500	$10,883	$8,407	$10,705	$11,828
Fisheries Resource Landing Tax[1]	n/a	n/a	n/a	$13	$33	$369	$1,328	$910	$2,244	$1,566	$2,317
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]	$13,428	$25,270	$40,000	$30,000	$9,100	$6,300	$12,710	$5,920	$17,800	$18,500	$25,800
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
Total fisheries-related revenue[4]	*$277,609*	*$329,235*	*$308,371*	*$203,866*	*$128,208*	*$182,394*	*$29,918*	*$23,713*	*$38,451*	*$40,771*	*$75,777*
Total municipal revenue[5]	*$572,853*	*$626,668*	*$579,441*	*$1.18 M*	*$1.17 M*	*$624,844*	*$471,218*	*$476,253*	*$974,058*	*$547,977*	*$464,111*

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

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

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

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

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

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

Table 4. Permits and Permit Holders by Species, False Pass: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	1	1	1	1	1	1	1	1	1	1	1
	Active permits	1	1	1	1	1	1	1	0	0	0	0
	% of permits fished	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%	0%
	Total permit holders	1	1	1	1	1	1	1	1	1	1	1
Crab (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits [1]	Total permits	3	3	3	1	1	1	2	2	2	2	2
	Fished permits	0	0	0	1	1	1	2	1	1	2	2
	% of permits fished	0%	0%	0%	100%	100%	100%	100%	50%	50%	100%	100%
	Total permit holders	3	3	3	1	1	1	2	2	2	2	2
Crab (CFEC) [2]	Total permits	0	2	1	0	0	5	2	2	2	1	1
	Fished permits	0	1	1	0	0	2	0	1	1	0	1
	% of permits fished	n/a	50%	100%	n/a	n/a	40%	n/a	50%	50%	0%	100%
	Total permit holders	0	2	1	0	0	4	2	2	2	1	1
Other shellfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	3	3	3	3	3	3	3	2	2	2	2
	Fished permits	2	2	3	3	3	3	3	2	2	2	2
	% of permits fished	67%	67%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Total permit holders	3	3	3	3	3	3	3	2	2	2	2
Herring (CFEC) [2]	Total permits	5	3	4	1	1	3	1	1	1	1	1
	Fished permits	3	2	0	0	0	2	1	0	0	0	0
	% of permits fished	60%	67%	0%	0%	0%	67%	100%	0%	0%	0%	0%
	Total permit holders	3	2	2	1	1	3	1	1	1	1	1

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	1	1	1	1	2	1	0	0	0	1	0
	Fished permits	1	1	1	1	2	0	0	0	0	1	0
	% of permits fished	100%	100%	100%	100%	100%	0%	n/a	n/a	n/a	100%	n/a
	Total permit holders	1	1	1	1	2	1	0	0	0	1	0
Groundfish (CFEC) [2]	Total permits	6	11	12	9	9	10	5	2	3	3	2
	Fished permits	4	7	11	3	4	4	2	2	3	2	1
	% of permits fished	67%	64%	92%	33%	44%	40%	40%	100%	100%	67%	50%
	Total permit holders	4	7	8	5	5	5	4	2	2	2	2
Other Finfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) [2]	Total permits	10	9	10	10	10	8	8	6	6	6	7
	Fished permits	9	7	8	7	8	7	6	4	5	5	6
	% of permits fished	90%	78%	80%	70%	80%	88%	75%	67%	83%	83%	86%
	Total permit holders	10	9	10	9	8	7	7	5	6	6	6
Total CFEC Permits[2]	*Permits*	*25*	*29*	*31*	*24*	*25*	*30*	*19*	*13*	*14*	*14*	*13*
	Fished permits	*19*	*20*	*24*	*14*	*17*	*18*	*12*	*9*	*11*	*10*	*10*
	% of permits fished	*76%*	*69%*	*77%*	*58%*	*68%*	*60%*	*63%*	*69%*	*79%*	*71%*	*77%*
	Permit holders	*12*	*11*	*13*	*9*	*8*	*7*	*7*	*6*	*6*	*7*	*6*

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

[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 False Pass: 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 False Pass[2]	Total Net Lb Landed In False Pass[2,5]	Total Ex-Vessel Value Of Landings In False Pass[2,5]
2000	13	2	0	15	13	8	--	--
2001	12	2	0	14	12	25	--	--
2002	15	2	0	16	10	33	--	--
2003	5	0	0	12	9	0	0	$0
2004	12	1	0	12	10	2	--	--
2005	5	0	0	11	9	0	0	$0
2006	6	0	0	12	9	0	0	$0
2007	8	0	0	8	8	0	0	$0
2008	8	0	1	13	14	0	0	$0
2009	9	1	1	13	15	9	--	--
2010	7	1	1	13	17	31	--	--

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 False Pass: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (lb)
2000	3	309,631	91,813
2001	3	246,170	77,757
2002	2	134,856	42,852
2003	3	206,887	65,383
2004	3	206,887	59,542
2005	3	206,887	50,137
2006	4	335,698	68,521
2007	3	206,887	35,191
2008	3	206,887	41,603
2009	3	206,887	41,603
2010	3	246,444	45,011

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

Table 7. Sablefish Catch Share Program Participation by Residents of False Pass: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (lb)
2000	1	70,805	6,296
2001	1	190,306	18,628
2002	0	0	0
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	1	0	0
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0

Note: n/a indicates that no data were reported for that year. Source: National Marine Fisheries Service. 2011. Alaska Individual Fishing Quota (IFQ) permit data. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for AFSC, Seattle. [URL not publicly available as some information is confidential.]

Table 8. Bering Sea and Aleutian Island Crab Catch Share Program Participation by Residents of False Pass: 2000-2010.

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

Note: n/a indicates that no data were reported for that year. Source: National Marine Fisheries Service. 2011. Alaska Individual Fishing Quota (IFQ) permit data. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for AFSC, Seattle. [URL not publicly available as some information is confidential.]

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	0	--	0	0	0	0	--	--
Finfish	--	--	--	0	--	0	0	0	0	--	--
Halibut	--	--	--	0	--	0	0	0	0	--	--
Herring	--	--	--	0	--	0	0	0	0	--	--
Other Groundfish	--	--	--	0	--	0	0	0	0	--	--
Other Shellfish	--	--	--	0	--	0	0	0	0	--	--
Pacific Cod	--	--	--	0	--	0	0	0	0	--	--
Pollock	--	--	--	0	--	0	0	0	0	--	--
Sablefish	--	--	--	0	--	0	0	0	0	--	--
Salmon	--	--	--	0	--	0	0	0	0	--	--
Total[2]	--	--	--	*0*	--	*0*	*0*	*0*	*0*	--	--
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	$0	--	$0	$0	$0	$0	--	--
Finfish	--	--	--	$0	--	$0	$0	$0	$0	--	--
Halibut	--	--	--	$0	--	$0	$0	$0	$0	--	--
Herring	--	--	--	$0	--	$0	$0	$0	$0	--	--
Other Groundfish	--	--	--	$0	--	$0	$0	$0	$0	--	--
Other Shellfish	--	--	--	$0	--	$0	$0	$0	$0	--	--
Pacific Cod	--	--	--	$0	--	$0	$0	$0	$0	--	--
Pollock	--	--	--	$0	--	$0	$0	$0	$0	--	--
Sablefish	--	--	--	$0	--	$0	$0	$0	$0	--	--
Salmon	--	--	--	$0	--	$0	$0	$0	$0	--	--
Total[2]	--	--	--	*$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 lb refers to the landed weight recorded in fish tickets.

2 Totals only represent non-confidential data.

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	812,342	801,996	--	986,694	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	1,114,426	1,067,956	675,722	558,684	774,511	1,351,552	747,157	1,281,952	2,945,079	2,313,150	992,925
Total[2]	*1,114,426*	*1,880,298*	*1,477,718*	*558,684*	*1,761,205*	*1,351,552*	*747,157*	*1,281,952*	*2,945,079*	*2,313,150*	*992,925*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	$203,211	$172,196	--	$234,049	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	$507,312	$218,192	$251,928	$255,261	$384,429	$672,596	$303,109	$391,827	$1,050,735	$744,340	$523,854
Total[2]	*$507,312*	*$421,403*	*$424,124*	*$255,261*	*$618,478*	*$672,596*	*$303,109*	*$391,827*	*$1,050,735*	*$744,340*	*$523,854*

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

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

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

[2] Totals only represent non-confidential data.

Recreational Fishing

Early in the 2000-2010 period, one sport fish guide business was reported to be active in False Pass. However, beginning in 2002, no active sport fish guide businesses were registered in the community. No sportfishing licenses were sold locally between 2000 and 2010. The number of sportfishing licenses purchased by False Pass residents, irrespective of the location of the point of sale, declined from 13 in 2000 to 1 in 2010. The minimal recreational fishing activity reported in False Pass may be due in part to the remoteness of the community and the infrequency of transportation from larger population centers. Additionally, the community does not have the facilities to support a significant tourism industry.

False Pass is located within the Alaska Peninsula and Aleutian Islands Recreational Harvest Survey Area which includes all Alaskan waters, including drainages, between Cape Douglas and the community of Naknek. Although there is no sportfishing in False Pass itself, there is data showing the presence of sportfishing in this region. In 2010, there were a total of 5,297 saltwater and 33,635 freshwater angler days fished in the region, compared to 10,534 and 44,976 in 2000, respectively. In that year, non-Alaska residents accounted for 38.4% of saltwater and 58.4% of freshwater angler days fished in the region, compared to 15.8% and 39.5% in 2000, respectively, Further, information regarding sportfishing trends can be found in Table 11.

Subsistence Fishing

Many residents of False Pass supplement their incomes and diet with subsistence resources. Unimak Island host a diverse range of terrestrial and aquatic fauna (*see Natural Resources)* available for subsistence use. Local subsistence flora includes cow parsnip, purple orchid, wild rye grass, and monks hood.[220] According to data reported by (ADF&G), there has been considerable subsistence harvest of chum, coho, sockeye, and pink salmon species. In 2008, residents reported harvesting 228 salmon, compared to 1,437 in 2000. Reported salmon harvests peaked in 2003 at 2,582 fish. Reported salmon harvests varied greatly between 2000 and 2008; however, 2007 and 2008 marked years of significant decline in harvests compared to previous years. Between 2003 and 2010, residents of False Pass also relied on Subsistence Halibut Registration Certificates (SHARC) issued by NMFS. In 2010, one SHARC was issued and fished, a decline compared to 13 issued and 9 fished in 2003. In that year, an estimated 200 lb of halibut were harvested, compared to 1,752 in 2003. Estimated halibut harvests peaked in 2004 at 2,337 lb harvested on 10 SHARC. In terms of subsistence marine mammal harvests, an estimate of 21 total harbor seals were harvested between 2000 and 2005, with an average of 3.5 harbor seals harvested each year.

According to ADF&G *Community Subsistence Information System* data,[221] residents of False Pass have historically harvested or used butter clams, chitons, cockles, Dungeness crab, hair crab, king crab, limpets, mussels, Pacific littleneck clams, razor clams, scallops, sea urchin, shrimp, snails, softshell clams, Tanner crab, fur seal, gray whale, Steller sea lion, burbot, capelin, Dolly Varden, flounder, greenling, herring, herring spawn on kelp, Pacific cod, Pacific tom cod,

[220] Martinson, C. (n.d.). Unimak Area Website. Retrieved July 25, 2012 from: http://unimak.us/contact.shtml.
[221] 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).

rainbow trout, rockfish, sablefish, sculpin, sole, steelhead trout, and suckers. Further information regarding subsistence trends can be found in Figures 12 through 15.

Table 11. Sport Fishing Trends, False Pass 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 False Pass[2]
2000	1	0	13	0
2001	1	1	13	0
2002	0	0	8	0
2003	0	0	6	0
2004	0	0	8	0
2005	0	0	5	0
2006	0	0	8	0
2007	0	0	5	0
2008	0	0	3	0
2009	0	0	1	0
2010	0	0	1	0

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).

Table 12. Subsistence Participation by Household and Species, False Pass: 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, False Pass: 2000-2010.

Year	Subsistence Salmon Permits Issued[1]	Salmon Permits Returned[1]	Chinook Salmon Harvested[1]	Chum Salmon Harvested[1]	Coho Salmon Harvested[1]	Pink Salmon Harvested[1]	Sockeye Salmon Harvested[1]	Lb of Marine Inverts[2]	Lb of Non-Salmon Fish[2]
2000	6	5	6	104	605	32	690	n/a	n/a
2001	4	3	11	111	172	125	248	n/a	n/a
2002	14	10	32	78	269	41	662	n/a	n/a
2003	18	9	6	310	588	236	1,472	n/a	n/a
2004	8	6	5	32	424	39	445	n/a	n/a
2005	7	4	37	200	268	317	1,054	n/a	n/a
2006	5	3	3	80	117	100	150	n/a	n/a
2007	3	2	n/a	8	90	32	74	n/a	n/a
2008	3	3	6	50	55	64	53	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, False Pass: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lb Harvested
2003	13	9	1,753
2004	13	10	2,337
2005	10	8	1,495
2006	11	12	963
2007	8	5	175
2008	3	n/a	n/a
2009	3	n/a	n/a
2010	1	1	200

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, False Pass: 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	n/a	3	n/a
2002	n/a	n/a	n/a	n/a	n/a	3	n/a
2003	n/a	n/a	n/a	n/a	n/a	3	n/a
2004	n/a	n/a	n/a	n/a	n/a	3	n/a
2005	n/a	n/a	n/a	n/a	n/a	6	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.

King Cove

People and Place

Location [222]

King Cove is located on the south side of the Alaska Peninsula, on a sand spit fronting Deer Passage and Deer Island. It is 18 miles southeast of Cold Bay and 625 miles southwest of Anchorage. King Cove is in the Aleutians East Borough and the Aleutian Islands Recording District. The City's area encompasses 25.3 square miles of land and 4.5 square miles of water.

Demographic Profile [223]

In 2010, there were 938 residents in King Cove, making it the 70th largest of 352 total Alaskan communities with recorded populations that year. Overall between 1990 and 2010, the population increased by 108%. Between 2000 and 2010, there was an average annual growth rate of 18.4%, which was significantly above the statewide average of 0.75% (Table 1). It is important to note that, in a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that the 2010 Decennial Census population count may have been inflated, including approximately 400 individuals that do not reside in the community permanently. Community leaders estimated 450 permanent residents in 2010.

In 2010, the greatest number of King Cove residents identified themselves as American Indian and Alaska Native (38.4% of the total population), along with 36.5% that identified as Asian, 16.2% identifying as White, 4.6% identifying with two or more races, 3.2% as 'some other race', and 1% identifying themselves as Back or African American (Figure 1). In addition, 11.2% of residents identified as Hispanic or Latino in 2010. The percentage of the population identifying as Asian increased by 36.2% between 2000 and 2010 although the most significant increase was with the percent of the population identifying as Hispanic or Latino which increased by over 50%. During this same time period, the percentage of the population identified as American Indian and Alaska Native declined by nearly 18%.

In 2010, the average household size in King Cove was 2.76, a slight decline from 2.9 persons per household in 1990 and 2000. The decline in household size may be related to the growth in number of households in King Cove over this period, increasing from 144 occupied housing units in 1990 to 170 in 2000, and 181 occupied housing units in 2010. Of the 229 housing units surveyed for the 2010 Decennial Census, 41.9%were owner-occupied households, 37.1%were renter-occupied households. In that same year, 48 housing units were vacant, compared to 37 in 2000. The number of King Cove residents living in group quarters increased over this period, from 189 in 1990 to 299 in 2000, and 438 in 2010.

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[222] 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.

[223] 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.

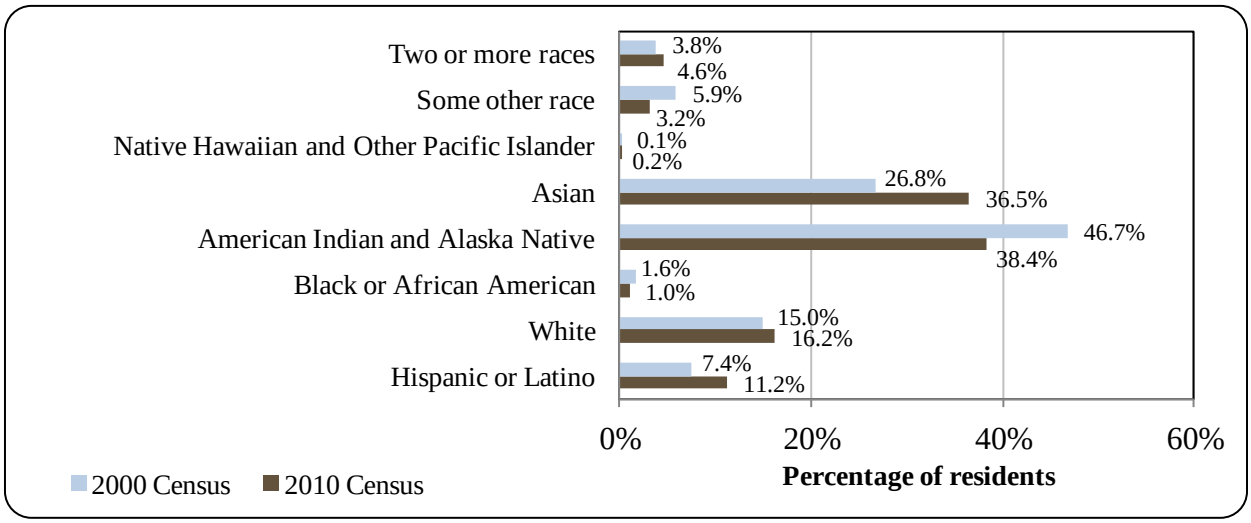
Table 1. Population in King Cove from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	451	-
2000	792	-
2001	-	694
2002	-	787
2003	-	728
2004	-	725
2005	-	724
2006	-	745
2007	-	754
2008	-	750
2009	-	744
2010	938	-

[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, King Cove: 2000-2010 (U.S. Census).



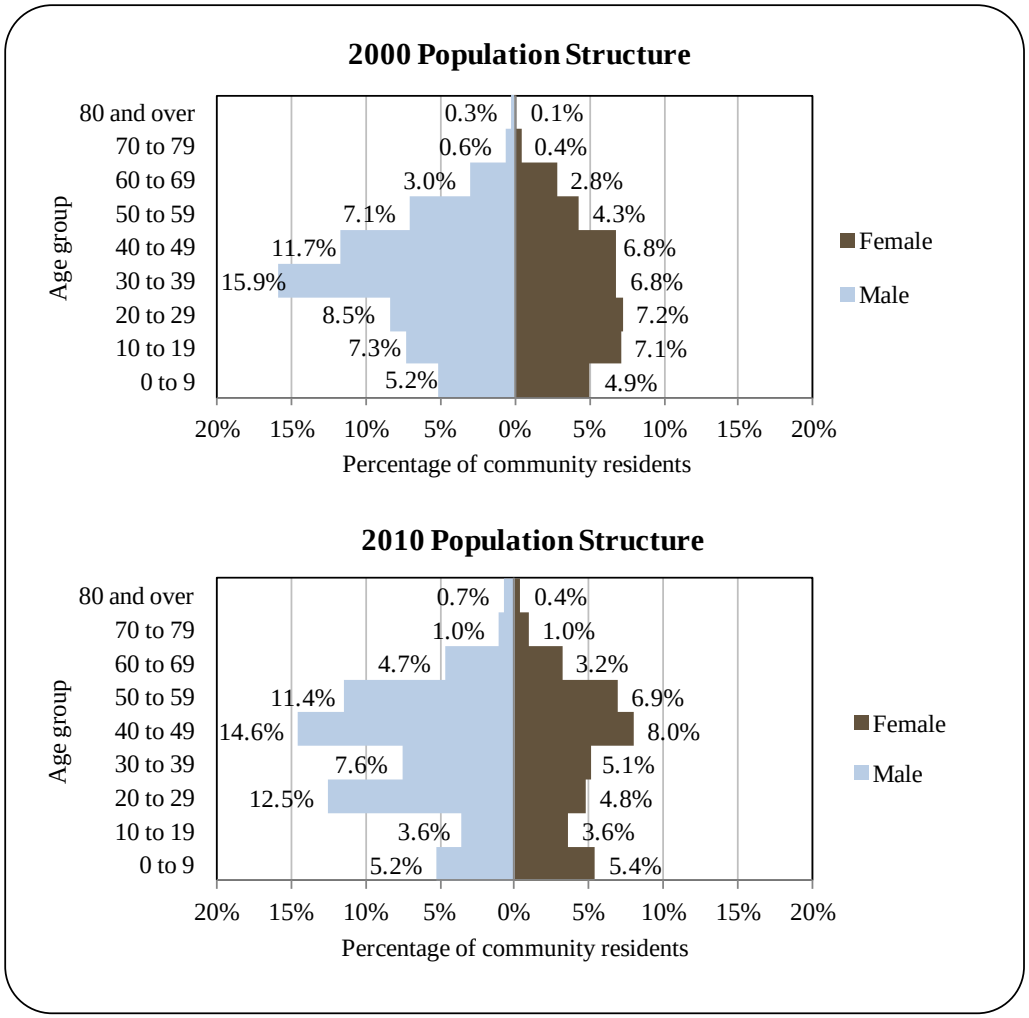
In the 2011 AFSC survey, community leaders reported that King Cove's population reaches a yearly peak between June and August and peaks again between February and March. They indicated that these population fluctuations are entirely driven by employment in fishing sectors. Community leaders indicated that the 2010 Decennial Census count of 938 included approximately 450 year-round residents, while a seasonal workforce and transient population made up the remainder. In 2010, the gender makeup of King Cove's population (based on the U.S. Census) was 61.5% male and 38.4% female – substantially more weighted towards males than the gender distribution statewide (52.0% male, 48.0% female). It is of note that the population was much more balanced between males and females in 2000 (51.3% male, 48.7% female). The median age was estimated to be 41.2 years, higher than both the U.S. national average of 36.8 years and the median age for Alaska of 33.8 years.

Compared with 2000, the population structure in 2010 was somewhat more constricted amongst the youngest and oldest age groups while becoming less constricted amongst the middle age group. In that year, 17.8% of residents were under the age of 20, compared to 24.5% in 2000; 11.0% were over the age of 59, compared to 7.2% in 2000; 53.6% were between the ages of 30 and 59, compared to 52.6% in 2000; and 17.3% were between the ages of 20 and 29, compared to 15.7% in 2000. Age distribution by gender cohort continued to be skewed towards males in 2010, as it was in 2000. In 2010, the greatest absolute gender difference occurred within the 20 to 29 age range (12.5% male, 4.8% female), followed by the 40 to 49 (14.6% male, 8.0% female) and 50 to 59 (11.4% male, 6.9% female) ranges. Two age groups – those 70 to 79 and 10 to 19 – had perfectly matched gender distributions in 2010. Further information regarding trends in King Cove's population structure can be found in Figure 2.

In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)[224] estimated that 71.8% of residents aged 25 and over held a high school diploma or higher degree in 2010, significantly less than the estimated 90.7% of Alaskan residents overall. Also in that year, an estimated 9.9% of residents had less than a 9th grade education, compared to an estimated 3.5% of Alaskan residents overall; an estimated 18.3% had a 9th to 12th grade education but no diploma, compared to an estimated 5.8% of Alaskan residents overall; an estimated 17.3% had some college but no degree, compared to an estimated 28.3% of Alaskan residents overall; 12.1% of resident held a Bachelor's degree, compared to an estimated 17.4% of Alaskan residents overall; and 1.6% were estimated to have a graduate or professional degree, compared to 9.6% of Alaskan residents overall.

[224] While ACS estimates can provide a good snap shot estimate for larger populations, smaller populations can be misrepresented by ACS estimates if demographic information is not collected from a representative sample of the population. This is especially problematic for Alaskan communities with small populations that have a low probability of being adequately sampled.

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



History, Traditional Knowledge, and Culture

Archaeological evidence suggests that Aleut (Unanga and Alutiiq) peoples have occupied the Alaska Peninsula for approximately 9,000 years.[225,226] Excavation of a village site near the middle of King Cove suggests that Aleut people have been utilizing this site for at least 4,000 years.[227] King Cove was named after the first recorded settler, a man named Robert King, who had settled there in the early 1800s. The site was originally called 'King's Cove', and the name

[225] LaRoche and Associates. March 2011. L*ake 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.
[226] WHPacific. 2010. *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan.* Retrieved December 7, 2011 from: http://www.aleutianseast.org/.
[227] Agdaagux Tribe of King Cove. 2007. *Comprehensive Community Environmental Plan, Updated Version*. Retrieved September 14, 20 12 from http://www.anthc.org/chs/ces/hve/upload/KVC-Updated-Env-Plan-Recycling-Plan.pdf.

was eventually shortened to 'King Cove'.[228] The modern community of King Cove grew starting in 1911, the year that Pacific American Fisheries (PAF) built a salmon cannery. Early settlers were Unangan, Scandinavian, and other European fishermen. Of the first 10 founding families, 5 had a European father and an Aleut mother.[229] Many of these early settlers were employed at the King Cove cannery, and Aleut people came from neighboring villages of Belkofski, Sanak, and False Pass to work in the cannery and purchase supplies.[230] A Chinese workforce was also brought to King Cove to work in the cannery. In 1965, the major portion of PAF's assets was sold to a consolidated firm of Peter Pan Seafoods and Taiyp Gyogyo KK.[231] The cannery was partially destroyed by a fire in 1976.[232] Today, Peter Pan Seafoods continues to operate the King Cove facility, which currently has the largest salmon canning capacity of any plant in Alaska.[233] King Cove remains economically tied to commercial fishing and fish processing, as well as traditional subsistence practices.[234]

The City of King Cove first incorporated as a 2nd Class City in 1947, and gained 1st Class City status in 1974. Development in King Cove was initially concentrated near the head of the cove, and in recent years it has expanded into a small valley southeast of the cove.[235] Scandinavians have historically influenced the cultural, economic, and social structures in the community, and today King Cove is a mixed non-Native and Unangan Aleut community.[236]

Natural Resources and Environment

King Cove lies in the maritime climate zone. Temperatures average 25 to 55 °F, with extremes from -9 to 76 °F. Annual snowfall averages 52 inches, and total annual precipitation averages 33 inches. Fog during summer and high winds during winter can limit accessibility.[237] The landscape surrounding King Cove is dominated by a series of mostly glaciated volcanoes, and the coastline is characterized by rocky headlands and sandy beaches.[238]

King Cove is located at the southern boundary of the Pavlof Unit of the Alaska Peninsula National Wildlife Refuge (NWR). Other protected areas in the vicinity of King Cove include the Alaska Maritime NWR, which includes islands off the southern coast of the Alaska Peninsula, and the Izembek National Wildlife Refuge (NWR) to the north and west of the community. The Alaska Peninsula NWR and Alaska Maritime NWR were both established under the Alaska National Interest Land Conservation Act (ANILCA) of 1980. With a total area of 3.7 million acres, the Alaska Peninsula NWR extends as far west as False Pass and east beyond Chignik

[228] 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.
[229] City of King Cove. 1981. *Community Comprehensive Plan*. Retrieved September 14, 2012 from http://www.commerce.state.ak.us/dca/plans/King%20Cove-CP-1981.pdf.
[230] See footnote 227.
[231] Radke, A.. C. 2002. *Pacific American Fisheries, Inc: History of a Washington State Salmon Packing Company, 1890-1966*. Ed. B. S. Radke. McFarland and Company, Inc., Publishers. North Carolina.
[232] See footnote 227.
[233] Peter Pan Seafoods, Inc. 2012. *Facilities: King Cove.* Retrieved September 17, 2012 from http://www.ppsf.com/facilities/index.aspx#king_cove.
[234] See footnote 227.
[235] See footnote 229.
[236] See footnote 228.
[237] Ibid.
[238] 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.

Bay, and includes a separate eastern unit south of Ugashik. It hosts a dramatic landscape of towering mountain peaks, including a number of active volcanoes, rolling tundra, and rugged coastlines. Salmon return to the rivers of the 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.[239]

The Alaska Maritime NWR hosts a similar array of species in the Alaska Peninsula region. However, it contains a greater diversity overall, as it spans four time zones,[240] stretching from the Aleutian Islands to the Southeast Alaska Panhandle. It was created in part to promote a program of scientific research on marine ecosystems. The Alaska Maritime NWR "protects breeding habitat for seabirds, marine mammals, and other wildlife on more than 2,500 islands, spires, rocks, and coastal headlands."[241]

The 417,533-acre Izembek NWR was established in 1960 as "a refuge, breeding ground, and management area for all forms of wildlife." The Izembek NWR hosts the Pavlof and Shishaldin Volcanoes and Izembek Lagoon. The Lagoon provides habitat for an extraordinary abundance and diversity of waterfowl and shorebirds, and was the first site in the United States to be designated a Wetland of International Importance by the Ramsar Convention in 1986, and in 2001 was also designated a Globally Important Bird Area by the American Bird Conservancy. In addition to providing critical habitat for hundreds of thousands of migrating birds, the Izembek NWR supports a similar range of animal species as the Alaska Peninsula NWR.[242]

Deposits of gold and silver and copper are known to be present in the region between False Pass and Belkofski, but there are currently no active mining operations. There are no significant deposits of coal in the area, and land-based oil and gas potential is not well known.[243] Reserves of oil and natural gas are thought to be present on the outer continental shelf in the Bristol Bay Basin along the northern edge of the Aleutian Islands and Alaska Peninsula 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.[244] On March 31,

[239] 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.
[240] "Technically, the Alaska Maritime Refuge spans 4 time zones (Pacific, Yukon, Alaska, and Bering). In 1983 almost all the state was consolidated under Alaska Time (standard and daylight) - one hour behind Pacific Time of the West Coast. Only the central and western Aleutian Islands observe Hawaii-Aleutian Time, two hours behind Pacific Time." Quote retrieved June 11, 2012 from http://alaskamaritime.fws.gov/howbig.htm.
[241] U.S. Fish and Wildlife Service (n.d.). *Alaska Maritime National Wildlife Refuge.* Retrieved January 4, 2012 from http://alaskamaritime.fws.gov/.
[242] U.S. Fish and Wildlife Service. 2011. *Izembek National Wildlife Refuge.* Retrieved January 4, 2012 from http://izembek.fws.gov/.
[243] See footnote 238.
[244] 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.

2010, President Obama withdrew the Bristol Bay area of the North Aleutian Basin from oil and gas leasing, whether for exploratory or production purposes, through 2017.[245]

Natural hazards with the potential to impact King Cove include earthquakes, volcanic activity, tsunami, severe weather, and erosion, with high probability of earthquake or volcanic eruption, moderate probability of tsunami or severe weather, and low probability of erosion. The possible damage from an earthquake, volcanic eruption, or tsunami is considered to be critical, with potential to result in complete shutdown of critical facilities for more than one week, or in which more than 10% of property would be severely damaged. Possible damage from severe weather or erosion is considered to be limited. Areas of King Cove that are most susceptible to erosion include one-half mile of road along Gould's Lagoon and the main road to the small boat harbor, which has been washed out by tidal activity in the past. The road along Gould's Lagoon is currently armored against coastal erosion.[246]

According to the Alaska Department of Environmental Conservation, no active environmental cleanup sites were located near King Cove as of August 2012.[247]

Current Economy[248]

In the 2011 AFSC survey, community leaders indicated that 75% of economic activity in King Cove is based on direct and indirect fishing activity. Between 2000 and 2010, the number of commercial fishery permit holders, crew license holders, and vessel owners residing in King Cove all declined, but all of these numbers represented a large percentage of the population. On average over the 2000-2010 period, the number of state permit holders was equivalent to 7.8% of the local population, the number of vessel owners was equivalent to 10.2%, and the number of crew license holders was equivalent to 19.2%. Subsistence activities supplement local incomes. Primary subsistence resources harvested include salmon, caribou, geese, and ptarmigan.[249]

Based on household surveys conducted for the 2006-2010 ACS,[250] in 2010, the per capita income in King Cove was estimated to be $22,038 and the median household income was estimated to be $50,500. This represents a decrease from the per capita reported in 2000 ($17,791) and a slight increase from the median household income reported in 2000 ($45,893). However, if inflation is taken into account by converting the 2000 values to 2010 dollars,[251] both per capita and median household incomes appear to have decreased over the decade, from a real per capita income in 2000 of $23,395 and a real median household income of $60,349. In 2010,

[245] The White House, Office of the Press Secretary. March 31, 2010. *Memorandum for the Secretary of the Interior: Withdrawl 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.
[246] WHPacific. 2010. *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan.* Retrieved December 7, 2011 from: http://www.aleutianseast.org/.
[247] Alaska Dept. of Environmental Conservation. 2012. *List of Contaminated Site Summaries By Region*. Retrieved August 24, 2012 from http://dec.alaska.gov/spar/csp/list.htm.
[248] Unless otherwise noted, all monetary data are reported in nominal values.
[249] 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.
[250] 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.
[251] Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gov/research/cpi/inflationcalc.htm).

King Cove ranked 135th of 305 Alaskan communities with per capita income data, and 130th in median household income, out of 299 Alaskan communities with household income data that year.

Although King Cove's small population size may have prevented the ACS from accurately portraying economic conditions,[252] additional evidence for a decrease in per capita income is provided by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for King Cove in 2010 is $5,900.[253,254] However, despite this evidence for a decline in income between 2000 and 2010, King Cove did not meet the Denali Commission's criteria as a "distressed community" in 2010. It is important to note that community leaders indicated in the 2011 AFSC survey that the 2010 Decennial Census population count may have been inflated, including approximately 400 individuals that do not reside in the community permanently. If this is the case, this ALARI per capita income estimate may be low. However, if community leaders' estimate of 2010 population (450 permanent residents) is used instead to calculate per capita income, the figure still remains much lower than the ACS estimate for 2010. It should be noted that both ACS and DOLWD data are based on wage earnings, and these income statistics do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a greater percentage of King Cove residents were estimated to be in the civilian labor force (87%) than in the civilian labor force statewide (68.8%). In the same year, 10% of local residents were estimated to be living below the poverty line, compared to 9.5% of Alaskan residents overall, and the unemployment rate was estimated to be 0.2%, compared to a statewide unemployment rate of 5.9%. An additional estimate of unemployment, based on the ALARI database, indicates that the unemployment rate in King Cove was much higher in 2010 (19.3%), almost twice the statewide unemployment rate estimate of 11.5%.[255] As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

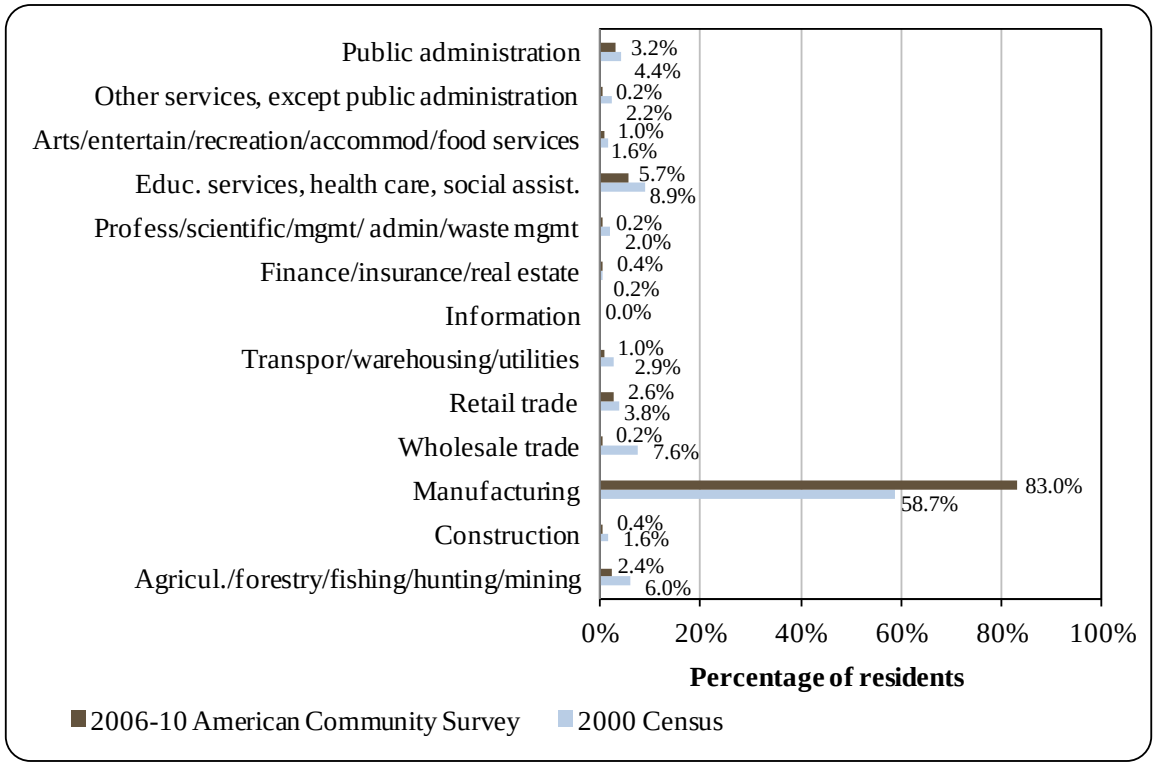
Also based on the 2006-2010 ACS, a majority of the King Cove workforce was estimated to be employed in the private sector (89.5%), along with 7.9% in the public sector, and 2.4% estimated to be self-employed. Of the 506 people aged 16 and over that were estimated to be employed in the civilian labor force, the greatest number was estimated to be working in manufacturing (83%), and some were also estimated to be working in educational services, health care, and social assistance (5.7%), public administration (3.2%), retail trade (2.6%), and agriculture, forestry, fishing, hunting, and mining (2.4%), along with very small numbers in other industries (Figure 3). The number of individuals employed in fishing industry is probably underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly. Between 2000 and 2010, local employment by industry became more heavily concentrated, with 24.3% more of the employed workforce estimated to be employed in

[252] While ACS estimates can provide a good snap shot 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.
[253] 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/.
[254] See footnote 250.
[255] See footnote 253.

manufacturing in 2010. At the same time, the percentage of the local workforce estimated to be employed declined.

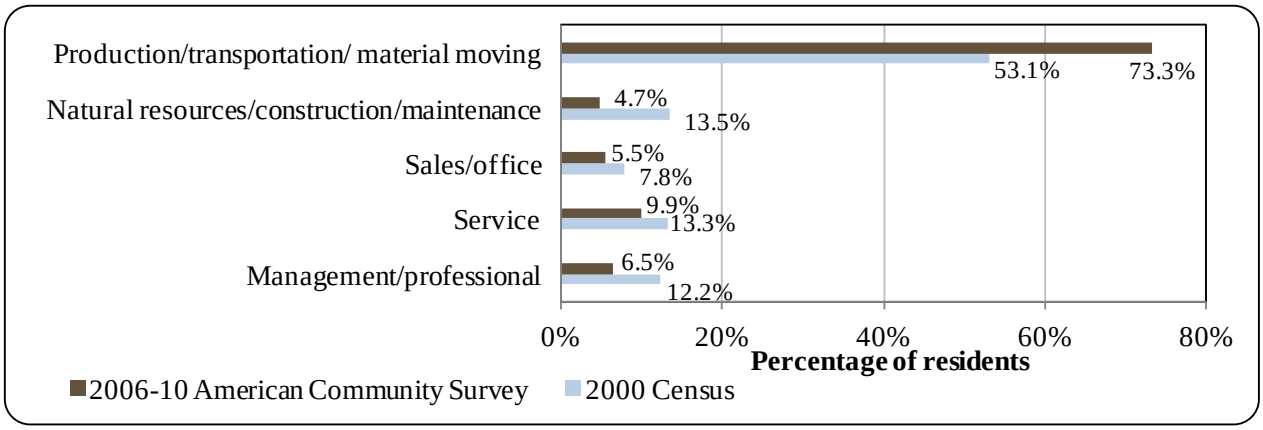
By occupation type, 2006-2010 ACS estimates indicate that a majority (73.3%) of employed residents hold production, transportation, or material moving positions, along with 9.9% holding service occupation positions, 6.5% with management or professional positions, 5.5% with sales and office positions, and 4.7% with natural resources, construction, or maintenance positions (Figure 4). As with employment by industry sector, employment by occupation type became more concentrated between 2000 and 2010, with 20% more of the labor force employed in production, transportation, and material moving occupations in 2010 compared to 2000, and a commensurate decrease in the percentage employed in all other occupation categories. Data reported in the ALARI database supports ACS estimates, suggesting that the most common occupations in King Cove were production, transportation, or material moving positions, meat processors, and fish workers. Other common occupations in King Cove in 2010 included educational, housekeeping, health, or administrative services, and mechanical and maintenance workers.[256] It is important to note that ALARI statistics shows the highest percentage of the workforce involved in local government, while the ACS estimates that the vast majority of the workforce is employed in manufacturing. As noted earlier in this section, in the 2011 AFSC survey, community leaders reported that the 2010 Decennial Census population figure may have been overestimated by almost 400 individuals. This could account for conflicts in labor force and industry employment figures between the 2006-2010 ACS and the 2010 ALARI database.

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



[256] Ibid.

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



Governance

King Cove is a 1st Class City located in the Aleutians East Borough. Incorporated in 1947, King Cove has "Strong Mayor" form of government, which includes a mayor, a seven-person city council, seven-person school board, five-person planning commission, and a number of municipal employees. The City administers a 4% sales tax and a 2% fish tax, and the Borough also collects a 2% fish tax. In addition, the City collects a $100,000 Fisheries Business Impact Tax.[257] In the 2011 AFSC survey, community leaders reported that the Fisheries Business Impact Tax is collected from Peter Pan Seafoods, and is used to support the City's General Fund, providing police, emergency response, and public works funding.

Annual municipal revenue appears to have stayed relatively stable from 2000 to 2005, averaging almost $1.5 million per year, with an almost 50% increase from 2005 to 2006, followed by an average of almost $2.5 million between 2006 and 2010. Total sales tax revenues varied between $434,863 in 2004 and $1,775,000 in 2009. King Cove also received approximately $25,000 per year in State Revenue Sharing contributions from 2000 to 2003, and Community Revenue Sharing contributions of $16,994 in 2008 and just over $130,000 per year in 2009 and 2010.

In addition, King Cove received a variety of fisheries-related grants between 2000 and 2010. In 2000 and 2001, the Alaska Department of Commerce, Community, and Economic Development's Division of Community and Regional Affairs (DCRA) granted the community $25,000 per year for construction of a harbor house and warehouse. Funds were also received in 2000 and 2001 for development of an access road to Lenard Harbor; $26,663 were supplied by the Denali Commission in 2001, and a private funding source granted $34,500 in 2001. Funds for upgrades to the north boat harbor were received from various sources from 2007 to 2009, including $440,000 in 2007 and $400,000 in 2008 from the DCRA, $93,500 in 2007 and $59,000 in 2008 from the State of Alaska, $1.5 million from the Denali Commission in 2009, and $3 million from the Alaska Department of Transportation and Public Facilities (DOT&PF) in 2009.

[257] 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.

For information on selected municipal, state, and federal revenue streams between 2000 and 2010, see Table 2.

King Cove 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 Agdaagux Tribe of King Cove. The Native village corporation is the King Cove Corporation, which manages 128,646 acres of land.[258] King Cove belongs to the Aleut Corporation, the regional Native corporation of the eastern Alaska Peninsula and Aleutian Islands.[259]

King Cove is also a member of the Aleutian Pribilof Islands Association (APIAI), one of the 12 regional Alaska Native 501(c)(3) nonprofit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native Associations receive federal funding to administer a broad range of services to villages in their regions.[260] APIAI provides services including cultural heritage, health, education, social, psychological, employment, vocational training, environment, natural resources, and public safety services.[261]

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of King Cove 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	$1,477,300	$1,011,597	$26,857	$51,633
2001	$1,539,000	$1,165,613	$25,885	$59,500
2002	$1,270,500	$636,720	$25,881	n/a
2003	$1,055,000	$926,188	$26,020	n/a
2004	$1,464,500	$434,863	n/a	n/a
2005	$1,760,616	$1,370,134	n/a	n/a
2006	$2,585,615	$1,636,507	n/a	n/a
2007	$2,163,000	$1,506,588	n/a	n/a
2008	$2,364,500	$1,820,357	$16,994	$533,500
2009	$2,565,500	$1,775,000	$134,260	$459,000
2010	$2,585,850	$1,615,925	$133,312	$4,500,000

[1] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from 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, 2011from 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, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

[258] Ibid.
[259] Aleut Corporation website. 2008. *Corporation*. Retrieved February 9, 2012 from http://www.aleutcorp.com.
[260] 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.
[261] Aleutian Pribilof Islands Association. (n.d.) Retrieved January 3, 2012 from http://www.apiai.com/.

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. The nearest Alaska Department of Commerce, Community, and Economic Development 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

King Cove is accessible by air and sea only. A state-owned 3,500 feet long by 100 feet wide gravel runway is available. Gale force crosswinds are common, as the airport lies in a valley between two volcanic peaks. Currently a hovercraft provides regular service to nearby Cold Bay, which enjoys more stable flying conditions. Cold Bay Airport also has a longer runway allowing the airport to handle larger planes.[262] Scheduled air service is available to King Cove with Peninsula Airways, connecting through Cold Bay. As of September, 2012, roundtrip airfare between King Cove and Anchorage was $1,226.[263] However, flights from King Cove to Cold Bay are canceled about 50% of the time due to thick fog or high winds.

A high priority for local transportation has long been construction of an access road between King Cove and Cold Bay to provide a more reliable link to the outside world during emergencies. In 2004, construction began on a combined road and hovercraft system to provide better access between King Cove and Cold Bay via a temporary hovercraft terminal north of King Cove at Lenard Harbor. Completion of this initial phase of the project was expected by September, 2012.[264,265] As of the Fall of 2012, the City of King Cove awaited a final decision on a proposed land transfer that would allow the access road to be extended directly to Cold Bay. The land transfer would increase the size of the Izembek and Alaska Peninsula NWRs in exchange for the 206 acres needed to construct a single-lane road corridor.[266] A final decision from the U.S. Secretary of the Interior was expected sometime between November 2012 and January 2013.[267] The City of King Cove currently maintains approximately 5.65 miles of local

[262] 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.
[263] The price was calculated September 17, 2012 using http://www.penair.com/.
[264] Aleutians East Borough. 2002. *King Cove Access Project* and *KCAP – Road to the Northeast Corner*. Retrieved September 17, 2012 from http://www.aleutianseast.org/.
[265] 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.
[266] See footnote 264.
[267] City of King Cove, Office of the Mayor. August 8, 2012. *Mayor Newsletter*. Retrieved September 17, 2012 from http://www.cityofkingcove.com/August%202012%20newsletter.pdf.

roads and 4.5 miles of state road between the City and the airport. The airport road was paved in 2004, and there are plans for primary local roads to be paved.[268]

In addition to air travel and limited road access, the state ferry provides bi-monthly service to King Cove between May and October. As of summer 2012, a roundtrip fare from Homer to King Cove on the Alaska state ferry was $512, and roundtrip between King Cove and Dutch Harbor was $214.[269] Peter Pan Seafoods allows the ferry and marine cargo services to use one of its three docks for a fee. One of the other two docks owned by Peter Pan is used for off-loading fish and transferring supplies to tenders and the fishing fleet, and the final dock is used as a fuel dock. In addition, one public deep-water dock is available in King Cove. The dock can be used by fuel and cargo barges, the state ferry, and large fishing vessels. In addition, a new harbor south of the city dock was constructed in 2000.[270] The new harbor is operated by the City and provides additional moorage for larger vessels ranging between 60 and 150 feet in length.[271]

Facilities

Water in King Cove is derived from Ram Creek using a sheet pile dam that stores about 980,000 gallons of unfiltered water. The City of King Cove operates water and sewage systems. A piped sewage collection system connects all homes and facilities to central septic tanks. Two lift stations and tanks provide primary (20,000 gallons) and secondary treatment (84,000 gallons) of waste, with discharge through an outfall line. All residents are connected to the piped water system, and all homes are fully plumbed.[272] In the 2011 AFSC survey, community leaders reported that King Cove has made substantial investment in utilities in the last two to three decades, including water and sewer pipelines, water and sewage treatment, roads and airport infrastructure, police, fire and emergency response, landfill, the school, community center, telephone service, and alternative energy sources.

Since initial construction in 1995, a hydroelectric facility on Delta Creek has provided a majority of electricity to the community of King Cove, along with three backup diesel generators.[273] Upgrades to the Delta Creek hydroelectric plant were completed in 2008,[274] and as of August 2012, construction had begun on an additional hydroelectric facility at Waterfall Creek, with an expected completion date of late 2013.[275] The Peter Pan Seafoods facility operates its own power source and is not connected to the city electrical grid. The City collects garbage twice a week before depositing it in an unpermitted, Class 3 landfill.[276] The City of King Cove actively promotes waste reduction and recycling in the community to help alleviate

[268] Agdaagux Tribe of King Cove. 2007. *Comprehensive Community Environmental Plan, Updated Version*. Retrieved September 14, 20 12 from http://www.anthc.org/chs/ces/hve/upload/KVC-Updated-Env-Plan-Recycling-Plan.pdf.
[269] Alaska Marine Highway System. 2011. *Fare Tables*. Retrieved September 17, 2012 from http://www.dot.state.ak.us/amhs/fares.shtml.
[270] City of King Cove. 2006. *Draft Comprehensive Community Plan*. Retrieved September 14, 2012 from http://www.commerce.state.ak.us/dca/plans/KingCove-CP-2006.pdf.
[271] See footnote 262.
[272] Ibid.
[273] See footnote 270.
[274] Renewable Energy Alaska Project. October 17, 2009. "King Cove hydro project keeps costs down, provides heat for school district." Retrieved September 17, 2012 from http://alaskarenewableenergy.org/2009/10/king-cove-hydro-project-keeps-costs-down-provides-heat-for-school-district/.
[275] See footnote 267.
[276] See footnote 270.

pressure on the landfill, which is nearing capacity.[277] Recycling is currently provided for aluminum only, and expansion of the recycling program to include plastics, glass, paper, and cardboard is desired.[278]

Community facilities in King Cove include a community center, public library, recreation center, and a teen center. Safety services are provided by the city police department, a Village Public Safety Officer in King Cove and state troopers posted in Dillingham. The City also maintains its own volunteer fire and rescue squad. Visitor accommodations are provided by B-N-W Bed and Breakfast.[279] In a survey conducted by the AFSC in 2011, community leaders reported that King Cove also has a post office and that telephone and broadband internet service are both in place. Cable service is also available locally.[280]

With regard to fisheries-related infrastructure, community leaders reported in the 2011 AFSC survey that 3,700 feet of dock space is available for permanent vessels to moor at in King Cove. An additional 4,000 feet of dock space is available to transient vessels for mooring. Community leaders reported that vessels up to 150 feet long can use moorage, and that the community can handle rescue vessels (e.g., Coast Guard), cruise ships, ferries, and fuels barges. According to community leaders, new dock space has been constructed within the last 10 years, along with upgrades to existing dock structures, including addition of water and electricity serving the dock. Also within the last 10 years, a barge landing area and breakwater were completed, and fuel tanks were also made available at the dock. Community leaders also noted substantial investments in fisheries-related infrastructure prior to the last 10 years, including construction of a jetty, dry dock space, haul out facilities, and roads serving dock space. Today, community leaders also noted the presence of multiple fishing support businesses in King Cove, including fishing gear sales and repairs, tackle and bait sales, bookkeeping, boat fuel sales, dry dock storage, and boat repair services. The extent and availability of these services vary with the season. Community leaders indicate that residents typically travel to the cities of Homer, Kodiak, and Unalaska (Dutch Harbor) to access fisheries-related businesses and services not found in King Cove.

Medical Services

The King Cove Medical Clinic provides basic medical services in King Cove. The clinic is a qualified Emergency Care Center and a Community Health Aide Program site. Emergency Services have limited marine and air access. Emergency service is provided by 911 Telephone Service volunteers and the local health aide.[281] The nearest hospitals are located in Dillingham and Kodiak.

Educational Opportunities

One school is located in King Cove. As of 2011, the King Cove School had 108 students and 12 teachers.[282]

[277] See footnote 267.
[278] See footnote 268.
[279] 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.
[280] Ibid.
[281] Ibid.
[282] 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 King Cove 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.[283] 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.[284] 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.[285] 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.[286,287]

The first salmon saltery was built in Alaska in 1868, and the first cannery was established in 1869.[288] The modern community of King Cove grew around a PAF cannery that began operations there in 1911. Fishing and processing jobs attracted a mixed population of Unangan Aleut from the surrounding region, Scandinavians and other European fishermen. A Chinese workforce was also brought in to operate the cannery in its early years. In 1965, the major portion of PAF's assets was sold to a consolidated firm of Peter Pan Seafoods and Taiyp Gyogyo KK.[289] The facility operated continuously until 1976, when it was partially destroyed by fire. Today, Peter Pan Seafoods continues to operate the King Cove facility, which is currently the largest salmon cannery in North America.[290,291] Peter Pan Seafoods added crab processing as a strong secondary species at the King Cove facility, as well as halibut, cod, and pollock.[292] In addition to fisheries for these species, the King Cove fishing fleet has participated in fisheries for a variety of groundfish species, herring, octopi/squid, and sablefish in recent years.

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[283] 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/.
[284] 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.
[285] 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.
[286] See footnote 284.
[287] 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://ww.iphc.int/publications/scirep/Report0005.pdf.
[288] See footnote 284.
[289] Radke, A.. C. 2002. *Pacific American Fisheries, Inc: History of a Washington State Salmon Packing Company, 1890-1966*. Ed. Barbara S. Radke. McFarland and Company, Inc., Publishers. North Carolina.
[290] Agdaagux Tribe of King Cove. 2007. *Comprehensive Community Environmental Plan, Updated Version*. Retrieved September 14, 20 12 from http://www.anthc.org/chs/ces/hve/upload/KVC-Updated-Env-Plan-Recycling-Plan.pdf.
[291] Peter Pan Seafoods, Inc. 2012. *Facilities: King Cove.* Retrieved September 17, 2012 from http://www.ppsf.com/facilities/index.aspx#king_cove.
[292] City of King Cove. 2006. *Draft Comprehensive Community Plan*. Retrieved September 14, 2012 from http://www.commerce.state.ak.us/dca/plans/KingCove-CP-2006.pdf.

Pacific halibut fisheries are managed under the International Pacific Halibut Commission. In 1995, management of Alaskan halibut and sablefish fisheries shifted from limited entry to a system of Individual Fishing Quotas (IFQ). Motivations for the shift included overcapitalization, short seasons, and the derby-style fishery that led to loss of product quality and safety concerns. As a result of program implementation, the number of shareholders and total vessels participating in the halibut and sablefish fisheries declined substantially, and product quality has improved. This shift to catch shares has been controversial, raising concerns about equity of catch share allocation, reduced crew employment needs, and loss of quota from coastal communities to outside investors.[293]

Groundfish and crab fisheries that occur within three nautical miles (nmi) of the coast or in inland waters are under the jurisdiction of the State of Alaska, and fisheries that take place beyond three nm in the U.S. Exclusive Economic Zone (EEZ) are under federal jurisdiction.[294] In the Gulf of Alaska (GOA), federally-managed groundfish fisheries target Pacific cod, walleye pollock, pelagic shelf rockfish, sablefish, and flatfish. Major state groundfish fisheries in the Alaska Peninsula region include a jig fishery for black rockfish out of Unalaska and a Pacific cod fishery, in addition to a statewide lingcod fishery, and a sablefish fishery in state waters for non-federal sablefish quota share holders. Management plans for state-waters fisheries are approved by the Alaska Board of Fisheries (BOF), and guideline harvest limits (GHL) are set by the ADF&G. Typically, state-waters fisheries are opened once federal and parallel fisheries close. In addition, the ADF&G manages lingcod fisheries in both state and EEZ waters off Alaska, and beginning in 1998, management of black rockfish and blue rockfish in the GOA was transferred from NMFS to ADF&G.[295]

Both Bristol Bay and the Kodiak area were historical centers of the red king crab fishery Tanner crabs are also distributed through the GOA. The range of Dungeness crabs includes the Alaska Peninsula, eastern Aleutians, and Kodiak Island. Bering Sea and Aleutian Islands crab stocks are jointly managed by the North Pacific Fishery Management Council (NPFMC) and ADF&G, while GOA stocks are solely managed by the State of Alaska.[296,297] The Kodiak red king crab fishery has been closed in recent years due to low abundance. However, parts of the Kodiak district have been open for Tanner crab harvest in recent years. The largest aggregation of herring in Alaska spawns along the northern shore of Bristol Bay, near the village of Togiak. 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.[298]

King Cove is located in Pacific Halibut Fishery Regulatory Area 3B, Federal Statistical and Reporting Area 610, and the Western Gulf of Alaska Sablefish Regulatory Area. Because King Cove is not located on the Bristol Bay side of the Alaska Peninsula, the community is not

[293] Fina, M.. 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.
[294] See footnote 285.
[295] Ibid.
[296] Alaska Dept. of Fish and Game. 2012. *Red King Crab Species Profile*. Retrieved June 20, 2012 from http://www.adfg.alaska.gov/index.cfm?ADFGredkingcrab.main.
[297] Alaska Dept. of Fish and Game. 2012. *Tanner Crab Species Profile*. Retrieved June 25, 2012 from http://www.adfg.alaska.gov/index.cfm?ADFGtannercrab.management.
[298] See footnote 285.

eligible for the Community Development Quota program. The community is eligible for the Community Quota Entity (CQE) program. Aleutia, Inc. is a CQE with headquarters in Sand Point that also serves King Cove. In 2008, Aleutia Inc. reached an agreement with Peter Pan Seafoods to purchase processor quota shares on behalf of King Cove, Sand Point, Nelson Lagoon, False Pass, Cold Bay, and Akutan. Peter Pan Seafood in King Cove will process the product and assist with marketing.[299,300]

A local advisory committee for the BOF is located in King Cove. The activities of the advisory committee include developing regulatory proposals; evaluating regulatory proposals and making recommendations to the BOF; providing a local forum for fish and wildlife conservation and use, including matters relating to habitat; advising the appropriate regional council on resources; and consulting with individuals, organizations, and agencies.[301] In the 2011 AFSC survey, community leaders reported that King Cove actively participates in fisheries management processes in Alaska through a variety of other avenues, including sending a paid staff member to NPFMC meetings. They also indicated that King Cove has a representative that sits on NPFMC committees or advisory groups, a representative that sits on regional fisheries advisory and/or working groups run by ADF&G, and a representative that participates in the Federal Subsistence Board or Federal Subsistence Regional Advisory Council process.

When asked to comment about current challenges to King Cove's fishing economy, community leaders responded that approximately 75% of the local economy is based on direct and indirect fishing activities, and given this, changes in quota, regulations, processor ownership, fluctuations in processing capacity, and limitations in access to King Cove between fishing seasons are the community's primary challenges. When asked to describe effects of management actions or policies on King Cove, community leaders indicated that crab rationalization significantly reduced the fleet, thereby reducing demand for moorage and moorage revenue in King Cove. In addition, approximately 15-20 local crab crew jobs were eliminated. In addition, the CDQ program has been a controversial issue for King Cove fishermen.

Processing Plants

Peter Pan Seafood's King Cove facility primarily processes salmon, and has the largest salmon canning capacity of any Alaska's processing facilities. The cannery also processes king, Tanner and snow crab, pollock, cod, salmon, halibut, and sablefish. Although the plant operates year-round, its peak seasons are in the winter and summer, when it employs up to 500 people.[302] The King Cove cannery was originally built by Bellingham-based PAF in 1911, and was sold to Peter Pan Seafoods in 1965.[303]

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[299] Aleutia.org website. 2012. Our Story. Retrieved September 18, 2012 from http://www.aleutia.org/our-story.
[300] Bauman, Margaret. August 10, 2008. "Sand Point's Aleutia buys Bristol Bay crab processor shares." *Alaska Journal of Commerce.* Retrieved September 18, 2012 from http://www.alaskajournal.com/Alaska-Journal-of-Commerce/August-2008/Sand-Points-Aleutia-buys-Bristol-Bay-crab-processor-shares/.
[301] Southwest Alaska Municipal Conference. May 2010. *Southeast Alaska Comprehensive Economic Development Strategy*. Prepared for the U.S. Department of Commerce Economic Development Association. Retrieved December 21, 2011 from http://www.swamc.org/.
[302] Peter Pan Seafoods, Inc. 2012. *Facilities: King Cove.* Retrieved September 17, 2012 from http://www.ppsf.com/facilities/index.aspx#king_cove.
[303] Radke, A. C. 2002. *Pacific American Fisheries, Inc: History of a Washington State Salmon Packing Company, 1890-1966*. Ed. Barbara S. Radke. McFarland and Company, Inc., Publishers. North Carolina.

Fisheries-Related Revenue

In 2010, King Cove received a total of $2,585,850 in known fisheries-related revenue. A majority of this revenue was generated from harbor usage fees and the Shared Fisheries Business Tax. Overall, from 2000 to 2010, there was a 106.6% increase in known fisheries-related revenues. For more information on known fisheries-related revenues for King Cove between 2000 and 2010, see Table 3.[304]

It is important to note that, while no detailed information was reported regarding annual revenue from the raw fish tax between 2000 and 2010, community leaders indicated in the 2011 AFSC survey that, in 2010, combined revenues from local and state raw fish tax and the extraterritorial fish tax contributed $2,000,000 to King Cove's Annual General Fund. Community leaders also reported that a variety of public services are at least partially funded by fisheries-related taxes and fees, including harbor maintenance, the health clinic, roads, the police force and fire protection, the recreation center, social services such as libraries, and general city administration. King Cove has local fishing-related fee programs that charge the fishing industry specifically to support public services and infrastructure.

Commercial Fishing

King Cove is one of the leading processing communities in Alaska, ranking 7th in landings and 11th in ex-vessel revenue out of 67 Alaskan ports that received landings in 2010. That year, seven fish buyers were present locally, and one shore-side processing facility was in operation. The total net poundage of landings in 2010 was 79,853,218, with total ex-vessel value of $41,650,304 (Table 5). Between 2000 and 2010, King Cove residents were also highly engaged in commercial fisheries as state and federal permit holders, quota share account holders, crew members, and vessel owners.

Although the population of permanent residents increased in King Cove during the 2000-2010 period, the total number of King Cove residents engaged in commercial fishing declined. In 2000, there were 66 state permit holders and 201 crew license holders, and 94 fishing vessels were primarily owned by King Cove residents. By 2010, total state permits holders had fallen to 53, crew license holders to 132 and vessel owners to 70. There were also decreases in homeported vessels and total vessels landing catch in King Cove between 2000 and 2010. Information about the commercial fishing sector in King Cove is presented in Table 5.

In the 2011 AFSC survey, community leaders indicated that vessels homeporting in King Cove range in size from 35 feet to over 125 feet in length, and utilize gear types including trawl, pots, longline, gillnet, purse seine, and troll gear. They also indicated that most of the decline in fishing vessels in recent years has been a loss of the larger fleet – those vessels ranging from 60 to more than 125 feet in length. Specifically, they reported that one source of this decline is fewer Bering Sea crab boats coming to King Cove as a result of crab rationalization.

In 2010, the 53 King Cove state permit holders held a total of 116 Commercial Fisheries Entry Commission (CFEC) permits. Of these 116 CFEC permits, 51 (44%) were held in salmon fisheries, 35 (30.2%) were held in fisheries for groundfish, 17 (14.7%) were held in crab fisheries, 11 (9.5%) for halibut, and 2 (1.7%) in 'other shellfish' fisheries. CFEC permit statistics are presented in Table 4, and further details about permits are presented below.

[304] 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.

A majority of the 51 salmon CFEC permits held by King Cove residents in 2010 were held in Peninsula-Aleutians area fisheries, including 20 in the Peninsula-Aleutians purse seine fishery, 15 in the drift gillnet fishery, and 13 in the set gillnet fishery. In addition, one permit was held in the Bristol Bay drift gillnet fishery that year, and two permits were held in the Bristol Bay set gillnet fishery. Overall, 78% of salmon permits held were actively fished in 2010. Both the total number of salmon CFEC permit holders and total permits held in King Cove declined slightly over the 2000-2010 period, while the percentage of permit actively fished remained relatively stable. It is important to note that, from 2000-2002, one King Cove resident also held a permit in the Kodiak purse seine fishery, but the permit was not actively fished in these three years.

Groundfish CFEC permits were held in 2010 in miscellaneous saltwater finfish fisheries using a variety of gear types, including longline, pot gear, mechanical jig, and otter trawl. The number of groundfish state permit holders decreased slightly from 2000 to 2010, as did the total number of groundfish CFEC permits held and the percentage of permits that were actively fished.

A majority of crab permits held in 2010 were for the Peninsula-Aleutians Tanner crab fishery. From 2000 to 2009, king crab CFEC permits were also held by King Cove residents in Bristol Bay and Dutch Harbor management areas. Prior to 2010, several Tanner crab permits were also held in the Bering Sea and Dutch Harbor management areas. In addition to king and Tanner crab, one Dungeness crab permit was held per year in 2001 and 2002, and again from 2005 to 2010. Until 2009, the permit was held in the Alaska Peninsula management area, while it was held for the Westward region in 2010. The total number of crab permits held in King Cove was variable from year-to-year, with spikes in permit ownership in 2001, 2005-2006, and 2010 reflecting increases in permit holders in the Peninsula-Aleutian Tanner crab pot gear fishery in those years.

The number of halibut CFEC permit holders and total halibut permits held in King Cove both decreased from 14 in 2000 to 11 in 2010. All halibut permits were associated with longline gear, and a majority of permits were for use on vessels under 60 feet in length. The number of herring CFEC permits held in King Cove declined from 12 in 2000 to 0 by 2010. Early in the 2000-2010 period, herring permits were held in the Bristol Bay and Peninsula-Aleutians roe herring fisheries, the Peninsula-Aleutians bait/food purse seine fishery, and the Alaska Peninsula food/bait gillnet fishery. From 2003 to 2009, the only remaining herring permits were held for the Bristol Bay roe herring purse seine fishery. Several sablefish and ‘other shellfish’ permits were held in some years during the 2000-2010 period. Sablefish permits were either held in the statewide mechanical jig fishery or the longline fishery excluding Southeast Alaska and Prince William Sound. All ‘other shellfish’ permits were held in the statewide octopi/squid pot gear fishery.

In addition to CFEC permits, King Cove residents held federal License Limitation Program (LLP) permits in groundfish and crab fisheries and also held a number of Federal Fisheries Permits (FFP) during the 2000-2010 period. Between 2000 and 2010, the number of King Cove residents holding LLPs stayed relatively stable, while the number of LLPs held declined slightly. From 2003 to 2010, the number of FFPs that were actively fished varied between 13 and 17, while 0 were actively fished from 2000 to 2002. Information about federal permits is presented in Table 4, along with CFEC permit statistics.

In addition to state and federal permits, between 2000 and 2010, King Cove residents held quota share accounts and quota shares in federal catch share fisheries for halibut, sablefish,

and crab. The number of halibut quota share account holders in King Cove ranged from 19 to 13 during the 2000-2010 period, with a generally decreasing trend over time. The total number of quota shares held varied between a high of 1,026,276 held in 2001 to a low of 849,123 held in 2004. The overall halibut IFQ allotment for account holders in King Cove initially increased to 14% higher than 2000 levels in 2002, before decreasing to 30-40% below 2000 levels during the 2006-2010 period. Information about federal halibut catch share participation is presented in Table 6. There were fewer sablefish quota share account holders in King Cove, with four in 2000 decreasing to one by 2010. The number of sablefish quota shares held also decreased, from 209,677 in 2000 to 456 in 2010. The overall sablefish IFQ allotment increased to almost 60% above 2000 levels in 2003 and 2004, before decreasing to just over 5% below 2000 levels in 2010. Information about federal sablefish catch share participation is presented in Table 7. The number of crab quota share account holders decreased from seven in 2005 (the first year quota share accounts were available) to four by 2010, with a similar decrease in quota shares held from 2,973,739 in 2005 to 1,216,882 in 2010. The overall crab IFQ allotment increased to almost 40% above 2005 levels in 2007, and then declined to over 15% below 2005 levels in 2009 and 2010 Information about federal crab catch share participation is presented in Table 8.

A majority of landings in King Cove were considered confidential between 2000 and 2010 due to the small number of fish buyers and/or participants in fisheries for each species. Salmon landings can be reported for four years during the period, averaging 18,765,378 net pounds valued at $8,015,837 on average during these years. In addition, Pacific cod landings can be reported in 2001 only, when 19,092,707 net pounds were landed, valued at $4,510,130 in ex-vessel revenue. Information about landings and ex-vessel revenue in King Cove is presented in Table 9.

More information can be reported regarding landings delivered by King Cove vessel owners in all locations. Salmon, Pacific cod, and halibut information can be reported for all years during the 2000-2010 period. On average, King Cove vessel owners landed 10,129,430 net pounds of salmon per year, valued at an average of $2,761,334. Salmon landings and revenue generally increased over the 2000-2010 period, although they declined slightly in 2009 and 2010 following a 2008 peak. Pacific cod landings averaged 7,357,816 net pounds per year, valued at $2,288,681 in ex-vessel revenue on average. Cod landings were relatively stable between 2000 and 2010. There appears to have been a peak in cod prices in 2007 and 2008, when ex-vessel revenue was higher than average relative to total landings. Halibut landings averaged 22,945 between 2000 and 2010, with an average of $675,237 in ex-vessel revenues per year. Halibut landings appear to have been relatively stable from 2000 to 2005 before beginning to decline slightly, while the average price per pound appears to have increased over the decade. Landings and revenue for crab, herring, ‘other groundfish’, ‘other shellfish’, and pollock can be reported in some years during the 2000-2010, while sablefish details are considered confidential in all years due to the small number of participants. Information about landings made by King Cove vessel owners is presented in Table 10.

Table 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community of King Cove: 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]	$313,467	$465,413	$341,628	$207,683	$235,982	$356,845	$399,568	$501,496	$472,234	$536,625	$625,475
Fisheries Resource Landing Tax[1]	n/a	n/a	n/a	$48	$116	$1,287	$4,745	$3,216	$8,945	$6,048	$9,231
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]	$32,781	$33,001	$23,400	$23,700	$29,006	$31,680	$38,675	$41,700	$42,456	$45,000	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]	$350,000	$332,000	$325,000	$325,000	$325,000	$336,550	$340,500	$345,500	$434,000	$497,500	$539,250
Port/dock usage[2]	$5,000	$25,000	$30,000	$22,000	$25,000	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	$25,000
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	$250,000
Total fisheries-related revenue[4]	*$701,248*	*$855,414*	*$720,028*	*$578,431*	*$615,104*	*$726,363*	*$783,488*	*$891,912*	*$957,634*	*$1,085,173*	*$1,448,956*
Total municipal revenue[5]	*$1,477,300*	*$1,539,000*	*$1,270,500*	*$1,055,000*	*$1,464,500*	*$1,760,616*	*$2,585,615*	*$2,163,000*	*$2,364,500*	*$2,565,500*	*$2,585,850*

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

Table 4. Permits and Permit Holders by Species, King Cove: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	43	43	41	41	39	38	39	38	36	36	36
	Active permits	16	18	17	16	16	16	17	17	19	14	15
	% of permits fished	37%	41%	41%	39%	41%	42%	43%	44%	52%	38%	41%
	Total permit holders	33	33	32	32	31	31	33	33	32	32	32
Crab (LLP) [1]	Total permits	13	13	13	12	12	10	10	10	10	10	10
	Active permits	2	2	2	2	2	1	1	1	1	1	1
	% of permits fished	15%	15%	15%	16%	16%	10%	10%	10%	10%	10%	10%
	Total permit holders	9	9	9	9	9	8	8	8	8	8	8
Federal Fisheries Permits [1]	Total permits	19	19	19	19	19	21	21	21	21	16	16
	Fished permits	0	0	0	15	14	14	17	15	14	13	14
	% of permits fished	0%	0%	0%	79%	74%	67%	81%	71%	67%	81%	88%
	Total permit holders	17	17	17	17	17	19	21	21	21	15	15
Crab (CFEC) [2]	Total permits	12	35	9	8	9	23	18	8	11	12	17
	Fished permits	10	27	6	7	7	19	13	3	7	9	14
	% of permits fished	83%	77%	67%	88%	78%	83%	72%	38%	64%	75%	82%
	Total permit holders	7	28	4	5	6	19	15	8	11	12	17
Other shellfish (CFEC) [2]	Total permits	1	0	0	0	1	1	1	0	0	0	2
	Fished permits	0	0	0	0	1	0	0	0	0	0	2
	% of permits fished	0%	-	-	-	100%	0%	0%	-	-	-	100%
	Total permit holders	1	0	0	0	1	1	1	0	0	0	2
Halibut (CFEC) [2]	Total permits	14	15	12	12	11	10	12	12	12	12	11
	Fished permits	12	13	10	11	11	9	11	12	11	11	11
	% of permits fished	86%	87%	83%	92%	100%	90%	92%	100%	92%	92%	100%
	Total permit holders	14	14	12	12	11	10	11	12	12	12	11
Herring (CFEC) [2]	Total permits	12	9	3	1	1	2	2	1	1	1	0
	Fished permits	5	2	0	0	0	1	1	0	0	0	0
	% of permits fished	42%	22%	0%	0%	0%	50%	50%	0%	0%	0%	-
	Total permit holders	7	5	2	1	1	2	2	1	1	1	0

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	1	0	0	1	1	2	1	0	0	0	0
	Fished permits	1	0	0	0	1	0	0	0	0	0	0
	% of permits fished	100%	-	-	0%	100%	0%	0%	-	-	-	-
	Total permit holders	1	0	0	1	1	2	1	0	0	0	0
Groundfish (CFEC) [2]	Total permits	45	53	40	41	33	31	34	28	34	32	35
	Fished permits	34	36	27	27	20	23	28	20	27	22	22
	% of permits fished	76%	68%	68%	66%	61%	74%	82%	71%	79%	69%	63%
	Total permit holders	30	33	24	24	21	19	24	19	26	23	25
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	60	57	56	59	55	56	55	57	57	51	51
	Fished permits	48	42	35	43	39	39	41	42	45	39	40
	% of permits fished	80%	74%	63%	73%	71%	70%	75%	74%	79%	76%	78%
	Total permit holders	56	51	47	49	48	56	50	49	48	45	46
Total CFEC Permits[2]	*Permits*	*145*	*169*	*120*	*122*	*111*	*125*	*123*	*106*	*115*	*108*	*116*
	Fished permits	*110*	*120*	*78*	*88*	*79*	*91*	*94*	*77*	*90*	*81*	*89*
	% of permits fished	*76%*	*71%*	*65%*	*72%*	*71%*	*73%*	*76%*	*73%*	*78%*	*75%*	*77%*
	Permit holders	*66*	*64*	*58*	*61*	*56*	*65*	*58*	*58*	*58*	*53*	*53*

[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 King Cove: 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 King Cove[2]	Total Net Pounds Landed in King Cove[2,5]	Total Ex-Vessel Value of Landings in King Cove[2,5]
2000	201	9	2	94	105	710	72,282,637	$34,738,413
2001	160	5	2	92	100	552	82,828,353	$21,522,169
2002	134	3	2	81	91	165	-	-
2003	138	3	1	87	92	214	-	-
2004	141	6	1	73	86	286	106,215,695	$35,545,464
2005	137	3	1	75	84	344	-	-
2006	144	4	1	72	89	329	114,246,357	$43,293,750
2007	136	1	1	67	83	164	-	-
2008	136	7	1	69	88	172	73,753,680	$51,574,088
2009	137	3	1	66	83	150	-	-
2010	132	7	1	70	89	287	79,853,218	$41,650,304

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 King Cove: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (Pounds)
2000	18	984,525	273,412
2001	19	1,026,276	313,503
2002	14	941,654	297,990
2003	14	856,246	269,378
2004	14	849,123	243,263
2005	14	873,131	210,500
2006	13	870,625	174,179
2007	14	861,070	145,808
2008	15	942,576	188,766
2009	14	861,070	172,376
2010	15	956,543	173,999

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 King Cove: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (Pounds)
2000	4	209,677	17,961
2001	3	46,206	3,423
2002	3	46,206	4,186
2003	3	46,206	6,204
2004	3	46,206	6,242
2005	3	46,206	5,275
2006	2	812	105
2007	1	456	55
2008	2	68,465	9,170
2009	1	456	36
2010	1	456	37

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 King Cove: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (Pounds)
2005	7	2,973,739	85,871
2006	6	2,574,278	69,493
2007	6	2,574,278	102,221
2008	5	1,647,123	55,758
2009	5	1,469,628	35,518
2010	4	1,216,882	29,278

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 King Cove: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	19,092,707	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	30,053,150	-	-	-	24,033,674	-	-	-	9,278,249	-	11,696,440
Total[2]	*30,053,150*	*19,092,707*	-	-	*24,033,674*	-	*0*	-	*9,278,249*	-	*11,696,440*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	$4,510,130	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	$14,249,031	-	-	-	$7,089,389	-	-	-	$2,889,662	-	$7,835,266
Total[2]	*$14,249,031*	*$4,510,130*	-	-	*$7,089,389*	-	*$0*	-	*$2,889,662*	-	*$7,835,266*

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.

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	213,864	237,857	-	-	-	159,859	317,118	270,771	187,735	141,755	188,234
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	207,870	224,654	200,836	310,367	293,657	259,937	208,235	173,321	199,845	219,870	153,805
Herring	-	-	-	-	-	439,007	-	-	-	-	-
Other Groundfish	-	-	-	2,101	8,532	1,621	2,852	5,117	1,959	1,324	165,759
Other Shellfish	-	-	-	33	44,556	8,468	2,756	23,069	572	86	108,402
Pacific Cod	7,881,692	7,353,900	6,876,941	7,669,809	8,351,151	7,349,665	7,881,292	8,246,364	6,041,838	4,496,899	8,786,423
Pollock	-	30,855	-	-	400	176	1,532	1,391	1,089	3,041	3,149,387
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	5,357,488	7,395,961	5,107,369	11,326,572	11,587,245	14,891,475	8,660,259	14,111,291	16,966,365	12,807,917	3,211,783
Total[2]	*13660914*	*15243227*	*12185146*	*19308882*	*20285541*	*23110208*	*17074044*	*22831324*	*23399403*	*17670892*	*15763793*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	$568,266	$504,566	-	-	-	$374,600	$491,660	$606,209	$438,787	$220,989	$276,197
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	$479,806	$419,156	$440,615	$848,233	$852,824	$765,776	$760,260	$726,962	$854,937	$590,571	$688,463
Herring	-	-	-	-	-	$32,925	-	-	-	-	-
Other Groundfish	-	-	-	$914	$1,055	$464	$499	$454	$533	$446	$2,487
Other Shellfish	-	-	-	$1	$22,140	$4,042	$1,250	$11,219	$75	$1	$70,731
Pacific Cod	$2,421,639	$1,759,939	$1,470,418	$1,998,855	$2,002,132	$1,918,036	$2,870,205	$3,855,505	$3,414,109	$1,208,791	$2,255,867
Pollock	-	$3,416	-	-	$6	$4	$23	$40	$44	$509	$403,346
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	$1,706,491	$1,107,291	$1,002,144	$1,702,621	$2,229,185	$3,416,369	$2,668,357	$3,931,361	$6,138,886	$4,441,961	$2,030,003
Total[2]	*$5,176,201*	*$3,794,368*	*$2,913,177*	*$4,550,625*	*$5,107,342*	*$6,512,216*	*$6,792,254*	*$9,131,750*	*$10,847,371*	*$6,463,268*	*$5,727,094*

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

In the 2011 AFSC survey, community leaders indicated that a majority of sportfishing activity in King Cove is local residents using private boats or fishing from shore. In addition, they noted that a significant number of non-residents fish from shore, made up mostly of transient workers who come to King Cove to work in the processing facility. This information is supported by the fact that few sport fish guides were present in King Cove between 2000-2010. Based on data reported by the ADF&G Division of Sport Fish, licensed sport fish guides were registered in King Cove in only a few years during the 2000-2010 period, and an active sport fish guide business was only present in one year. Sportfishing license statistics also support community leaders' description, showing that a similar number of licenses were sold to residents as the total number sold per year in King Cove. This indicates that only a small number of non-local anglers come to King Cove for sportfishing purposes. This information about the sportfishing sector in King Cove is presented in Table 11.

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

Table 11. Sport Fishing Trends, King Cove: 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 King Cove[2]
2000	0	0	75	84
2001	0	1	71	74
2002	1	6	72	91
2003	0	3	67	89
2004	0	3	76	86
2005	0	0	78	77
2006	0	0	88	84
2007	0	0	86	81
2008	0	1	83	79
2009	0	0	74	57
2010	0	0	55	45

Table 11 Cont. Sport Fishing Trends, King Cove: 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).

Community leaders also reported in the 2011 AFSC survey that the primary targets of local sportfishing activity are coho and sockeye salmon, halibut, and crab. The Alaska Statewide Harvest Survey,[305] conducted by ADF&G between 2000 and 2010, indicates that freshwater sportfishing in the King Cove area targets coho, sockeye, pink, and chum salmon, as well as Dolly Varden char, and saltwater fishing targets Pacific halibut, Pacific cod, Dungeness and Tanner crab, and hardshell clams. No kept/release log book data were reported for sportfishing charters out of King Cove between 2000 and 2010.[306]

[306] 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).

[306] 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.]

Subsistence Fishing

Subsistence harvest activities remain an important aspect of King Cove's economy, supplementing wage income.[307] In the 2011 AFSC survey, community leaders indicated that the most important marine and aquatic resources utilized for subsistence purposes by King Cove residents include salmon, halibut, and crab.

No information is available from ADF&G regarding per capita subsistence harvest or the percentage of households utilizing various marine resources for subsistence purposes between 2000 and 2010 (Table 12). However, a survey of 1992 subsistence activity conducted by ADF&G provides species-level information about harvest of marine invertebrates, non-salmon fish (not including halibut), and marine mammals at the household level. That year, the following species of marine invertebrates were harvested by the greatest number of King Cove households: black chitons (44% of households reported harvest), octopus (40% of households), sea urchin (23%), butter clams (21%), king crab (16%), Tanner crab (12%), Dungeness crab (11%), Pacific littleneck clams (5%), shrimp (3%), snails (3%), scallops (3%), hair crab (3%), cockles (1%), mussels (1%), pinkneck clams (1%), razor clams (1%), and sea cucumber (1%). Species of non-salmon fish reported as harvested by the greatest number of households included Dolly Varden (43% of households), Pacific cod (24%), red rockfish (12%), black rockfish (11%), herring (9%), greenling (5%), sculpin (5%), sablefish (4%), flounder (3%), pollock (3%), pike (1%), rainbow trout (1%), skates (1%), and steelhead (1%). In addition, 3% of households reported harvest of herring roe (spawn on kelp). The ADF&G survey also found that 11% of King Cove households participated in a harvest of harbor seal.[308] In most cases, a greater number of households reported using these resources than the number involved in harvest, indicating the presence of sharing networks within the community, and possibly between communities.

For the 2000-2010 period, data are available from various management agencies regarding subsistence harvest of salmon, halibut, and marine mammals by King Cove residents. Between 2000 and 2008, the last year for which salmon data were available, the number of subsistence salmon permits issued to King Cove households varied from 52 to 69 per year. Sockeye and coho were the most targeted and harvested salmon species for subsistence in all years during this period (Table 13).

In 2010, a total of 87 Subsistence Halibut Registration Certificates (SHARC) were issued to King Cove residents, compared to 44 in 2003. In 2010, 27 SHARC cards were actively fished, and 6,004 pounds of halibut were harvested for subsistence purposes. This represents a decline in the average pounds harvested per active SHARC card. In 2004, when only 26 SHARC cards were actively fished, twice the volume was harvested compared to 2010 (Table 14).

Data were also available regarding harvest of some marine mammal species in King Cove. According to data reported by NMFS, subsistence harvest of sea otters ranged from 1 to 13 animals per year between 2000 and 2010. ADF&G reported that harbor seal subsistence harvest varied between 4 and 32 per year and Steller sea lion harvest varied between 1 and 12 per year, for those years in which data were reported. Information about subsistence harvest of marine mammals by King Cove residents is presented in Table 15.

[307] 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.
[308] 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, King Cove: 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, King Cove: 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	53	45	33	592	3,726	202	2,505	n/a	n/a
2001	52	46	21	235	2,413	123	4,228	n/a	n/a
2002	63	54	35	415	2,424	77	4,395	n/a	n/a
2003	69	54	19	780	3,260	141	5,063	n/a	n/a
2004	62	54	19	448	2,965	175	4,748	n/a	n/a
2005	63	54	39	140	2,472	233	5,033	n/a	n/a
2006	53	46	14	480	2,042	361	4,087	n/a	n/a
2007	53	47	1	251	2,217	164	3,179	n/a	n/a
2008	56	44	8	457	2,739	291	3,052	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, King Cove: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	44	23	7,857
2004	48	26	12,029
2005	61	31	8,942
2006	70	38	8,017
2007	78	27	5,978
2008	82	43	7,319
2009	86	50	5,995
2010	87	27	6,004

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, King Cove: 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	5	n/a	n/a	4	19	n/a
2001	n/a	12	n/a	n/a	3	22	n/a
2002	n/a	9	n/a	n/a	n/a	8	n/a
2003	n/a	8	n/a	n/a	n/a	11	n/a
2004	n/a	7	n/a	n/a	2	32	n/a
2005	n/a	n/a	n/a	n/a	3	22	n/a
2006	n/a	1	n/a	n/a	12	14	n/a
2007	n/a	1	n/a	n/a	1	4	n/a
2008	n/a	7	n/a	n/a	1	4	n/a
2009	n/a	13	n/a	n/a	n/a	n/a	n/a
2010	n/a	4	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.

Nelson Lagoon

People and Place

Location[309]

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

Demographic Profile [310]

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

In 2010, a majority of Nelson Lagoon residents identified themselves as American Indian and Alaska Native (75%), 21.2% identified themselves as White, 1.9% as Asian, and 1.9% identified with two or more races. That year, 1.9% of Nelson Lagoon residents also identified themselves as Hispanic. Compared to 2000, individuals identifying as American Indian and Alaska Native made up 3.3% less of the population in 2010, while those identifying as White made up 7.9% more of the population. The change in population from 1990 to 2010 is provided in Table 1 below, and changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

In 2010, the average household size in Nelson Lagoon was 2.36, a slight decrease from 2.6 persons per household in 1990 and 2.68 persons per household in 2000. The number of households in Nelson Lagoon has also decreased over time, with 31 occupied households in 1990 and 2000, and 22 occupied housing units in 2010. Of the 32 total housing units surveyed for the 2010 U.S. Census, 46.9% were owner-occupied, 21.9% were rented, and 31.3% were

[309] 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.

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

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

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

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

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

[1] (1) U.S. Census Bureau (1990). *CP-1: General Population Characteristics of all places within Alaska*. Retrieved November 1, 2011 from http://www.census.gov/prod/www/abs/decennial/1990.html. (2) U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

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

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

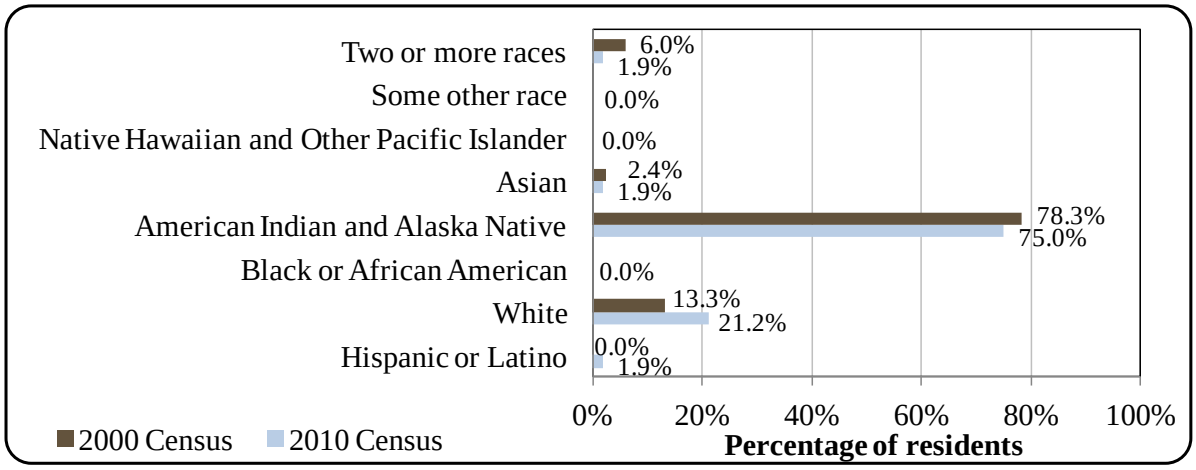
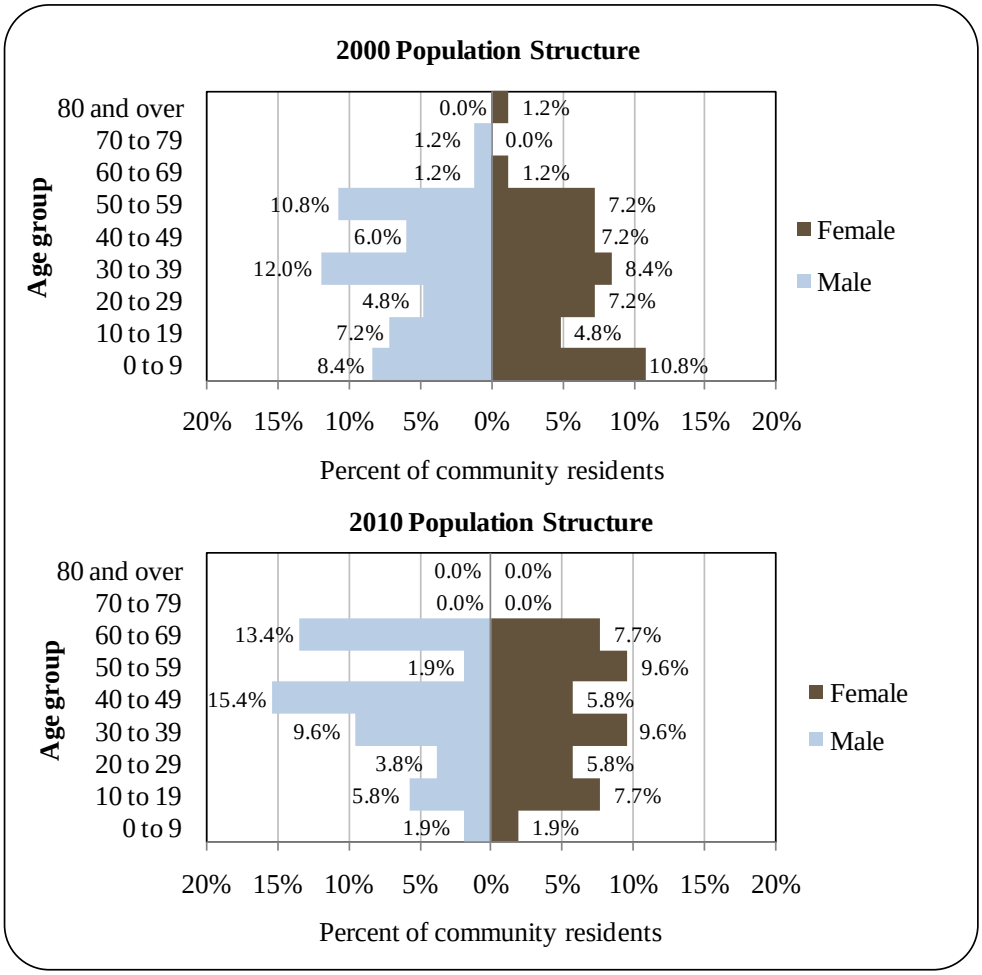


Figure 2. Population Age Structure in Nelson Lagoon Based on the 2000 and 2010 U.S. Decennial Census.



In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS),[311] 47.1% of Nelson Lagoon residents aged 25 and over were estimated to hold a high school diploma or higher degree in 2010, compared to 90.7% of Alaskan residents overall. Also in 2010, 47.1% of the population was estimated to have less than a 9th grade education, compared to 3.5% of Alaskan residents overall; 5.9% were estimated to have a 9th to 12th grade education but no diploma, compared to 5.8% of Alaskan residents overall; 11.8% were estimated to have some college but no degree, compared to 28.3% of Alaskan residents overall; 5.9% were estimated to have an Associate's degree, compared to 8% of Alaskan residents overall; 0% were estimated to have a Bachelor's degree, compared to 17.4% of Alaskan residents overall; and 0% were estimated to have a graduate or professional degree, compared to 9.6% of Alaskan residents overall.

History, Traditional Knowledge, and Culture

Archaeological evidence suggests Unanga (Aleut) tribes have inhabited the Alaska Peninsula since the last ice age.[312] Nelson Lagoon was historically used as a summer fish camp by the Aleut people. They were drawn to the site by the excellent resources of the lagoon and nearby Bear River.[313] 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.[314]

The Lagoon was named in 1882 for Edward William Nelson of the U.S. Signal Corps, an explorer in the Yukon Delta region between 1877 and 1920. A salmon saltery operated from 1906 to 1917, which attracted Scandinavian fishermen, but there has been no cannery since. In 1965, a school was built, and the community began to be occupied year-round. The culture is focused on commercial fishing and subsistence activities. There is a strong community pride and loyalty among the residents, with a desire to maintain their lifestyle with slow, monitored growth and development that can be managed by the residents.[315]

Natural Resources and Environment

Nelson Lagoon lies in the maritime climate zone. Frequent and dramatic weather changes occur, with a constant prevailing wind of 20 to 25 mph. Temperatures average 25 to 50 °F, with a range from -15 to 75 °F. Annual snowfall averages 56 inches, with a total precipitation of 33 inches.[316] Nelson Lagoon is located at the western tip of the Alaska Peninsula, on the northern

[311] 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.
[312] WHPacific (2010). *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan.* Retrieved December 7, 2011 from: http://www.aleutianseast.org/.
[313] 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.
[314] 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/.
[315] See footnote 313.
[316] Ibid.

coast bordering Bristol Bay. The northern and central portions of the Peninsula are generally flat and contain many lakes, while the southern portion is mountainous.[317]

Protected Areas in the vicinity of Nelson Lagoon include the Izembek National Wildlife Refuge (NWR) to the west, the Alaska Peninsula NWR and Alaska Maritime NWR to the south. The 417,533 acre Izembek NWR was established in 1960 as "a refuge, breeding ground, and management area for all forms of wildlife." The NWR hosts the Pavlof and Shishaldin volcanoes and Izembek Lagoon. The Lagoon provides habitat for an extraordinary abundance and diversity of waterfowl and shorebirds, and was the first site in the United States to be designated a Wetland of International Importance by the Ramsar Convention in 1986, and in 2001 it was also designated a Globally Important Bird Area by the American Bird Conservancy. In addition to providing critical habitat for hundreds of thousands of migrating birds, the Izembek NWR is also home to resident seabirds; marine mammals including harbor seals, sea otters, Steller sea lions, gray, orca, and minke whales; and land mammals, including brown bear, caribou, wolves, red fox, river otter, mink, wolverine, and many small mammals. Salmon spawn in NWR streams.[318]

The Alaska Peninsula NWR and Alaska Maritime NWR were both established under the Alaska National Interest Land Conservation Act (ANILCA) of 1980. With a total area of 3.7 million acres, the Alaska Peninsula NWR extends as far west as False Pass and east beyond Chignik Bay, and includes a separate eastern unit south of Ugashik. It hosts a dramatic landscape of towering mountain peaks, including a number of active volcanoes, rolling tundra, and rugged coastlines. Salmon return to the rivers of the NWR, supporting brown bear populations. Other land mammals include wolverine, the 7,000-animal northern Alaska Peninsula caribou herd, wolves, and moose. It is of note that no black bears are found in the Alaska Peninsula NWR. Marine mammals along the coastline include sea otters, harbor seals, sea lions, and migrating whales. The Alaska Peninsula NWR also provides important habitat for migrating birds.[319]

The Alaska Maritime NWR hosts a similar array of species in the Alaska Peninsula region. However, it contains a greater diversity overall, as it spans four time zones,[320] stretching from the Aleutian Islands to the Southeast Alaska Panhandle. It was created in part to promote a program of scientific research on marine ecosystems. The Alaska Maritime NWR "protects breeding habitat for seabirds, marine mammals, and other wildlife on more than 2,500 islands, spires, rocks, and coastal headlands."[321]

At least eleven known minerals occur in the Nelson Lagoon area. Copper, gold, silver, lead, zinc, antimony, arsenic, and silver deposits have been identified. Ilmenite sands occur on the beaches near Nelson Lagoon. Reserves of oil and natural gas are also thought to be present on the outer continental shelf in the Bristol Bay Basin along the northern edge of the Aleutian Islands and Alaska Peninsula.[322] However, given the importance of Bristol Bay fisheries to the

[317] Alaska Department of Natural Resources (2005). *Bristol Bay Area Plan for State Lands*. Retrieved January 4, 2012 from http://dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm.
[318] U.S. Fish and Wildlife Service (2011). *Izembek National Wildlife Refuge.* Retrieved January 4, 2012 from http://izembek.fws.gov/.
[319] 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.
[320] "Technically, the Alaska Maritime Refuge spans 4 time zones (Pacific, Yukon, Alaska, and Bering). In 1983 almost all the state was consolidated under Alaska Time (standard and daylight) - one hour behind Pacific Time of the West Coast. Only the central and western Aleutian Islands observe Hawaii-Aleutian Time, two hours behind Pacific Time." Quote retrieved June 11, 2012 from http://alaskamaritime.fws.gov/howbig.htm.
[321] USFWS (n.d.). *Alaska Maritime National Wildlife Refuge.* Retrieved January 4, 2012 from http://alaskamaritime.fws.gov/.
[322] See footnote 317.

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.[323] On March 31, 2010, President Obama withdrew the Bristol Bay area of the North Aleutian Basin from oil and gas leasing, whether for exploratory or production purposes, through 2017.[324]

Natural hazards with the potential to impact Nelson Lagoon include earthquakes, tsunamis, severe weather, erosion, and volcanoes. Erosion is of immediate concern in Nelson Lagoon. As a result of global climate change, winter pack ice has declined, leaving the community more vulnerable to the action of severe winter storms. The U.S. Army Corps of Engineers has estimated an annual average erosion rate of 5 feet per year in Nelson Lagoon as a result of wind and tidal surges. Impacts of erosion include exposure of the community's water transmission line, resulting either in breaking as a result of wave action or freezing due to winter temperatures.[325]

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Nelson Lagoon as of May 2012.[326]

Current Economy[327]

Nelson Lagoon is situated in the middle of a rich and productive salmon fishing area.[328] In 2010, 23 residents held commercial fishing permits (Table 4), primarily for salmon set and drift gillnet fisheries in the Alaska Peninsula region. In 2000, the number of residents holding commercial fishing permits was equal to 32.5% of the total local population, and the number of commercial crew license holders was equal to 28%. These percentages increased by 2010, when the number of permit holders was equivalent to 44% of the population, and crew license holders were equal to 31%. Subsistence activities balance the seasonal nature of the commercial fishery. Some trapping occurs.[329]

Based on household surveys conducted for the 2006-2010 ACS,[330] in 2010, the per capita income in Nelson Lagoon was estimated to be $15,608 and the median household income was estimated to be $32,500. This represents a substantial decrease from the per capita and median household incomes reported in the year 2000 ($27,596 and $43,750, respectively). The decrease

[323] U.S. Dept. of the Interior, Minerals Management Service. March 2010. *Preliminary Revised Program Outer Continental Shelf Oil and Gas Leasing Program 2007-2012*. Retrieved January 6, 2012 from http://www.boemre.gov/5-year/PDFs/PRP2007-2012.pdf.
[324] 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.
[325] WHPacific (2010). *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan.* Retrieved December 7, 2011 from: http://www.aleutianseast.org/.
[326] Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved April 17, 2012 from http://dec.alaska.gov/spar/csp/list.htm.
[327] Unless otherwise noted, all monetary data are reported in nominal values.
[328] 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.
[329] Ibid.
[330] U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

is even greater if inflation is taken into account by converting the 2000 values to 2010 dollars,[331] revealing a real per capita income in 2000 of $36,288 and a real median household income of $57,531. In 2010, Nelson Lagoon ranked 199th of 305 Alaskan communities with per capita income data, and 233rd in median household income, out of 299 Alaskan communities with household income data that year.

Although Nelson Lagoon's small population size may have prevented the ACS from accurately portraying economic conditions,[332] additional evidence for a decrease in per capita income is provided by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Nelson Lagoon in 2010 is $13,511.[333,334] However, despite this evidence for a decline in income between 2000 and 2010, Nelson Lagoon did not meet the Denali Commission's criteria as a "distressed community" in 2010. It should be noted that both ACS and DOLWD data are based on wage earnings, and these income statistics do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a similar percentage of Nelson Lagoon residents were estimated to be in the civilian labor force (70%) as in the civilian labor force statewide (68.8%). In the same year, 44% of local residents were estimated to be living below the poverty line, compared to 9.5% of Alaskan residents overall, and the unemployment rate was estimated to be 0%, compared to a statewide unemployment rate of 5.9%. An additional estimate of unemployment is based on the ALARI database, which indicates that the unemployment rate in Nelson Lagoon in 2010 was 3.9%, compared to a statewide unemployment rate estimate of 11.5%.[335]

Also based on the 2006-2010 ACS, 50% of the Nelson Lagoon workforce was estimated to be employed in the public sector, and 50% in the private sector. Of the 14 people aged 16 and over that were estimated to be employed in the civilian labor force, a majority were estimated to work in educational services, health care, and social assistance industries (64.3%) and in service occupations (64.3%). None of the civilian labor force was estimated to be working in fishing-related industries or occupations in 2010. However, the number of individuals employed in farming, fishing, and forestry industries is probably underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly. This information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4. It is important to note that, compared to 2000, fewer industries and occupations appear to be represented in Nelson Lagoon in 2010. This could be due in part to a shift in methods employed by the U.S. Census Bureau to estimate employment statistics.[336]

[331] Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gov/research/cpi/inflationcalc.htm).
[332] 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.
[333] See footnote 330.
[334] 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/.
[335] Ibid.
[336] See footnote 332.

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

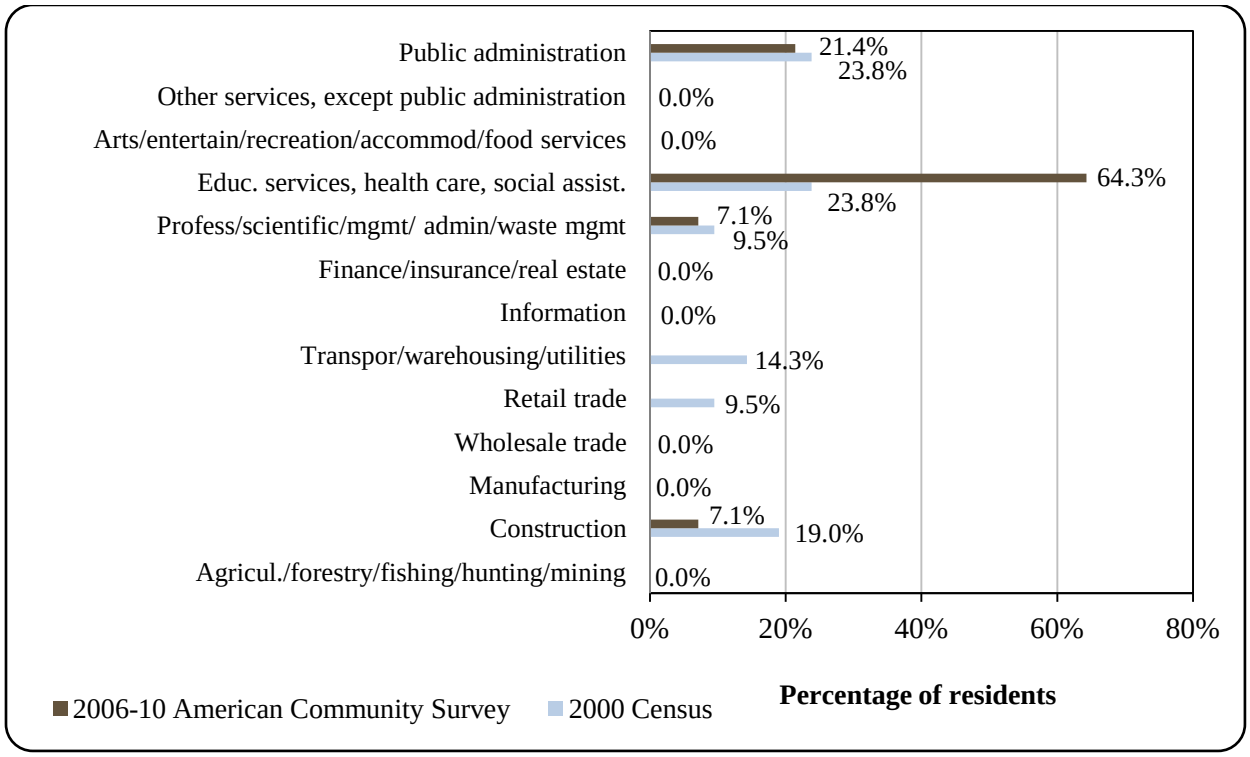
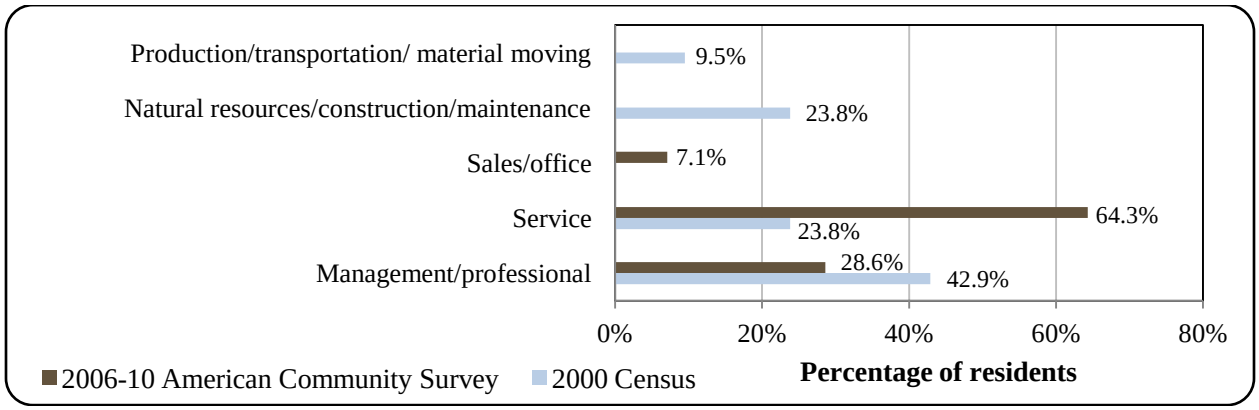


Figure 4. Local Employment by Occupation in 2000-2010, Nelson Lagoon (U.S. Census).



An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 28 employed residents in Nelson Lagoon in 2010, of which 35.7% were employed in local government, 21.4 in education and health services, 14.3% in trade, transportation, and utilities, 14.3% in professional and business services, 7.1% in financial activities, 3.6% in information, and 3.6% in other industries.[337] As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

[337] See footnote 334.

Governance

Nelson Lagoon is an unincorporated town in the Aleutians East Borough. No municipal revenue was reported and no taxes were administered by the community. The Borough administers a 2% raw fish tax, but does not levy a sales or property tax in Nelson Lagoon.[338] In 2007 and 2008, Nelson Lagoon received Community Revenue Sharing contributions of $40,000 and $96,798, respectively. Also in 2007, Nelson Lagoon received a $2,000,000 grant from the Economic Development Administration (EDA) for design and construction of a fish handling facility.[339,340] For more information about the facility, see the *Processing Plants* and *Fisheries-Related Revenue* sections of this profile. Information about some of Nelson Lagoon's revenue sources is presented in Table 2.

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

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

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

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

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

[3] Alaska Dept. of Rev. (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Accessed at www.tax.state.ak.us. Data retrieved April 15, 2011.

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

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

[338] 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.

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

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

Nelson Lagoon was included under the Alaska Native Claims Settlement Act (ANCSA), and is federally recognized as a Native village. The authorized traditional entity, recognized by the Bureau of Indian Affairs, is the Native Village of Nelson Lagoon. The Native village corporation is the Nelson Lagoon Corporation, which manages 77,188 acres of land.[341] Nelson Lagoon belongs to the Aleut Corporation, the regional Native corporation of the eastern Alaska Peninsula and Aleutian Islands.[342]

Nelson Lagoon is also a member of the Aleutian Pribilof Islands Association (APIAI), one of the 12 regional Alaska Native 501(c)(3) nonprofit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native Associations receive federal funding to administer a broad range of services to villages in their regions.[343] APIAI provides services including cultural heritage, health, education, social, psychological, employment, vocational training, environment, natural resources, and public safety services.[344]

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

Infrastructure

Connectivity and Transportation

Nelson Lagoon is accessible only by air and sea. A state-owned 4,000 feet long by 75 feet wide gravel runway serves regularly-scheduled flights.[345] The price of a roundtrip ticket by plane from Nelson Lagoon to Anchorage in early June of 2012 was $691.[346] Nelson Lagoon also has a dock. Some freight is landed at the Peter Pan Seafoods dock, 30 miles away at Port Moller.[347]

Facilities

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

[341] 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.
[342] Aleut Corporation (2008). *Corporation*. Retrieved February 9, 2012 from http://www.aleutcorp.com.
[343] 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.
[344] Aleutian Pribilof Islands Association (n.d.). *Homepage.* Retrieved January 3, 2012 from http://www.apiai.com/.
[345] See footnote 341.
[346] This price was calculated on November 21, 2011 using kayak.com.
[347] See footnote 341.

Nelson Lagoon Electric Cooperative, provides power to the town.[348] Public safety services are provided by a Village Public Safety Officer stationed in Nelson Lagoon.[349] The nearest state trooper post is located in Cold Bay.[350] Telephone and internet service is accessible in Nelson Lagoon, but no cable service provider is present. Community facilities include a washeteria operated by the Village Council, a community center and a school multipurpose room.[351]

With regard to fishing-related infrastructure, Nelson Lagoon has a dock, harbormaster's office, and a warehouse.[352] In a survey conducted by the AFSC in 2011, community leaders reported that 150 feet of dock space is available for moorage of transient and public vessels up to 40 feet in length, but no space is available for permanent moorage. Additional infrastructure reported by community leaders includes a haulout facility for small boats (less than 60 tons) and a fish processing plant that is currently not operational (see the *Processing Plants* section of this profile). Community leaders also noted that residents travel to the communities of Port Moller, King Cove, and Sand Point to access fisheries-related businesses and services not available in Nelson Lagoon.

Medical Services

As of 2012, local health care is provided by the Nelson Lagoon Clinic, which is owned by the Village and operated by Eastern Aleut Tribes, Inc. The Nelson Lagoon Clinic is a Community Health Aide Program site. Emergency Services have coastal and air access. Emergency service is provided by volunteers and a health aide. Auxiliary health care is provided by Nelson Lagoon First Responders.[353] However, as of June 2012, the status of clinic operations was in question. Closure of the Nelson Lagoon School means that the health aide will move somewhere else where her child can attend school.[354] For more information, see the *Educational Opportunities* section. The nearest hospital to Nelson Lagoon is located in Dillingham.

Educational Opportunities

As of 2011, there was one school in the community, which offered preschool through 12th grade and had a total of seven students and one teacher. In 2012, the student body declined to six students. In late May 2012, a decision was made to close the school due to low enrollment.[355]

[348] Ibid.
[349] Dept. of Public Safety (n.d.). *Active VPSO's by Village, December 2011*. Retrieved December 12, 2011 from http://www.dps.alaska.gov/.
[350] Alaska Dept. of Public Safety (2012). *Alaska State Trooper Detachments*. Retrieved June 1, 2012 from http://www.dps.state.ak.us/ast/detachments.aspx.
[351] See footnote 341.
[352] Ibid.
[353] Ibid.
[354] DeMarban, A. (2012). "Dwindling students means four more rural Alaska schools will close." *Alaska Dispatch*. Published June 5, 2012. Retrieved June 11, 2012 from http://www.alaskadispatch.com/.
[355] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Subsistence harvest has been important to residents of the Nelson Lagoon area for thousands of years. Villages and fish camps were often located at mouths of streams for access to both fresh water and abundant salmon runs.[356] During Alaska's Russian period, salmon remained a subsistence resource, but soon after the purchase of Alaska by the United States. in 1867, commercial exploitation of salmon was initiated. The first salmon saltery was built in Alaska in 1868, and the first cannery was established in 1869.[357] In Nelson Lagoon, a salmon saltery operated from 1906 to 1917, which attracted Scandinavian fishermen, but no cannery has operated in the community since.[358]

In addition to salmon, commercial fisheries that have played a role in Nelson Lagoon's history in recent years include groundfish, octopus, and herring fisheries. Major groundfish fisheries in the Alaska Peninsula region include a jig fishery for black rockfish out of Unalaska and a Pacific cod fishery in state waters (0-3 miles from the coast), in addition to a statewide lingcod fishery, and a sablefish fishery in state waters for non-federal sablefish quota share holders. Octopus is typically harvested only as bycatch in pot and trawl fisheries, but vessels working along the Alaska Peninsula can obtain a Commissioner's permit to specifically target octopus. Herring are harvested for bait in the vicinity of Unalaska when Togiak-spawning herring are in residence during the summer feeding period. On occasion, a herring sac roe fishery occurs near Port Moller when aerial surveys determine that a sufficient quantity of herring is present, and if processing capacity is available.[359]

Nelson Lagoon is located in Federal Statistical and Reporting Area 512 and the Bering Sea Sablefish Regulatory Area. The Village is located in a marine area closed to Pacific halibut harvest, but residents may be able to access nearby Pacific Halibut Fishery Regulatory Areas 4E to the north and east, 4A to the west, and 3B to the south. Nelson Lagoon is a member of the Aleutian Pribilof Island Community Development Association (APICDA), a Community Development Quota (CDQ) group that works to develop stable local economies in member communities through scholarships, vocational education activities, substance abuse programs, school grants, and infrastructure development, including matching funds for the construction of docks and harbors.[360] Nelson Lagoon is not eligible to participate in the Community Quota Entity program. According to a survey conducted by the AFSC in 2011, community leaders reported that Nelson Lagoon is not directly involved in fisheries management processes in Alaska.

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[356] 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/.
[357] 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.
[358] 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.
[359] 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.
[360] Aleutian Pribilof Island Community Development Association (2008). *About APICDA*. Retrieved January 2, 2012 from http://www.apicda.com/about_apicda.html.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, no registered processing plants were located in Nelson Lagoon. In 2007, Nelson Lagoon received a $2,000,000 grant from the Economic Development Administration (EDA) for design and construction of a fish handling facility.[361,362] The regional CDQ entity, the APICDA, provided a matching grant for a total of $4,000,000 toward the facility.[363] According to the 2011 AFSC survey, community leaders reported that the fish processing plant was present in Nelson Lagoon, but was not yet operational.

Local drift and set gillnetters have access to a processing facility in Port Moller, 30 miles east of Nelson Lagoon. Peter Pan Seafoods operates this remote processing (freezing) plant, which primarily processes sockeye salmon, as well as small amounts of Chinook, coho, and chum salmon. During the season, which runs from May through September, the Port Moller facility "supports a fleet of 105 drift gill netters and 30 set netters, both resident and non-resident fishermen."[364] There are no year-round residents in Port Moller, but according to an AFSC survey of plant managers in 2011, during peak production (from June through August) the crew is made-up of 165 people. The Port Moller facility is self-sufficient and provides all housing and food for its workforce as well as its own electricity, water, and other supplies.[365]

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

Fisheries-Related Revenue

The only information about fishing-related revenue received by Nelson Lagoon between 2000 and 2010 came from the 2011 AFSC survey. Community leaders reported that, in 2010, the town received $1,000 in revenue from public dock use fees (Table 3). In addition, community leaders noted that $100,000 in funding or grants were received from the regional CDQ entity, the APICDA. In 2007, the APICDA also provided a matching grant to supplement $2,000,000 in funding from the EDA, for a total of $4,000,000 toward design and construction of a fish handling facility in Nelson Lagoon (see *Processing Plants* section of this profile.)[366] Information about selected sources of fisheries-related revenue received in Nelson Lagoon is presented in Table 3.

Commercial Fishing

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

[361] Alaska Dept. of Comm. and Rural Affairs (n.d.). *Community Funding Database*. Retrieved at http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm. Data retrieved April 15, 2011.
[362] Aleutian Pribilof Island Community Development Association (n.d.). *About APICDA.* Retrieved October 17, 2012 from http://www.apicda.com/nelson_lagoon.html.
[363] See footnotes 360 and 362.
[364] Peter Pan Seafoods. Inc. (2011). *Facilities*. Retrieved May 23, 2012 from http://www.ppsf.com/facilities/index.aspx.
[365] Ibid.
[366] See footnotes 360 and 362.

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

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

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

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

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

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

Revenue source	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Raw fish tax[1]	n/a	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[2,3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$1,000
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
Total fisheries-related revenue[4]	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*$1,000*
Total municipal revenue[5]	*n/a*	*n/a*	*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] Alaska Dept. of Comm. and Econ. Dev. (n.d.) *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

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

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

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

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

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) [2]	Total permits	1	0	0	0	0	1	0	0	0	0	0
	Fished permits	0	0	0	0	0	1	0	0	0	0	0
	% of permits fished	0%	-	-	-	-	100%	-	-	-	-	-
	Total permit holders	1	0	0	0	0	1	0	0	0	0	0
Other shellfish (CFEC) [2]	Total permits	0	0	0	0	1	1	0	0	0	0	0
	Fished permits	0	0	0	0	1	0	0	0	0	0	0
	% of permits fished	-	-	-	-	100%	0%	-	-	-	-	-
	Total permit holders	0	0	0	0	1	1	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Herring (CFEC) [2]	Total permits	3	2	2	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	-	-	-	-	-	-	-	-
	Total permit holders	3	2	2	0	0	0	0	0	0	0	0

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

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

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

[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 Nelson Lagoon: 2000-2010.

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

[1] Alaska Department of Fish and Game. 2011. Alaska sport fish and crew license holders, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]
[2] Alaska Department of Fish and Game, and Alaska Commercial Fisheries Entry Commission. 2011. Alaska fish ticket data. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]
[3] Alaska Department of Fish and Game. (2011). Data on Alaska fish processors. ADF&G Division of Commercial Fisheries. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]
[4] Alaska Commercial Fisheries Entry Commission. 2011. Alaska commercial fishing permits, permit holders, and vessel licenses, 2000 – 2010. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]
[5] Totals only represent non-confidential data.

Table 6. Halibut Catch Share Program Participation in Nelson Lagoon: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (pounds)
2000	0	0	0
2001	0	0	0
2002	0	0	0
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	0	0	0
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0

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

Table 7. Sablefish Catch Share Program Participation in Nelson Lagoon: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (pounds)
2000	0	0	0
2001	0	0	0
2002	0	0	0
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	0	0	0
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0

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

Table 8. Bering Sea and Aleutian Island Crab Catch Share Program Participation by Residents of Nelson Lagoon: 2000-2010.

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

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

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
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
Total[2]	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
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
Total[2]	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*

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

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

[2] Totals only represent non-confidential data.

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

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

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

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

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

[2] Totals only represent non-confidential data.

Recreational Fishing

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

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

The Alaska Statewide Harvest Survey,[367] conducted by ADF&G between 2000 and 2010, did not include information about species targeted by private anglers in Nelson Lagoon, and no kept/release log book data were reported for sportfishing charters out of Nelson Lagoon between 2000 and 2010.[368]

Table 11. Sport Fishing Trends, Nelson Lagoon: 2000-2010.

Year	Active Sport Fish Guide Businesses[1]	Sport Fish Guide Licenses[1]	Sport Fishing Licenses Sold to Residents[2]	Sport Fishing Licenses Sold in Nelson Lagoon[2]
2000	0	0	9	8
2001	0	0	8	5
2002	0	0	6	5
2003	0	0	3	1
2004	0	0	3	11
2005	0	0	5	1
2006	0	0	4	8
2007	0	1	9	4
2008	0	0	5	2
2009	0	1	8	1
2010	0	1	3	2

[367] 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).

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

Table 11 cont'd. Sport Fishing Trends, Nelson Lagoon: 2000-2010.

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

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

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

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

Subsistence Fishing

Nelson Lagoon residents combine subsistence harvest of a wide variety of marine resources with employment opportunities in commercial fishing.[369] In a survey conducted by the AFSC in 2011, Nelson Lagoon community leaders said that salmon are the most important subsistence resources utilized by local residents.

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

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

(unreported percentage of households harvesting). In addition, 8% of households were reported to harvest harbor seal that year.[370]

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

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

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

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

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

Note: n/a indicates that no data were reported for that year.
Source: Alaska Department of Fish and Game. 2011. Community Subsistence Information System (CSIS). ADF&G Division of Subsistence. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sb/CSIS/ (Accessed February 2011).

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

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Nelson Lagoon: 2000-2010.

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

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

[1] Fall, J.A., C. Brown, N. Braem, J.J. Simon, W.E. Simeone, D.L. Holen, L. Naves, L. Hutchinson-Scarborough, T. Lemons, and T.M. Krieg. 2011, revised. Alaska subsistence salmon fisheries 2008 annual report. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 359, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

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

Table 14. Subsistence Halibut Fishing Participation, Nelson Lagoon: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	n/a	n/a	n/a
2004	n/a	n/a	n/a
2005	1	n/a	n/a
2006	1	n/a	n/a
2007	1	n/a	n/a
2008	1	n/a	n/a
2009	1	n/a	n/a
2010	1	n/a	n/a

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

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

Table 15. Subsistence Harvests of Marine Mammal Resources, Nelson Lagoon: 2000-2010.

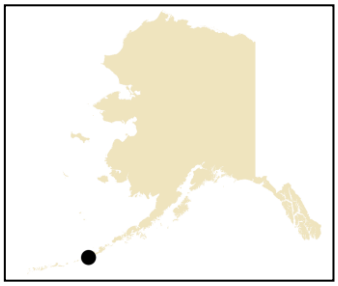
Year	# of Beluga Whales[1]	# of Sea Otters[2]	# of Walrus[2]	# of Polar Bears[2]	# of Steller Sea Lions[3]	# of Harbor Seals[3]	# of Spotted Seals[3]
2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	1	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	2	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	13	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.



Nikolski (*nih-COAL-skee*)

People and Place

Location [371]

Nikolski is located on Nikolski Bay, on the southwest end of Umnak Island, one of the Fox Islands group in the Aleutian Chain. Nikolski is located 300 air miles southwest of False Pass (the western tip of the Alaska Peninsula), 116 air miles west of Unalaska, and 900 air miles from Anchorage. Nikolski is located in the Aleutian Islands Recording District and Aleutians West Census Area.

Demographic Profile [372]

In 2010, there were 18 inhabitants in Nikolski, making it the 329th largest of 352 total Alaskan communities with recorded populations that year. Nikolski is considered by some to be the oldest continuously inhabited settlement in the world, with archaeological evidence within the Village of Nikolski dating to 4,000 years ago, and additional archaeological sites on Umnak Island dating back 8,500 years. Nikolski first appeared in the U.S. Census in 1880, with 127 individuals reported to be living in the community.[373] There has been a downward population trend since that time. Between 1990 and 2010, the population declined by almost 50%. According to Alaska Department of Labor estimates, between 2000 and 2009, the population of permanent residents decreased by 15.4%, with an average annual growth rate of -3.23%. These high percentages are in part reflective of the low population size in Nikolski; small variations in population number account for a larger percentage of the population than in larger communities.

In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders estimated that anywhere from 5 to 12 seasonal workers are present in Nikolski each year between July and November to work in seasonal hunting and fishing tourism positions. They also indicated that Nikolski's population is at its yearly peak during this period, which coincides with hunting season, and that local population fluctuations are only slightly driven by employment in fishing sectors.

In 2010, a majority of Nikolski residents identified themselves as American Indian and Alaska Native (94.4%) and the remaining 5.6% identified themselves as White. That year, no Nikolski residents identified themselves as Hispanic. Compared to 2000, individuals identifying as American Indian and Alaska Native made up 25.2% more of the population in 2010, while those identifying as White made up 25.2% less of the population. The change in population from 1990 to 2010 is provided in Table 1 below, and changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

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[371] 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.

[372] 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.

[373] See footnote 371.

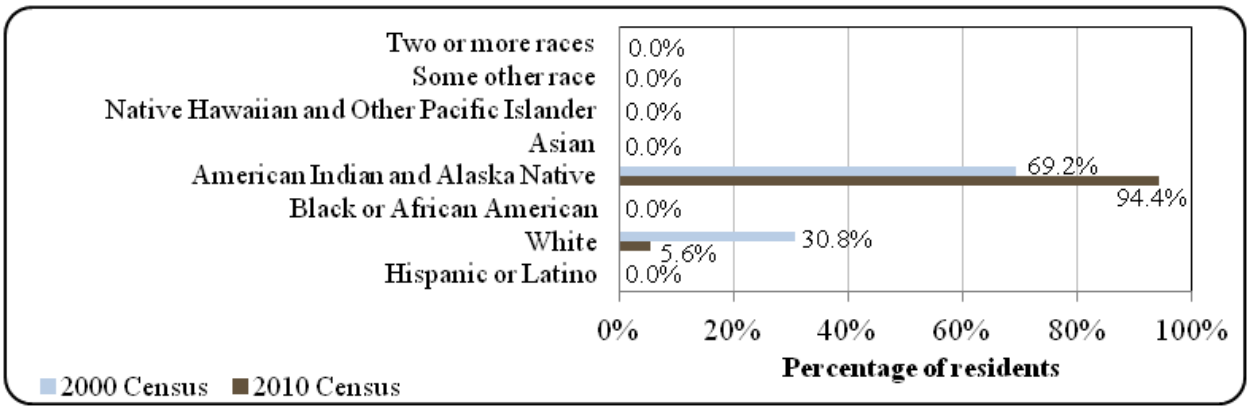
Table 1. Population in Nikolski from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	35	-
2000	39	-
2001	-	32
2002	-	34
2003	-	41
2004	-	36
2005	-	31
2006	-	31
2007	-	33
2008	-	27
2009	-	33
2010	18	-

[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, Nikolski: 2000-2010 (U.S. Census).



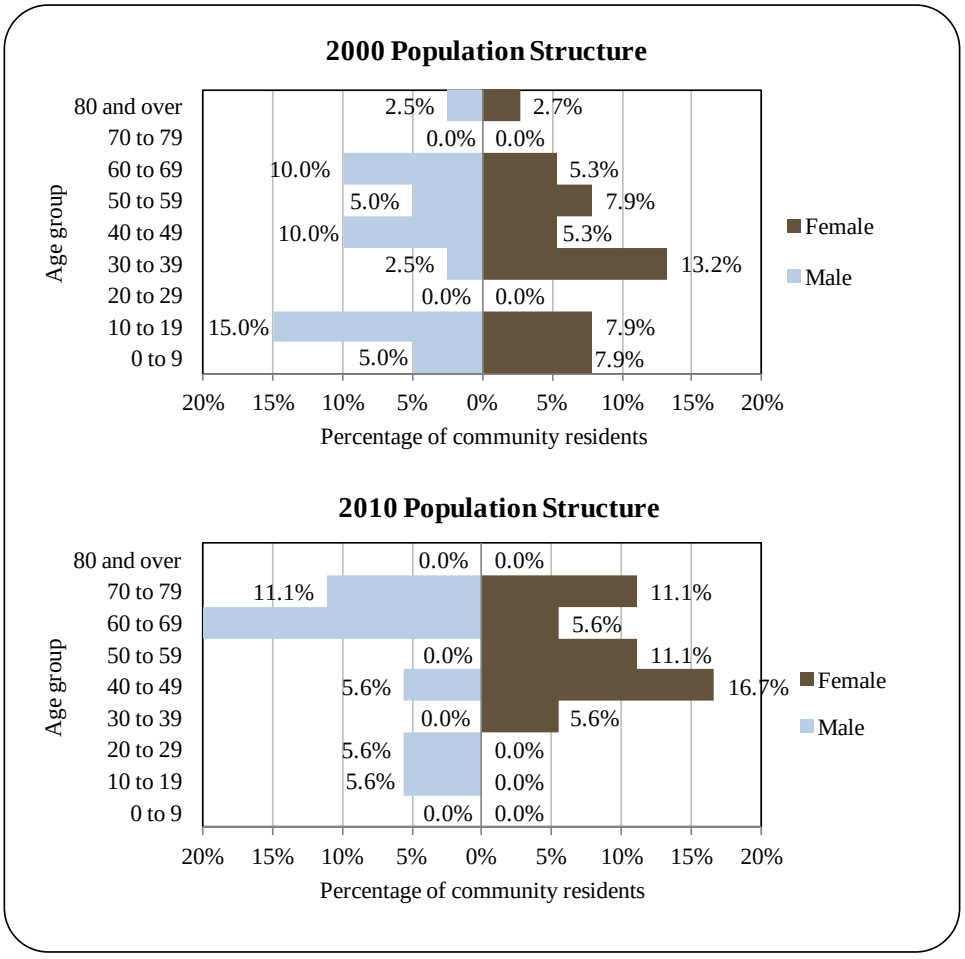
Household size in Nikolski increased between 1990 and 2000, from 1.8 to 2.6, and then decreased again to 1.38 persons per household in 2010. The number of households in Nikolski also decreased over time, with 19 occupied housing units in 1990, 15 in 2000, and 13 occupied housing units in 2010. Of the 23 total housing units surveyed for the 2010 U.S. Census, 47.8% were owner-occupied, 8.7% were rented, and 43.5% were vacant or used only seasonally. From 1990 to 2010, no residents of Nikolski lived in group quarters.

In 2010, there were an equal number of males and females living in Nikolski, compared to the state population as a whole, which had more males than females (52% male and 48% female). The median age of Nikolski residents was 63.5 years, significantly older than the

national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, half of Nikolski's population was between 60 and 80 years of age, and there were no children between the ages of 0 and 9 residing in the community. There were also no females aged 10 to 29, and no males aged 30 to 39 or 50 to 59. The overall population structure of Nikolski in 2000 and 2010 is shown in Figure 2.

In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS),[374] 100% of Nikolski residents aged 25 and over were estimated to hold a high school diploma or higher degree in 2010, compared to 90.7% of Alaskan residents overall. Of these, 69.2% were estimated to have a high school diploma and no further education, compared to 27.4% of Alaskan residents overall; 30.8% were estimated to have some college but no degree, compared to 28.3% of Alaskan residents overall; and 0% were estimated to hold an Associate's degree, Bachelor's degree, or graduate or professional degree, compared to 8%, 17.4% and 9.6%, respectively, of Alaska residents overall.

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



[374] 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

Nikolski is thought by some to be the oldest continuously-occupied community in the world. The Chaluka archaeological site, in the village of Nikolski, shows evidence of 4,000 years of virtually continuous occupation. People were living in Nikolski before the pyramids were built, the Mayan calendar was invented, or the Chinese language was written.[375] Archeological evidence found at the Anangula Blade site indicates that the region's earlier residents lived 9,000 years ago on Anangula Island. Anangula Island lies several miles offshore but probably was connected to Umnak Island in ancient times.[376]

Upon the arrival of the Russians in 1759, there were estimated to be approximately 2,000 – 2,500 Unangans living on Umnak Island in 20 villages. Interaction with the Russians greatly diminished the island's population, and by 1840 there were only two villages remaining. One of these was Nikolski (*Nikol'skoe*), which was used as a sea otter hunting site. Nikolski was formerly recorded by the Russians as "Recheshnoe," which means "river." In 1920, a boom in fox farming occurred on the island. The Unangan became affluent enough to purchase a relatively large boat, the "Umnak Native", which was wrecked in 1933. A sheep ranch was established in 1926 as part of the Aleutian Livestock Company. Today Nikolski is the only community on Umnak Island. [377,378]

In June 1942, when the Japanese attacked Unalaska and seized Attu and Kiska, residents were evacuated to the Ketchikan area.[379] The people of Nikolski were deposited at Ward Cove, a recreation facility near Ketchikan constructed by the Civilian Conservation Corps (CCC). The villagers quartered in the Ward Cove camp suffered the highest mortality rate of all the interned Unangans. Of the 72 Nikolski villagers who were evacuated in June of 1942, 19 perished due to inadequate housing, poor sanitation, and lack of medical care. Upon returning to their homes in 1945, villagers found that the U.S. military had continuously occupied their residences. There was extensive pilfering and looting of their property, and homes were destroyed or in need of massive repairs.[380] The village was restored, but the traditional lifestyle and community attitudes were changed. Locals were allowed to return in 1944, but the exposure to the outside world brought about many changes in the traditional lifestyle and community attitudes. In the 1950s, the Air Force constructed a White Alice Communications System on the island, which provided some jobs. However, it was abandoned in late 1977.[381]

Today, the residents that remain are largely of Unangan descent, and Aleut is spoken in three-quarters of all homes. Subsistence activities, sheep and raising cattle, and fishing-related employment sustain the community.[382]

[375] 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.
[376] Aleutians West Coastal Resource Service Area (2006). *Resource Inventory and Analysis*. Retrieved February 24, 2012 from http://www.alaskacoast.state.ak.us/Explore/AWCRSA_04_07/nikolski.html.
[377] Ibid.
[378] See footnote 375.
[379] Ibid.
[380] See footnote 376.
[381] See footnote 375.
[382] Ibid.

Natural Resources and Environment

Nikolski lies in a maritime climate zone. Temperatures range from 11 to 65 °F. Annual snowfall averages 41 inches, and total precipitation averages 21 inches. Strong winds are frequent during the winter and fog occurs during the summer, which limits accessibility.[383] The topography where the community is located is a gently rolling plain with elevations reaching 500 feet north of the village. Vegetation in the vicinity of the village is primarily Arctic/alpine tundra and grasses that are typical of the Aleutian Islands Chain.[384]

The Aleutian Islands provide habitat for marine mammals, including the Steller sea lion, northern sea otter, and harbor seal. Most of the land mammals, including foxes, reindeer, and caribou, have been introduced by humans.[385] No native land mammals inhabit most of the Aleutian Islands. Some islands close to the mainland along the Alaska Peninsula can be reached occasionally by strong swimmers such as bears and river otters.[386] The principal marine fish are Pacific halibut, Pacific cod, rockfish, sablefish, yellowfin sole, pollock, sand lance, herring, and salmon. The Aleutian Islands are best known for its birds. More than 10 million nest on the islands each summer. Puffins, auklets, gulls, storm petrels, cormorants, terns, kittiwakes, murres, pigeon guillemots, and murrelets are among the most abundant species.[387]

Parts of Umnak Island are included in the 1,300,000-acre Aleutian Islands Wilderness, which was included as part of the Alaska Maritime National Wildlife Refuge (NWR).[388] The 3.4-acre NWR was established in 1980 to conserve marine mammals, seabirds and other migratory birds, and the marine resources upon which they depend.[389] The Alaska Maritime NWR covers a great diversity of ecosystems beyond the immediate area of Nikolski, as it spans four time zones,[390] stretching from the Aleutian Islands to the Southeast Alaska Panhandle. The Alaska Maritime NWR 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."[391]

The community of Nikolski is interested in emergency response training to be better prepared for natural disasters including earthquakes, flooding, and volcanic eruptions.[392] The Alaska-Aleutian arc, also known as the "Pacific Ring of Fire," is one of the world's most active

[383] Ibid.
[384] See footnote 376.
[385] Wilderness.net (n.d.). *Aleutian Islands Wilderness*. Retrieved February 24, 2012 from http://www.wilderness.net/index.cfm?fuse=NWPS&sec=wildView&WID=5.
[386] USFWS (n.d.). *Alaska Maritime National Wildlife Refuge.* Retrieved January 4, 2012 from http://alaskamaritime.fws.gov/.
[387] See footnote 385.
[388] Ibid.
[389] See footnote 386.
[390] "Technically, the Alaska Maritime Refuge spans four time zones (Pacific, Yukon, Alaska, and Bering). In 1983 almost all the state was consolidated under Alaska Time (standard and daylight) - one hour behind Pacific Time of the West Coast. Only the central and western Aleutian Islands observe Hawaii-Aleutian Time, 2 hours behind Pacific Time." Quote retrieved June 11, 2012 from http://alaskamaritime.fws.gov/howbig.htm.
[391] See footnote 386.
[392] Information Insights, Inc. (2006). *Nikolski Community and Economic Development Plan*. Retrieved February 24, 2012 from http://www.commerce.state.ak.us/dca/plans/Nikolski-EDP-2006.pdf.

earthquake areas in the world.[393] Some of these earthquakes are associated with explosive volcanic eruptions.[394] Umnak Island consists of two volcanic peaks and old lava flows and ash falls. Because Nikolski is located along the west-to-east storm tracks of the North Pacific, the community is also vulnerable to strong storms and accompanying winds.[395]

According to the Alaska Department of Environmental Conservation (DEC), there are no notable active environmental cleanup sites located in Nikolski as of May 2012.[396]

Current Economy[397]

Nikolski has a mixed subsistence and cash economy, although few cash employment opportunities are available within the community. Most residents support themselves by working outside the village for some portion of the year at crab canneries and on processing ships. The lack of a harbor and dock in Nikolski limits fisheries-related activities. The village is interested in developing a small value-added fish processing plant and a sportfishing lodge to provide employment and attract former residents who left Nikolski for economic reasons.[398]

The top employers in Nikolski in 2010 were the local Village Council and a sportfishing lodge called Ugludax Lodge.[399] The Lodge is operated by a partnership between the Native village corporation, Chaluka Corporation, and the regional Community Development Quota (CDQ) group, the Aleutian Pribilof Island Community Development Association (APICDA).[400] In addition, the APICDA purchased a sportfishing charter boat for Nikolski. Sheep, cattle, and horses graze over much of the island, and wage income is supplemented by subsistence activities, which provide a substantial part of the villagers' diets. Salmon, halibut, seals, and ducks are of particular importance for subsistence purposes.[401]

Based on household surveys conducted for the 2006-2010 ACS,[402] in 2010, the per capita income in Nikolski was estimated to be $13,410 and the median household income was estimated to be $16,500. This represents a decrease from the per capita and median household incomes reported in the year 2000 ($14,083 and $38,750, respectively). The decrease is even

[393] Sykes, L. R., J. B. Kisslinger, L. House, J. N. Davies and K. 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.
[394] 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.
[395] Aleutians West Coastal Resource Service Area (2006). *Resource Inventory and Analysis*. Retrieved February 24, 2012 from http://www.alaskacoast.state.ak.us/Explore/AWCRSA_04_07/nikolski.html.
[396] Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites by Region.* Retrieved April 17, 2012 from http://dec.alaska.gov/spar/csp/list.htm.
[397] Unless otherwise noted, all monetary data are reported in nominal values.
[398] 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.
[399] 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/.
[400] Nikolski Adventures (n.d.). *Welcome to Nikolski Adventures at Ugludax Lodge.* Retrieved February 23, 2012 from http://www.nikolskiadventures.com/about.html.
[401] See footnote 398.
[402] 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.

greater if inflation is taken into account by converting the 2000 values to 2010 dollars,[403] revealing a real per capita income in 2000 of $18,519 and a real median household income of $50,956. In 2010, Nikolski ranked 221st of 305 Alaskan communities with per capita income data, and 288th in median household income, out of 299 Alaskan communities with household income data that year.

Although Nikolski's small population size may have prevented the ACS from accurately portraying economic conditions,[404] additional evidence for a decrease in per capita income is provided by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Nikolski in 2010 is $14,148.[405] This decline is reflected in 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.[406] It is important to note that both ACS and DOLWD data are based on wage earnings, and do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a significantly smaller percentage of Nikolski residents was estimated to be in the civilian labor force (31.3%) compared to the civilian labor force statewide (68.8%). In the same year, no residents were estimated to be living below the poverty line, compared to 9.5% of Alaska residents overall, and the unemployment rate was estimated to be 12.5%, compared to a statewide unemployment rate of 5.9%. An alternative estimate of unemployment is based on the ALARI database, which indicates that the 2010 unemployment rate in Nikolski was 14.3%, compared to a statewide unemployment rate estimate of 11.5%.[407]

Also based on the 2006-2010 ACS, 100% of the Nikolski workforce was estimated to be employed in the public sector in 2010. The civilian labor force was estimated to consist of two individuals aged 16 and over. Compared to 2000, this represents a dramatic decline in the workforce, from 39 to 2. In addition, it is important to note that many fewer industries and occupations were represented in 2010 than in 2000. In 2010, both individuals in the civilian labor force were estimated to work in educational services, health care, and social assistance industries / service occupations. While the concentration of the workforce in fewer industries and occupations may be due to a real population decline in Nikolski, it is also important to note that the sampling methods utilized by the U.S. Census Bureau were altered between 2000 and 2010. The shift in sampling methods may also account for some of the differences observed in employment estimates.[408] It is also important to note that, while none of the civilian labor force was estimated to be working in agriculture, forestry, fishing, hunting, and mining in 2010, the

[403] 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).
[404] 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.
[405] See footnotes 399 and 402.
[406] Denali Commission (2011). *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.
[407] See footnote 399.
[408] See footnote 404.

number of individuals employed by fishing may be underestimated in census statistics. 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.

An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 14 employed residents in Nikolski in 2010, of which 50% were employed in local government, 14.3% in education and health services, 14.3% in leisure and hospitality, 7.1% in natural resources and mining, 7.1% in manufacturing, and 7.1% in information.[409] As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

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

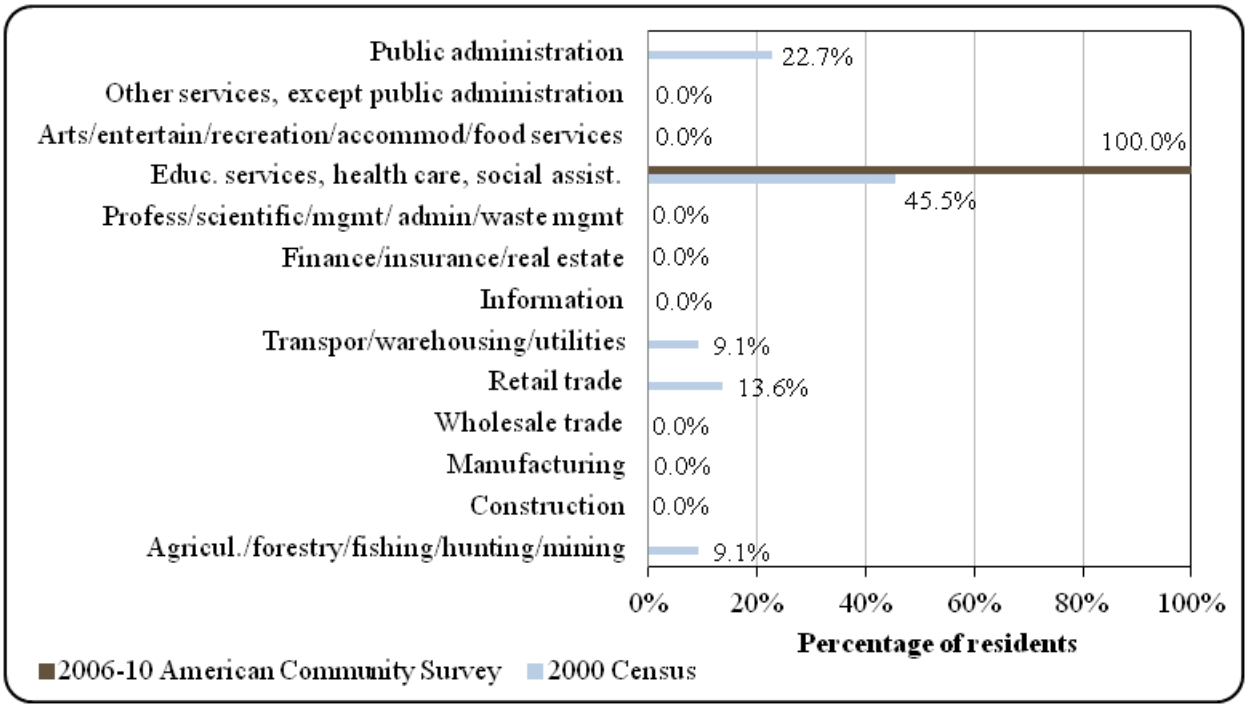
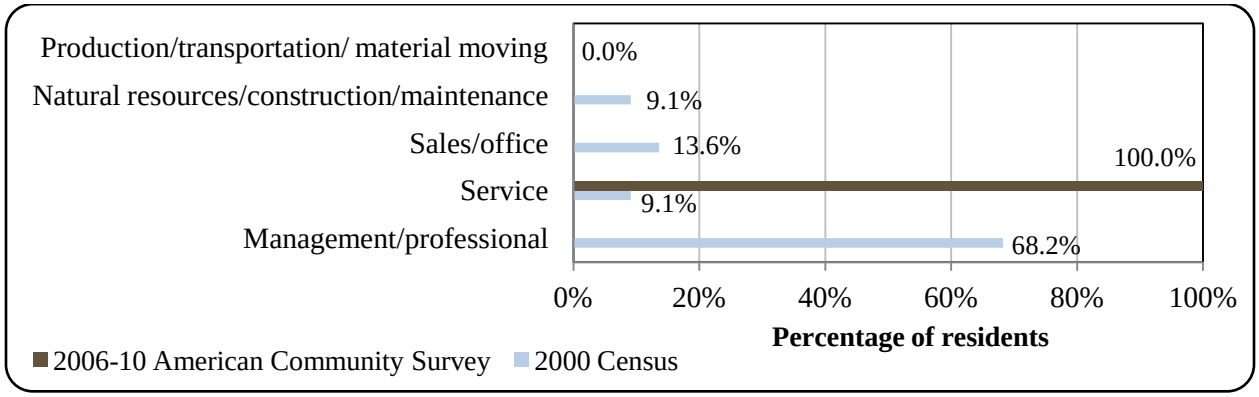


Figure 4. Local Employment by Occupation in 2000-2010, Nikolski (U.S. Census).

[409] 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/.


Production/transportation/ material moving
Natural resources/construction/maintenance
Sales/office
Service
Management/professional
0.0%
9.1%
13.6%
100.0%
9.1%
68.2%
0%
20%
40%
60%
80%
100%
Percentage of residents
2006-10 American Community Survey
2000 Census

Governance

Nikolski is an unincorporated community, and is not located in an organized borough. No municipal revenue was reported and no taxes were administered by the town between 2000 and 2010. In addition, no State or Community Revenue Sharing contributions or fisheries-related grants were reportedly received by Nikolski during this period (Table 2).

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Nikolski 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, 2011from 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, 2011from 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, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

Nikolski 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 Nikolski. The local village Native corporation is the Chaluka Corporation, which manages 77,188 acres of land.[410] Nikolski belongs to the Aleut Corporation, the regional Native corporation of the western Alaska Peninsula and Aleutian Islands.[411]

Nikolski is also a member of the Aleutian Pribilof Islands Association, Inc., (APIAI), one of the 12 regional Alaska Native 501(c)(3) nonprofit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native Associations receive federal funding to administer a broad range of

[410] 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.
[411] Aleut Corporation website (2008). *Corporation*. Retrieved February 9, 2012 from http://www.aleutcorp.com.

services to villages in their regions.[412] APIAI provides services including cultural heritage, health, education, social, psychological, employment, vocational training, environment, natural resources, and public safety services.[413]

The closest regional offices of the Alaska Department of Fish and Game (ADF&G) are in Sand Point and Port Moller. The Port Moller office is seasonal, operating between May and September. The nearest National Marine Fisheries Service (NMFS) and Bureau of Citizenship and Immigration Services offices are located in Dutch Harbor, while Dillingham has the closest office of the Alaska Department of Commerce, Community, and Economic Development, and Kodiak has the nearest office of the Alaska Department of Natural Resources (DNR). However, the Anchorage offices of these agencies may be more accessible to Nikolski residents.

Infrastructure

Connectivity and Transportation

Nikolski is primarily accessible by air. A 3,512 feet long by 135 feet wide unlighted gravel runway is present in the village that provides passenger, mail, and cargo service. The airstrip used to be owned by the U.S. Air Force.[414] Peninsula Airways operates one roundtrip air taxi flight between Nikolski and Unalaska twice weekly, on Mondays and Thursdays.[415] The price of a roundtrip ticket between Nikolski and Unalaska in early June of 2012 was $296, and a roundtrip ticket between Unalaska and Anchorage was $964.[416] Nikolski currently has no landing or port facilities for ships. Barges deliver cargo once or twice a year. Goods and passengers are lightered 3 miles to the beach.[417]

Facilities

Water in Nikolski is derived from a community well and surface water source and is chlorinated. The Nikolski Village Council operates a piped water system. All occupied homes are fully plumbed and connected to the pipe system. Homes have individual septic tanks, and the Village Council provides septic pumping services. There is no landfill or refuse collection service in Nikolski. Umnak Power Company's diesel generator is operated by the Village Council to provide electricity to the community. Police services are provided by state troopers stationed in Unalaska. Fire and rescue services are provided by the Nikolski Volunteer Fire Department. Visitor accommodations are available in town, including a trailer/hotel run by the Chaluka Corporation.[418] APICDA Joint Ventures also operates a hunting and fishing lodge just outside of Nikolski, in partnership with the Chaluka Corporation. The "Ugludax Lodge" is the westernmost fishing lodge in North America.[419]

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[412] 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.
[413] Aleutian Pribilof Islands Association (n.d.) Retrieved January 3, 2012 from http://www.apiai.com/.
[414] See footnote 410.
[415] Peninsula Airways (2011). *Homepage.* Retrieved February 23, 2012 from http://www.penair.com/.
[416] This price were calculated on November 21, 2011 using kayak.com.
[417] See footnote 410.
[418] Ibid.
[419] Nikolski Adventures (n.d.). *Welcome to Nikolski Adventures at Ugludax Lodge.* Retrieved February 23, 2012 from http://www.nikolskiadventures.com/about.html.

According to a survey conducted by the AFSC in 2011, community leaders reported that Nikolski has a water storage tank and a community center. They also indicated that development of an alternative energy source has been completed, and improvements are in process. In July, 2007, a wind turbine was installed in Nikolski to be integrated with the existing diesel power plant.[420] As of 2011, further funding was being sought to complete the final phase of the wind-diesel project.[421]

Regarding fisheries-related infrastructure, no docking facilities are present in Nikolski. According to the 2011 AFSC survey, the only fisheries-related service reported by community leaders was a fishing lodge. Community leaders also noted that residents of Nikolski most frequently travel to Unalaska and Atka to access fisheries-related businesses and services not available locally.

Medical Services

Local health care is provided by the Nikolski Health Clinic, which is owned by the Village and operated by the APIAI. The Nikolski clinic is a Community Health Aide Program site. Emergency Services have coastal and helicopter access. Emergency service is provided by volunteers.[422] The nearest hospitals are located in Dillingham and on Kodiak Island.

Educational Opportunities

One school building is present in Nikolski. However, as of the year 2011 there was no current student enrollment, and no teachers were working at the school.[423] The school was closed in the fall of 2009 after fewer than 10 students were present during the annual statewide student counting period.[424]

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Subsistence harvest has been important to people living in the Nikolski area for thousands of years. The ancestors of the modern Unangan relied heavily on harvests of marine mammals, along with harvest of birds, waterfowl, fish, and other marine life living on the extensive reefs surrounding the Aleutian Islands.[425] Today subsistence remains a fundamental

[420] Fredenberg, C. (2008). Nikolski Wind-Diesel Project. *Aleutian Pribilof Islands Association, Inc. Newsletter* Volume 25. Retrieved February 23, 2012 from http://www.apiai.com/apia_newsltr_april08_web.pdf.
[421] Native Village of Nikolski (2011). *Nikolski Renewable Energy Wind Project: Renewable Energy Fund Round V Grant Application.* Retrieved February 23, 2012 from ftp://ftp.aidea.org/.
[422] Ibid.
[423] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[424] Yardley, W. (2009). Alaska Rural Schools Fight Off Extinction. *The New York Times*, printed November 25, 2009. Retrieved February 24, 2012 from http://www.nytimes.com/2009/11/26/us/26alaska.html.
[425] Aleutians West Coastal Resource Service Area (2006). *Resource Inventory and Analysis*. Retrieved February 24, 2012 from http://www.alaskacoast.state.ak.us/Explore/AWCRSA_04_07/nikolski.html.

element of the Nikolski economy. Commercial and recreational fishing have both found an important place as well.[426]

Between 2006 and 2008, one Nikolski resident was involved in commercial fisheries for halibut and groundfish (Table 4). Commercial exploitation of halibut and groundfish first extended out along the Aleutian Islands chain in the 1920s after development of diesel engines, which allowed fishing vessels to undertake longer trips.[427] Today, major groundfish fisheries in the region include a jig fishery for black rockfish out of Unalaska and a Pacific cod fishery in state waters, (0-3 nautical miles (nmi) from the coast), in addition to a statewide lingcod fishery, and a sablefish fishery in state waters for non-federal sablefish quota share holders. Groundfish fisheries in state waters are managed the ADF&G and groundfish fisheries beyond 3 nmi are managed by NMFS.[428] The International Pacific Halibut Commission sets yearly harvest limits for the Pacific halibut fishery in Alaskan waters in areas 4A, 4B, and the combined Area 4CDE.[429]

Nikolski is located in Pacific Halibut Fishery Regulatory Area 4A, the Bering Sea and Aleutian Islands (BSAI) Federal Statistical and Reporting Area 518, and the Bering Sea Sablefish Regulatory Area. To the south of Umnak Island, the marine area is encompassed by Gulf of Alaska (GOA) Federal and Statistical Reporting Area 610 and the Western GOA Sablefish Regulatory Area. It is also important to note that the state coastal waters surrounding Umnak Island have been designated by the coastal district as a 'subsistence use area'.[430,431]

Nikolski is a member of the APICDA, a CDQ group that works to develop stable local economies in member communities through scholarships, vocational education activities, substance abuse programs, school grants, and infrastructure development, including matching funds for the construction of docks and harbors.[432] Nikolski is not eligible to participate in the Community Quota Entity (CQE) program.

According to a survey conducted by the AFSC in 2011, community leaders reported that Nikolski is not directly involved in fisheries management processes in Alaska.

[426] 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.
[427] 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://ww.iphc.int/publications/scirep/Report0005.pdf.
[428] 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.
[429] International Pacific Halibut Commission website (n.d.). Retrieved March 26, 2012 from http://www.iphc.int/.
[430] Aleutians West Coastal Resource Service Area and LaRoche & Associates (2006 revision). *Coastal Management Plan - Volume III. Final Draft Plan Amendment*. Retrieved March 26, 2012 from http://www.alaskacoast.state.ak.us/Explore/AWCRSA_04_07/pdf/pdf%20from%20word/volume%20III/vol3aug06.pdf.
[431] "Subsistence Use Areas are coastal habitat areas, used traditionally or occasionally in response to seasonal or cyclic resource abundance, where subsistence harvests of fish, wildlife, and other biological resources are conducted." (Source: see footnote 430.)
[432] Aleutian Pribilof Island Community Development Association (2008). *About APICDA*. Retrieved January 2, 2012 from http://www.apicda.com/about_apicda.html.

Processing Plants

ADF&G's 2010 Intent to Operate list does not list a registered processing plant in Nikolski, although the Village is interested in developing a small value-added fish processing plant.[433] According to a survey of processing plants conducted by the AFSC in 2011, the closest and most diversified processing port is Dutch Harbor/Unalaska. Other Aleutian Islands ports offering processing facilities are Atka and Akutan. More information about these processing facilities can be found in the profiles for each of these communities.

Fisheries-Related Revenue

The only information about fishing-related revenue received by Nikolski came from community leaders in a survey conducted by the AFSC in 2011. Community leaders reported that, in 2010, $62,000 in funding or grants were received from APICDA. No other data were reported about fisheries-related revenue received by Nikolski between 2000 and 2010 (Table 3).

Commercial Fishing

Between 2000 and 2010, several Nikolski residents participated in commercial fisheries as permit holders, crew members, and vessel owners. One Nikolski resident held Commercial Fisheries Entry Commission (CFEC) permits from 2006 to 2008. A halibut permit was held in all three of these years in the statewide longline fishery using vessels under 60 feet in length and was actively fished in all 3 years. In addition, a resident held a groundfish CFEC permit in 2007 and 2008. In 2007, the groundfish permit was held for the statewide mechanical jig fishery, while in 2008, the permit was held for the statewide longline fishery using vessels under 60 feet. These groundfish permits were not actively fished in either 2007 or 2008. Between 2000 and 2010, no Nikolski residents held either Federal Fisheries Permits (FFP) or federal License Limitation Program permits (LLP). Likewise, no Nikolski residents held quota share accounts in federal catch share fisheries for halibut, sablefish, or crab between 2000 and 2010. Information about CFEC, FFP, and LLP permits is presented in Table 4, and information about federal catch share participation is presented in Tables 6 through 8.

The number of crew license holders in Nikolski varied between zero and two during the 2000-2010 period. Between 2002 and 2004, one resident was the primary owner of a fishing vessel, and one fishing vessel was homeported in Nikolski. No fish buyers or shore-side processors were present in the community between 2000 and 2010. This information about the commercial fishing sector in Nikolski is presented in Table 5. According to a survey conducted by the AFSC in 2011, community leaders indicated that the number of fishing vessels coming to Nikolski has increased slightly over the past five years. They explained that fishing vessels have increasingly been used to bring cargo and fuel to the community, as air service has been reduced in recent years and fishing captains are more able to enter Nikolski Bay than fuel barges. No landings or ex-vessel revenue were recorded in Nikolski between 2000 and 2010 (Table 9), given the lack of fish buyers in the community (Table 5). Information about landings and ex-vessel revenue generated between 2002 and 2004 by the Nikolski-owned vessel is considered confidential (Table 10).

[433] See footnote 426.

Table 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community of Nikolski: 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
Total fisheries-related revenue[4]	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
Total municipal revenue[5]	*n/a*	*n/a*	*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] 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 municipal budget. Alaska Dept. of Comm. and Rural Affairs. (n.d.) *Financial Documents Delivery System*. Retrieved April 15, 2011 at http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits[1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	0	0	0	0	0	0	1	1	1	0	0
	Fished permits	0	0	0	0	0	0	1	1	1	0	0
	% of permits fished	-	-	-	-	-	-	100%	100%	100%	-	-
	Total permit holders	0	0	0	0	0	0	1	1	1	0	0
Herring (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0

Table 4 cont'd. Permits and Permit Holders by Species, Nikolski: 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	1	1	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	0%	0%	-	-
	Total permit holders	0	0	0	0	0	0	0	1	1	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	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
Total CFEC Permits[2]	*Permits*	0	0	0	0	0	0	*1*	*2*	*2*	0	0
	Fished permits	0	0	0	0	0	0	*1*	*1*	*1*	0	0
	% of permits fished	-	-	-	-	-	-	*100%*	*50%*	*50%*	-	-
	Permit holders	0	0	0	0	0	0	*1*	*1*	*1*	0	0

[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 Nikolski: 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 Nikolski[2]	Total Net Pounds Landed In Nikolski[2,5]	Total Ex-Vessel Value Of Landings In Nikolski[2,5]
2000	1	0	0	0	0	0	0	$0
2001	1	0	0	0	0	0	0	$0
2002	0	0	0	1	1	0	0	$0
2003	1	0	0	1	1	0	0	$0
2004	0	0	0	1	1	0	0	$0
2005	0	0	0	0	0	0	0	$0
2006	1	0	0	0	0	0	0	$0
2007	0	0	0	0	0	0	0	$0
2008	0	0	0	0	0	0	0	$0
2009	2	0	0	0	0	0	0	$0
2010	1	0	0	0	0	0	0	$0

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

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

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

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

[5] Totals only represent non-confidential data.

Table 6. Halibut Catch Share Program Participation by Residents of Nikolski: 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 Nikolski: 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 Nikolski: 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 Nikolski: 2000-2010.

	***Total Net Pounds*[1]**										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
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
Total[2]	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
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
Total[2]	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*

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 Nikolski Residents: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
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
Total[2]	*0*	*0*	-	-	-	*0*	*0*	*0*	*0*	*0*	*0*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
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
Total[2]	*$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

The Village of Nikolski has been working to increase sportfishing infrastructure in the community. With the help of the APICDA a charter boat was purchased, and there is interest in developing a sportfishing lodge.[434] Aleutian Adventures, based in Anchorage, currently runs a fishing lodge located just outside the Village.[435] According to a survey conducted by the AFSC in 2011, community leaders indicated the Nikolski economy relies heavily on sport hunting and fishing. They reported that the species targeted by sport fishermen in the Nikolski area include sablefish, Pacific halibut, and coho and pink salmon. They also indicated that all recreational fishing activity takes place using charter vessels, and neither local residents nor visitors use private vessels for sport purposes.

Sportfishing data reported by ADF&G suggests that, during the 2000-2010 period, one active sport fish guide businesses was only registered in Nikolski in 2004 and 2005. However, licensed sport fish guides were present in the community from 2000 to 2008. The number of Nikolski residents that purchased sportfishing licenses during the 2000-2010 period (irrespective of point of sale) varied between zero and five per year, and no sportfishing licenses were sold in Nikolski.

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

The Alaska Statewide Harvest Survey,[436] conducted by ADF&G between 2000 and 2010, did not include information about species targeted by private anglers in Nikolski, and no kept/release log book data were reported for fishing charters out of Nikolski in 2010.

[434] 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.
[435] Nikolski Adventures (n.d.). *Welcome to Nikolski Adventures at Ugludax Lodge.* Retrieved February 23, 2012 from http://www.nikolskiadventures.com/about.html.
[436] 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).

Table 11. Sport Fishing Trends, Nikolski: 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 Nikolski[2]
2000	0	1	3	0
2001	0	2	2	0
2002	0	3	4	0
2003	0	3	5	0
2004	1	2	4	0
2005	1	3	3	0
2006	0	2	2	0
2007	0	2	1	0
2008	0	3	2	0
2009	0	0	0	0
2010	0	0	2	0

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

Historically, the primary focus of Unangan subsistence activity was harvest of marine mammals, including seal, sea lion, and sea otter. Sea otters were harvested primarily for their pelts and to provide materials for clothing and jewelery. The traditional subsistence diet was supplemented by harvest of birds, waterfowl, fish, roots, berries, and marine life living on reefs in the region. Today, subsistence remains an important supplement to the income of Nikolski residents. Salmon, halibut, seals, and ducks are currently important subsistence resources.[437]

No information is available from ADF&G between 2000 and 2010 regarding per capita subsistence harvest, the percentage of households utilizing salmon, halibut, marine mammals, marine invertebrates, or non-salmon fish (not including halibut) for subsistence purposes (Table 12). Some data were reported regarding subsistence salmon permits. At least one Nikolski household was issued a subsistence salmon permit each year from 2000 to 2002, and again from 2006 to 2008. Relatively few salmon were reported harvested overall. Sockeye was the most heavily harvested salmon species by Nikolski households. This information is presented in Table 13.

No information is available regarding harvests of marine invertebrates and non-salmon fish from 2000 to 2010 (Table 13). An earlier ADF&G subsistence survey was conducted in Nikolski in 1990. Results of that survey provide some details regarding subsistence harvest patterns of marine invertebrate, marine mammal, and non-salmon fish species. According to the survey, species of marine invertebrates harvested by Nikolski residents in 1990 included butter, horse, Pacific littleneck, and razor clams; blue mussels; cockles; limpets; snails; red and unknown chitons; scallops; sea urchin; sea cucumber; Dungeness, hair, king, and Tanner crab; octopus; and shrimp. Of these species, the highest percentage of households harvested unknown chitons (36%), octopus (36%), limpets (14%), and blue mussels (7%). A greater percentage of households reported using several of these species than reported engaging in harvest, suggesting that sharing networks are present in Nikolski to distribute these resources among households. Species of non-salmon fish harvested by Nikolski residents in 1990 included Dolly Varden, rainbow trout, grayling, mackerel, Pacific cod, sablefish, Pacific tomcod, black and unknown rockfish, walleye pollock, Irish lord, bullhead and unknown sculpin, flounder, sole, smelt, greenling, and herring. The survey also noted harvest of greenling roe and herring roe. The greatest percentage of households reported harvesting Dolly Varden (71%), greenling (57%), Pacific cod (50%), and bullhead sculpin (14%). As in the case of marine invertebrates, in many cases a greater percentage of households reported using non-salmon fish species than were engaged in harvest, again suggesting the presence of sharing networks. In addition, Nikolski residents harvested the following species of marine mammal in 1990: blue whales, gray whales, humpback whales, minke whales, sei whales, an unknown species of whale, fur seals, and Steller sea lions.[438]

Between 2003 and 2009, data were reported by ADF&G regarding Subsistence Halibut Registration Certificates (SHARC). From 2003 to 2007, the number of SHARC cards issued to Nikolski residents varied between 16 and 18, declining to 2 recorded SHARC cards issued per

[437] 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.
[438] 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).

year in 2008 and 2009. The number of SHARC cards reported to be actively fished was highest in 2006. That year, 18 cards were fished and 2,250 pounds of halibut were harvested. The highest subsistence halibut harvest was reported in 2005. That year, 3,984 pounds of halibut were harvested with 15 active SHARC cards. This information about the subsistence halibut fishery is presented in Table 14.

Some information about marine mammal harvest was also reported by management agencies during the 2000-2010 period. Subsistence harvest of marine mammals was high in Nikolski relative to the community's population. As noted above, community leaders reported in the AFSC survey in 2011 that harbor seals are a primary subsistence resource for residents of Nikolski. Based on data reported by ADF&G, the number of harbor seals harvested varied from 2 to 17 per year, and several Steller sea lions were also harvested in most years during the period. No information was reported by management agencies regarding beluga whale, sea otter, walrus, polar bear, or spotted seal harvest between 2000 and 2010. This information about subsistence harvest of marine mammals by Nikolski residents is presented in Table 15.

Table 12. Subsistence Participation by Household and Species, Nikolski: 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, Nikolski: 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	1	1	1	n/a	n/a	n/a	24	n/a	n/a
2001	1	1	1	n/a	n/a	n/a	14	n/a	n/a
2002	1	1	n/a	n/a	3	n/a	177	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	1	n/a	n/a	n/a	13	n/a	n/a
2007	4	3	2	n/a	n/a	n/a	63	n/a	n/a
2008	2	2	n/a	n/a	n/a	n/a	41	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, Nikolski: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	16	7	1,852
2004	18	8	2,490
2005	18	15	3,984
2006	18	18	2,250
2007	16	5	1,418
2008	2	n/a	n/a
2009	2	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, Nikolski: 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	1	2	n/a
2001	n/a	n/a	n/a	n/a	7	5	n/a
2002	n/a	n/a	n/a	n/a	1	3	n/a
2003	n/a	n/a	n/a	n/a	n/a	11	n/a
2004	n/a	n/a	n/a	n/a	2	6	n/a
2005	n/a	n/a	n/a	n/a	2	6	n/a
2006	n/a	n/a	n/a	n/a	n/a	17	n/a
2007	n/a	n/a	n/a	n/a	1	6	n/a
2008	n/a	n/a	n/a	n/a	n/a	7	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.

Port Moller

People and Place

Location

Port Moller is located on the Bristol Bay side of the Alaska Peninsula, 30 miles east of Nelson Lagoon and approximately 525 miles southwest of Anchorage. The site is located in the Aleutian Islands Recording District and the Aleutians East Borough Census Area.

Demographic Profile

A full demographic profile was not completed for Port Moller because sufficient information could not be obtained. Port Moller was selected for profiling given the presence of a shore-side processor where landings were made between 2000 and 2010 (see selection criteria in methods section). However, because it is not treated as a census designated place (CDP) by the U.S. Census, the Alaska Department of Commerce, Community, and Economic Development (DCCED), or other data sources, it was not possible to gather the same demographic information for Port Moller that is contained in the other community profiles.

Port Moller is a seasonal community based around the operations of a remote salmon processing (freezing) plant that is owned and operated by Peter Pan Seafoods. According to a survey conducted by the Alaska Fisheries Science Center (AFSC) in 2011, plant managers indicated approximately 400 individuals are present as seasonal workers each year, including cannery employees and fishermen. They reported that workers are present between May and September, with an annual population peak in June and July. According to the cannery managers, population fluctuations are entirely driven by employment in fishing sectors.

No information is available from the U.S. Census or the Alaska Department of Labor regarding the population of Port Moller (Table 1). It has generally been regarded to have no resident population.[439] However, as of December 2012, the Peter Pan Seafoods cannery office manager reported that the winter watchman resides at the cannery year-round, bringing the permanent population of Port Moller up to 1 individual.[440]

[439] 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.
[440] Information provided by the Peter Pan Seafoods cannery office manager during community review of this profile. Feedback received December 18, 2012.

Table 1. Population in Port Moller from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	n/a	-
2000	n/a	-
2001	-	n/a
2002	-	n/a
2003	-	n/a
2004	-	n/a
2005	-	n/a
2006	-	n/a
2007	-	n/a
2008	-	n/a
2009	-	n/a
2010	n/a	-

[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.

History, Traditional Knowledge, and Culture

Port Moller is located near the historical site of the Hot Springs Village archaeological excavations,[441] which indicate a human presence over 4,000 years old.[442] Evidence from shell middens indicates that historical peoples living in the area hunted marine and terrestrial mammals and birds, fished, and gathered marine invertebrates. Sea mammals utilized by past inhabitants included four kinds of seals, walrus, sea lion, and whales. Fish species included salmon, cod, halibut, flounder, herring, shark, and sculpin, and invertebrate species included mollusks, clams and mussels, and sea urchins.[443]

As of 1880, Port Moller was inhabited by Aleut people, although the village was located near the transition between Aleut and Eskimo settlement, and may have been used by both groups.[444,445] Some Aleut people remained at the Port Moller village into the early 1900s.

[441] The Hot Spring Village is located 7 miles by skiff from the Peter Pan Seafoods cannery. This location information was provided by the Peter Pan Seafoods cannery office manager during community review of the profile. Feedback received July 19, 2012.

[442] Workman, W. and A. McCartney. 1998. "Coast to Coast: Prehistoric Maritime Cultures in the North Pacific." *Arctic Anthropology*, 35(1).

[443] Kotani, Y. 1980. "Paleoecology of the Alaska Peninsula as Seen from the Hot Springs Site, Port Moller." *Senri Ethnological Studies*, Vol. 4. Retrieved May 24, 2012 from http://www.adobe.com/support/downloads/detail.jsp?ftpID=4881.

[444] Weyer, E M. Jr. 1930. "Archaeological Material from the Village Site at Hot Springs, Port Moller, Alaska." *Anthropological Papers of the American Museum of Natural History*, Volume 31, Part 4. Retrieved May 24, 2012 from http://digitallibrary.amnh.org/dspace/handle/2246/228.

Norman Orloff was born in Port Moller and lived there as a young child. Before he passed away, Mr. Orloff spoke of watching the church at Port Moller collapse in the 1940s. During that period, the outside Bering Sea beach had changed course and destroyed many of the village homes. The people living in Port Moller were closely associated with the village at Bear River, just north of Port Moller. In 1965, some Aleut families originating from Bear River, Port Moller, and Herendeen Bay moved to Nelson Lagoon to live year-round following construction of a school there.[446]

In 1912, a Bellingham-based salmon packing company called Pacific American Fisheries (PAF) built a cannery just inside the Entrance Point sand spit in Moller Bay.[447] The Port Moller facility was PAF's third Alaskan cannery, following the 1908 construction of a facility in Excursion Inlet in Southeast Alaska and a King Cove facility in 1911. In 1965, the major portion of PAF's assets was sold to a consolidated firm of Peter Pan Seafoods and Taiyo Gyogyo KK.[448] Peter Pan Seafoods continues to operate the facility today.

Natural Resources and Environment

The Port Moller region has a maritime climate, with cool summers, relatively warm winters, and rain. Frequent and dramatic weather changes occur, with a constant prevailing wind of 20 to 25 mph. Snowfall averages 57 inches per year, with a total annual precipitation of approximately 33 inches. January temperatures average 25 °F, and July temperatures average 50 °F. Port Moller is located near the western tip of the Alaska Peninsula, on the northern coast bordering Bristol Bay. The northern and central portions of the Peninsula are generally flat and contain many lakes, while the southern portion is mountainous.[449]

Protected areas in the vicinity of Port Moller include the Alaska Peninsula National Wildlife Refuge (NWR) and Alaska Maritime NWR. The Alaska Peninsula NWR and Alaska Maritime NWR were both established under the Alaska National Interest Land Conservation Act (ANILCA) of 1980. With a total area of 3.7 million acres, the Alaska Peninsula NWR extends as far west as False Pass and east beyond Chignik Bay, and includes a separate unit south of Ugashik. It hosts a dramatic landscape of towering mountain peaks, including a number of active volcanoes, rolling tundra, and rugged coastlines. Salmon return to the rivers of the 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.[450]

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[445] Dumond, D., L. Conton, and H. Shields. 1975. "Eskimos and Aleuts on the Alaska Peninsula: A Reappraisal of Port Moller Affinities." *Arctic Anthropology*, 12(1).
[446] Historical information provided by the Peter Pan Seafoods cannery office manager during community review of this profile. Feedback received July 19, 2012.
[447] Specific location information provided by the Peter Pan Seafoods cannery office manager during community review of the profile. Feedback received July 19, 2012.
[448] Radke, A.. C. 2002. *Pacific American Fisheries, Inc: History of a Washington State Salmon Packing Company, 1890-1966*. Ed. B. S. Radke. McFarland and Company, Inc., Publishers. North Carolina.
[449] 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.
[450] 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.

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."[451]

In addition, the 131,269 acre Port Moller Critical Habitat Area was established in 1972. The area was created to protect habitat that supports migratory stopover areas for large number of ducks, geese, and shorebirds in the spring on their way to northern nesting grounds and in the fall on their return to southern wintering areas.[452,453]

There are more than 100 prospects and mineral occurrences in the Port Moller region, primarily on the southern portion of the Alaska Peninsula. Mineral deposits include silver-gold, gold, copper, copper molybdenum, and lead-zinc. The most significant deposits include the Pyramid prospect (copper), the Apollo-Sitka and Shumagin prospects (gold), and Centennial prospect (polymetallic). The Port Moller region also has high potential for oil and gas development.[454] Reserves of oil and natural gas are also thought to be present on the outer continental shelf in the Bristol Bay Basin along the northern edge of the Aleutian Islands and Alaska Peninsula 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.[455] On March 31, 2010, President Obama withdrew the Bristol Bay area of the North Aleutian Basin from oil and gas leasing, whether for exploratory or production purposes, through 2017.[456]

Natural hazards with the potential to impact Port Moller include earthquakes, tsunamis, severe weather, erosion, and volcanoes.[457] The Port Moller Hot Spring Village site, a prehistoric Aleut/Eskimo settlement, is listed on the National Register of Historic Places.[458] According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Port Moller as of July 2012.[459]

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[451] USFWS (n.d.). *Alaska Maritime National Wildlife Refuge.* Retrieved January 4, 2012 from http://alaskamaritime.fws.gov/.
[452] Alaska Dept. of Natural Resources. 2007. *Fact sheet: State of Alaska Legislatively Designated Areas*. Retrieved May 25, 2012 from http://dnr.alaska.gov/Landrecords/docs/pdf/ldafct97.pdf.
[453] See footnote 449.
[454] Ibid.
[455] U.S. Dept. of the Interior, Minerals Management Service. March 2010. *Preliminary Revised Program Outer Continental Shelf Oil and Gas Leasing Program 2007-2012*. Retrieved January 6, 2012 from http://www.boemre.gov/5-year/PDFs/PRP2007-2012.pdf.
[456] The White House, Office of the Press Secretary. March 31, 2010. *Memorandum for the Secretary of the Interior: Withdrawl 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.
[457] WHPacific. 2010. *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan*. Retrieved December 7, 2011 from http://www.aleutianseast.org.
[458] National Park Service (n.d.). *National Register of Historic Places.* Retrieved January 10, 2012 from: http://nrhp.focus.nps.gov/.
[459] Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites by Region*. Retrieved April 17, 2012 from http://dec.alaska.gov/spar/csp/list.htm.

Current Economy

According to a survey conducted by the AFSC in 2011, cannery managers indicated that fishing is the primary industry upon which the Port Moller economy depends. The Peter Pan Seafoods salmon cannery in Port Moller employs in a crew of over 150 people each summer,[460] and provides a market for a sizeable fishing fleet. Port Moller also has a seasonal field office of the Alaska Department of Fish and Game (ADF&G). Port Moller is not considered a CDP according to the U.S. Census, and no information is reported regarding employment and income statistics.

Governance

Port Moller is not considered a CDP according to the U.S. Census. No information was reported regarding municipal revenue sources between 2000 and 2010 (Table 2). There are no governing bodies in Port Moller.

A seasonal field office of ADF&G is located in Port Moller. The office operates between May and September. The nearest year-round ADF&G office is located in Sand Point. Dillingham has the nearest office of the Alaska Department of Commerce, Community, and Economic Development. The closest National Marine Fisheries Service (NMFS) and U.S. Bureau of Citizenship and Immigration Services offices are located in Unalaska and Anchorage. Anchorage also has the closest office of the Alaska Department of Natural Resources.

Table 2. Selected Municipal, State, or Federal Revenue Streams for Port Moller 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, 2011from 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, 2011from 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, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

[460] Results of a survey of processor plant managers conducted by the AFSC in 2011.

Infrastructure

Connectivity and Transportation

Port Moller is accessible via water or air. A private gravel airstrip is located at Port Moller, and the bay is accessible by floatplane. A few miles of roads and trails extend around the vicinity of Port Moller.[461] During the summer, Port Moller receives barge deliveries every two weeks from Seattle that supply not only the cannery at Port Moller, but also nearby communities such as Nelson Lagoon.[462],[463] As of early June 2012, roundtrip airfare from Anchorage to Port Moller, with a connection in King Salmon, cost $1130.[464]

Facilities

Since the Peter Pan Seafoods cannery at Port Moller is a remote facility, it must be self sufficient in providing for all housing, food, electricity, water, and other supplies.[465] According to a survey conducted by the AFSC in 2011, cannery managers reported that there are no other outside businesses or support services beyond those provided by Peter Pan Seafoods. They indicated that facilities and services provided at the cannery include a store, stockroom, machine shop, medical clinic, air strip, mess hall, and boat storage. These facilities are open from May through September only, and are available to the Peter Pan Seafoods fleet only, although they are available to transient vessels on an emergency basis for fuel, repairs, and/or medical needs. No police force is stationed at the cannery. The nearest state trooper post is located in Cold Bay.[466]

Cannery managers indicated in the 2011 AFSC survey that ongoing maintenance takes place on local utilities, including telephone and internet service, local roads, a diesel powerhouse, sewage and water treatment, the solid waste disposal site, and the breakwater. Improvements are ongoing to the emergency response system as well.

In addition to cold storage and seafood processing, a variety of fisheries-related facilities and services are available at the Port Moller cannery. Although no dock space is available, cannery managers indicated that the fishing fleet and tenders can tie up directly to the pilings of the dock. The existing dock facilities are capable of handling rescue vessels, such as the Coast Guard, fuel barges, and other smaller barges and freighters.

Cannery managers indicated that boat repair services at Port Moller include electrical, welding, mechanical services, machine shop, and hydraulics, as well as marine refrigeration services. Drydock storage, haul-out facilities, and a tidal grid are available for small boats (less

[461] 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.
[462] 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.
[463] Information on the frequency of barge deliveries provided by the Peter Pan Seafoods cannery office manager during community review of the profile. Feedback received July 19, 2012.
[464] 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.
[465] Peter Pan Seafoods Inc. 2011. *Facilities*. Retrieved May 23, 2012 from http://www.ppsf.com/facilities/index.aspx.
[466] Alaska Dept. of Public Safety. 2012. *Alaska State Trooper Detachments*. Retrieved June 1, 2012 from http://www.dps.state.ak.us/ast/detachments.aspx.

than 20 tons).[467] Cannery managers noted that fishing gear, fuel, and ice are sold at the facility. They also indicated that improvements are ongoing to a barge landing area, fish cleaning station, the existing dock structure, water and electricity serving the dock, and haulout facilities. According to managers, Port Moller community members travel to King Cove, Homer, or Seattle to access fisheries-related businesses and services not available in Port Moller.

Medical Services

The Port Moller Medical Clinic, run at Peter Pan Seafoods' cannery facility, is a qualified emergency care center.[468] However, it is important to note that the clinic is open seasonally from May to mid-September each year.[469] The nearest hospitals are located in Dillingham and Kodiak.

Educational Opportunities

No schools were present in Port Moller between 2000 and 2010.[470]

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Subsistence harvest was historically important for indigenous people living in the Port Moller area. Archaeological evidence at an old village site at Port Moller indicate that local Aleut peoples hunted sea mammals, fished, and collected marine invertebrates, in addition to hunting land mammals. Salmon were one of the most important subsistence resources.[471] Soon after the purchase of Alaska by the United States in 1867, commercial exploitation of salmon was initiated. The first salmon saltery was built in 1868, and the first cannery was established in 1869.[472] The Port Moller salmon cannery was constructed by PAF in 1912.[473] In a survey conducted by the AFSC in 2011, cannery managers indicated that the primary local fishery targets salmon, with a season running from June through September.

Port Moller is located in Federal Statistical and Reporting Area 512 and the Bering Sea Sablefish Regulatory Area. The immediate marine area is closed to Pacific halibut harvest. According to a survey conducted by the AFSC in 2011, cannery managers reported that Port

[467] During community review of this profile, the Peter Pan Seafoods cannery office manager noted that the tidal grid only has the capacity to handle boats less than 20 tons. Feedback received July 19, 2012.
[468] WHPacific. 2010. *Aleutians East Multi-Jurisdictional/Multi-Hazard Mitigation Plan*. Retrieved December 7, 2011 from http://www.aleutianseast.org.
[469] Information provided by the Peter Pan Seafoods cannery office manager during community review of this profile. Feedback received July 19, 2012.
[470] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[471] Kotani, Y. 1980. "Paleoecology of the Alaska Peninsula as Seen from the Hot Springs Site, Port Moller." *Senri Ethnological Studies*, Vol. 4. Retrieved May 24, 2012 from http://www.adobe.com/support/downloads/detail.jsp?ftpID=4881.
[472] 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.
[473] Radke, A.. C. 2002. *Pacific American Fisheries, Inc: History of a Washington State Salmon Packing Company, 1890-1966*. Ed. B. S. Radke. McFarland and Company, Inc., Publishers. North Carolina.

Moller actively participates in fisheries management processes in Alaska. They indicated that Port Moller has a paid staff member that attends North Pacific Fishery Management Council and/or Board of Fisheries meetings as well as a representative that sits on regional fisheries advisory and/or working groups run by ADF&G. In addition, they noted that Port Moller financially supports research organizations, industry coalitions, and trade associations, including the Alaska Seafood Marketing Institute and Concerned Area M Fishermen, an organization of salmon drift gillnetters and local Alaska Peninsula communities that works with the Alaska Board of Fisheries to advocate for preservation of Alaska Peninsula Fisheries.[474]

In the 2011 AFSC survey, cannery managers outlined challenges they observe to Port Moller's fishing economy. These include 1) increased fuel costs, which create direct and indirect impacts through the higher cost of goods and shipping, 2) the cost of complying with state and federal regulations such as Occupational Safety and Health Act, Oil Spill Response, Ammonia Response, and hazardous materials, and 3) the variability of fish catch volume and fish prices.

When asked which fisheries policies or management actions have affected Port Moller, cannery managers indicated that the opening of the Outer Port Heiden district by the Alaska Board of Fisheries resulted in the fleet moving north, allowing increased fishing area, but also leading to greater travel distance for tenders and overall reduction in the quality of fish. They also responded that effective ADF&G management and conservation ethic have provided consistent salmon runs for many years. Finally, a management action that had the greatest impact on Port Moller in recent years was the closure of the Nelson Lagoon area to salmon fishing in July 2010 due to low escapement. The loss of income from this fishery was hard on fishermen from the community of Nelson Lagoon, and also affected Peter Pan Seafoods/Port Moller as their processor. Further, cannery managers indicated that the 2011 salmon run was unusually poor, and harvest in Nelson Lagoon and the Bear River area in 2012 was even worse. There is concern that flooding in past years may have contributed to decreased viability of eggs and fry in the parent year of the 2011 and 2012 runs. These fluctuations in the fishery are of concern because the commercial salmon industry is the only economy sustaining Port Moller.[475]

Regarding potential future fisheries policy or management actions, cannery managers responded with concern about any activity that may affect habitat or close fishing areas, threatening the Port Moller facility's ability to operate. For example, they listed oil exploration, mining contamination, or closure due to protected or endangered species as possible events that would affect Port Moller's operations in the future.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, there was one registered processing facility in Port Moller. Peter Pan Seafoods operates a remote processing (freezing) plant, which primarily processes sockeye salmon, as well as small amounts of Chinook, coho, and chum salmon. During the season, which runs from May through September, the Port Moller facility "supports a fleet of 105 drift gill netters and 30 set netters, both resident and non-resident fishermen."[476] There are no year-round residents in Port Moller, but according to an AFSC

[474] Concerned Area M Fishermen (n.d.). *Homepage*. Retrieved July 5, 2012 from http://camfalaska.com/index.html.
[475] Information about 2011 and 2012 salmon runs provided by the Peter Pan Seafoods cannery office manager during community review of this profile. Feedback received December 18, 2012.
[476] Peter Pan Seafoods Inc. 2011. *Facilities*. Retrieved May 23, 2012 from http://www.ppsf.com/facilities/index.aspx.

survey of plant managers in 2011, during peak production (from June through August) the crew is made up of 165 people. The Port Moller facility is self-sufficient and provides all housing and food for its workforce as well as its own electricity, water and other supplies.[477]

Fisheries-Related Revenue

Port Moller is not considered a CDP according to the U.S. Census. No information was reported regarding fisheries-related revenue sources between 2000 and 2010 (Table 3). However, according to a survey conducted by the AFSC in 2011, cannery managers indicated that $2,000 in revenue was earned from dock use fees in 2010.

Commercial Fishing

Port Moller's primary engagement in commercial fisheries is through processing. Between 2000 and 2010, one shore-side processing facility operated in Port Moller, and the number of fish-buyers varied from one to three per year. Port Moller ranked 23rd with regard to landings volume, and 26th in ex-vessel revenue, out of 67 Alaskan ports that received landings in 2010. The number of vessels delivering catch in Port Moller varied from 50 to 171 per year, and the number of vessels homeported increased from 6 in 2000 to 12 in 2009 and 2010. According to a survey conducted by the AFSC in 2011, cannery managers reported that vessels basing out of Port Moller during the fishing season were primarily between 35 and 125 feet in length, with larger vessels serving as tenders. They observed that over the last 5 years the fleet has remained relatively stable, although the buyback associated with crab rationalization led to a decline in the number of vessels between 61 and 125 feet in length to hire for tendering. The gear type used by fishing vessels based out of Port Moller is principally gill net.

Port Moller is generally considered to have no permanent residents, although cannery managers indicated in the 2011 AFSC survey that one individual lives at the site year-round. Between 2000 and 2010, at least one individual held a state Commercial Fisheries Entry Commission (CFEC) permit registered to an address in Port Moller from 2007 to 2010, and at least one fishing vessel owner registered the vessel at an address in Port Moller from 2000 to 2001 and from 2007 to 2010. The CFEC permit was held in the Peninsula-Aleutian salmon drift gillnet fishery. During the 2000-2010 period, no Federal Fisheries Permits (FFP) or federal License Limitation Program permits (LLP) were registered in Port Moller. Likewise, no quota share accounts in the federal halibut, sablefish or crab catch share fisheries were registered to Port Moller addresses between 2000 and 2010. Information about CFEC, FFP, and LLP permits is presented in Table 4, information about the commercial fishing sector in Port Moller is presented in Table 5, and information about federal catch share participation is presented in Tables 6 through 8.

Because there were three or fewer fish-buyers active in Port Moller each year from 2000 to 2010 (Table 5), information about landings and ex-vessel revenue generated in Port Moller is considered confidential due to the small number of participants (Table 9). Likewise, information about landings and ex-vessel revenue generated by vessels registered to a Port Moller address is considered confidential, given that fewer than three vessels were registered per year in 2000, 2001 and 2007-2010 (Table 10).

[477] Ibid.

Table 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by Port Moller: 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
Total fisheries-related revenue[4]	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
Total municipal revenue[5]	*n/a*	*n/a*	*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] 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 municipal budget. Alaska Dept. of Comm. and Rural Affairs. (n.d.) *Financial Documents Delivery System*. Retrieved April 15, 2011 at http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.

Table 4. Permits and Permit Holders by Species, Port Moller: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits [1]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Herring (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0

Table 4 cont'd. Permits and Permit Holders by Species, Port Moller: 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	0	0	0	0	0	0	0	1	1	1	1
	Fished permits	0	0	0	0	0	0	0	1	1	1	1
	% of permits fished	-	-	-	-	-	-	-	100%	100%	100%	100%
	Total permit holders	0	0	0	0	0	0	0	1	1	1	1
Total CFEC Permits[2]	*Permits*	0	0	0	0	0	0	0	*1*	*1*	*1*	*1*
	Fished permits	0	0	0	0	0	0	0	*1*	*1*	*1*	*1*
	% of permits fished	-	-	-	-	-	-	-	*100%*	*100%*	*100%*	*100%*
	Permit holders	0	0	0	0	0	0	0	*1*	*1*	*1*	*1*

[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 Port Moller: 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 Port Moller[2]	Total Net Pounds Landed in Port Moller[2,5]	Total Ex-Vessel Value of Landings in Port Moller[2,5]
2000	0	2	1	1	6	171	-	-
2001	0	2	1	1	8	148	-	-
2002	0	1	1	0	7	58	-	-
2003	0	1	1	0	8	50	-	-
2004	0	3	1	0	7	111	-	-
2005	0	2	1	0	7	138	-	-
2006	0	1	1	0	11	148	-	-
2007	0	1	1	1	11	55	-	-
2008	0	1	1	1	10	93	-	-
2009	0	1	1	1	12	124	-	-
2010	0	3	1	1	12	160	-	-

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 in Port Moller: 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 in Port Moller: 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 in Port Moller: 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 Port Moller: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	-	-	-	-	-
Total[2]	-	-	-	-	-	-	-	-	-	-	-
	Ex-vessel Value (Nominal U.S. Dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	-	-	-	-	-
Total[2]	-	-	-	-	-	-	-	-	-	-	-

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.

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	-	-	0	0	0	0	0	-	-	-	-
Finfish	-	-	0	0	0	0	0	-	-	-	-
Halibut	-	-	0	0	0	0	0	-	-	-	-
Herring	-	-	0	0	0	0	0	-	-	-	-
Other Groundfish	-	-	0	0	0	0	0	-	-	-	-
Other Shellfish	-	-	0	0	0	0	0	-	-	-	-
Pacific Cod	-	-	0	0	0	0	0	-	-	-	-
Pollock	-	-	0	0	0	0	0	-	-	-	-
Sablefish	-	-	0	0	0	0	0	-	-	-	-
Salmon	-	-	0	0	0	0	0	-	-	-	-
Total[2]	-	-	*0*	*0*	*0*	*0*	*0*	-	-	-	-
	Ex-vessel Value (Nominal U.S. Dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	-	-	$0	$0	$0	$0	$0	-	-	-	-
Finfish	-	-	$0	$0	$0	$0	$0	-	-	-	-
Halibut	-	-	$0	$0	$0	$0	$0	-	-	-	-
Herring	-	-	$0	$0	$0	$0	$0	-	-	-	-
Other Groundfish	-	-	$0	$0	$0	$0	$0	-	-	-	-
Other Shellfish	-	-	$0	$0	$0	$0	$0	-	-	-	-
Pacific Cod	-	-	$0	$0	$0	$0	$0	-	-	-	-
Pollock	-	-	$0	$0	$0	$0	$0	-	-	-	-
Sablefish	-	-	$0	$0	$0	$0	$0	-	-	-	-
Salmon	-	-	$0	$0	$0	$0	$0	-	-	-	-
Total[2]	-	-	*$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

Limited sportfishing activity was reported in Port Moller during the 2000-2010 period. No active sport fish guide businesses were registered in Port Moller in any year during the decade, although at least one licensed sport fish guide was present in most years. Between 2003 and 2010, an average of 81 sportfishing licenses were sold in Port Moller, almost all of which were sold to individuals that were not residents of Port Moller. Only one license was purchased by a Port Moller resident in 2009 (Table 11). The office at the Peter Pan Cannery is the only ADF&G sportfishing license vendor in Port Moller, and typically fewer than 10 licenses are sold by the office each year. The higher numbers of licenses reported to have been sold in some years during the 2000-2010 period may reflect license sales at fishing lodges that are located in the Port Moller area, but not in the community itself.[478]

According to a survey conducted by the AFSC in 2011, cannery managers indicated that sportfishing takes place using private boats owned by local residents or non-residents, as well as fishing from the shore or dock. They reported that the most popular recreational species in Port Moller are Chinook and sockeye salmon, halibut, and crab.

Port Moller is located within Alaska Sport Fishing Survey Area R – Alaska Peninsula/Aleutian Islands. Information is available about both saltwater and freshwater sportfishing activity at this regional scale. Between 2000 and 2010, sportfishing activity varied considerably. For saltwater sportfishing, non-Alaska resident angler days fished varied between 1,603 and 4,126 during this period, while Alaska resident angler days fished varied between 3,261 and 12,721 days. Alaska resident anglers fished consistently more saltwater days than non-Alaska resident anglers during this period. In contrast, non-Alaska resident anglers fished more angler days in freshwater in the Alaska Peninsula/Aleutian Islands region on average (18,462 per year on average) than Alaska resident anglers (15,290 per year on average) (Table 11). The Alaska Statewide Harvest Survey,[479] conducted by ADF&G between 2000 and 2010, did not include information about species targeted by private anglers in Port Moller, and no kept/release log book data were reported for fishing charters out of Port Moller between 2000 and 2010.[480]

[478] Information provided by the Peter Pan Seafoods cannery office manager during community review of this profile. Feedback received September 11, 2013.

[479] 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).

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

Table 11. Sport Fishing Trends, Port Moller: 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 Port Moller[2]
2000	0	0	0	0
2001	0	1	0	0
2002	0	0	0	0
2003	0	1	0	74
2004	0	1	0	64
2005	0	1	0	131
2006	0	1	0	104
2007	0	1	0	74
2008	0	3	0	88
2009	0	3	1	63
2010	0	0	0	52

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

According to a survey conducted by the AFSC in 2011, three of the most important marine subsistence resources used by Port Moller community members are sockeye salmon, halibut, and king crab. Between 2000 and 2010, no information was reported by management agencies regarding per capita subsistence harvest or the percentage of households utilizing various marine resources for subsistence purposes (Table 12). Likewise, no information was reported regarding total harvest of marine invertebrates or non-salmon fish (not including halibut) (Table 13), subsistence halibut harvest (Table 14) or marine mammal harvest (Table 15). However, ADF&G did report information regarding annual subsistence salmon harvest in some years during the 2000-2010 period. According to ADF&G, from 2005 to 2008, between one and three subsistence salmon permits were issued to Port Moller households each year. Sockeye was the primary salmon species harvested, with between 200 and 500 fish harvested per year for those years in which data were available (Table 13).

Additional Information

The historic eruption of Mt. Katmai volcano took place on June 6, 1912, during the first year of operation of the Port Moller cannery. The cannery was in total darkness for several days as a result of the eruption, although no ash fell in the area because the wind was blowing away from the cannery.[481]

Table 12. Subsistence Participation by Household and Species, Port Moller: 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).

[481] Radke, A.. C. 2002. *Pacific American Fisheries, Inc: History of a Washington State Salmon Packing Company, 1890-1966*. Ed. B. S. Radke. McFarland and Company, Inc., Publishers. North Carolina.

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Port Moller: 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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	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	1	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	2	2	n/a	n/a	n/a	n/a	217	n/a	n/a
2007	3	2	n/a	n/a	n/a	n/a	381	n/a	n/a
2008	2	1	n/a	n/a	n/a	n/a	500	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, Port Moller: 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, Port Moller: 2000-2010.

Year	# of Beluga Whales[1]	# of Sea Otters[2]	# of Walrus[2]	# of Polar Bears[2]	# of Steller Sea Lions[3]	# of Harbor Seals[3]	# of Spotted Seals[3]
2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

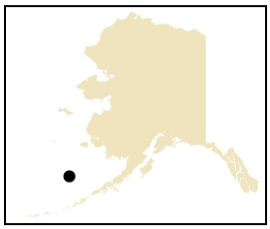
Note: n/a indicates that no data were reported for that year.

[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.

Saint George



People and Place

Location [482,483]

Saint George is located on the northeast shore of Saint George Island, the southern-most of the four Pribilof Islands. It lies 47 miles south of Saint Paul Island, 750 air miles west of Anchorage, and 250 miles northwest of Unalaska. Saint George is located in the Aleutian Islands Recording District and the Aleutians West Census Area, and is not located within an organized Borough. The community encompasses 34.8 square miles of land and 147.6 square miles of water.

Demographic Profile [484]

In 2010, there were 102 residents in Saint George, making it the 245th largest of 352 total Alaskan communities with recorded populations that year. Overall between 1990 and 2010, the population has decreased by 27%. The Saint George average annual growth rate between 2000 and 2009 was -3.18%, indicating a slow rate of decline. The change in population from 1990 to 2010 is provided in Table 1.

The majority of residents of Saint George in 2010 identified themselves as American Indian and Alaska Native (88.2%), with the remaining racial composition as follows: White (9.8%), Hispanic or Latino (1.0%), and two or more races (2.0%). The percentage of the population that identified themselves as American Indian and Alaska Native decreased by 3.9% between 2000 and 2010, with corresponding increases in the percentage of the population identifying themselves as White, Hispanic or Latino, and two or more races during that period. The change in racial and ethnic composition from 2000 to 2010 is provided in Figure 1 below.

In 2010, the average estimated household size in Saint George was 2.33, a decrease from 3.0 in 1990 and 2.98 in 2000. There has been a slight overall decrease in the estimated number of households from 45 in 1990, increasing slightly to 51 in 2000, and decreasing to an estimated 42 households in 2010. Of the 61 total housing units surveyed for the 2010 Decennial Census, 22 were owner-occupied, 20 were renter-occupied, and 19 were vacant. Throughout this period, four residents of Saint George were reported to be living in group quarters. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that Saint George's population is composed entirely of year-round residents.

[482] 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.
[483] U.S. Fish and Wildlife Service. (2008). *Alaska Maritime National Wildlife Refuge: Wildlife Viewing*. Retrieved Feb. 22, 2013 from http://alaskamaritime.fws.gov/visitors-educators/wildlifeviewing/pribilofs.htm.
[484] 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.

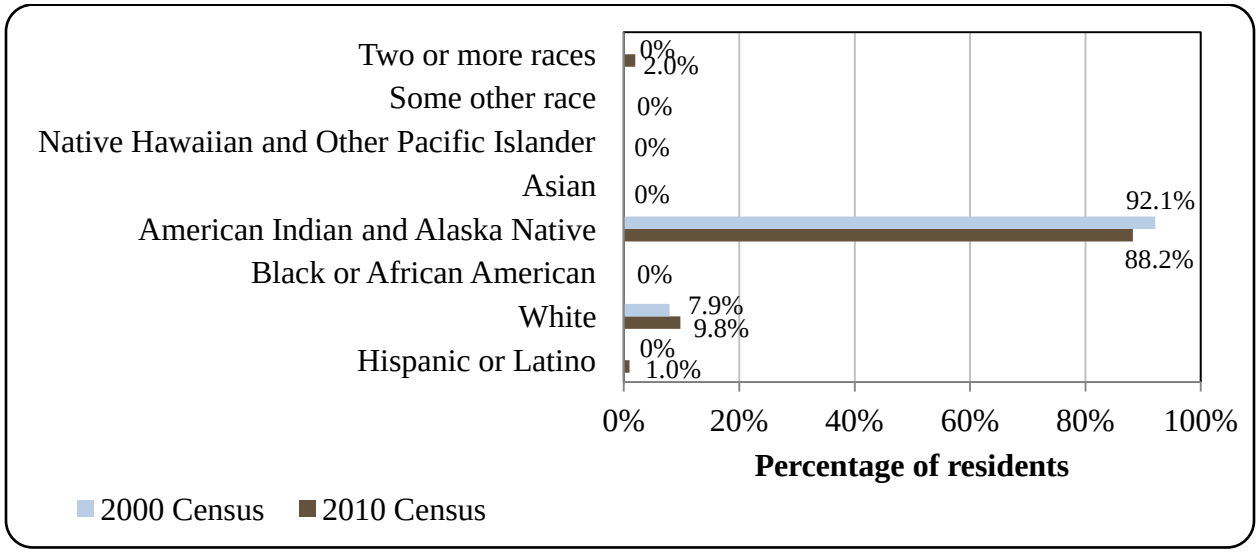
Table 1. Population in Saint George from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	138	-
2000	152	-
2001	-	146
2002	-	147
2003	-	148
2004	-	138
2005	-	129
2006	-	120
2007	-	114
2008	-	112
2009	-	111
2010	102	-

[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.

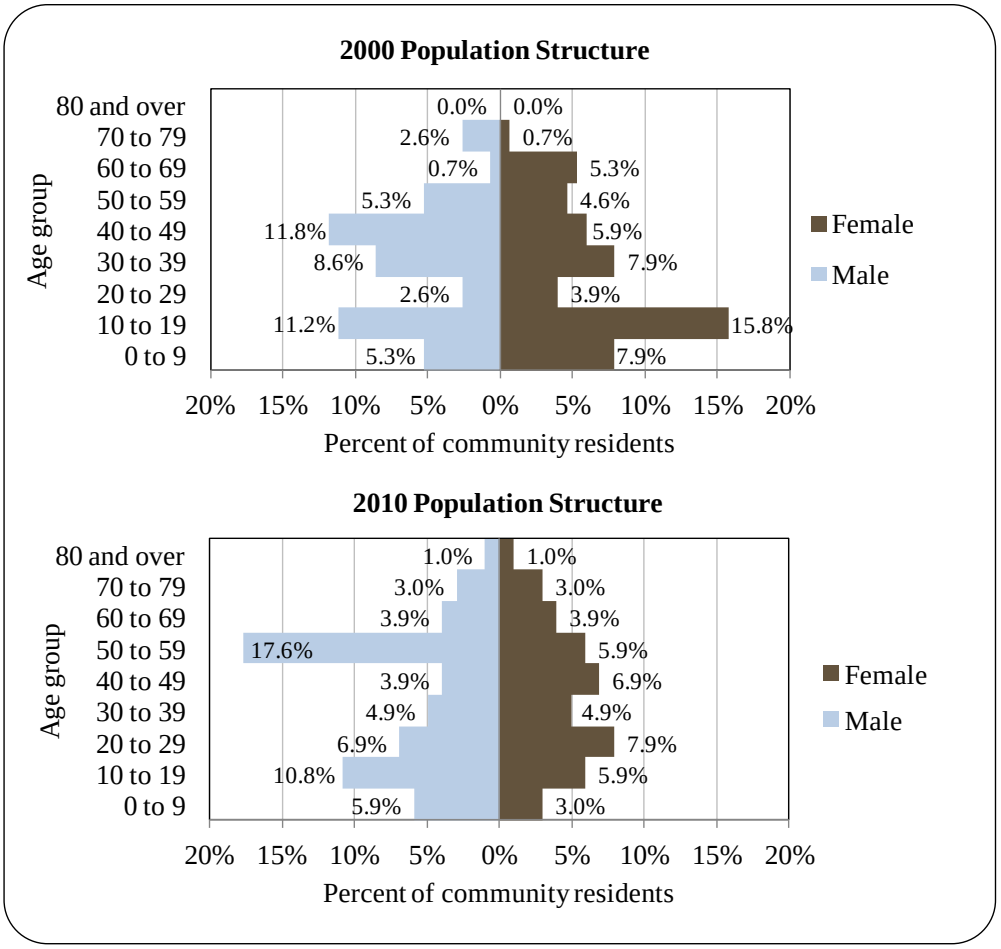
[2] Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from http://labor.alaska.gov/research/pop/popest.htm.

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



In 2010, the gender makeup of Saint George was 58% male and 42% female, slightly skewed compared to the state as a whole (52% male, 48% female). The median age in Saint George was 39 years, higher than the U.S. national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, the greatest percentage of residents fell within the age category 40-59 years old, with the next largest percentage for the age category 10-29 years old. Relatively few people were age 70 or older. The overall population structure of Saint George in 2000 and 2010 is shown in Figure 2.

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



In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS),[485] 96.9% 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, an

[485] 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.

estimated 3.1% of the population had a less than ninth grade education, compared with 3.5% of Alaskan residents overall; an estimated 50% of the population held a high school diploma or equivalent, compared with 27.4% of Alaskan residents overall; an estimated 28.1% of residents had some college but no degree, compared with 28.3% of Alaskan residents overall; an estimated 9.4% held an Associate's degree, compared with 8% of Alaskan residents overall; and an estimated 9.4% of residents held a Bachelor's degree, compared with 17.4% of Alaskan residents overall.

History, Traditional Knowledge, and Culture

Saint George's population is predominantly Aleut and Eskimo.[486] Historically, the Aleuts traveled to the Pribilof Islands seasonally for hunting. Inspired by traditional Aleut stories, Gavriff Pribilof of the Russian fur trading company, Lebedov Lastochkin Co., went on a search for the legendary "Seal Islands." After a three-year search, Pribilof landed on Saint George Island in 1786, and named the island after his vessel. The following year, Pribilof and his party landed on the larger island to the north, which was named 'Saint Peter and Saint Paul Island' in honor of the day they made landfall – the Feast of Saints Peter and Paul. It is now known as Saint Paul Island. [487,488] In 1788, the Russian American Company enslaved and relocated Aleuts from Siberia, Atka, and Unalaska to the Pribilofs to hunt fur seals. Their descendants continue to live on these two islands today.[489]

The United States' purchase of Alaska from Russia in 1867 included the Pribilof Islands. Soon after the purchase, in 1868, the Islands were declared a special Federal Reserve with the purpose of managing fur seals and other fur-bearing species, and the federal government began to contract seal harvest to private companies.[490] In 1870, the U.S. Government awarded the Alaska Commercial Company a 20-year sealing lease, and they provided housing, food, and medical care to the Aleuts in exchange for seal harvesting. In 1890, a second 20-year lease was awarded to the North American Commercial Company. However, fur seals were severely over-harvested, and poverty ensued. The 1910 Fur Seal Act ended private leasing on the islands and placed the community and fur seals under the U.S. Bureau of Fisheries. Food and clothing were scarce, social and racial segregation was practiced, and working conditions were poor.[491]

During World War II, the Pribilof Aleuts were moved to Funter Bay on Admiralty Island in Southeast Alaska as part of the emergency evacuation of residents from the Bering Sea. Unlike other Aleutian residents, they were confined in an abandoned cannery and mine camp at Funter Bay. Later, in 1979, the Aleut Islanders received $8.5 million in partial compensation for

[486] 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.
[487] City of St. George. 1988. *Comprehensive Development Plan*. Retrieved January 4, 2013 from http://www.commerce.state.ak.us/dca/plans/SaintGeorge-CP-1988.pdf.
[488] NOAA Office of Response and Restoration. 2008. P*ribilof Islands: A Historical Perspective – Island History: The Russian Period*. Retrieved January 7, 2013 from http://docs.lib.noaa.gov/noaa_documents/NOS/ORR/TM_NOS_ORR/TM_NOS-ORR_17/HTML/Pribilof_html/Pages/history_Russian_period.htm.
[489] See footnote 486.
[490] 106th U.S. Congress. April 11, 2000. *Pribilof Islands Transition Act*. Retrieved August 21, 2012 from http://www.gpo.gov/fdsys/pkg/CRPT-106hrpt569/html/CRPT-106hrpt569.htm.
[491] See footnote 486.

the unfair and unjust treatment the federal administration subjected them to from 1870 to 1946.[492]

With Alaska Statehood in 1959, 70% of revenues from the commercial fur seal hunt began to go to the State of Alaska. This decrease in federal revenue, in combination with an unexplained decline in productivity of the seal population in the 1960s, led the federal government to begin phasing out of the Pribilof Islands. Federal sealing operations were consolidated in Saint Paul in 1972, leaving Saint George as a research station to monitor the status of the fur seal population. Many Saint George residents chose to relocate to Saint Paul or left the Pribilof Islands entirely, but a majority remained in the community.[493]

In 1983, Congress passed the Fur Seal Act Amendments, which brought government control of the commercial seal harvest and the federal presence in the Pribilof Islands to an end. The City of Saint George was incorporated in 1983, and responsibility for providing community services in Saint George and management of the fur seals was left to local entities. To help develop and diversify the local economy, $8 million was provided to Saint George by the federal government.[494] Today, the Marine Mammal Protection Act provides that marine mammals may be taken by Native Alaskans living in Alaska if such taking is 1) for subsistence purposes; or 2) is done for the purpose of creating and selling authentic native articles of handicrafts and clothing…; and 3) in each case, is not accomplished in a wasteful manner.[495] Residents of Saint George continue to harvest approximately 500 fur seals per year for the purpose of subsistence, along with a variety of other subsistence resources including halibut and marine invertebrates. The community is also working to develop commercial fisheries and tourism.[496]

Today, residents are working to develop commercial fisheries and tourism.[497] In a survey conducted by the AFSC in 2011, community leaders reported that Saint George has yet to fully transition their economy "from that of fur seals to that of fisheries." Community leaders also expressed that "there has been inefficient attention and activity" to help the community of Saint George "despite Congressional mandates" to do so according to the Fur Seal Act Amendments of 1983.

Natural Resources and Environment

Saint George is the second-largest of the Pribilof Islands, at approximately 40 square miles in area. Like the other Pribilofs, Saint George Island is of volcanic origin, built by basalt lava flows 1.6 to 2.2 million years ago.[498] The Island is ringed by 50 miles of steep cliffs rising up to 300 meters above sea level. These cliffs provide extensive habitat for ledge-nesting

[492] Information Insights, Inc. 2007. *Saint George Community Strategic Plan*. Prepared for the City of Saint George, Saint George Traditional Council, and Tanaq Corporation. Retrieved January 4, 2013 from http://www.commerce.state.ak.us/dca/plans/SaintGeorge-CP-2007.pdf.
[493] Ibid.
[494] See footnote 486.
[495] Marine Mammal Protection Act of 1972, as amended 2007. *Section 101(b) - Exemptions for Alaska natives*. Retrieved August 20, 2012 from http://www.nmfs.noaa.gov/pr/pdfs/laws/mmpa.pdf.
[496] See footnote 486.
[497] Ibid.
[498] Carleton College, Science Education Resource Center. (2012). *Resources of the Pribilof Islands*. Retrieved February 22, 2013from http://serc.carleton.edu/research_education/nativelands/pribilofs/index.html.

seabirds.[499] The climate of Saint George is controlled by the cold waters of the Bering Sea. Its maritime location results in cool weather year-round and a narrow range of mean temperatures, varying from 24 to 52 °F (-4.4 to 11.1 °C). Average annual precipitation is 23 inches, with 57 inches of snowfall. Cloudy, foggy weather is common during summer months.[500]

Information from the Saint George Tanaq Corporation indicates that, each summer, more than one million northern fur seals congregate on the shores of the Pribilof Islands. This is the largest gathering of marine mammals anywhere in the world. Approximately 250,000 of these animals, as well as a number of harbor seals and Steller sea lions, are found on Saint George Island. Northern fur seals spend most of the year ranging throughout the Pacific Ocean waters of the Soviet Union, Japan, Canada, and the United States, but when it comes time to breed they must come ashore. Seventy percent of the world's northern fur seal population chooses the cool, moist climate and rocky beaches of the Pribilofs for breeding, returning each year to the very beaches where they were born. Soon after coming ashore in spring, female seals give birth to their pups. Throughout the summer the beaches are vibrant with activity; seal pups playing, mother seals swimming out to sea to feed, and bulls fighting off competitors.[501]

An international fur treaty, signed initially in 1911, safeguards the seals from being hunted at sea. The treaty stipulates that the United States and Russia must each restrict their sealing activities to the Pribilof and Commander Islands, and in return for accepting a ban on pelagic sealing, the United States, Russia, Japan, and Canada each receive a share of the pelts taken during the yearly commercial harvests. Commercial harvests, however, have ceased in recent years and the communities of Saint George and Saint Paul now undertake small subsistence harvests each summer. Most experts believe that without the treaty the seals would now be endangered. In 1910, prior to acceptance of the treaty, the seal herd reached its lowest level at about 300,000 animals. Today the total seal population numbers close to a million. If the treaty were to be abolished many people believe the seals would once again be hunted at sea, by fishermen who contend the seals reduce fish stocks and by those who want the seals for their valuable fur. Environmental groups including the Sierra Club and National Audubon Society cite the international fur seal treaty as an outstanding example of wildlife conservation management.[502]

According to the Alaska Department of Environmental Conservation (DEC), petroleum contamination has been identified at a number of properties on Saint George Island currently or previously owned by NOAA and its predecessor agencies, including residential and commercial areas of Saint George. Removal of contaminated soil began in 2006. Restoration activities are conducted according to an agreement between NOAA and the DEC. As of 2008, NOAA planned to apply for 'closed out' and 'conditionally closed' status on the Saint George sites, which would involve institutional controls and a long-term monitoring plan.[503]

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[499] Klostermann, M.R. and B.A. Drummond. (2012). *Biological monitoring at St. George Island, Alaska in 2012*. U.S. Fish and Wildlife Service Report, AMNWR 2012/08. Homer, Alaska. Retrieved March 1, 2013 from https://absilcc.org/science/amnwr/Shared%20Documents/St%20George%202012.pdf.

[500] 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.

[501] Saint George Tanaq Corporation. 2012. *Island Wildlife*. Retrieved from http://www.stgeorgetanaq.com/wildlife.html on May 2, 2012.

[502] Ibid.

[503] Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved Feb. 21, 2013 from http://dec.alaska.gov/spar/csp/list.htm.

Current Economy[504]

The federally-controlled fur seal industry dominated the economy of the Pribilof Islands until 1983.[505] As of 2010, top local employers included local government offices, the Native village corporation (Saint George Tanaq Corporation), private construction companies, Peninsula Airways, Inc., a private fuel company, and the Pribilof School District.[506] Additionally, in a survey conducted by the AFSC in 2011, community leaders reported that the economy of Saint George relies upon commercial fishing, with primary emphasis on the halibut fishery. The Saint George Aquaculture Association also has salmon and shellfish programs. Subsistence harvest remains important in the community. Villagers harvest 500 fur seals each year for subsistence purposes. Halibut, reindeer, marine invertebrates, plants, and berries also contribute to the local diet.[507]

According to the 2006-2010 ACS,[508] the estimated per capita income in Saint George in 2010 was $19,242 and the estimated median household income was $46,875, compared to $21,131 and $57,083 in 2000, respectively. However, after accounting for inflation by converting the 2000 values to 2010 dollars,[509] the real per capita income ($27,787) and household income ($75,063) indicated a substantial estimated decrease in both figures between 2000 and 2010. However, Saint George's small population size may have prevented the ACS from accurately portraying economic conditions.[510] A potentially more accurate understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development. According to the ALARI database, the per capita income in Saint George in 2010 was $14,224, which indicates an overall decrease compared to the real per capita income values reported by the U.S. Census in 2000.[511]

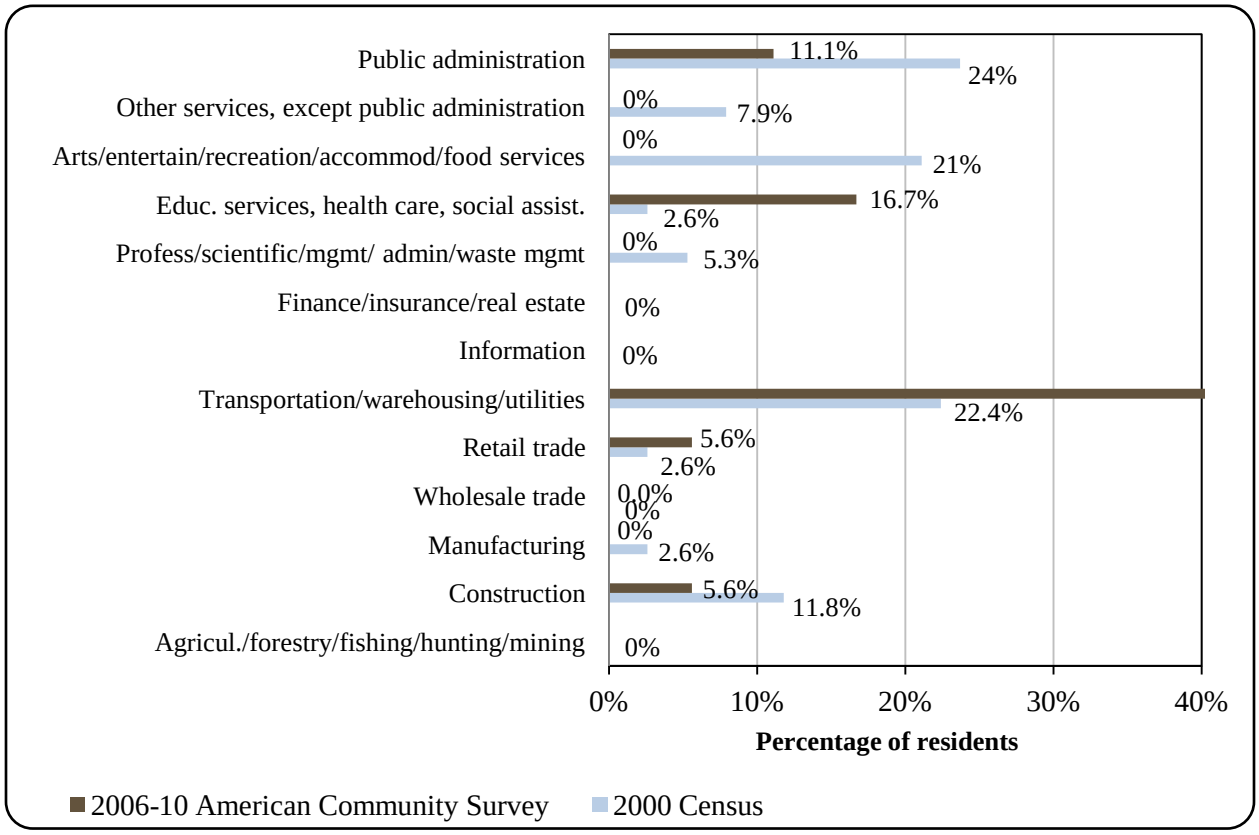
In 2010, Saint George ranked 159th of 305 Alaskan communities with per capita income that year, and 152nd out of 299 Alaskan communities with household income data. Based on the 2006-2010 ACS, in the same year, 47.4% of the population age 16 and over was estimated to be in the civilian labor force, compared to the statewide rate of 68.8%. The local unemployment rate was zero, compared to the statewide unemployment rate of 5.9%. Approximately 17.2% 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 Saint George are not reflective of the value of subsistence to the local economy. In addition, these unemployment

[504] Unless otherwise noted, all monetary data are reported in nominal values.
[505] See footnote 500.
[506] 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/.
[507] See footnote 500.
[508] 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.
[509] 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).
[510] 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.
[511] See footnotes 506 and 508.

and poverty statistics are likely inaccurate given the small population of Saint George.[512] An additional estimate of unemployment is based on the ALARI database, which suggests a higher unemployment of 16.9% in 2010, compared to a statewide unemployment rate estimate of 11.5%.[513]

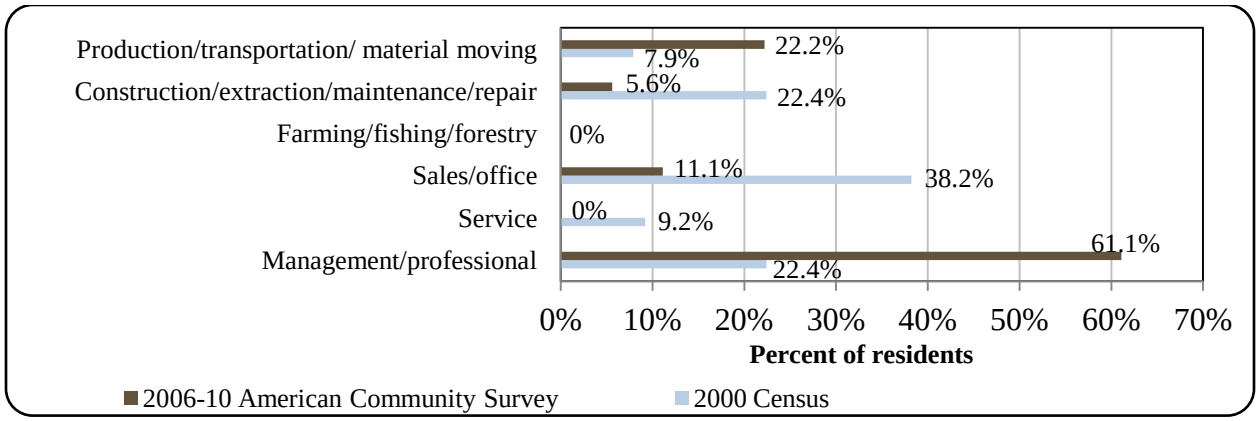
Based on household surveys conducted for the 2006-2010 ACS, the greatest number of workers was employed in the private sector (66.7%), with 33.3% employed in the public sector. Out of the 18 people aged 16 and over that were estimated to be employed in the civilian labor force in 2010, the greatest number worked in the following industries: transportation, warehousing, and utilities (27.8%), public administration (22.2%), construction (22.2%), education services, health care, and social assistance (11.1%), and wholesale trade (11.1%). When employment is considered in terms of occupation, a majority of workers were estimated to be employed in management and professional occupations (55.6%). Information about employment by industry is presented in Figure 3, and is broken down by occupation in Figure 4. No individuals characterized themselves as working in natural resource based occupations or industries that include fishing. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in farming, fishing, and forestry industries may be underestimated in census statistics as fishermen may hold another job and characterize their employment accordingly.

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



[512] See footnote 510.
[513] See footnote 506.

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



Governance

Saint George is a 2nd Class City and is not located within an organized borough. The City does not administer sales or property tax, but a 3% raw fish tax is collected. Annual municipal revenues reported in the City's certified financial statements varied considerably from year to year. In addition to the raw fish tax revenues, locally-generated income sources in Saint George between 2000 and 2010 included charges for services such as electricity, water and sewer, refuse collection, equipment and building rentals, and harbor moorage, wharfage, lighterage, and storage. Outside revenue sources included state and federal grants and shared revenues. Sources of shared revenue included the State Revenue Sharing program (over $25,000 per year from 2000 to 2003) and the Community Revenue Sharing program (just over $100,000 per year in 2009 and 2010). Several fisheries-related grants were received by the City during the 2000-2010 period. These included $10 million in 2002 and $2.5 million in 2003 from the U.S. Army Corps of Engineers for use in harbor improvements/feasibility design and construction and harbor entrance channel deepening/construction, $2 million in 2005 from the U.S. Economic Development Administration for construction of a new fish processing plant, and $143,742 in Federal Emergency Management Agency (FEMA) disaster recovery assistance in 2006 following severe storms in October 2006.[514] The FEMA disaster funding was directed toward harbor planning and engineering. Information about selected municipal funding sources is displayed below in Table 2.

In addition to the City of Saint George, the community 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 Aleut Community of Saint George Island. The Tribe is combined with Saint Paul as the Pribilof Islands Aleut Communities of Saint Paul and Saint George Islands. The Native village corporation for the Aleut Community of Saint George Island is the Saint George Tanaq Corporation, which manages 128,666 acres of land.[515] The Saint George Tanaq Corporation is involved in the local tourism industry on the island, offering both accommodations and guide services. The

[514] U.S. Dept. of Homeland Security. 2006. "New Disaster Declaration to Help Alaska Recover from October Storms." *FEMA Website*. Retrieved July 9, 2012 from http://www.fema.gov/news/newsrelease.fema?id=32110.
[515] 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.

Corporation also owns several subsidiary environmental, energy, and resource conservation consulting companies that provide services locally. The affiliated Tanaq Foundation provides educational scholarships to shareholders.[516] Many members of the Aleut Community of Saint George Island are also shareholders in the Aleut Corporation, the regional Native corporation of the eastern Alaska Peninsula, Aleutian and Pribilof Islands.[517]

The Aleut Community of Saint George Island is also part of the Aleutian Pribilof Islands Association (APIA). The mission of APIA is to promote self-sufficiency and independence of the Unangax by advocacy, training, technical assistance, and economic enhancement, as well as to assist in meeting health, safety, and well-being of each Unangax community; and to promote, strengthen, and preserve the Unangax cultural heritage.[518]

A field station of the National Marine Fisheries Service (NMFS) is located on Saint George Island, and the nearest larger NMFS office is located in Dutch Harbor, along with an office of the Alaska Department of Fish and Game (ADF&G). The nearest office of the Alaska Department of Commerce, Community, and Economic Development is located in Dillingham. The nearest offices of the U.S. Immigration and Customs Enforcement, Bureau of Citizenship and Immigration Services, and Alaska Department of Natural Resources are located in Anchorage.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Saint George 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	$1,777,505	n/a	$27,818	n/a
2001	$1,867,776	n/a	$26,857	n/a
2002	$1,141,766	n/a	$26,416	$10,000,000
2003	$576,065	n/a	$26,947	$2,500,000
2004	$691,938	n/a	n/a	n/a
2005	$523,830	n/a	n/a	$2,000,000
2006	$625,621	n/a	n/a	$143,742
2007	$1,435,568	n/a	n/a	n/a
2008	$1,784,320	n/a	n/a	n/a
2009	$911,495	n/a	$101,714	n/a
2010	$569,419	n/a	$101,567	n/a

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

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

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

[3] Alaska Dept. of Rev. (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Accessed at www.tax.state.ak.us. Data retrieved April 15, 2011.

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

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

[516] St. George Tanaq Corporation. (2013). *Home*, *Tourism*, *Business Services*, and *Tanaq Foundation*. Retrieved Feb. 22, 2013 from http://www.stgeorgetanaq.com/index.html.

[517] Aleut Corporation. (2008). *Homepage*. Retrieved February 9, 2012 from http://www.aleutcorp.com.

[518] Aleutian Pribilof Islands Association (n.d.). *About Us*. Retrieved January 26, 2012 from http://www.apiai.com/about.asp?page=about.

Infrastructure

Connectivity and Transportation

Saint George is accessible only by air and sea. There are two airstrips: one is owned by the City, and the other, with a 4,980-ft-long by 150-ft-wide gravel runway, is owned by the State. Scheduled flights are provided to Saint Paul and the Alaska mainland. Most freight and supplies are delivered by ship from Anchorage on a monthly or bimonthly schedule; cargo from Seattle arrives five or six times a year. There are three docks: one is operated by the village corporation and an inner harbor and dock are located in Zapadni Bay, 5 miles from the City.[519] Roundtrip airfare to Anchorage in June 2012 was $797.[520]

Facilities

There is a piped water and sewer system with four wells and 250,000 gallons of storage that provides water for the community and the harbor. All residences in the community are connected to the system and are plumbed. Sewage outfall discharges into the harbor. The City provides refuse collection services. Electricity is provided by the Saint George Municipal Electric Utility, which is operated by the city and powered by diesel generators. Law enforcement services are provided by Village Public Safety Officers in Dillingham, and fire and rescue services are provided by the Saint George EMS/First Responders. The City also maintains a city public safety building, a community center, and a school gym and library.[521]

In a survey conducted by the AFSC in 2011, community leaders reported that Saint George has a barge landing area and a dock served by electricity, water, and roads, in addition to fuel tanks at the dock. Community leaders also noted that Saint George has a jetty, an airport/seaplane base, water and sewer pipelines, sewage treatment, water treatment, a landfill/solid waste site, telephone service, and a post office. While community leaders also reported that there is no dock space available for permanent vessels to moor, there is 200 ft of dock space available for transient vessels up to 200 ft in length.

Medical Services

The Saint George Clinic, which is owned by the Village Council and operated by the Aleutian Pribilof Island Association, Inc. (APIA), provides medical care to the residents of Saint George. The clinic is a Community Health Aid Program site. Emergency services have coastal and air access and are provided by volunteers.[522] The nearest hospital is in Dillingham.

[519] 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.
[520] Airfare was obtained on the Peninsula Airways website, http://www.penair.com for a round-trip ticket for travel from June 1 to June 8, 2012. Retrieved on December 1, 2011.
[521] See footnote 519.
[522] Ibid.

Educational Opportunities[523]

There is one school, the Saint George School, which provides instruction for students from pre-school through 12th grade. In 2011, the school had 10 students and 1 teacher.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

The Pribilof Islands were historically used by Aleut people as a seasonal fishing and hunting site. Since the Aleuts were brought to Saint George Island by the Russians in the late 1700s, and permanent year-round settlements were established there, subsistence harvest of fur seal meat has remained fundamental to the local diet. Commercial fur seal harvest was also the basis of the wage economy in Saint George until 1983, when the U.S. Government ended the commercial seal harvest. Subsistence harvest of fur seals is governed by the Fur Seal Act of 1966 and the Marine Mammal Protection Act of 1972. Amendments were added to these Acts in 1985 and 1986, respectively, with the purpose "to limit the take of fur seals to a level providing for the subsistence needs of the Pribilof Aleuts using humane harvesting methods, and to restrict taking by sex, age, and season for herd management purposes."[524] Fur seal harvest is permitted for both subsistence purposes and for native handicrafts and clothing.[525] Residents of Saint George utilize fur seals for both purposes today.[526,527] In addition to fur seal, residents of Saint George have historically harvested seal, sea lion, and halibut for subsistence purposes.[528]

Saint George is located within Pacific Halibut Fishery Regulatory Area 4C, Federal Statistical and Reporting Area 513, and the Bering Sea Sablefish Regulatory Area. Today, the primary fishery in which Saint George residents are engaged is the commercial halibut fishery, while a small number participate in sablefish and other groundfish fisheries. Commercial exploitation of halibut and groundfish first extended into the Bering Sea region in the late 1920s after development of diesel engines, which allowed fishing vessels to undertake longer trips.[529]

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

[523] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[524] NOAA NMFS, Alaska Region. 2005. *Setting the Annual Subsistence Harvest of Northern Fur Seals on the Pribilof Islands: Final Environmental Impact Statement*. Retrieved July 9, 2012 from http://www.fakr.noaa.gov/protectedresources/seals/fur/eis/final0505.pdf.
[525] Marine Mammal Protection Act of 1972, as amended 2007. *Section 101(b) - Exemptions for Alaska natives*. Retrieved August 20, 2012 from http://www.nmfs.noaa.gov/pr/pdfs/laws/mmpa.pdf.
[526] NOAA Fisheries. 2008. Pri*bilof Islands, A Historical Perspective - Document Library*. Retrieved August 20, 2012 from http://docs.lib.noaa.gov/noaa_documents/NOS/ORR/TM_NOS_ORR/TM_NOS-ORR_17/HTML/Pribilof_html/Pages/pribilof_documents_snp.htm.
[527] City of Saint Paul, Alaska, WH Pacific, and Bechtol Planning and Development. November 17, 2008. *City of Saint Paul, Alaska Local Multi-Hazard Mitigation Plan DRAFT*. Retrieved August 20, 2012 from http://www.commerce.state.ak.us/dca/planning/nfip/Hazard_Mitigation_Plans/St_Paul_LHMP.pdf.
[528] Alaska Dept. of Fish and Game. 1985. *Alaska Habitat Management Guide, Southwest Region Volume II: Human Use of Fish and Wildlife*. Retrieved July 9, 2012 from http://www.arlis.org/docs/vol1/C/AHMG/13907847v2.pdf.
[529] 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://ww.iphc.int/publications/scirep/Report0005.pdf.

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.[530] The CDQ non-profit representing the tribal community of Saint George is the Central Bering Sea Fishermen's Association (CBSFA). In 2010, The CBSFA received an allocation of 690,625 pounds of CDQ halibut quota, all of which was allocated for harvest within Area 4C, the Subarea within which the Pribilof Islands are located.[531] However, a halibut Catch Sharing Plan developed for Areas 4C, 4D, and 4E provides that Area 4C allocations can be harvested in either Area 4C or 4D to provide additional harvesting opportunities to fishermen in Area 4C.[532] 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.[533] Managers of CDQ organizations authorize individual fishermen and fishing vessels to harvest a certain portion of the CDQ allocations.[534] Saint George is not eligible to participate in the Community Quota Entity program.

In a survey conducted by the AFSC in 2011, community leaders indicated that Saint George actively participates in fisheries management processes in Alaska through sending a representative to participate in North Pacific Fishery Management Council (NPFMC) committees or advisory groups. In addition, they indicated that Saint George relies on regional organizations, such as the Southwest Alaska Municipal Conference, to provide information on fisheries management issues.

In the 2011 AFSC survey, Saint George community leaders outlined challenges that face the portion of the Saint George economy that relies on commercial fishing. They reported that fishing activity is currently limited due to incomplete development of the harbor and related infrastructure. They expressed the opinion that the U.S. Department of Commerce has not yet met obligations outlined in the Fur Seal Act Amendments of 1983 – to help transition Saint George's economy from fur seal harvest to fisheries. According to the community leaders, this transition has not yet taken place, and the community requires direct fish/crab quota allocations and sufficient funding to complete necessary infrastructure development to allow development of commercial fishery activity. They also expressed the desire that the Fur Seal Act Amendments be recognized as "applicable law" under the Magnuson-Stevens Fishery Conservation and Management Act and by the NPFMC. They also noted high fuel costs as a limitation to development of local fisheries activity.

[530] 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.
[531] 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.
[532] North Pacific Fishery Management Council. (n.d.). *Pacific Halibut Catch Sharing Plan for Area 4*. Retrieved January 8, 2013 from http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/halibut/Area4CSP605.pdf.
[533] 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.
[534] International Pacific Halibut Commission. 2012. *Pacific Halibut Fishery Regulations 2012*. Retrieved October 16, 2012 from http://www.iphc.int/publications/regs/2012iphcregs.pdf.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, Saint George did not have a registered processing plant. That year, the nearest registered processing plant was located in Saint Paul.

However, it is important to note that, in 2008, APICDA Joint Ventures, Inc. (AJV) reached an agreement with Snopac Products, Inc. to purchase all of Snopac's crab processor quota shares and processing equipment located in Saint George. Snopac had not actively processed crab in Saint George since 2000. Local community leaders hoped the purchase would help revitalize the local economy.[535]

In addition, between 1999 and 2009, Puffin Seafoods, L.L.C. operated in Saint George. The facility, co-owned by AJV and the Saint George Fishermen's Association, purchased halibut caught by local Saint George fishermen from the Area 4C halibut CDQ allocation. Puffin Seafoods was dissolved in 2009. A new company was scheduled to be formed in 2010 around planned construction of a new seafood processing facility on Saint George Island.[536,537] Federal grant money ($2 million) was received from the EDA in 2005 toward construction of the new processing facility. According to the APICDA, the new facility was slated to be a joint venture between AJV and Snopac Products, Inc.[538]

Fisheries-Related Revenue

Between 2000 and 2010, Saint George received fisheries-related revenue from various sources, including a raw fish tax, the Shared Fisheries Business Tax, the Fisheries Resource Landing Tax, and harbor usage fees, although data for some years for various revenue sources were not available (Table 3). The amount of revenue obtained from fisheries-related sources between 2000 and 2010 varied widely, from a high of $763,896 in 2000 to $10,213 in 2010.[539]

In a survey conducted by the AFSC in 2011, community leaders reported that maintaining the harbor and water and wastewater systems are at least partially supported or funded by the Shared Fisheries Business Tax. They also reported that Saint George received $120,000 in funding or grants and $23,000 in special allocations from a CDQ entity in 2010.

Commercial Fishing

While residents of Saint George held Federal Fisheries Permits and halibut, sablefish, and groundfish Commercial Fisheries Entry Commission (CFEC) permits, only the halibut permits were reported as actively fished during each year from 2000 to 2010 (Table 4). The percentage of halibut permits reported as fished in each year varied during that period from 33% to 100%. In

[535] APICDA Joint Ventures, Inc. October 7, 2008. "APICDA Acquires Crab Processor Quota Shares." Retrieved July 9, 2012 from http://www.apicda.com/news_reports_archives/2008-AJV.crab.pdf.
[536] Aleutian Pribilof Island Community Development Association. 1999. *Quarter 3 Report*. Retrieved July 9, 2012 from http://www.commerce.state.ak.us/bsc/cdq/pub/CDQ_Apicda_Qtr3_Report_99.pdf.
[537] Aleutian Pribilof Island Community Development Association. 2009. *APICDA 2009 Annual Report*. Retrieved July 9, 2012 from http://www.apicda.com/News_Reports/Annual%20Reports/2009-Annual%20report.pdf.
[538] APICDA. 2008. *About APICDA – Saint George*. Retrieved July 9, 2012 from http://www.apicda.com/st_george.html.
[539] 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 City's financial statements.

2010, halibut CFEC permits were issued for the statewide longline vessel fishery using vessels under 60 ft. Sablefish CFEC permits were issued in 2010 for the statewide longline vessel fishery using vessels under 60 ft, and groundfish CFEC permits were issued for the statewide miscellaneous saltwater finfish longline fishery using vessels under 60 ft.

Between 2000 and 2010, data regarding total lbs landed and ex-vessel value are considered confidential due to the small number of participants (Table 5). However, there were five vessels owned by Saint George residents and homeported in Saint George, with three vessels landing catch in Saint George in 2010. That same year, there were five crew license holders in Saint George, and one fish buyer. The number of crew license holders, fish buyers, vessels owned primarily by residents, vessels homeported, and vessels landing catch in Saint George has varied between 2000 and 2010. In addition, from between 2001 and 2008, one registered shore-side processing facility was located in Saint George (see *Processing Plants* section above).

In 2010, there were eight halibut quota share holders in Saint George, holding a total of 146,384 shares of halibut quota and 29,579 lbs of halibut Individual Fishing Quota (IFQ) allotment (Table 6). Between 2000 and 2010, the number of halibut quota share holders decreased from 15 to 8, with corresponding decreases in the number of shares of halibut quota (383,289 to 146,384) and lbs of IFQ (97,796 to 29,579) held by Saint George residents. Between 2000 and 2010, no residents of Saint George held sablefish or crab quota share accounts or quota shares (Tables 7 and 8).

In a survey conducted by the AFSC in 2011, community leaders reported that commercial fishing boats under 35 ft use Saint George as their base of operations during the fishing season.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax[1]	$536,131	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]	$184,856	$478,030	$139,942	$2,128	$4,221	$3,513	$5,725	$3,026	$4,956	$8,241	$10,213
Fisheries Resource Landing Tax[1]	$909	$2,724	$1,433	$610	$1,772	$5,970	$2,294	$5,631	$14,982	$32,986	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]	$42,000	$42,000	$397,500	$7,100	n/a	n/a	$180,000	n/a	$25,246	$21,536	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
Total fisheries-related revenue[4]	*$763,896*	*$522,754*	*$538,875*	*$9,839*	*$5,993*	*$9,483*	*$188,020*	*$8,657*	*$45,184*	*$62,763*	*$10,213*
Total municipal revenue[5]	*$1,777,505*	*$1,867,776*	*$1,141,766*	*$576,065*	*$691,938*	*$523,830*	*$625,621*	*$1,435,568*	*$1,784,320*	*$911,495*	*$569,419*

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

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

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

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

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

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

Table 4. Permits and Permit Holders by Species, Saint George: 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	4	4	3	3	3	2	2	2	2	2
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	4	4	3	3	3	2	2	2	2	2
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	14	15	17	9	8	6	8	5	6	9	6
	Fished permits	9	9	10	5	6	2	5	5	6	6	5
	% of permits fished	64%	60%	59%	56%	75%	33%	63%	100%	100%	67%	83%
	Total permit holders	11	13	14	8	8	6	6	5	6	9	6
Herring (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0

Table 4 Cont. Permits and Permit Holders by Species, Saint George: 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	1	1
	Fished permits	0	0	0	0	0	0	0	0	0	1	0
	% of permits fished	-	-	-	-	-	-	-	-	-	100%	-
	Total permit holders	0	0	0	0	0	0	0	0	0	1	1
Groundfish (CFEC) [2]	Total permits	0	0	0	1	1	1	2	1	1	2	2
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	1	1	1	2	1	1	2	2
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	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
Total CFEC Permits[2]	*Permits*	*14*	*15*	*17*	*10*	*9*	*7*	*10*	*6*	*7*	*12*	*9*
	Fished permits	*9*	*9*	*10*	*5*	*6*	*2*	*5*	*5*	*6*	*7*	*5*
	% of permits fished	*64%*	*60%*	*59%*	*50%*	*67%*	*29%*	*50%*	*83%*	*86%*	*58%*	*56%*
	Permit holders	*11*	*13*	*14*	*8*	*8*	*6*	*6*	*5*	*6*	*9*	*6*

[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 Saint George: 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 Saint George[2]	Total Net Pounds Landed In Saint George[2,5]	Total Ex-Vessel Value Of Landings In Saint George[2,5]
2000	3	1	0	11	11	8	--	--
2001	11	2	1	11	10	8	--	--
2002	5	2	1	14	12	9	--	--
2003	9	1	1	7	6	5	--	--
2004	9	1	1	6	5	4	--	--
2005	4	0	1	3	3	2	--	--
2006	5	1	1	3	3	2	--	--
2007	1	1	1	3	3	3	--	--
2008	2	2	1	5	5	4	--	--
2009	1	1	0	8	8	4	--	--
2010	5	1	0	5	5	3	--	--

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 in Saint George: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (Pounds)
2000	15	383,289	97,796
2001	13	357,033	91,315
2002	13	357,033	91,316
2003	13	357,033	90,244
2004	12	357,033	76,448
2005	11	347,036	78,397
2006	11	314,840	63,095
2007	8	146,384	33,983
2008	8	146,384	32,211
2009	8	146,384	28,568
2010	8	146,384	29,579

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 in Saint George: 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 in Saint George: 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 Saint George: 2000-2010.

	Total Net Lbs[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	--	--	--
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	--	--	--	--	--	--	--	--	--	--	--

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.

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

	Total Net Lbs[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	117,239	83,969	114,889	33,022	14,767	--	--	--	52,083	33,213	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	*117,239*	*83,969*	*114,889*	*33,022*	*14,767*	--	--	--	*52,083*	*33,213*	--
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	$302,016	$104,961	$143,611	$49,566	$38,084	--	--	--	$225,155	$69,914	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	*$302,016*	*$104,961*	*$143,611*	*$49,566*	*$38,084*	--	--	--	*$225,155*	*$69,914*	--

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

The ADF&G Statewide Harvest Survey does not include the Pribilof Islands (including Saint George) in their survey regions; therefore, there are no data available on private angler harvest trends from the Statewide Harvest Survey for this area. The nearest survey region is the Alaska Peninsula/Aleutian Islands area.

In a survey conducted by the AFSC in 2011, community leaders reported that recreational fishing takes place on private boats owned by local residents, with halibut, rockfish, crab, and Pacific cod as the primary target species.

In 2010, there were no active sport fish guide businesses or licensed sport fish guides present in Saint George. While no sportfishing licenses were sold in the community, a total of one sportfishing license was sold to a resident of Saint George (irrespective of the location of the point of sale). The number of sportfishing licenses sold to residents of Saint George between 2000 and 2010 varied between one and four (Table 11).

Table 11. Sport Fishing Trends, Saint George: 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 Saint George[2]	Saltwater Angler Days Fished – Non-Residents[3]	Saltwater Angler Days Fished – Alaska Residents[3]
2000	0	0	3	0	0	0
2001	0	0	4	0	0	0
2002	0	0	4	0	0	0
2003	0	0	3	0	0	0
2004	0	0	4	0	0	0
2005	0	0	2	0	0	0
2006	0	0	1	0	0	0
2007	0	0	1	0	0	0
2008	0	0	2	0	0	0
2009	0	0	3	0	0	0
2010	0	0	1	0	0	0

[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

Villagers harvest 500 fur seals each year for subsistence purposes. Halibut, reindeer, marine invertebrates, plants, and berries also contribute to the local diet.[540] According to a survey conducted by the AFSC in 2011, subsistence harvest is done by residents of Saint George and the three most important marine or aquatic resources are fur seals, halibut, and Pacific cod.

Data are not available during the 2000-2010 period regarding per capita subsistence harvest in Saint George, the percentage of Saint George households that utilized various marine resources for subsistence purposes, or total harvest of marine invertebrates or non-salmon fish (not including halibut) (Tables 12 and 13). Some information is available from an earlier subsistence survey about species of marine invertebrates, marine mammals, and non-salmon fish used by Saint George conducted by the ADF&G Division of Subsistence. Based on the survey, in 1994, the following species of marine invertebrates, marine mammals, and non-salmon fish were used for subsistence in Saint George: blue king crab, blue mussels, butter clams, hair crab, limpets, octopus, Pacific littleneck clams (steamers), razor clams, sea cucumber, sea urchin, snails, Tanner crab, snow crab, unknown king crab, and unknown Tanner crab. Marine mammals reported as harvested for subsistence use included fur seal (communal), fur seal (other), harbor seal, Steller sea lion, unknown seal, and unknown whale. Non-salmon fish reported as harvested for subsistence use included: Dolly Varden, lake trout, Pacific cod (gray), pike, rainbow trout, sablefish (black cod), sheefish, unknown flounder, unknown greenling, unknown rockfish, and unknown sculpin.[541]

Data were available during the 2000-2010 period regarding annual subsistence harvest of halibut. Between 2003 and 2010, the number of Subsistence Halibut Registration Certificate (SHARC) cards issued by NMFS decreased from 31 to 4 (Table 14). In 2010, 14 of the 26 SHARC cards issued that year were reported as actively fished, for a total of 686 lbs of halibut harvested that year. This total represents a large decrease from 2007, when 3,736 lbs of halibut were harvested on 14 active SHARC cards.

In addition, limited data are available regarding the subsistence harvest of marine mammals between 2000 and 2010. Based on information reported by ADF&G, the number of Steller sea lions harvested by Saint George residents varied from 6 to 12 per year between 2000 and 2008. No information was reported by management agencies regarding subsistence harvest of harbor seal, spotted seal, beluga whale, sea otter, or walrus (Table 15).

In addition, no information was reported regarding annual subsistence harvest in Saint George between 2000 and 2010 (Table 13).

[540] 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).
[541] Ibid.

Table 12. Subsistence Participation by Household and Species, Saint George: 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 (Lbs)
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, Saint George: 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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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, Saint George: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	31	16	2,041
2004	34	19	1,710
2005	32	14	2,017
2006	26	20	3,443
2007	26	14	3,736
2008	4	n/a	n/a
2009	3	n/a	n/a
2010	4	4	686

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, Saint George: 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	12	n/a	n/a
2001	n/a	n/a	n/a	n/a	7	n/a	n/a
2002	n/a	n/a	n/a	n/a	6	n/a	n/a
2003	n/a	n/a	n/a	n/a	9	n/a	n/a
2004	n/a	n/a	n/a	n/a	9	n/a	n/a
2005	n/a	n/a	n/a	n/a	9	n/a	n/a
2006	n/a	n/a	n/a	n/a	9	n/a	n/a
2007	n/a	n/a	n/a	n/a	9	n/a	n/a
2008	n/a	n/a	n/a	n/a	9	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.
[1] Frost, K.J., and Suydam, R.S. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. Journal of Cetacean Research and Management 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

Saint Paul

People and Place

Location [542,543]

The community of Saint Paul is located on a narrow peninsula on the southern tip of Saint Paul Island, the largest of the four Pribilof Islands. It lies 47 miles north of Saint George Island, 240 miles north of the Aleutian Islands, 300 miles west of the Alaska mainland, and 750 air miles west of Anchorage. Saint Paul is located in the Aleutian Islands Recording District. The community encompasses 40.3 square miles of land and 255.2 square miles of water.

Demographic Profile [544]

In 2010, the U.S. Census determined that there were 479 residents in Saint Paul, making it the 122nd largest of 352 total Alaskan communities with recorded populations that year. However, the 2006-2010 American Community Survey (ACS) estimated that Saint Paul had 1,065 residents in 2010. The difference between the two population figures is likely due to the presence of seasonal workers, which play an important role in the economy of Saint Paul, and the timing of when the U.S. Census surveys were done in the community. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that an estimated 300 seasonal workers or transients live in Saint Paul for part of the year, mostly working in the construction, tour guide, and fishing industries (e.g., snow crab, halibut, and king crab). They also indicated that the population of Saint Paul reaches an annual peak in January when transient processors are present, and that the population peak is entirely driven by fisheries-related employment.

Based on the Alaska Department of Labor estimate of permanent residents, the average annual growth rate for Saint Paul between 2000 and 2009 was -1.64%, indicating slow population decline. Overall between 2000 and 2009, the population of Saint Paul decreased by 13.72%. The change in population from 1990 to 2010 is detailed in Table 1.

A majority of residents of Saint Paul in 2010 identified themselves as American Indian or Alaska Native (82.3%), while 11.1% identified themselves as White, 0.6% as Asian, 0.6% as 'some other race', 0.4% as Black or African American, 0.4% as Native Hawaiian or other Pacific Islander, and 4.8% identified as two or more races. In addition, 3.5% identified themselves as Hispanic or Latino in 2010. Compared to 2000, the percentage of the population identifying themselves as American Indian or Alaska Natives was 3.6% lower in 2010, and the percentages

[542] 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.
[543] City of Saint Paul, Alaska, WH Pacific, and Bechtol Planning and Development. November 17, 2008. *City of Saint Paul, Alaska Local Multi-Hazard Mitigation Plan DRAFT*. Retrieved August 20, 2012 from http://www.commerce.state.ak.us/dca/planning/nfip/Hazard_Mitigation_Plans/St_Paul_LHMP.pdf.
[544] 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.

of the population identifying themselves as White and Native Hawaiian or other Pacific Islander also decreased over this period (by 1.9% and 0.4%, respectively). During the same period, the population of Saint Paul experienced corresponding increases in the percentage of the population identifying themselves as Asian, Hispanic or Latino, Black or African American, and two or more races. Changes in racial and ethnic composition from 2000 to 2010 are s in Figure 1.

In 2010, the average household size in Saint Paul was 2.81, a slight decrease from 3.6 in 1990 and 2.88 in 2000. However, there has been an overall increase in the total number of occupied households since 1990, from 154 in 1990 to 177 in 2000 to 162 in 2010. Of the 190 housing units surveyed for the 2010 Decennial Census, 91 were owner-occupied, 71 were renter-occupied, and 28 were vacant. There were 24 Saint Paul residents reported as living in group quarters in 2010.

The gender makeup in Saint Paul was slightly skewed in 2010, at 53% male and 47% female, similar to the state as a whole (52% male, 48% female). The population between 20 and 69 was slightly male biased both in 2000 and 2010. The median age in Saint Paul was 34.4 years, lower than the U.S. national average of 36.8 years and higher than 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 category 40-59 years old. Relatively few people were 70 or older (Figure 2).

Table 1. Population in Saint Paul from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	763	-
2000	532	-
2001	-	527
2002	-	533
2003	-	539
2004	-	496
2005	-	492
2006	-	470
2007	-	446
2008	-	449
2009	-	459
2010	479	-

[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,

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

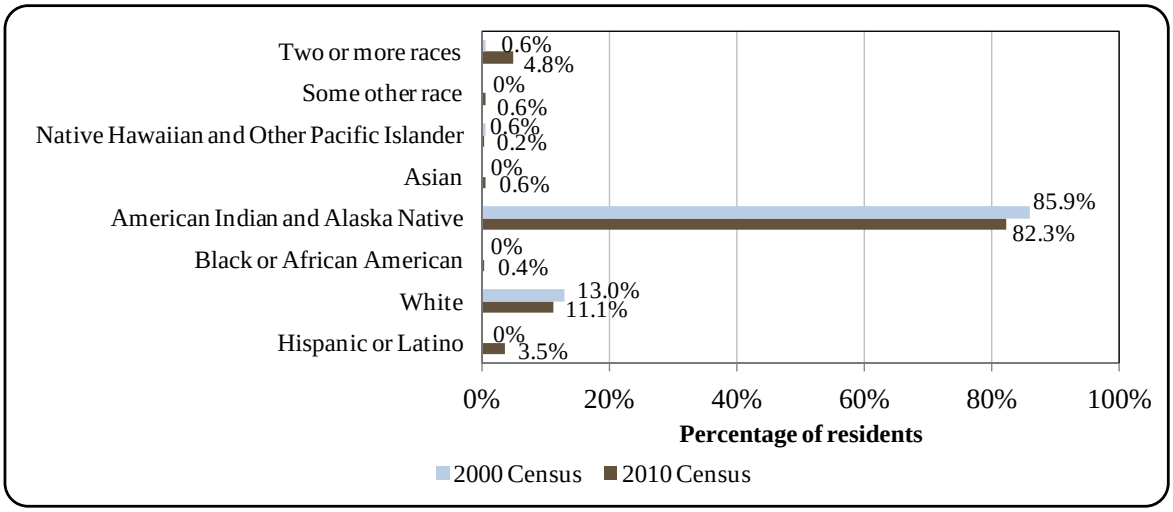
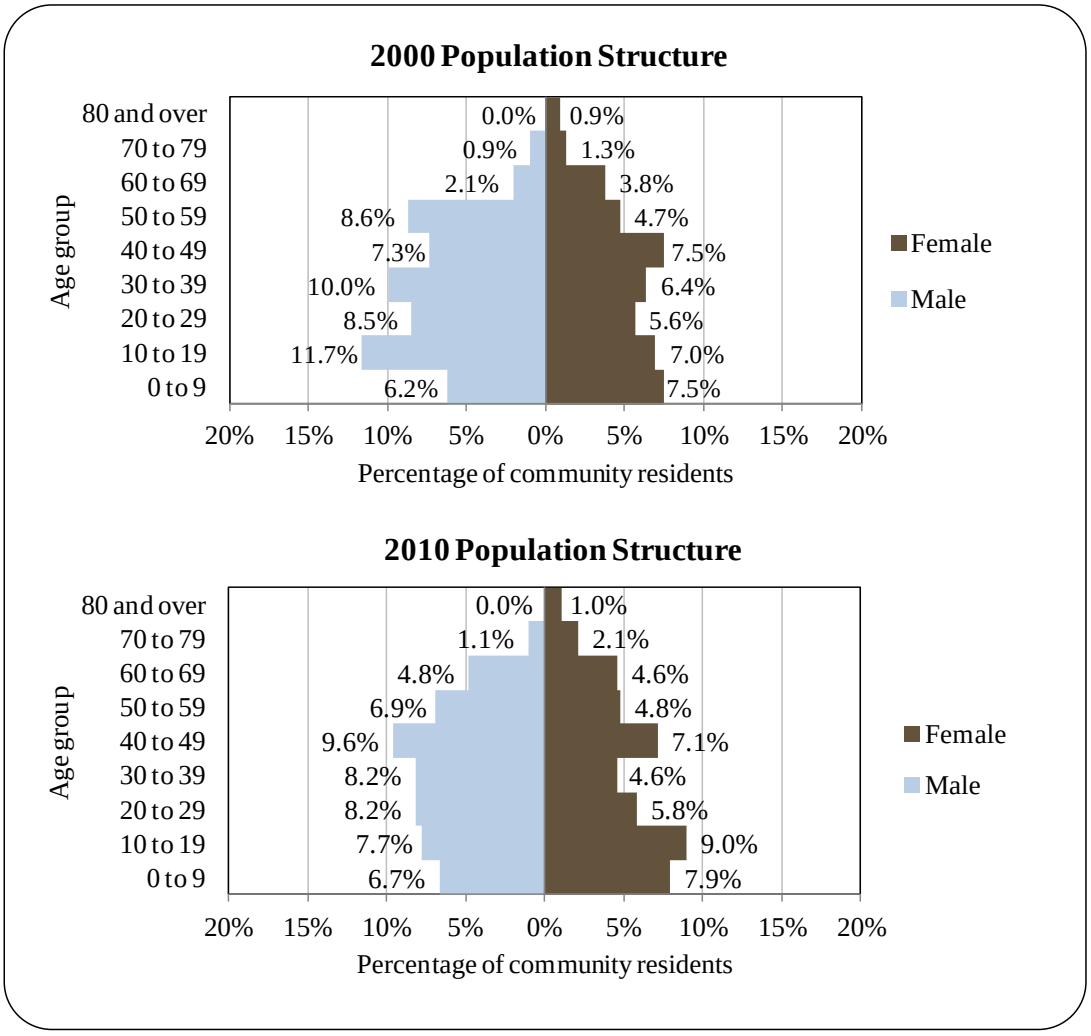


Figure 2. Population Age Structure in Saint Paul Based on the 2000 and 2010 U.S. Decennial Census.



In terms of educational attainment, according to the 2006-2010 ACS,[545] 74% of Saint Paul residents age 25 and over were estimated to hold a high school diploma or higher, compared with 90.7% of Alaska residents overall. Also in 2009, 11.9% of the population had less than a ninth grade education, compared to 3.5% of Alaska residents overall; 14.1% had a 9th to 12th grade education but no diploma, compared with 5.8% of Alaska residents overall; 45.4% had a high school diploma or equivalent, compared with 27.4% of Alaska residents overall; 7% had some college but no degree, compared with 28.3% of Alaska residents overall; 10.2% held an Associate's degree, compared with 8% of Alaska residents overall; 11.1% held a Bachelor's degree, compared with 17.4% of Alaska residents overall; and 0.3% held a graduate or professional degree, compared with 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture

Saint Paul's population is predominantly Unangan Aleut.[546] Historically, the Aleuts traveled to the Pribilof Islands seasonally for hunting. Inspired by traditional Aleut stories, Gavriff Pribilof of the Russian fur trading company, Lebedov Lastochkin Co., went on a search for the legendary "Seal Islands." After three years, Pribilof landed on Saint George Island in 1786, and named the island after his vessel. The following year, Pribilof and his party landed on the larger island to the north, which was named 'Saint Peter and Saint Paul Island' in honor of the day they made landfall – the Feast of Saints Peter and Paul. It is now known simply as Saint Paul Island.[547] In 1788, the Russian American Company enslaved and relocated Aleuts from Siberia, Atka, and Unalaska to the Pribilofs to hunt fur seals. Their descendants continue to live on these two islands today.[548]

The United States' purchase of Alaska from Russia in 1867 included the Pribilof Islands. Soon after the purchase, in 1868, the Islands were declared a special Federal Reserve with the purpose of managing fur seals and other fur-bearing species, and the federal government began to contract seal harvest to private companies.[549] In 1870, the U.S. government awarded the Alaska Commercial Company a 20-year sealing lease, and they provided housing, food, and medical care to the Aleuts in exchange for seal harvesting. In 1890, a second 20-year lease was awarded to the North American Commercial Company. However, fur seals were severely over-harvested, and poverty ensued. The 1910 Fur Seal Act ended private leasing on the Islands and placed the community and fur seals under the U.S. Bureau of Fisheries. Food and clothing were scarce, social and racial segregation was practiced, and working conditions were poor.[550]

[545] 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.
[546] Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.
[547] NOAA Office of Response and Restoration. 2008. P*ribilof Islands: A Historical Perspective – Island History: The Russian Period*. Retrieved January 7, 2013 from http://docs.lib.noaa.gov/noaa_documents/NOS/ORR/TM_NOS_ORR/TM_NOS-ORR_17/HTML/Pribilof_html/Pages/history_Russian_period.htm.
[548] 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.
[549] 106th U.S. Congress. April 11, 2000. *Pribilof Islands Transition Act*. Retrieved August 21, 2012 from http://www.gpo.gov/fdsys/pkg/CRPT-106hrpt569/html/CRPT-106hrpt569.htm.
[550] See footnote 548.

During World War II, the Pribilof Aleuts were moved to Funter Bay on Admiralty Island in Southeast Alaska as part of the emergency evacuation of residents from the Bering Sea. Unlike other Aleutian residents, they were confined in an abandoned cannery and mine camp at Funter Bay. Conditions were poor, with crowded quarters and inadequate heat and sanitation, leading to high rates of illness. Many elderly and young people died during this period. Later, in 1979, the Aleut Islanders received $8.5 million in partial compensation for the unfair and unjust treatment the federal administration subjected them to from 1870 to 1946.[551,552]

In 1983, Congress passed the Fur Seal Act Amendments, which brought government control of the commercial seal harvest and the federal presence in the Pribilof Islands to an end. Responsibility for providing community services and management of the fur seals was left to local entities. To help develop and diversify the local economy, $12 million was provided to Saint Paul by the federal government. Commercial harvesting of fur seals on Saint Paul ceased in 1985.[553] Today, the Marine Mammal Protection Act provides that marine mammals may be taken by Native Alaskans living in Alaska if such taking is 1) for subsistence purposes; or 2) is done for the purpose of creating and selling authentic native articles of handicrafts and clothing; and 3) in each case, is not accomplished in a wasteful manner.[554] Residents of Saint Paul harvest fur seals for the purpose of both subsistence and Native arts and crafts.[555,556]

Although subsistence has not historically been the focus of the local culture, today seal – and other resources such as halibut – are shared and exchanged with relatives living in other communities for salted or smoked salmon.[557] The American Orthodox Church[558] historically played a strong role in community cohesiveness. The sale of alcohol is limited to the tribal-owned package store and the tavern.[559]

Natural Resources and Environment

The climate of Saint Paul is sub-arctic maritime. The location in the Bering Sea results in cool weather year-round and a narrow range of mean temperatures, varying from 19 to 51 °F (-7.2 to 10.6 °C). Average annual precipitation is 25 inches, with snowfall of 56 inches. Heavy fog is common during summer months.[560] Saint Paul is the largest of the four Pribilof Islands and lies the furthest north. It is approximately 16 miles long and 9 miles wide, with a maximum elevation of 655 ft. The Island is of volcanic origin, and the topography is characterized by lava

[551] Ibid.
[552] City of St. George. 1988. *Comprehensive Development Plan*. Retrieved January 4, 2013 from http://www.commerce.state.ak.us/dca/plans/SaintGeorge-CP-1988.pdf.
[553] Ibid.
[554] Marine Mammal Protection Act of 1972, as amended 2007. *Section 101(b) - Exemptions for Alaska natives*. Retrieved August 20, 2012 from http://www.nmfs.noaa.gov/pr/pdfs/laws/mmpa.pdf.
[555] NOAA Fisheries. 2008. *Pribilof Islands, A Historical Perspective - Document Library*. Retrieved August 20, 2012 from http://docs.lib.noaa.gov/noaa_documents/NOS/ORR/TM_NOS_ORR/TM_NOS-ORR_17/HTML/Pribilof_html/Pages/pribilof_documents_snp.htm.
[556] City of Saint Paul, Alaska, WH Pacific, and Bechtol Planning and Development. November 17, 2008. *City of Saint Paul, Alaska Local Multi-Hazard Mitigation Plan DRAFT*. Retrieved August 20, 2012 from http://www.commerce.state.ak.us/dca/planning/nfip/Hazard_Mitigation_Plans/St_Paul_LHMP.pdf.
[557] See footnote 548.
[558] Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.
[559] See footnote 548.
[560] Ibid.

flows, volcanic cones, and volcanic debris. Inland, a tundra complex overlies the volcanic soil, made up of lichens, mosses, wildflowers, rock jasmine, Chickweed, and low-lying willows and scrubs. Along some stretches of the coastline, the volcanic rock is covered by coastal dunes and marine deposits inside shallow bays. In other coastal areas, headlands rise above sheer cliffs.[561,562]

Wildlife present on Saint Paul Island includes over 248 species of migratory birds, blue fox (a sub-species of Arctic fox), and reindeer (descendants of a domesticated herd from the early 1900s).[563] A majority of the northern fur seal in the Pribilof Islands have their rookeries on Saint Paul Island. Most of the Island is owned by the village Native corporation, Tanadgusix Corporation (TDX), which provides wildlife viewing tours.[564] In 1982, a portion of Saint Paul Island known as the 'seabird cliffs' was purchased by the federal government to be added to the Pribilof Unit of the Alaska Maritime National Wildlife Refuge (NWR).[565] Including all of its units, the Alaska Maritime NWR spans four time zones,[566] stretching from the Aleutian Islands to the Chuckchi Sea Coast to the Southeast Alaska Panhandle. It was created in part to promote a program of scientific research on marine ecosystems. The Alaska Maritime NWR "protects breeding habitat for seabirds, marine mammals, and other wildlife on more than 2,500 islands, spires, rocks, and coastal headlands."[567]

Natural hazards with the potential to impact the community of Saint Paul include earthquakes, tsunamis, severe weather, flooding, and erosion. The primary flooding risk in Saint Paul is from storm surges, which occur when ocean water is driven onshore by high winds during storms. Flooding events and coastal storms are the primary causes of coastal erosion on Saint Paul Island. Severe weather events that are likely to affect Saint Paul include severe winds, winter storms, heavy snow, and ice storms. Severe winds are a regular occurrence, resulting in extensive damage to structures in the community. Extreme cold temperatures are also common in the region. The probability of an earthquake in the area is considered low to moderate. There is minimal risk of tsunami damage to Saint Paul.[568]

According to the Alaska Department of Environmental Conservation (DEC), petroleum contamination has been identified at a number of properties on Saint Paul Island currently or previously owned by NOAA and its predecessor agencies. Restoration activities have been conducted according to an agreement between NOAA and the DEC, and currently no further remedial action is planned. Contaminated soil has been excavated and long-term soil and

[561] See footnote 556.
[562] Jordan, D.S. (1898). *The Fur Seals and Fur-seal Islands of the North Pacific Ocean*. Washington, D.C.: U.S. Department of the Treasury: Government Printing Office. p. 31.
[563] See footnote 556.
[564] U.S. Fish and Wildlife Service. 2008. *Alaska Maritime National Wildlife Refuge: Pribilof Islands – Wildlife Viewing*. Retrieved January 7, 2013 from http://alaskamaritime.fws.gov/visitors-educators/wildlifeviewing/pribilofs.htm.
[565] U.S. Fish and Wildlife Service. 2008. *Alaska Maritime National Wildlife Refuge: Refuge Units – St. George Island, Pribilofs.* Retrieved January 7, 2013 from http://alaskamaritime.fws.gov/units/StGeorge.htm.
[566] "Technically, the Alaska Maritime Refuge spans 4 time zones (Pacific, Yukon, Alaska, and Bering). In 1983 almost all the state was consolidated under Alaska Time (standard and daylight) - one hour behind Pacific Time of the West Coast. Only the central and western Aleutian Islands observe Hawaii-Aleutian Time, two hours behind Pacific Time." Quote retrieved June 11, 2012 from http://alaskamaritime.fws.gov/howbig.htm.
[567] USFWS (n.d.). *Alaska Maritime National Wildlife Refuge.* Retrieved January 4, 2012 from http://alaskamaritime.fws.gov/.
[568] See footnote 556.

groundwater monitoring is in place. Residents of Saint Paul obtain drinking water from a clean source located two miles north of the City.

Current Economy[569]

The federally-controlled fur seal industry dominated the economy of the Pribilofs until 1985, when commercial fur seal harvest came to an end.[570] According to a survey conducted by the AFSC in 2011, Saint Paul community leaders indicated that the local economy has transitioned from fur-seal harvest to servicing the commercial fishing industry. They reported that fisheries are the primary economic driver in Saint Paul, and emphasized the importance of fish and crab processing to the local economy. Saint Paul is a port for the Central Bering Sea fishing fleet, and major harbor improvements have fueled economic growth. Several offshore processors are serviced out of Saint Paul, and shore-side plants process cod, crab, and halibut.[571] The Central Bering Sea Fishermen's Association (CBSFA) operates a cooperative in conjunction with the F/V Saint Paul, Trident Seafoods, and American Seafoods. Trident Seafoods is one of the top local employers.[572] A number of local residents are also involved in commercial fisheries as vessel owners, permit and quota share account holders, and crew license holders (see *Commercial Fisheries* section).

In addition to fisheries and seafood processing, top employers in Saint Paul in 2010 included the City of Saint Paul, the Tribal Government of Saint Paul, the local Native village corporation, Tanadgusix Corp., the Aleutian Pribilof Islands Association Inc., the Pribilof School District, local retailers, dredging and marine construction, and Peninsula Airways, Inc.[573] In addition, fur seal rookeries and more than 210 species of nesting sea birds attract several hundred visitors to this remote location each year. Subsistence is also important to the local economy. Residents utilize halibut, fur seals (1,645 may be taken each year), reindeer, ducks, seabirds, marine invertebrates, plants, and berries for subsistence purposes.[574]

Based on the 2006-2010 ACS,[575] the estimated per capita income in Saint Paul in 2010 was $26,198, and the estimated median household income in 2010 was $38,125, compared to $18,408 and $50,750 in 2000, respectively. However, after accounting for inflation by converting the 2000 values to 2010 dollars,[576] the real per capita income ($24,206) increased between 2000 and 2010, while the real median household income ($66,736) decreased substantially during the same period. In 2010, Saint Paul ranked 93rd of 305 Alaskan communities with per capita income that year, and 200th of 299 Alaskan communities with household income data.

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[569] Unless otherwise noted, all monetary data are reported in nominal values.
[570] 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.
[571] Ibid.
[572] 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/.
[573] Ibid.
[574] See footnote 570.
[575] 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.
[576] 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).

However, Saint Paul's small population size may have prevented the ACS from accurately portraying economic conditions.[577] An alternative estimate of per capita income is provided by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Saint Paul in 2010 is $13,628.[578] This estimate is lower than both reported per capita income in 2000 and the 2010 ACS estimate, suggesting that caution is warranted when citing a real increase in per capita income in Saint Paul based on ACS estimates. Saint Paul did not meet the Denali Commission's primary criteria as a "distressed community" in 2010.[579] It should be noted that both ACS and DOLWD data are based on wage earnings, and these income statistics do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a much higher percentage of Saint Paul residents was estimated to be in the civilian labor force (91.4%) than in the civilian labor force statewide (68.8%). In the same year, 17.7% of local residents were estimated to be living below the poverty line, almost double the rate of Alaska residents overall (9.5%), and the unemployment rate was estimated to be 1.5%, much lower than the statewide unemployment rate of 5.9%. An additional estimate of unemployment is based on the ALARI database, which indicates that the unemployment rate in 2010 was 15.5%, compared to a statewide unemployment rate estimate of 11.5%.[580]

Based on the 2006-2010 ACS, the greatest number of workers was estimated to be employed in the private sector (96.1%), while 3.8% worked in the public sector, and 0.1% of workers were self-employed. Out of 866 people age 16 or older that were estimated by the 2006-2010 ACS to be in the civilian labor force, a majority worked in manufacturing industries (90.2%). Only small percentages of the population were estimated to work in other industries. Compared to 2000, the distribution of employment was much more concentrated in manufacturing in 2010, and a number of industries were no longer represented in employment estimates. It is important to keep in mind that the small population of Saint Paul may affect the representativeness of 2006-2010 ACS estimates, which could explain the dramatic shift in employment statistics between 2000 and 2010.[581] This information about employment by industry is presented in Figure 3.

Employment statistics by occupation show similar trends, with a large increase in production, transportation, and material moving occupations between 2000 and 2010, and a dramatic reduction in employment in natural resource, construction, and maintenance, service, and management and professional occupations. The percentage of the workforce estimated to be employed in sales and office occupations remained stable between 2000 and 2010. Employment is broken down by occupation in Figure 4.

[577] 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.
[578] See footnotes 572 and 575.
[579] Denali Commission. 2011. *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.
[580] See footnote 572.
[581] See footnote 577.

It is important to note that the number of individuals employed in fishing-related occupations and industries is probably underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly.

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

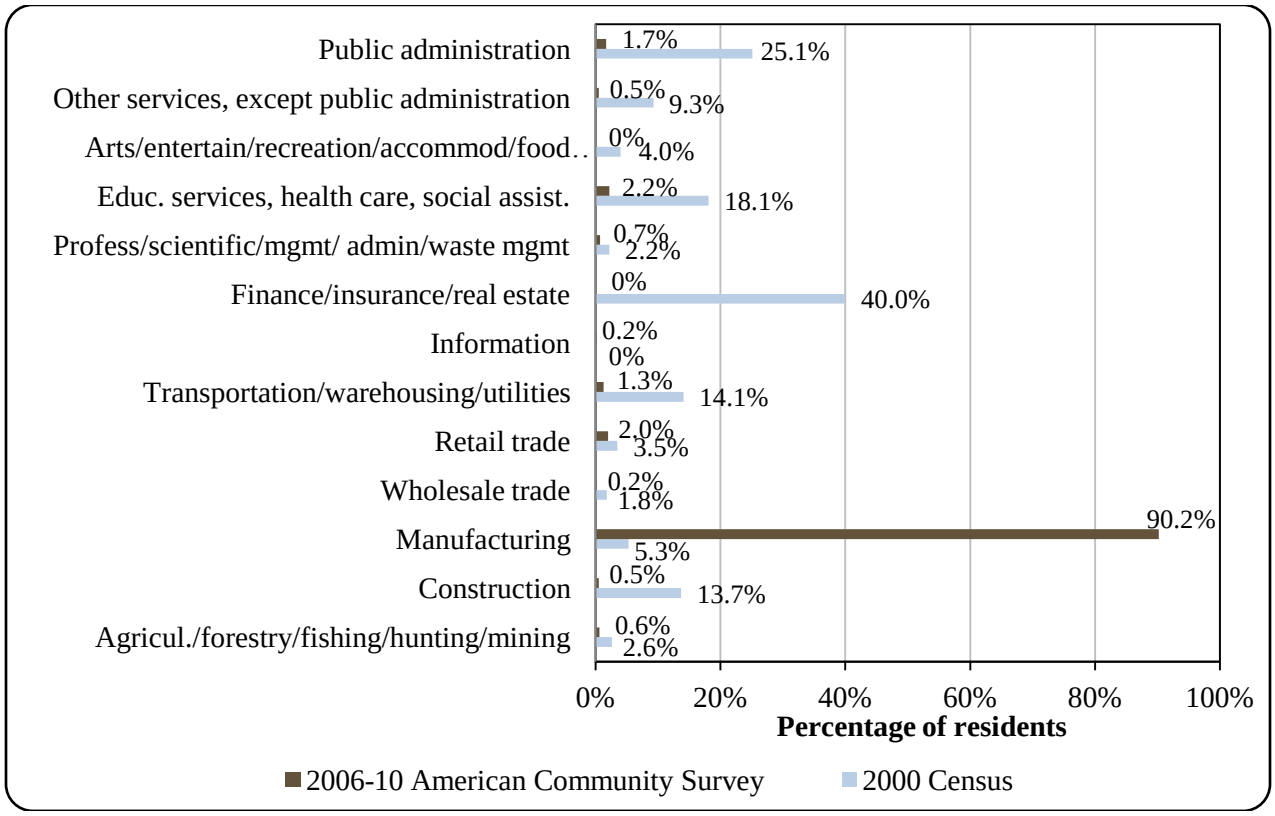
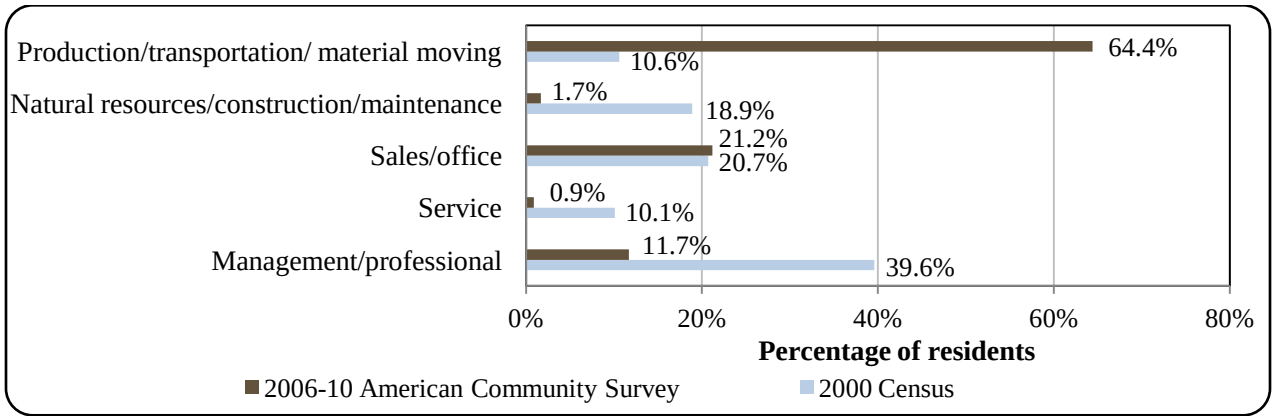


Figure 4. Local Employment by Occupation in 2000-2010, Saint Paul (U.S. Census).



An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 230 employed residents in Saint Paul in 2010, of which 47.4% were employed in local government, 11.3% in financial activities, 9.6% in trade, transportation, and utilities, 8.7% in education and health services, 8.3% in manufacturing, 5.7% in construction, 2.2% in professional and business services, 0.9% in state government, 0.4% in leisure and hospitality, and 5.7% in other industries.[582] As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

Governance

Saint Paul is a 2nd Class City governed by a mayor and a city council and is not located within an organized borough. The City has a "Strong Mayor" form of government, with a seven-person city council including the mayor, a five-person school board, five-person planning commission, and several municipal employees. As of 2010, the City administered a 3% sales tax and a raw fish tax, and did not administer a property tax.[583,584] In addition to sales tax revenues, other locally-generated revenue sources in Saint Paul during the 2000-2010 period included local raw fish tax revenue, and charges for services such as day care, building rentals, equipment rental and repairs, emergency medical services, and financial services. Outside revenue sources included shared funds from the State of Alaska, a contract for maintenance of the airport, and a variety of capital and special project grants. Sources of shared revenue included the State Revenue Sharing program from 2000 to 2003 (between $30,000 and $40,000 per year), the state Community Revenue Sharing program in 2009 and 2010 (just under $120,000 each year), and the state fish tax refunds, among others. Grants were received from state and federal agencies for capital projects, including a number of fisheries-related grants. These U.S. Army Corps of Engineers funding for harbor upgrades, a local boat basin project, improvements to the Saint Paul small boat harbor, harbor improvements (processor space), and construction of a small boat harbor (Phases I, II, and III), and U.S. Economic Development Agency funding for harbor dredging. Other grants included a Bureau of Indian Affairs (BIA) funding for a road project and state funds for remodel and repair of buildings, renovation of the local boat basin, and fire and public safety upgrades. Information about select aspects of revenue sources in Saint Paul is presented in Table 2. Also see the *Fisheries-Related Revenue* section for more information about local and state fish tax revenues.

Saint Paul 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 BIA, is the Aleut Community of Saint Paul Island. The Tribe is combined with Saint George as the 'Pribilof Islands Aleut Communities of Saint Paul and Saint George Islands'. The Native village corporation for the Aleut Community of Saint Paul Island is the Tanadgusix Corporation (TDX), which manages 154,376 acres of land.[585] The TDX Corporation owns several subsidiary

[582] 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/.
[583] 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.
[584] Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.
[585] See footnote 583.

companies that provide services to commercial, industrial, and public sectors.[586] Many members of the Aleut Community of Saint Paul Island are also shareholders in the Aleut Corporation, the regional Native corporation of the eastern Alaska Peninsula, Aleutian Islands, and Pribilof Islands.[587]

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Saint Paul 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	$4,667,354	$328,695	$42,789	$82,000
2001	$1,923,734	$289,323	$43,856	$51,080
2002	$2,027,097	$295,654	$29,472	$116,393
2003	$1,895,355	$282,483	$29,503	$20,191,279
2004	$2,041,007	$317,580	n/a	$117,000
2005	$2,304,279	$367,281	n/a	$473,277
2006	$2,035,136	$321,610	n/a	$259,740
2007	$3,496,630	$351,610	n/a	$2,162,440
2008	$7,732,471	$459,921	n/a	$35,000
2009	$4,747,988	$466,700	$118,956	$620,000
2010	$5,327,029	$466,925	$119,020	n/a

[1] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from 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, 2011from 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, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

The Aleut Community of Saint Paul Island is also part of the Aleutian Pribilof Islands Association (APIA). The mission of APIA is to promote self-sufficiency and independence of the Unangax by advocacy, training, technical assistance, and economic enhancement, as well as to assist in meeting health, safety, and well-being of each Unangax community; and to promote, strengthen, and preserve the Unangax cultural heritage.[588]

A field station of the National Marine Fisheries Service (NMFS) is located on Saint Paul Island, and the nearest larger NMFS office is located in Dutch Harbor, along with an office of the Alaska Department of Fish and Game (ADF&G). The nearest office of the Alaska Department of Commerce, Community, and Economic Development is located in Dillingham. The nearest offices of the U.S. Bureau of Citizenship and Immigration Services, and Alaska Department of Natural Resources are located in Anchorage.

[586] Tanadgusix Corporation (n.d.). *About TDX*. Retrieved on May 10, 2012 from http://www.tanadgusix.com/index.html.
[587] Aleut Corporation 2008. *Homepage*. Retrieved February 9, 2012 from http://www.aleutcorp.com.
[588] Aleutian Pribilof Islands Association (n.d.). *About Us*. Retrieved January 26, 2012 from http://www.apiai.com/about.asp?page=about.

Infrastructure

Connectivity and Transportation

Saint Paul is accessible by sea and air only. Most supplies and freight arrive by ship. There is a breakwater, 700 ft of dock space, and a barge off-loading area. Regularly scheduled flights are also available. The state-owned asphalt runway is 6,500 ft long and 150 ft wide .[589] Round-trip airfare to Anchorage for travel during June 2012 was $797.[590]

Facilities

Water is supplied by wells and an aquifer and is treated. There are two wooden tanks; one is 500,000 gallons, and the other is 300,000 gallons. All 175 homes and facilities are connected to the piped water and sewer system and are fully plumbed. The City provides refuse collection services. A landfill, burn box, and sludge and used oil disposal site are available.[591] In the 2011 AFSC survey, community leaders reported that a water treatment facility is in use, improvements to water and sewer pipelines are expected in 2013, and a new landfill is expected to be in use by 2020. Electricity in Saint Paul is provided by a diesel powerhouse. A small wind turbine has been erected and currently provides power and hot water to the village corporation's airport facility and hotel, but it is not yet connected to the municipality's electric grid. Police services are provided in Saint Paul by the City Police Department, and fire and rescue services are provided by Saint Paul Emergency Medical Services (EMS) Rescue Squad. Other community facilities include a youth center sponsored by the village corporation, a city auditorium, a school gymnasium and school library, and a public library. In addition, the APIA sponsors a senior center meals program.[592] In the 2011 AFSC survey, community leaders also noted the presence of a food bank, a small recreation center, and a limited publicly subsidized housing program. Community leaders also noted that many public social services are primarily accessible to permanent residents, which some services, such as the library and medical facilities, are also available for seasonal processing workers.

With regard to fisheries-related infrastructure, community leaders reported in the 2011 AFSC survey that Saint Paul has four docks. Since the late 1980s, the city dock has been served by electricity and water, and has been connected to the road system since 1984. A breakwater was completed at the city dock in 1990, and fuel tanks have been available since 1994; Trident's dock has had a breakwater and been connected to these various amenities since 1994; other local docks are expected to receive electricity and water, as well as a breakwater, within the next 10 years. In addition, a fish cleaning station and haul out facilities are expected to be available within the next 10 years. A barge landing area has also been in place in Saint Paul since before 2000. In total, community leaders reported that 450 ft of dock space is available for transient vessel moorage at Saint Paul harbor facilities, but no dock space is available for permanent vessel moorage. Vessels up to 200 ft long may use moorage in Saint Paul, though those vessels

[589] 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.
[590] Airfare was obtained on the Peninsula Airways website at http://www.penair.com for a round-trip ticket for travel from June 1 to June 8, 2012. Retrieved on December 1, 2011.
[591] See footnote 589.
[592] Ibid.

must have a shallow draft. They also indicated that Saint Paul facilities are capable of handling small rescue boats, small cruise ships, and fuel barges.

Community leaders also reported in the 2011 AFSC survey that a variety of fisheries-related businesses and services are available in Saint Paul. These include fish processing plants and commercial cold storage, fishing gear storage, gear repair (for halibut longline gear only), moorage of small recreational vessels, haulout facilities for small boats (less than 60 tons), sale of bait, boat fuel, and ice, and very limited sale of fishing gear. For those fisheries-related businesses and services not available in Saint Paul, community leaders indicated that local residents most frequently travel to Unalaska, Anchorage, or Seattle.

Medical Services

Medical services are provided to the community by the Saint Paul Health Center, which is owned by the Regional Health Corporation and operated by the APIA. The health center is a Community Health Aid Program site. The clinic is a qualified Emergency Care Center, and emergency services have coastal and air access. Alternate health care is provided by the Saint Paul Emergency Medical Services Rescue Squad. Emergency service is provided by 911 telephone service volunteers and a health aide.[593] The nearest hospital is located in Dillingham, but most local residents travel to Anchorage to access medical facilities there.[594]

Educational Opportunities

The Saint Paul School provides instruction for students from pre-school through 12th grade. In 2011 the school had 78 students and 10 teachers.[595] Online distance learning classes are also available for through the University of Alaska.[596]

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

The Pribilof Islands were historically used by Aleut people as a seasonal fishing and hunting site. Since the Aleuts were brought to Saint George Island by the Russians in the late 1700s, and permanent year-round settlements were established there, subsistence harvest of fur seal meat has remained fundamental to the local diet. Commercial fur seal harvest was also the basis of the wage economy in Saint Paul until 1983, when the U.S. government ended the commercial seal harvest. Subsistence harvest of fur seals is governed by the Fur Seal Act of 1966 and the Marine Mammal Protection Act of 1972. Amendments were added to these Acts in 1985 and 1986, respectively, with the purpose "to limit the take of fur seals to a level providing for the subsistence needs of the Pribilof Aleuts using humane harvesting methods, and to restrict taking

[593] Ibid.
[594] Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.
[595] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[596] University of Alaska. (n.d.). *Distance Learning*. Retrieved August 21, 2012 from http://www.alaska.edu/distance/.

by sex, age, and season for herd management purposes."[597] Fur seal harvest is permitted for both subsistence purposes and for native handicrafts and clothing.[598] Residents of Saint Paul utilize fur seals for both purposes today.[599,600] In addition to fur seal, residents of Saint Paul have historically harvested seal, sea lion, and halibut for subsistence purposes.[601]

Saint Paul is located within Pacific Halibut Fishery Regulatory Area 4C, Federal Statistical and Reporting Area 513, and the Bering Sea Sablefish Regulatory Area. Today, the greatest number of Saint Paul residents participates in the commercial halibut fishery, while a smaller number of residents are also involved in fisheries for groundfish, crab, and salmon.

Commercial exploitation of halibut and groundfish first extended into the Bering Sea region in the late 1920s after development of diesel engines, which allowed fishing vessels to undertake longer trips.[602] 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.[603] The CDQ non-profit representing the tribal community of Saint Paul is the Central Bering Sea Fishermen's Association (CBSFA). In 2010, The CBSFA received an allocation of 690,625 lbs of CDQ halibut quota, all of which was allocated for harvest within Area 4C, the Subarea within which the Pribilof Islands are located.[604] However, a halibut Catch Sharing Plan developed for Areas 4C, 4D, and 4E provides that Area 4C allocations can be harvested in either Area 4C or 4D to provide additional harvesting opportunities to fishermen in Area 4C.[605] Total BSAI sablefish CDQ allocations in 2009 and 2011 was 1.3 million lbs in each year. No sablefish CDQ report was available from NOAA for the 2010 season.[606] Managers of CDQ organizations authorize individual fishermen and fishing vessels to harvest a certain

[597] NOAA NMFS, Alaska Region. 2005. *Setting the Annual Subsistence Harvest of Northern Fur Seals on the Pribilof Islands: Final Environmental Impact Statement*. Retrieved July 9, 2012 from http://www.fakr.noaa.gov/protectedresources/seals/fur/eis/final0505.pdf.
[598] Marine Mammal Protection Act of 1972, as amended 2007. *Section 101(b) - Exemptions for Alaska natives*. Retrieved August 20, 2012 from http://www.nmfs.noaa.gov/pr/pdfs/laws/mmpa.pdf.
[599] NOAA Fisheries. 2008. Pri*bilof Islands, A Historical Perspective - Document Library*. Retrieved August 20, 2012 from http://docs.lib.noaa.gov/noaa_documents/NOS/ORR/TM_NOS_ORR/TM_NOS-ORR_17/HTML/Pribilof_html/Pages/pribilof_documents_snp.htm.
[600] City of Saint Paul, Alaska, WH Pacific, and Bechtol Planning and Development. November 17, 2008. *City of Saint Paul, Alaska Local Multi-Hazard Mitigation Plan DRAFT*. Retrieved August 20, 2012 from http://www.commerce.state.ak.us/dca/planning/nfip/Hazard_Mitigation_Plans/St_Paul_LHMP.pdf.
[601] Alaska Dept. of Fish and Game. 1985. *Alaska Habitat Management Guide, Southwest Region Volume II: Human Use of Fish and Wildlife*. Retrieved July 9, 2012 from http://www.arlis.org/docs/vol1/C/AHMG/13907847v2.pdf.
[602] 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://ww.iphc.int/publications/scirep/Report0005.pdf.
[603] 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.
[604] 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.
[605] North Pacific Fishery Management Council. (n.d.). *Pacific Halibut Catch Sharing Plan for Area 4*. Retrieved January 8, 2013 from http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/halibut/Area4CSP605.pdf.
[606] 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.

portion of the CDQ allocations.[607] Saint Paul is not eligible to participate in the Community Quota Entity program.

Bering Sea crab fisheries also play an important role in the local economy in Saint Paul, which is the location of one of the largest crab processing plants in the region.[608] Large scale commercial exploitation of crab in the Bering Sea began in the 1950s with the development of king crab fisheries. The Pribilof Islands were an historical center of the red king crab fishery, and also one of the few sites where larger concentrations of blue king crab are found.[609] In the 1960s, a fishery for hair crab also developed in the Pribilof Islands, originally pioneered by the Japanese, and taken over by American vessels beginning in 1979.[610] Other commercial crab species that are distributed in the Bering Sea include golden king crab, Tanner crab, snow crab, grooved Tanner crab, triangle Tanner crab, and scarlet king crab.[611] A number of these crab stocks are in depressed condition. Low stock abundance has led to the closure of the Pribilof Island red and blue king crab fisheries[612,613] and the Bering Sea hair crab fishery[614] through the last decade. Bering Sea and Aleutian Islands crab stocks are jointly managed by the North Pacific Fishery Management Council (NPFMC) and ADF&G.[615]

Most BSAI king, Tanner, and snow crab fisheries were included under a 2005 rationalization program. The program was proposed in response to overcapitalization and very short seasons in these fisheries. The crab rationalization program allocated harvest shares to historical license holders as well as to CDQ non-profit entities. In addition, processors were issued processing shares, and community interests were protected through community landing requirements. Regional landing requirements have been particularly important in maintaining landings in remote communities such as Saint Paul. The crab rationalization program has been credited with improving safety and fuel savings in BSAI crab fisheries, and also resulted in a significant reduction of the total number of vessels involved in the fishery. For many communities, a problematic result of the program has been a dramatic reduction in employment for crew members.[616]

In the 2011 AFSC survey, community leaders indicated that the community of Saint Paul participates in the fisheries management process in Alaska through a variety of mechanisms. The Mayor and many other residents of Saint Paul[617] attend North Pacific Fisheries Management Council meetings and/or Board of Fisheries meetings, and a representative of Saint Paul

[607] International Pacific Halibut Commission. 2012. *Pacific Halibut Fishery Regulations 2012*. Retrieved October 16, 2012 from http://www.iphc.int/publications/regs/2012iphcregs.pdf.
[608] See footnote 603.
[609] 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.
[610] Tide, C. 2007. *A Brief Overview of the Bering Sea Hair Crab Fishery and the Vessel Limited Entry Program*. Prepared for the State of Alaska Commercial Fisheries Entry Commission. Retrieved January 8, 2013 from http://www.cfec.state.ak.us/RESEARCH/07-1N/Rpt07-1N.pdf.
[611] See footnote 609.
[612] Alaska Dept. of Fish and Game. 2013. *Red King Crab Species Profile*. Retrieved January 8, 2013 from http://www.adfg.alaska.gov/index.cfm?adfg=redkingcrab.printerfriendly.
[613] NOAA National Marine Fisheries Service. 2012. *Crab Fishery Seasons and TAC*. Retrieved January 8, 2013 from https://alaskafisheries.noaa.gov/sustainablefisheries/crab/crfaq.htm#tac.
[614] See footnotes 609 and 610.
[615] See footnotes 609 and 612.
[616] See footnote 603.
[617] Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.

participates in North Pacific Fisheries Management Council committees or advisory groups. In addition, Saint Paul relies on regional organizations to provide information on fisheries management issues. Saint Paul also supports research organizations, industry coalitions, and trade associations, such as the CBSFA.

When asked to comment on challenges facing Saint Paul's fisheries economy, community leaders indicated that reduced government funding threatens continued maintenance of the breakwater, harbor dredging and other continuous infrastructure maintenance needs, as the fishing industry itself cannot fully finance these efforts. In addition, CDQ quota allocations were identified as a primary issue affecting the community. Community leaders reported that the community protections component of the crab rationalization program has been critical for Saint Paul. They reported that the CDQ program is a major contributor to the community through the CBSFA's outreach and social programs. When asked to comment on past or future fisheries management actions that affect Saint Paul, community leaders emphasized the importance of fishery management to prevent stock collapse. Specifically, potential future management actions of concern to the community of Saint Paul include the right of first refusal, emergency relief, and crab stock research. These issues have the potential to affect Saint Paul positively or negatively, depending on their outcomes.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, there were three shore-side processors in Saint Paul, and nine fish buyers, including Peter Pan Seafoods, Inc., Trident Seafoods Corporation, Royal Aleutian Seafoods, Inc., 57 Degrees North/Central Bering Sea Fishermen's Association, Aleutia, and Aleutian Pribilof Island Community Development Association (APICDA) Joint Venture, Inc.

57 Degrees North is a subsidiary of CBSFA and began operations in 1990.[618] CBSFA's mission in Saint Paul is "to develop a viable, self-sustaining, independent fisheries development organization," and the company has purchased a large amount of CDQ crab quota shares.[619] 57 Degrees North does not actually own and operate a seafood processing facility. The plant contracts with Saint Paul's Trident Seafoods Corporation to use Trident's actual physical processing facility.

Trident Seafoods was founded in 1973, and by the year 2000 was employing 4,000 people annually throughout Alaska and the Pacific Northwest. Trident's Saint Paul operation, which began in 1995, is the largest crab production facility in the world.[620] In addition to show and hair crab, it processes Chinook salmon, halibut, sablefish, Pacific cod, and pollock.[621] In 2010, the plant employed between three and 260 workers, with the largest number of workers employed between January and March.[622] Trident provides room and board at a nominal cost for processing plant workers as well as free air transportation to Saint Paul from Seattle and back.

[618] This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.
[619] Central Bering Sea Fishermen's Association (n.d.). *Homepage*. Retrieved on May 10, 2012 from http://cbsfa.com/index1.html.
[620] This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.
[621] Trident Seafoods Corporation (n.d.). *Homepage*. Retrieved on May 10, 2012 from http://tridentseafoods.com/.
[622] This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

Fisheries-Related Revenue

Saint Paul receives fisheries-related revenue from a local raw fish tax, the Shared Fisheries Business Tax, the Fisheries Resources Landing Tax, harbor usage fees, and, in 2010, fees from leasing of land for storage, marine fuel sales tax, and wharfage (Table 3). The amount of fisheries-related revenue received by Saint Paul from these sources varied widely between 2000 and 2010, with a high of almost $3 million in 2010.[623]

In the 2011 AFSC survey, community leaders reported that revenue from fisheries-related sources at least partially supported or funded harbor maintenance, roads, police, enforcement, fire protection, and general administration. In addition, community leaders reported that the Aleut Community of Saint Paul received $23 million in funding or grants from their CDQ non-profit, the CBSFA, in 2010. They indicated that funding from the CBSFA pays for services to the local halibut fleet, such as dock launch and retrieval, crane operation and maintenance, special processing equipment, dock security, refuse removal, and dock lighting.

Commercial Fishing

The community of Saint Paul is highly engaged in processing these species. In 2010, Saint Paul Island ranked 18th in landings and 13th in ex-vessel revenue out of 67 Alaskan ports that received landings in 2010. That year, nine fish buyers were present locally, and three shore-side processing facilities were in operation. In total, 19,417,036 net lbs were landed at Saint Paul Island processing facilities in 2010, generating a total of $33,480,688 in ex-vessel revenue (Table 5). The higher ranking with respect to ex-vessel revenue reflects the relatively high value of species landed and processed on Saint Paul Island. In the 2011 AFSC survey, community leaders indicated that the most important fishing seasons in Saint Paul include opilio crab from January through April, Bristol Bay king crab from October through November, halibut from June through September, and Saint Matthews Island blue king crab between in September and October.

In addition to processing, Saint Paul residents were also involved in commercial fisheries between 2000 and 2010 as permit and quota share account holders, vessel owners, and crew license holders. Over this period, the total number of state-issued Commercial Fisheries Entry Commission (CFEC) permits held in Saint Paul decreased from 43 in 2000 to between 23 and 26 held between 2004 and 2010. The total number or permit holders also decreased, from approximately 30 in 2000 and 2001 to 21 in 2010. In all years during this period, a majority of CFEC permits were held for halibut. Early in the decade, Saint Paul residents also held several CFEC permits for sablefish, groundfish, and 'other shellfish.' The groundfish permits were held for 'miscellaneous saltwater finfish', and the 'other shellfish' permit was held for octopi/squid. Of these, two groundfish permits were actively fished in 2000 only. In addition, one salmon CFEC permit was held in all years during the 2000-2010 period in the Atka/Amlia Islands set gillnet fishery, but was not actively fished in any of these years. One Lower Yukon salmon gillnet permit was held and actively fished in 2007, and one Bristol Bay drift gillnet permit was held in 2009 and 2010, and actively fished in 2009.

In all years between 2000 and 2010, a majority of halibut CFEC permits held in Saint Paul were associated with longline gear for use on vessels under 60 ft in length, while a small number were also associated with hand troll gear or longline gear on vessels over 60 ft in length.

[623] 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.

A high percentage of halibut permits were actively fished each year by Saint Paul residents. Information about CFEC permits is presented in Table 4.

In addition to CFEC permits, Saint Paul residents held federal License Limitation Program (LLP) permits in groundfish and crab fisheries as well as Federal Fisheries Permits (FFP). A higher number of LLP permits were held in 2003 and 2004. In both of these years 100% of the 5 crab LLP permits were actively fished, while 71% (five out of seven) groundfish LLPs were actively fished. A smaller number of LLP permits were held in other years during the 2000-2010 period. FFP were held in from 2008 to 2010 only, and one FFP was actively fished in each of these years (Table 4).

In 2010, 16 Saint Paul residents held quota share accounts in the federal catch share fishery for halibut and were allocated individual fishing quota (IFQ). While the number of halibut IFQ shareholders decreased between 2000 and 2010, the overall number of halibut quota shares held increased slightly during the same period. Despite this increase, the overall halibut IFQ allotment (in lbs) decreased between 2000 and 2010 (Table 6). No residents of Saint Paul held quota share accounts in the federal sablefish catch share fishery between 2000 and 2010 (Table 7). One resident of Saint Paul held a quota share account in a federal crab catch share fishery in 2009 and 2010, although no crab quota share accounts holders were present in Saint Paul from 2005 to 2008. In 2009 and 2010, the number of crab quota shares held remained stable and the annual IFQ allotment increased slightly (Table 8).

Between 2000 and 2010, there was an overall decrease in the number of Saint Paul residents who held crew licenses, as well as the number of vessels owned primarily by Saint Paul residents and vessels homeported in Saint Paul. In a survey conducted by the AFSC in 2011, community leaders reported that only halibut vessels under 60 ft using long line and jig line (by hand or by fishing pole) use Saint Paul as their base of operations during the fishing season, since all the crab vessels that land catch in Saint Paul are transient vessels. Community leaders also noted that there are fewer crab boats in Saint Paul since the 1999 snow crab population crash and subsequent crab rationalization, fewer local halibut boats as the population has declined, fewer cod as prices have dropped, and fewer pollock (trans-shipping) as quota allocations dropped or as fishing grounds moved.

While the number of fish buyers and shore-side processing facilities in Saint Paul remained stable between 2000 and 2010, the number of vessels landing catch in Saint Paul increased substantially, from 68 to 119. Corresponding with this increase in vessels landing catch in Saint Paul, total net lbs landed and ex-vessel value of those landings also increased between 2000 and 2010. Overall landings and revenue data are reported for all years in the 2000-2010 period except 2002 and 2005-2007; data for these four years are considered confidential due to the small number of fish buyers present (Table 5).

At the level of individual fisheries, landings and ex-vessel value information in for landings in Saint Paul is considered confidential for most years due to a small number of participants (Table 9). When considering landings and ex-vessel value generated by Saint Paul vessel owners between 2000 and 2010, including deliveries in multiple ports, most data were also confidential, with the exception of halibut landings (and Pacific cod in the year 2000 only). Landings and ex-vessel value of halibut between 2000 and 2010 varied considerably with no discernible trend (Table 10).

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax[2]	$448,081	$442,391	$621,291	$601,253	$507,446	$562,490	$575,397	$685,607	$1,349,981	$1,154,002	$1,146,552
Shared Fisheries Business Tax[1]	$97,195	$1,812,387	$292,437	$216,321	$317,557	$331,633	$367,781	$308,914	$442,125	$586,561	$979,528
Fisheries Resource Landing Tax[1]	$33,987	$75,253	$18,000	$21,472	$20,726	$30,477	$14,405	$21,995	$45,660	$205,006	$270,208
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]	$397,057	$375,589	$387,589	$292,500	$293,000	$309,000	$309,000	$402,000	$407,200	$359,000	$437,500
Port/dock usage[2,3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$71,285
Land lease (storage)[3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$4,373
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	$20,000
Wharfage[3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$52,229
Total fisheries-related revenue[4]	*$976,320*	*$2,705,620*	*$1,319,317*	*$1,131,546*	*$1,138,729*	*$1,233,600*	*$1,266,584*	*$1,418,516*	*$2,244,966*	*$2,304,569*	*$2,981,675*
Total municipal revenue[5]	*$4,667,354*	*$1,923,734*	*$2,027,097*	*$1,895,355*	*$2,041,007*	*$2,304,279*	*$2,035,136*	*$3,496,630*	*$7,732,471*	*$4,747,988*	*$5,327,029*

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

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

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

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

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

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

Table 4. Permits and Permit Holders by Species, Saint Paul: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	1	1	1	7	7	1	1	1	2	2	2
	Active permits	0	0	0	5	5	0	0	0	1	1	1
	% of permits fished	-	-	-	71%	71%	-	-	-	50%	50%	50%
	Total permit holders	1	1	1	2	2	1	1	1	2	2	2
Crab (LLP) [1]	Total permits	0	0	0	5	5	0	0	0	0	4	3
	Active permits	0	0	0	5	5	0	0	0	0	0	0
	% of permits fished	-	-	-	100%	100%	-	-	-	-	-	-
	Total permit holders	0	0	0	1	1	0	0	0	0	1	1
Federal Fisheries	Total permits	5	5	5	4	4	4	5	6	7	6	6
Permits[1]	Fished permits	0	0	0	0	0	0	0	0	1	1	1
	% of permits fished	-	-	-	-	-	-	-	-	14%	17%	17%
	Total permit holders	5	5	5	4	4	4	4	5	6	5	5
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	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	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	1	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	35	36	32	28	22	21	22	22	24	24	22
	Fished permits	25	26	24	21	16	17	17	18	22	20	21
	% of permits fished	71%	72%	75%	75%	73%	81%	77%	82%	92%	83%	95%
	Total permit holders	30	31	29	25	20	20	21	21	23	23	21
Herring (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0

Table 4. Cont. Permits and Permit Holders by Species, Saint Paul: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	1	1	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	1	1	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) [2]	Total permits	5	3	0	0	0	0	0	0	0	0	0
	Fished permits	2	0	0	0	0	0	0	0	0	0	0
	% of permits fished	40%	-	-	-	-	-	-	-	-	-	-
	Total permit holders	4	2	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	1	1	1	1	1	1	1	2	1	2	2
	Fished permits	0	0	0	0	0	0	0	1	0	1	0
	% of permits fished	-	-	-	-	-	-	-	50%	-	50%	-
	Total permit holders	1	1	1	1	1	1	1	2	1	2	2
Total CFEC Permits[2]	*Permits*	*43*	*41*	*33*	*29*	*23*	*22*	*23*	*24*	*25*	*26*	*24*
	Fished permits	*27*	*26*	*24*	*21*	*16*	*17*	*17*	*19*	*22*	*21*	*21*
	% of permits fished	*63%*	*63%*	*73%*	*72%*	*70%*	*77%*	*74%*	*79%*	*88%*	*81%*	*88%*
	Permit holders	*30*	*31*	*29*	*25*	*20*	*20*	*21*	*22*	*23*	*23*	*21*

[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 Saint Paul: 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 Saint Paul[2]	Total Net Pounds Landed In Saint Paul[2,5]	Total Ex-Vessel Value Of Landings In Saint Paul[2,5]
2000	65	6	3	28	26	68	6,338,010	$11,626,508
2001	59	7	2	27	26	92	11,139,143	$13,004,125
2002	52	3	1	25	23	99	--	--
2003	52	5	2	24	22	79	9,038,330	$15,196,985
2004	33	4	2	16	16	77	7,970,216	$13,584,756
2005	36	3	2	15	15	72	--	--
2006	36	3	2	16	16	76	--	--
2007	41	3	2	17	17	35	--	--
2008	50	9	2	18	18	99	27,253,018	$48,433,767
2009	46	8	3	18	19	90	24,865,462	$36,408,108
2010	53	9	3	19	20	119	19,417,036	$33,480,688

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] Total only represent non-confidential data.

Table 6. Halibut Catch Share Program Participation by Residents of Saint Paul: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (Pounds)
2000	22	1,479,229	373,105
2001	21	1,318,888	331,941
2002	21	1,318,888	331,996
2003	20	1,318,888	328,171
2004	20	1,318,888	279,714
2005	20	1,267,175	283,167
2006	20	1,439,061	288,351
2007	20	1,458,438	327,982
2008	18	1,149,628	251,219
2009	17	1,479,524	283,333
2010	16	1,602,974	311,753

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 Saint Paul: 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 Saint Paul: 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	1	35,569,158	1,300,720
2010	1	35,569,158	1,388,538

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 Saint Paul: 2000-2010.

	Total Net Lbs[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	0	0	--	0	0	--	--	--	0	0	0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	1,155,322	1,387,455	--	1,098,754	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	154,897
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	*1,155,322*	*1,387,455*	*0*	*1,098,754*	*0*	--	--	--	*0*	*0*	*154,897*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	$0	$0	$0	$0	$0	--	--	--	$0	$0	$0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	$2,095,179	$2,419,022	--	$2,051,404	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	$5,544
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	*$ 2,095,178*	*$ 2,419,021*	--	*$ 2,051,4040*	*$0*	--	--	--	*$0*	*$0*	*$ 5,544*

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.

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

	Total Net Lbs[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	1,107,956	1,075,644	657,357	427,757	377,163	437,595	495,665	563,316	1,036,896	638,456	771,832
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	54,418	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	*1,162,374*	*1,075,644*	*657,357*	*427,757*	*377,163*	*437,595*	*495,665*	*563,316*	*1,036,896*	*638,456*	*771,832*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	$2,009,399	$1,874,911	$839,927	$798,653	$996,133	$1,006,469	$1,750,193	$1,983,999	$3,730,680	$1,328,169	$2,983,980
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	$14,989	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
Total[2]	*$2,024,388*	*$1,874,911*	*$839,927*	*$798,653*	*$996,133*	*$1,006,469*	*$1,750,193*	*$1,983,999*	*$3,730,680*	*$1,328,169*	*$2,983,980*

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

The ADF&G Statewide Harvest Survey does not include the Pribilof Islands (including Saint Paul) in their survey regions; therefore, there are no data available on sportfishing by private anglers from the Statewide Harvest Survey for this area. The nearest survey region is the Alaska Peninsula/Aleutian Islands area. According to a survey conducted by the AFSC in 2011, community leaders indicated that halibut are targeted by recreational fishermen using private boats owned by local residents. The ADF&G reports that Chinook salmon, coho salmon, sockeye salmon, Dolly Varden char, northern pike, halibut, rockfish, Pacific cod, razor clams, and hardshell clams are targeted by recreational anglers in Saint Paul.

In 2010, there were no sport fish guide businesses or sport fish guide licenses held by residents of Saint Paul. Also in 2010, there were seven sportfishing licenses sold to residents of Saint Paul (irrespective of the location of the point of sale) and no sportfishing licenses sold within the community. The number of sportfishing licenses sold to Saint Paul residents decreased overall between 2000 and 2010. A small number of licenses were sold in Saint Paul in some years during this period (Table 11).

Table 11. Sport Fishing Trends, Saint Paul: 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 Saint Paul[2]	Saltwater Angler Days Fished – Non-Residents[3]	Saltwater Angler Days Fished – Alaska Residents[3]
2000	0	0	23	2	n/a	n/a
2001	0	0	18	2	n/a	n/a
2002	0	0	8	5	n/a	n/a
2003	0	0	9	4	n/a	n/a
2004	0	0	14	0	n/a	n/a
2005	0	0	10	0	n/a	n/a
2006	0	0	14	6	n/a	n/a
2007	0	0	10	6	n/a	n/a
2008	0	0	12	1	n/a	n/a
2009	0	0	10	0	n/a	n/a
2010	0	0	7	0	n/a	n/a

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

[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

Long before the permanent settlement of the Pribilof Islands, Aleut people began traveling here seasonally to hunt. Following the establishment of permanent villages, subsistence has remained central to local culture. Today, halibut and seal are shared and exchanged with relatives living in other communities for salted or smoked salmon.[624] In a survey conducted by the AFSC in 2011, community leaders reported that halibut, reindeer, fur seals, and sea lions are some of the most important subsistence resources utilized by residents of Saint Paul. Although information about fur seals is not reported in the Tables below, it is important to emphasize that fur seals are an important component of local subsistence harvest. Saint Paul residents are permitted to harvest up to 1,645 fur seals per year in Saint Paul for subsistence purposes.[625]

No information is available from ADF&G regarding per capita subsistence harvest or the percentage of households utilizing various marine resources for subsistence purposes between 2000 and 2010 (Table 12). However, data were available regarding annual subsistence fishing participation for salmon and halibut. Between 2000 and 2008, one or two households held subsistence salmon permits in some years, and no details were reported regarding the total number or species of salmon harvested (Table 13). More detailed information is available regarding halibut subsistence harvest during this period. Between 2003 and 2010, the number of Saint Paul residents holding a valid Subsistence Halibut Registration Certificate (SHARC) issued by NMFS declined from 250 to 41 (Table 14). The data show that the number of SHARC cards fished and the amount of halibut harvested (in lbs) also decreased between 2003 and 2010.

Limited information was reported by management agencies regarding subsistence harvest of marine mammal species between 2000 and 2010. According to ADF&G, between 2000 and 2008, 17 Steller sea lions were harvested on average each year for subsistence purposes. No information was available from NMFS regarding beluga whale harvest, from the U.S. Fish and Wildlife Service regarding sea otter, walrus, or polar bear harvest, or from ADF&G regarding harvest of harbor seal or spotted seal (Table 15).

In addition to the data reported in Tables 12 through 15, an early 1990s survey conducted by the ADF&G provides additional information regarding species of marine invertebrates, marine mammals, and non-salmon fish harvested by Saint Paul residents. According to the survey, in 1994, marine invertebrate species harvested by Saint Paul households included blue king crab, blue mussels, butter clams, hair crab, limpets, octopus, Pacific littleneck clams, razor clams, sea cucumber, sea urchin, snails, Tanner crab, snow crab, unknown king crab, and unknown Tanner crab. Marine mammals reported as harvested for subsistence use included fur seal (communal), fur seal (other), harbor seal, Steller sea lion, unknown seal, and unknown whale. Non-salmon fish species reported as harvested for subsistence use included: Dolly Varden, lake trout, Pacific cod, pike, rainbow trout, sablefish, sheefish, flounder, greenling, rockfish, and sculpin.[626]

[624] 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.
[625] Ibid.
[626] 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, Saint Paul: 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 (Lbs)
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, Saint Paul: 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	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	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	2	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	1	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, Saint Paul: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	250	82	19,744
2004	249	36	10,683
2005	218	24	7,738
2006	244	29	5,971
2007	246	17	11,342
2008	42	15	4,607
2009	44	16	7,280
2010	41	6	4,425

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, Saint Paul: 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	17	n/a	n/a
2001	n/a	n/a	n/a	n/a	12	n/a	n/a
2002	n/a	n/a	n/a	n/a	18	n/a	n/a
2003	n/a	n/a	n/a	n/a	13	n/a	n/a
2004	n/a	n/a	n/a	n/a	9	n/a	n/a
2005	n/a	n/a	n/a	n/a	19	n/a	n/a
2006	n/a	n/a	n/a	n/a	20	n/a	n/a
2007	n/a	n/a	n/a	n/a	22	n/a	n/a
2008	n/a	n/a	n/a	n/a	20	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.

Sand Point

People and Place

Location [627]

Sand Point is situated on Humboldt Harbor on Popof Island, located off the southern coast of the Alaska Peninsula. The community is 570 air miles southwest of Anchorage. Sand Point is in the Aleutian Islands Recording District, the Aleutians East Census Area, and the Aleutians East Borough. The City boundaries encompass 7.8 square miles of land and 21.1 square miles of water.

Demographic Profile [628]

In 2010, the U.S. Census determined that there were 976 residents in Sand Point, making it the 67th largest of 352 total Alaskan communities with recorded populations that year. Overall between 1990 and 2010, the population has increased by 5.15%. The Sand Point annual growth rate between 2000 and 2009 was 0.3%, indicating a slow rate of growth. The change in population between 1990 and 2010 is detailed in Table 1.

A majority of residents of Sand Point in 2010 identified themselves as American Indian or Alaska Native (39%), with the remaining racial composition as follows: Asian (34.7%), White (17%), Hispanic or Latino (6.1%), two or more races (5.2%), Black or African American (2.5%), some other race (1.3%), and Native Hawaiian or other Pacific Islander (0.2%). The percentage of the population identifying themselves as American Indian or Alaska Native decreased by 3.3% between 2000 and 2010, with decreases also reported in the percentages of the population identifying themselves as White (10.7%), Hispanic or Latino (7.5%), some other race (0.9%), and Native Hawaiian or other Pacific Islander (0.1%). During the same period, there were increases in the percentage of the population identifying themselves as Asian (11.5%), Black or African American (1%), and two or more races (2.5%). The change in racial and ethnic composition from 2000 to 2010 is provided in Figure 1 below.

In 2010 the average household size was estimated to be 2.54, a slight decrease from 2.8 in 1990 and 2.67 in 2000. However, there has been a slight overall increase in total estimated number of households, from 242 in 1990 to 229 in 2000 to 246 in 2010. Of the 290 housing units surveyed for the 2010 Decennial Census, 146 were owner-occupied, 100 were renter-occupied, and 44 were vacant. An estimated 350 Sand Point residents were living in group quarters in 2010. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that an estimated 1,500 people come to Sand Point each year as seasonal workers or transients, primarily to work in the cannery or on fishing boats.

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[627] 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.

[628] 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.

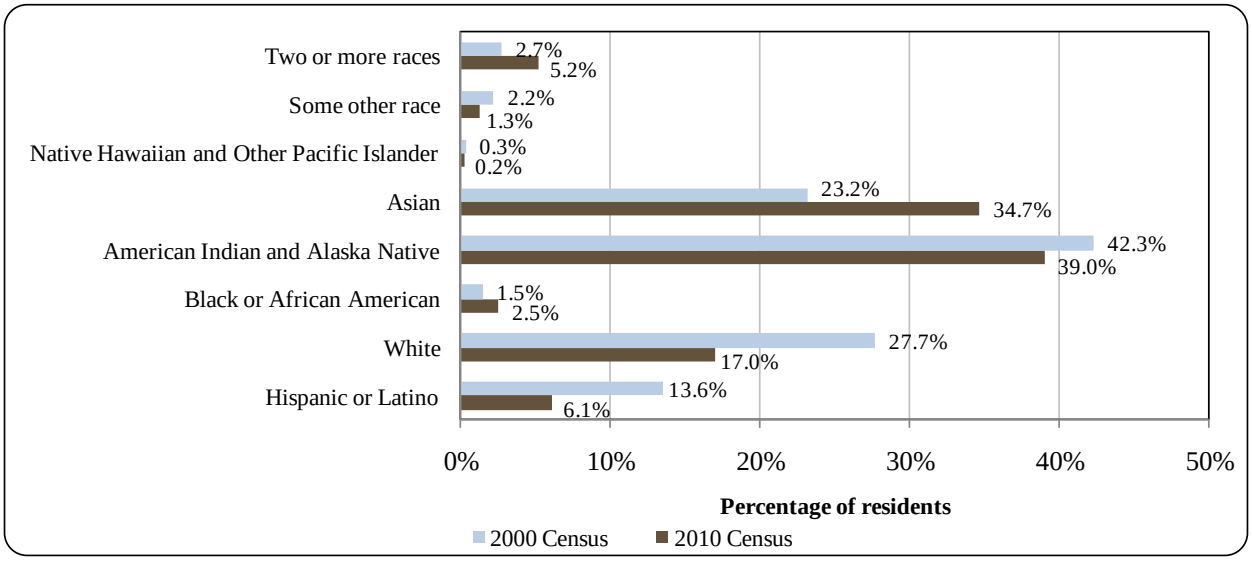
Table 1. Population in Sand Point from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	878	-
2000	952	-
2001	-	921
2002	-	919
2003	-	950
2004	-	911
2005	-	940
2006	-	891
2007	-	992
2008	-	958
2009	-	1,001
2010	976	-

[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.

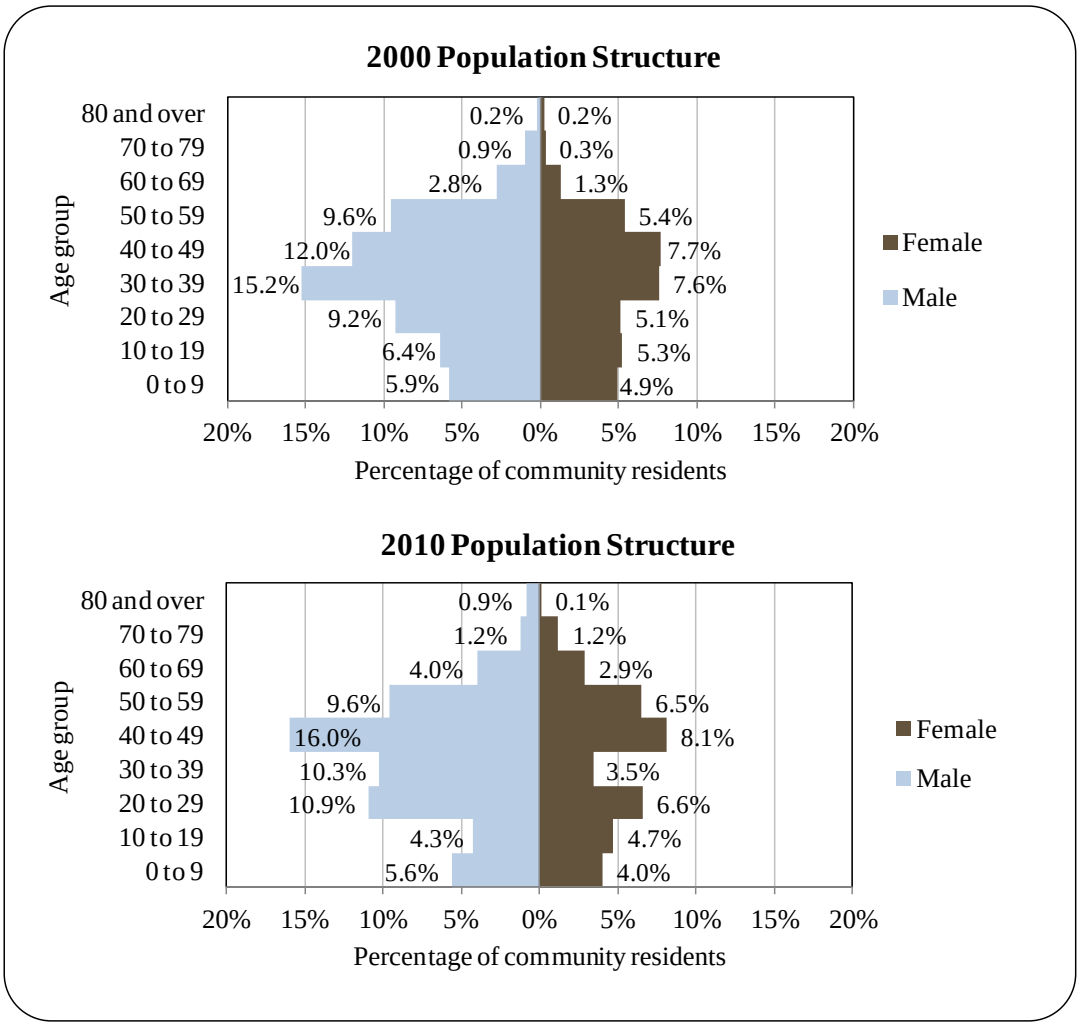
[2] Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from http://labor.alaska.gov/research/pop/popest.htm.

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



In 2010, the gender makeup in Sand Point was skewed, at 62.5% male and 37.5% female, much more heavily skewed than the state as a whole (52% male, 48% female). The age classes between 20 and 59 are more heavily skewed towards males. The median age in Sand Point was 40.1 years, higher 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 40-59 years old, with the next largest percentage for the age category 20-39 years old. Relatively few people were 70 or older (Figure 2).

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



In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS),[629] 66.3% of Sand Point 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, 19.8% of Sand Point residents had less than a ninth grade education, compared with 3.5% of Alaska residents overall; 13.9% had a 9th to 12th grade education but no diploma, compared to 5.8% of Alaska residents overall; 29.2% had a high school diploma or equivalent, compared to 27.4% of Alaska residents overall; 16% had some college but no degree, compared to 28.3% of Alaska residents overall; 12.9% held an Associate's degree, compared with 8% of Alaska residents overall; 7.3% held a Bachelor's degree, compared with 17.4% of Alaska residents overall; and 0.8% held a graduate or professional degree, compared with 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture

Sand Point is located in the Shumagin Islands, which are thought to take their name from a Russian sailor named Mikita Shumagin who accompanied Vitus Bering in his exploration of the Pacific. The Island on which Sand Point is located, Popof Island, was named after Russian fur traders Silva and Ivan Popof who traded and hunted furs there in the 1760s. The Aleutian Islands and western portion of the Alaska Peninsula have been inhabited by Aleut people for thousands of years. Prior to the arrival of Europeans, the population of Aleuts in the Sand Point region is estimated to have ranged between 12,000 and 20,000 people. Following the arrival of Russian explorers and fur traders, the population of Aleuts declined by 80 or 90 percent as a result of disease, warfare, malnutrition, and forced labor as sea otter hunters. [630]

The present community of Sand Point was founded in 1898 as a cod fishing a trading station by a San Francisco fishing company. The original inhabitants included Scandinavian fishermen and Aleuts from surrounding villages. In the early 1900s, Sand Point served as a repair and supply center for gold mining operations including the Apollo Mine on nearby Unga Island. After both the mining and fur industries declined, the local economy turned to fish processing.[631,632,633] In 1931, Alaska Pacific Salmon Company opened a salmon cannery on Humboldt Harbor, several miles from the community of Sand Point,[634] and Aleutian Cold Storage built a halibut processing plant in 1946.[635]

The Sand Point city government was incorporated in 1966. Today, Sand Point is home to the largest fishing fleet in the Aleutian Chain, and commercial fishing is a fundamental element

[629] 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 Alaska communities with small populations that have a low probability of being adequately sampled.
[630] URS Corporation. (2004). City of Sand Point Comprehensive Community Development Plan. Prepared for the City of Sand Point. Retrieved March 8, 2013 from http://www.commerce.state.ak.us/dca/plans/SandPoint-CP-2004.pdf.
[631] Ibid.
[632] 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.
[633] Shumagin Corporation. (n.d.). *Sand Point and the Shumagin Islands: Sand Point Today.* Retrieved March 8, 2013 from http://www.shumagin.com/Pages/History.html.
[634] Ibid.
[635] See footnote 632.

of local culture. The fish processing industry brings a large seasonal transient population.[636] Likewise, subsistence activities are foundational to local culture, and participation in subsistence harvest is very common among local residents. Important local subsistence resources include salmon and a variety of other fish, and land mammals such as moose and caribou.[637] The history of Russian involvement in the area is reflected in the presence of the St. Nicholas Chapel, a Russian Orthodox Church that was built in 1933 and is now on the National Register of Historical Places.[638]

It is of note that many shareholders enrolled as members of Pauloff Harbor and Unga Native village corporations have relocated and now live in Sand Point.[639]

Natural Resources and Environment

The Shumagin Island group is of volcanic origin, and is made up of 15 primary islands and many smaller islands.[640] Popof Island rises to a maximum elevation of 1,480 ft. Its coastline is rocky and irregular with many cliffs and bluffs and few protected bays.[641] Popof Island is naturally treeless. Vegetation consists primarily of tundra and alder and willow shrub.[642] Sand Point is located in a maritime climate zone. Temperatures range from -9 to 76 °F (-22.8 to 24.4 °C). Annual snowfall averages 52 inches, and annual precipitation averages 44.68 inches.[643]

Popof Island is home to numerous bird species, including eagles, cormorants, kittiwakes, puffins, and ptarmigans. Marine mammal species in the area include sea otters, sea lions, seals, and migrating whales. Terrestrial mammal species include ermine, mink, and ground squirrels. A large herd of buffalo is also present on Popof Island, managed by the local Native village corporation (Shumagin Corporation).[644,645] The buffalo were first introduced in 1955 by private individuals,[646] and are now managed by the local Native village corporation of the Qagan Tayagungin Tribe, the Shumagin Corporation.[647]

Sand Point is located within the Alaska Peninsula unit of the Alaska Maritime National Wildlife Refuge (NWR). In total, the Alaska Maritime NWR 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."[648]

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[636] Ibid.
[637] See footnote 630.
[638] See footnote 632.
[639] Ibid.
[640] See footnote 633.
[641] See footnote 630.
[642] WHPacific. (2010). *Communities of the Aleutians East Borough Multi-Jurisdictional Multi-Hazards Mitigation Plan.* Retrieved February 16, 2012 from: http://www.aleutianseast.org/vertical/Sites/%7BEBDABE05-9D39-4ED4-98D4-908383A7714A%7D/uploads/%7B5F7E9057-83A3-4DBA-B144-073C3F6461D6%7D.PDF.
[643] See footnote 632.
[644] See footnote 642.
[645] See footnote 630.
[646] See footnote 633.
[647] See footnote 642.
[648] U.S. Fish and Wildlife Service (n.d.). *Alaska Maritime National Wildlife Refuge.* Retrieved January 4, 2012 from http://alaskamaritime.fws.gov/.

The Qagan Tayagungin Tribe Environmental Department was developed in 2000 with funding from the Environmental Protection Agency's Indian General Assistance Program funds. Many projects have been done with these program funds over the years including an Abandoned Drum Clean-up in collaboration with the City of Sand Point and the Unga Tribe, an Environmental Youth Group that meets weekly, annual Earth Day fairs, water testing in Sand Point's salmon streams, working with Aleutian Housing to have energy assessments done on houses in Sand Point, developing environmental education, and more. The Qagan Tayagungin Tribe Environmental Department was recognized and given an award for helping to improve the environmental health of the community and making a difference in Alaska at the 14th Annual Alaska Tribal Conference on Environmental Management in 2008.[649]

Natural hazards to which Sand Point has been identified to have high vulnerability include earthquakes and volcano activity. The community has also been classified at medium vulnerability to tsunami and severe weather events.[650]

According to the Alaska Department of Environmental Conservation, there were no notable active environmental cleanup sites located in the Sand Point area as of March 2013.[651]

Current Economy[652]

Sand Point is home to the largest fishing fleet in the Aleutian Chain. A Trident Seafood plant processes bottomfish species, pollock, salmon, grinds fish meal and provides fuel and other services. Peter Pan Seafoods owns a storage and transfer station. Locals participate in subsistence consumption of fish and caribou.[653] In addition to the seafood industry, top local employers in Sand Point in 2010 included the Aleutians East Borough School District, local government offices, the Shumagin Corporation, health and other community services, local retailers, Peninsula Airways, Inc., and the State of Alaska.[654]

According to the 2006-2010 ACS, [655] the estimated per capita income in Sand Point in 2010 was $22,610, and the estimated median household income in 2010 was $63,750, compared to $21,954 and $55,417 in 2000, respectively. However, after accounting for inflation by converting the 2000 values to 2010 dollars,[656] the real per capita income ($28,869) and the real median household income in 2000 ($72,873) indicate a substantial decrease in these income measures between 2000 and 2010. However, Sand Point's small population size may have

[649] The Qagan Tayagungin Tribe of Sand Point. 2009. *Homepage.* Retrieved January 31, 2012 from http://www.qttribe.org.
[650] See footnote 642.
[651] Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved March 8, 2013 from http://dec.alaska.gov/spar/csp/list.htm.
[652] Unless otherwise noted, all monetary data are reported in nominal values.
[653] 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.
[654] 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/.
[655] 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.
[656] 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).

prevented the ACS from accurately portraying economic conditions.[657] A potentially more accurate understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development. 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 Sand Point in 2010 is $7,920, which indicates an overall decrease compared to the real per capita income values reported by the U.S. Census in 2010.[658]

In 2010, Sand Point ranked 130th of 305 Alaskan communities with per capita income that year, and 68th out of 299 Alaskan communities with household income data. Based on the ACS, in the same year, 92.8% of the population age 16 and older was estimated to be in the civilian labor force, compared to the statewide rate of 68.8%. The local unemployment rate was 5.8%, compared to the statewide unemployment rate of 5.9%. Approximately 9% of local residents were living below the poverty line in 2010, compared to 9.6% of Alaskan residents overall. It should be noted that income and poverty statistics are based on wage income and other money sources; figures reported for Sand Point 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 Sand Point. A more accurate estimate is based on the ALARI database, which indicates that the unemployment rate in 2010 was 16.6%.

Based on the 2006-2010 ACS, the greatest percentage of workers was employed in the private sector (94.1%), while 3.9% worked in the public sector and 2.1% were self-employed. Of the 1060 people age 16 and over that were estimated to be in the civilian labor force in 2010, a majority was estimated to work in the manufacturing industry (82.2%). Only small percentages of the population were estimated to work in other industries. Compared to 2000, the distribution of employment was much more concentrated in manufacturing in 2010. It is important to keep in mind that the small population of Sand Point may affect the representativeness of 2006-2010 ACS estimates, which could explain the dramatic shift in employment statistics between 2000 and 2010.[659] This information about employment by industry is presented in Figure 3.

Employment statistics by occupation show similar trends, with a large increase in production, transportation, and material moving occupations between 2000 and 2010, and a reduction in employment in other occupations. Employment is broken down by occupation in Figure 4. In 2010, 2.8% of the workforce was estimated to be employed in natural resource industries that include fishing, and 3.3% was estimated to work in natural resource occupations that could include fishing. It is important to note that the number of individuals employed in fishing is probably underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly, given the data reported in the *Commercial Fishing* section below.

[657] 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 Alaska communities with small populations that have a low probability of being adequately sampled.
[658] See footnotes 654 and 655.
[659] See footnote 657.

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

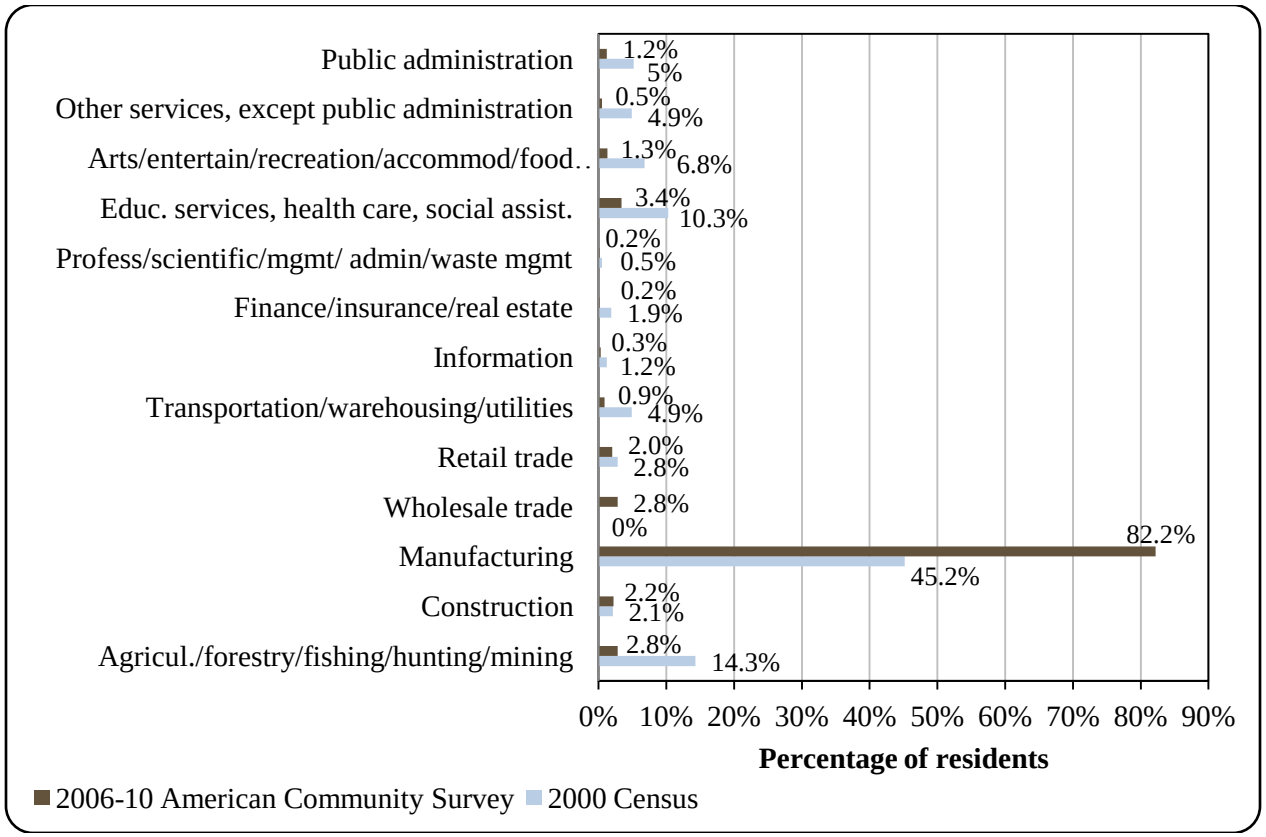
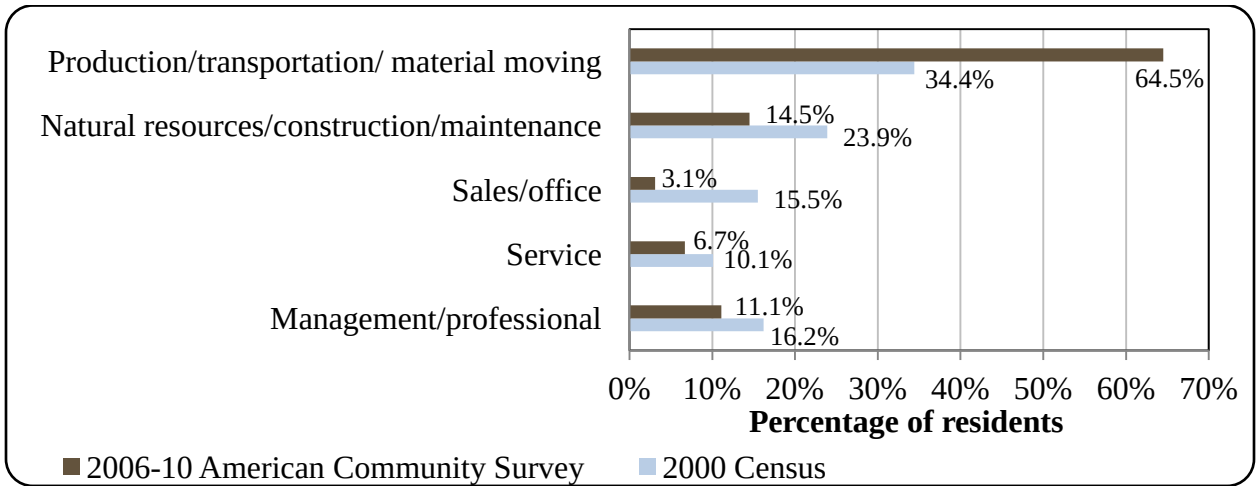


Figure 4. Local Employment by Occupation in 2000-2010, Sand Point (U.S. Census).



Governance

The City of Sand Point is a 1st Class City governed by a mayor and city council. It is located within the Aleutians East Borough. As of 2010, the City administered a 3% sales tax, a 7% bed tax, and a 2% raw fish tax (in addition to the 2% raw fish tax administered by the Borough).[660] In addition to local tax revenues, other locally-generated revenue sources in Sand Point during the 2000-2010 period included building and equipment rentals, business license fees, harbor revenues from moorage, wharfage, use of the lift, and storage, and receipts from bingo/pull tab/concessions. Outside revenue sources included shared funds from various state and federal programs, as well as grants. Shared funds were received from the State Revenue Sharing program from 2000 to 2003 (just over $25,000 per year) and the Community Revenue Sharing program in 2009 and 2010 (approximately $145,000 per year). Of the grants received during the 2000-2010 period, several were fisheries-related. These included grants for harbor improvements and construction, in addition to a ferry dock warehouse, a city dock warehouse, and float construction for the harbor.

More than $1 million in sea lion mitigation funds contributed to higher than average total municipal revenue in 2002. According to city leaders, sea lion mitigation payments were used to build a warehouse for fishermen and to assist in payment of utility bills.[661] The higher total in 2006 can be explained by receipt of a more than $2 million grant from the Denali Commission for construction of a new health clinic in Sand Point. Information about selected revenue sources is presented in Table 2. Also see the *Fisheries-Related Revenue* section for more information about shared state fish tax revenues.

Many Native community members residing in Sand Point are members of the three Native Tribes located in the community. The Qagan Tayagungin Tribe of Sand Point Village, the Native Village of Unga, and Pauloff Harbor Village were all included under the Alaska Native Claims Settlement Act (ANCSA), and are federally recognized by the Bureau of Indian Affairs. Three Native village corporations are also located in Sand Point. The Shumagin Corporation is the village corporation associated with the Qagan Tayagungin Tribe, the Unga Corporation is associated with the Native village of Unga, and the Sanak Corporation is associated with the Pauloff Harbor Tribe.[662] Many members of the Tribes are also shareholders in the Aleut Corporation, the regional Native corporation of the eastern Alaska Peninsula, Aleutian and Pribilof Islands.[663]

In addition, the Tribes are members of the Aleutian Pribilof Islands Association (APIAI), one of the 12 regional Alaska Native 501(c)(3) nonprofit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native Associations receive federal funding to administer a broad range of services to villages in their regions.[664] APIAI provides services including cultural heritage, health, education, social, psychological, employment, vocational training, environment, natural

[660] 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.
[661] Southwest Alaska Municipal Conference. 2001. *Steller Sea Lion Mitigation Program*. Retrieved October 21, 2013 from http://www.swamc.org/files/SSL%2010%20Yr%20Review-%20FINAL.pdf.
[662] Ibid.
[663] Aleut Corporation. (2008). *Homepage*. Retrieved February 9, 2012 from http://www.aleutcorp.com.
[664] 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.

resources, and public safety services.[665] Additionally, a company called Eastern Aleutian Tribes, Inc., formed in 1991, provides medical, dental, and behavioral health services to the three Native Tribes in Sand Point as well as four other Aleut Tribes from the Aleutian Islands and Alaska Peninsula.[666]

The Alaska Department of Fish and Game (ADF&G) has an office in Sand Point. Dillingham has the nearest office of the Alaska Department of Commerce, Community, and Economic Development. The closest National Marine Fisheries Service (NMFS) and U.S. Bureau of Citizenship and Immigration Services offices are located in Unalaska and Anchorage. Anchorage also has the closest office of the Alaska Department of Natural Resources.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Sand Point 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	$3,340,445	$397,888	$27,275	n/a
2001	$3,737,101	$360,360	$26,308	$70,000
2002	$5,363,671	$326,640	$26,303	$2,700,000
2003	$2,932,229	$342,075	$28,465	n/a
2004	$2,030,458	$466,137	n/a	$10,000,000
2005	$3,055,154	$483,742	n/a	n/a
2006	$6,159,831	$633,862	n/a	n/a
2007	$2,572,588	$642,588	n/a	$2,000,000
2008	$2,303,490	$663,749	n/a	$200,000
2009	$2,372,476	$718,017	$144,872	n/a
2010	$2,216,255	$673,355	$146,202	$1,100,000

[1] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from 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, 2011from 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, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

Infrastructure

Connectivity and Transportation

Sand Point has a state-owned airport with a 5,213 ft long by 150 ft wide asphalt runway. Direct flights to Anchorage are available. Marine facilities include a 25-acre boat harbor with four docks, 134 boat slips, a harbormaster office, barge off-loading area, and a 150-ton lift. Regular barge services supply the community. The state ferry operates between Sand Point and

[665] Aleutian Pribilof Islands Association (n.d.). *Homepage.* Retrieved January 3, 2012 from http://www.apiai.com/.
[666] Eastern Aleutian Tribes, Inc. (n.d.) *Home*. Retrieved October 21, 2013 from http://www.eatribes.org/.

Unalaska, Akutan, False Pass, Cold Bay, and King Cove between May and October.[667] According to a representative of the Qagan Tayagungin Tribe, residents of Sand Point were paying $1,094 for a roundtrip airfare between Sand Point and Anchorage as of Fall 2013.[668]

Facilities

The Sand Point water supply is derived from Humboldt Creek and is filtered and chlorinated. The City operates a piped water and sewer system that serves 170 households and 22 businesses, all of which are fully plumbed. The City also operates a landfill which has been relocated in recent years.[669] Electricity is provided to the community by TDX Power, a subsidiary of the Tanadgusix Corporation, the Native village corporation of the Aleut Community of Saint Paul. TDX Power operates a diesel powerhouse in Sand Point, supplemented by two large windmills.[670] Fire and rescue services are provided by Sand Point Emergency Medical Services (EMS). The City Police Department provides local law enforcement service.[671] The nearest state trooper post is located in the City of Cold Bay.[672]

In a survey conducted by the AFSC in 2011, community leaders reported that a number of infrastructure projects have been completed in the last 10 years, including a fish cleaning station, a barge landing area, roads serving the dock space, pilings, a breakwater, harbor dredging, a jetty, dry dock space, haulout facilities, broadband internet access, roads, an airport/seaplane base, water and sewer pipelines, a diesel powerhouse, sewage treatment, water treatment, a new landfill/solid waste site, a community center/library, a police department, emergency response, fire department, and school, telephone service, and a post office. In addition, community leaders indicate that projects in progress include electricity serving the dock, water serving the dock, and alternative energy. Projects planned for the next ten years include construction of new dock space, improvements to existing dock structures, fuel tanks at the dock, and an EPA certified boat cleaning station. In the same survey, community leaders report that Sand Point has 1800 ft of dock space available for both permanent and transient vessels up to 127 ft long. Sand Point is capable of handling rescue vessels, cruise ships, ferries, and fuel barges. For fisheries-related businesses and services not available in Sand Point, community leaders indicated that residents typically travel to Anchorage, Seward, or Kodiak.

Medical Services

Medical services are provided by the Sand Point Community Health Clinic, which is owned by the City and operated by the Eastern Aleutian Tribes, Inc. The clinic is a Community Health Aid Program site.[673] According to a Emergency Trauma Technician stationed in Sand Point, the nearest qualified Emergency Care Center is located in Cold Bay. The nearest hospital is located in Dillingham. However, the only direct flights out of Sand Point go to Anchorage, and

[667] 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.
[668] Personal communication from a Qagan Tayagungin Tribal leader. Email sent Oct. 9 and received Oct. 17, 2013.
[669] See footnote 667.
[670] See footnote 668.
[671] See footnote 667.
[672] Alaska Dept. of Public Safety. 2012. *Alaska State Trooper Detachments*. Retrieved June 1, 2012 from http://www.dps.state.ak.us/ast/detachments.aspx.
[673] See footnote 667.

all medivac flights bring patients to hospitals in Anchorage.[674] Emergency Services have limited marine and air access, and are provided by 911 Telephone Service volunteers and a health aide. Alternate health care is available through Sand Point Emergency Medical Services.[675]

Educational Opportunities[676]

The Sand Point School provides instruction for students from pre-school through 12th grade. In 2011, the school had 133 students and 14 teachers. Students in Sand Point also have access to the Aleutians East Correspondence School for grades 7 through 12, though in 2010, the school did not have any students enrolled or any teachers employed.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Subsistence harvest has been important to residents of the Sand Point 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.[677] 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.[678] Herring was one of the earliest commercial fisheries, along with salmon, during the period when the product was salted for storing and shipment.[679] 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.[680,681]

Between 2000 and 2010, Sand Point residents were highly engaged in federal and state fisheries for groundfish and crab, as well as state fisheries for salmon, halibut, and herring. Groundfish and crab fisheries that occur within 3 nautical miles (nmi) of the coast or in inland waters are under the jurisdiction of the State of Alaska, and fisheries that take place beyond 3 nmi in the U.S. Exclusive Economic Zone (EEZ) are under federal jurisdiction. Pacific halibut fisheries are managed under the International Pacific Halibut Commission. The Peninsula-Aleutian salmon fishery is managed by ADF&G. Sand Point is located in Federal Statistical and Reporting Area 610, the Western Gulf of Alaska (GOA) Sablefish Regulatory Area, Pacific

[674] See footnote 668.
[675] See footnote 667.
[676] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[677] 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/.
[678] 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.
[679] 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.
[680] Ibid.
[681] 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.

Halibut Fishery Regulatory Area 3B, and the Southeastern District of the South Peninsula subarea of the Peninsula-Aleutian salmon fishery.

Groundfish fisheries target a variety of species, including pollock, Pacific cod, sablefish, Atka mackerel, lingcod, and various rockfish and flatfish species. In addition to federal groundfish fisheries that take place in the Central and Western Gulf of Alaska (GOA), parallel fisheries takes place in the South Alaska Peninsula region for Pacific cod, walleye pollock, and Atka mackerel. Parallel fisheries take place at the same time as the federal fisheries for these species, and the Total Allowable Catch (TAC) set by NMFS applies to both fisheries. In addition to the parallel Pacific cod fishery, beginning in 1997, a 'state-waters fishery' for Pacific cod was initiated in the South Alaska Peninsula area. It is managed under a guideline harvest limit (GHL) determined by ADF&G, and is not conducted as a parallel fishery. ADF&G also has separate GHL's and seasons for sablefish, lingcod, black rockfish, and blue rockfish fisheries in the western GOA region.[682]

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. Red and golden king crab and Tanner crab occur throughout the Bering Sea and Aleutian Islands, as well as the Gulf of Alaska. The Alaska Peninsula and eastern Aleutian Islands are a historical center of the Dungeness crab fishery.[683]

Sand Point participates in the Community Quota Entity (CQE) program, and has established a CQE non-profit called Aleutia, Inc. As of Fall 2013, Aleutia, Inc. held four non-trawl groundfish License Limitation Program permits for lease to eligible community members, but had not acquired commercial halibut Individual Fishing Quota or halibut charter permits.[684] In addition, in 2008, Aleutia, Inc. purchased processor quota shares.[685] For more information see the *Processing Plants* section below.

Sand Point is not eligible to participate in the Community Development Quota (CDQ) program. In a survey conducted by the AFSC in 2011, community leaders reported that the annual variation in population in Sand Point is "entirely" driven by employment in the fishing sectors and that Sand Point's economy relies on fishing and on sport hunting and fishing.

Processing Plants

ADF&G's 2010 Intent to Operate list indicated that Trident Seafoods was the only processing plant operating in Sand Point that year. Trident Seafoods Corporation was founded in 1973, and by the year 2000 was employing 4,000 people annually throughout Alaska and the Pacific Northwest. Its Sand Point facility is located on Popof Island in the Shumagin Islands and began operations in 1979.[686] The plant operates year-round and processes Pacific cod, sablefish, halibut, pollock, salmon, other assorted bottomfish, and crab. The facility employs between 50 and 420 employees depending on the season.[687] Their peak season is from January to April (during which time they have about 400 employees) and they process gray cod and pollock

[682] See footnote 679.
[683] Ibid.
[684] NOAA Fisheries. (2013). Community Quota and License Programs and Community Quota Entities. Retrieved October 30, 2013 from http://alaskafisheries.noaa.gov/ram/cqp.htm.
[685] Aleutia (n.d.). *About Us*. Retrieved on May 2, 2012 from http://www.aleutia.org/our-story.
[686] Source: AFSC survey of processing plant managers in 2011.
[687] Ibid.

during this time. The Sand Point facility provides room and board at a nominal cost for processing plant workers as well as free air transportation to Sand Point from Seattle and back.[688]

It is important to note that, between 2005 and 2007, the CQE entity for Sand Point - Aleutia, Inc. – was also registered on ADF&G's Intent to Operate list. In addition to processing and marketing sockeye salmon caught by local fishermen, Aleutia, Inc. provides support and education to fishermen. In 2008, Aleutia purchased processor quota shares of Bristol Bay red king and Tanner crab and signed an agreement for the crab to be processed by Peter Pan Seafood in King Cove, Alaska.[689] According to testimony by Aleutia marketing consultant Karen Montoya to the North Pacific Fisheries Management Council in February, 2010, the contract signed in 2008 led to significant losses on the part of Aleutia, and the CQE non-profit was engaged in efforts to renegotiate contract terms.[690]

Fisheries-Related Revenue

Sand Point receives fisheries-related revenue from a 2% city raw fish tax, the Shared Fisheries Business Tax, the Fisheries Resource Landing Tax, and the Extraterritorial Fish Tax. In addition, in a survey conducted by the AFSC in 2011, community leaders reported that Sand Point received revenue from fees associated with fishing gear storage on public land in 2010. In the same survey, community leaders indicated that the following public services are at least partially supported by revenue from fisheries-related sources: harbor maintenance, hospital/medical clinic/emergency response, roads, social services, water and wastewater systems, and police/enforcement/fire protection.

Revenue received from fisheries-related sources is detailed in Table 3. The amount of revenue received from the raw fish tax between 2000 and 2010 remained relatively stable, while the revenue received from the Shared Fisheries Business Tax increased substantially during that same period. Also between 2000 and 2010, revenue received from the fisheries resource landing tax went from zero to a high of $34,120 in 2009, remaining high at $22,721 in 2010. Revenue received from the extraterritorial fish tax also varied annually between 2000 and 2010, ranging from $11,222 in 2008 to a high of $85,000 in 2010. The total fisheries-related revenue received by Sand Point varied considerably between 2000 and 2010 (Table 3).[691]

Commercial Fishing

In a survey conducted by the AFSC in 2011, community leaders indicated that Sand Point does not participate in the fisheries management process in Alaska. In addition, community leaders stated that commercial fishing boats from those under 35 ft to those over 125 ft that use Sand Point as their base of operations during the fishing season use the following gear types: trawl, pots, longline, gillnet, and purse seines. In 2010, 122 Sand Point residents held a total of 309 commercial fishing permits. Number of permits held and total permit holders declined slightly between 2000 and 2009, before rebounding to close to 2000 levels in 2010. In 2010,

[688] Trident Seafoods Company. *Alaska Plants: Sand Point*. Retrieved on May 2, 2012 from http://www.tridentseafoods.com/company/plants_alaska.php#Saint.
[689] See footnote 685.
[690] Aleutians East Borough. March 16, 2012. Testimony offered to the North Pacific Fisheries Management Council by Karen Montoya, Feb. 2010. Published in Fish News. Retrieved July 9, 2012 from http://www.aleutianseast.org.
[691] 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.

Sand Point residents held groundfish and crab License Limitation Program (LLP) permits, Federal Fisheries Permits, and crab, halibut, herring, groundfish, and salmon Commercial Fisheries Entry Commission (CFEC) permits. Between 2000 and 2010, the number of groundfish LLP permits decreased slightly, though the number of permits reported to be actively fished remained relatively consistent throughout the period. The number of crab LLP permits held by Sand Point residents also decreased during the same time period, and no crab LLP permits were recorded as actively fished between 2005 and 2010. The number of Federal Fisheries Permits held by Sand Point residents also decreased between 2000 and 2009, though the number and percentage of permits reported as actively fished remained relatively constant.

The number of crab CFEC permits and the percentage of those permits reported as fished remained relatively low between 2000 and 2009 (with the exception of 2001 and 2005), but increased substantially in 2010. In 2010, crab CFEC permits were issued for the Alaska Peninsula Dungeness crab pot gear fishery using vessels under 60 ft, the Bristol Bay king crab pot gear fishery using vessels 60 ft or over, and the Bering Sea (using vessels 60 ft or over) and Peninsula-Aleutians (using vessels under 60 ft) Tanner crab pot gear fisheries.

The number of shellfish and sablefish CFEC permits remained low or at zero between 2000 and 2010, with varying percentages of permits reported as fished in years where those permits were held. The number of halibut CFEC permits held by Sand Point residents decreased slightly between 2000 and 2010, though the number of permits reported as fished remained stable during that period. In 2010, all but one of the halibut CFEC permits were issued for the statewide longline fishery using vessels under 60 ft, with the remaining permit issued for the statewide mechanical jig fishery.

The number of herring CFEC permits held decreased steadily between 2000 and 2010, and none of those permits were reported as fished between 2005 and 2010. Herring CFEC permits were issued in 2010 for the herring (roe and food/bait) purse seine fishery in Cook Inlet, and the Peninsula-Aleutians roe herring purse seine and herring for bait/food purse seine fisheries.

The number of groundfish CFEC permits held decreased from 2000 to 2010, and while the number of permits reported as fished has varied during this period, the 2010 number of permits fished was similar to that in 2000. Groundfish CFEC permits were issued in 2010 for the following miscellaneous saltwater finfish fisheries: statewide and Gulf of Alaska longline fisheries using vessels under 60 ft, statewide and Gulf of Alaska pot gear fisheries using vessels under 60 ft, statewide and Gulf of Alaska mechanical jig fisheries, statewide and Gulf of Alaska otter trawl fisheries using vessels under 60 ft, statewide otter trawl fishery using vessels between 90 and 125 ft, and the Gulf of Alaska pot gear fishery using vessels 60 ft or over.

The number of salmon CFEC permits held remained relatively stable between 2000 and 2010, though the number of permits reported as fished decreased during the same period. In 2010, the majority of the salmon CFEC permits were issued for the Peninsula-Aleutians set gill net and purse seine fisheries. The remainder of the salmon CFEC permits was for the Prince William Sound and Peninsula-Aleutians drift gill net fisheries, the southeast purse seine fishery, the Lower Yukon gill net fishery, and the statewide power gurdy troll fishery. Data regarding commercial fishing permits held and percentages of those permits reported as fished are detailed in Table 4.

In 2010, there were 162 residents of Sand Point holding crew licenses, a decrease from the 224 crew license holders in 2000. The number of fish buyers in Sand Point has been variable between 2000 and 2010, though the number of shore-side processing facilities in Sand Point did

not change during that time. Both the number of vessels owned primarily by Sand Point residents and the number of vessels homeported in Sand Point have both decreased substantially between 2000 and 2010, and the number of vessels landing catch in Sand Point has been variable during the same period. While the landings and ex-vessel value of catch landed in Sand Point are considered confidential in some years due to a small number of participants, for years between 2000 and 2010 in which data were available both the landings and ex-vessel value have remained relatively stable (Table 5).

While the number of halibut quota share account holders and amount of annual individual fishing quota (IFQ) allotment have both decreased between 2000 and 2010, the number of halibut quota shares held decreased only slightly during this period (Table 6). The number of sablefish quota share holders has remained at either one or two between 2000 and 2010, though the number of quota shares and annual number of lbs of IFQ allotment have both decreased substantially – both a decrease overall between 2000 and 2010 and a major decrease from ten-year highs in 2003 and 2004 (Table 7). While the number of crab quota share holders increased by just one, from two to three, between 2005 and 2010, the number of crab quota shares held increased more than tenfold during this period (from 253,569 to 4,097,380), as did the annual IFQ allotment (from 1,517 lbs to 142,125 lbs) (Table 8).

With the exception of landings and ex-vessel value for salmon in 2002, 2004-2006, and 2010, the landings and ex-vessel value of catch landed in Sand Point between 2000 and 2010 are considered confidential due to a small number of participants (Table 9). For years in which salmon data are not confidential, both landings and ex-vessel value decreased during over the course of the years reported. For landings and ex-vessel value of catch landed by Sand Point vessel owners, data on landings and ex-vessel value for the species reported are variable from year to year (Table 10). Overall, however, total landings and ex-vessel value for all non-confidential species and years indicate that landings and ex-vessel value have decreased slightly between 2000 and 2010.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax[1]	$501,097	$310,741	$295,659	$419,971	$526,295	$597,372	$605,291	$595,703	$595,703	n/a	$500,689
Shared Fisheries Business Tax[1]	$143,428	$187,913	$164,248	$130,981	$169,756	$232,890	$237,386	$249,235	$245,123	$268,867	$341,610
Fisheries Resource Landing Tax[1]	n/a	n/a	n/a	$546	$1,147	$4,438	$18,223	$15,193	$32,201	$34,120	$22,721
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]	$29,141	$36,453	$30,000	$28,875	$27,474	$27,474	$40,000	$12,522	$11,222	$22,518	$85,000
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	$15,000
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
Total fisheries-related revenue[4]	*$673,666*	*$535,107*	*$489,907*	*$580,374*	*$724,672*	*$862,174*	*$900,900*	*$872,653*	*$884,249*	*$325,505*	*$965,020*
Total municipal revenue[5]	*$3,340,445*	*$3,737,101*	*$5,363,671*	*$2,932,229*	*$2,030,458*	*$3,055,154*	*$6,159,831*	*$2,572,588*	*$2,303,490*	*$2,372,476*	*$2,216,255*

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

Table 4. Permits and Permit Holders by Species, Sand Point: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	63	59	54	53	54	54	49	49	47	50	50
	Active permits	24	23	21	25	20	18	16	14	17	19	21
	% of permits fished	38%	38%	38%	47%	37%	33%	32%	28%	36%	38%	42%
	Total permit holders	49	46	43	44	43	43	41	41	39	41	41
Crab (LLP) [1]	Total permits	6	6	4	4	4	4	3	3	3	3	3
	Active permits	1	1	1	1	1	1	0	0	0	0	0
	% of permits fished	16%	16%	25%	25%	25%	25%	-	-	-	-	-
	Total permit holders	5	5	4	4	4	4	3	3	3	3	3
Federal Fisheries Permits[1]	Total permits	46	47	48	36	36	37	27	27	28	30	32
	Fished permits	0	0	0	26	23	23	16	16	20	20	23
	% of permits fished	-	-	-	72%	64%	62%	59%	59%	71%	67%	72%
	Total permit holders	37	38	39	30	30	31	22	22	23	26	28
Crab (CFEC) [2]	Total permits	6	40	8	10	7	42	13	12	12	10	59
	Fished permits	6	32	6	7	6	31	3	3	8	5	55
	% of permits fished	100%	80%	75%	70%	86%	74%	23%	25%	67%	50%	93%
	Total permit holders	4	37	7	10	7	35	13	11	11	9	55
Other shellfish (CFEC) [2]	Total permits	1	2	2	1	2	0	0	0	0	0	0
	Fished permits	0	1	1	1	2	0	0	0	0	0	0
	% of permits fished	-	50%	50%	100%	100%	-	-	-	-	-	-
	Total permit holders	1	2	2	1	2	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	51	50	49	47	45	40	40	37	39	41	44
	Fished permits	37	38	40	39	32	29	29	27	32	34	35
	% of permits fished	73%	76%	82%	83%	71%	73%	73%	73%	82%	83%	80%
	Total permit holders	48	47	48	46	44	39	40	37	39	41	43
Herring (CFEC) [2]	Total permits	20	16	13	16	12	8	5	5	5	4	4
	Fished permits	7	6	4	3	1	0	0	0	0	0	0
	% of permits fished	35%	38%	31%	19%	8%	-	-	-	-	-	-
	Total permit holders	13	12	11	13	11	7	4	4	4	3	3

Table 4 Cont. Permits and Permit Holders by Species, Sand Point: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	1	2	4	4	3	0	0	0	0	1	0
	Fished permits	0	1	0	0	1	0	0	0	0	1	0
	% of permits fished	-	50%	-	-	33%	-	-	-	-	100%	-
	Total permit holders	1	2	4	4	3	0	0	0	0	1	0
Groundfish (CFEC) [2]	Total permits	145	136	134	119	109	97	78	76	101	89	100
	Fished permits	67	66	74	82	73	60	32	40	69	51	64
	% of permits fished	46%	49%	55%	69%	67%	62%	41%	53%	68%	57%	64%
	Total permit holders	83	82	75	73	71	61	52	53	67	60	73
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	108	113	109	107	100	97	95	102	101	98	102
	Fished permits	90	89	66	63	66	65	66	68	73	70	72
	% of permits fished	83%	79%	61%	59%	66%	67%	69%	67%	72%	71%	71%
	Total permit holders	99	101	99	100	92	94	83	91	90	86	90
Total CFEC Permits[2]	*Permits*	*332*	*359*	*319*	*304*	*278*	*284*	*231*	*232*	*258*	*243*	*309*
	Fished permits	*207*	*233*	*191*	*195*	*181*	*185*	*130*	*138*	*182*	*161*	*226*
	% of permits fished	*62%*	*65%*	*60%*	*64%*	*65%*	*65%*	*56%*	*59%*	*71%*	*66%*	*73%*
	Permit holders	*122*	*127*	*126*	*127*	*119*	*116*	*101*	*102*	*111*	*104*	*122*

[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 Sand Point: 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 Sand Point[2]	Total Net Pounds Landed In Sand Point[2,5]	Total Ex-Vessel Value Of Landings In Sand Point[2,5]
2000	224	4	1	223	210	153	72,981,686	$18,588,830
2001	188	1	1	220	215	189	--	--
2002	159	10	1	190	183	405	97,944,831	$26,573,949
2003	148	3	1	167	161	290	--	--
2004	149	9	1	164	159	269	86,148,477	$30,374,591
2005	150	7	1	150	151	269	93,646,280	$27,882,581
2006	152	6	1	135	147	224	72,290,356	$28,872,829
2007	148	2	1	135	152	157	--	--
2008	177	3	1	146	159	182	--	--
2009	164	3	1	137	156	164	--	--
2010	162	6	1	146	170	214	78,304,715	$30,421,325

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 Sand Point: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (Pounds)
2000	45	2,724,455	757,064
2001	44	2,465,830	753,512
2002	42	2,621,757	830,327
2003	44	2,791,611	879,503
2004	41	2,783,956	797,357
2005	41	2,612,005	631,310
2006	37	2,105,001	420,410
2007	32	1,849,800	314,272
2008	35	2,343,555	470,017
2009	35	2,460,922	493,758
2010	35	2,465,946	449,399

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 Sand Point: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (Pounds)
2000	2	23,102	2,089
2001	2	116,848	11,501
2002	1	300	32
2003	2	426,910	53,705
2004	2	426,910	61,225
2005	1	300	35
2006	1	300	35
2007	1	300	33
2008	1	300	32
2009	1	300	27
2010	1	300	25

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 Sand Point: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (Pounds)
2005	2	253,569	1,517
2006	2	253,569	1,280
2007	2	253,569	1,680
2008	2	253,569	1,679
2009	3	416,719	8,320
2010	3	4,097,380	142,125

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 Sand Point: 2000-2010.

	Total Net Lbs[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	0	--	0	0	0	--	--	--	0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	28,863,221	--	23,574,017	16,719,491	13,231,056	--	--	--	9,089,712
Total[2]	--	--	*28,863,221*	--	*23,574,017*	*16,719,491*	*13,231,056*	--	--	--	*9,089,712*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	$0	--	$0	$0	$0	--	--	--	$0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	$8,255,438	--	$6,279,596	$4,912,568	$3,908,452	--	--	--	$5,336,486
Total[2]	--	--	*$8,255,438*	--	*$6,279,596*	*$4,912,568*	*$3,908,452*	--	--	--	*$5,336,486*

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.

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

	Total Net Lbs[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	108,862	--	--	213,310	299,278	--	--	302,446	317,012	395,817
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	777,100	763,731	858,088	736,557	615,387	538,937	475,544	389,799	573,309	460,167	445,000
Herring	805,617	1,312,296	--	2,681,384	--	--	--	--	--	--	--
Other Groundfish	140,818	680,345	230,665	150,814	140,123	383,623	442,280	593,727	488,092	377,286	1,269,800
Other Shellfish	--	--	--	--	43,837	9,103	26,085	37,243	76,191	111,152	64,665
Pacific Cod	16,945,958	9,924,303	12,294,708	15,566,806	11,296,767	9,208,541	6,775,190	6,100,615	10,743,364	6,870,095	12,386,041
Pollock	17,867,765	34,732,559	18,527,921	15,633,226	24,083,884	25,995,991	17,672,451	15,683,692	14,555,894	13,590,457	20,330,562
Sablefish	--	248	--	--	--	--	--	--	--	--	--
Salmon	13,448,654	14,162,953	10,428,739	10,625,351	18,754,943	23,425,250	15,351,124	17,919,669	22,269,490	18,202,041	6,740,394
Total[2]	49,985,912	61,685,297	42,340,121	45,394,138	55,148,251	59,860,723	40,742,674	40,724,745	49,008,786	39,928,210	41,632,279
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	$201,992	--	--	$561,498	$484,761	--	--	$599,050	$473,891	$616,674
Finfish	--	--	--		--	--	--	--	--	--	--
Halibut	$1,987,899	$1,511,047	$1,726,029	$2,101,899	$1,759,422	$1,576,750	$1,722,896	$1,598,566	$2,408,705	$1,223,436	$1,993,777
Herring	$158,701	$214,356	--	$299,673	--	--	--	--	--	--	--
Other Groundfish	$11,185	$14,658	$10,189	$5,079	$3,103	$17,814	$9,246	$9,606	$12,996	$10,761	$31,806
Other Shellfish	--	--	--	--	$15,377	$4,533	$15,612	$20,266	$38,881	$41,797	$15,986
Pacific Cod	$5,156,260	$2,271,348	$2,620,802	$4,192,678	$2,654,980	$2,349,188	$2,512,910	$2,853,454	$6,093,535	$1,728,923	$3,068,679
Pollock	$2,286,447	$3,988,594	$1,981,817	$1,663,685	$2,304,807	$2,844,016	$2,173,080	$1,889,187	$2,712,007	$2,237,366	$2,694,182
Sablefish	--	$4	--	--	--	--	--	--	--	--	--
Salmon	$5,788,863	$2,641,086	$2,222,205	$2,374,366	$4,809,803	$7,101,755	$4,995,200	$6,466,371	$9,603,816	$7,174,956	$4,228,263
Total[2]	*$15,389,355*	*$10,843,085*	*$8,561,041*	*$10,637,379*	*$12,108,989*	*$14,378,818*	*$11,428,943*	*$12,837,450*	*$21,468,990*	*$12,891,130*	*$12,649,366*

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

Based on available ADF&G sportfishing statistics, minimal sportfishing activity was reported in Sand Point between 2000 and 2010. One active sport fish guide business was registered in the community in 2002 only, while between two and four licensed sport fish guides were reported to be present from 2000 to 2004. No businesses or licensed guides were present from 2005 to 2010. In 2010, 71 sportfishing licenses were sold in the community of Sand Point, of which 56 licenses were purchased by community residents (Table 11). According to a representative of the Qagan Tayagungin Tribe, the low number of licenses purchased by residents underestimates the amount of sportfishing activity engaged in by residents of Sand Point. For example, a large number of youth in the community actively participate in sportfishing, and individuals under the age of 16 are not required to purchase a sportfishing license. In addition, there is limited or no enforcement related to sportfishing in Sand Point, resulting in a lower total number of licenses purchased. The tribal representative anticipates that purchases of sportfishing licenses will increase as a local sportfishing derby continues to grow.[692]

Sand Point is located within Alaska Sport Fishing Survey Area R – Alaska Peninsula / Aleutian Islands. Information is available about both saltwater and freshwater sportfishing activity at this regional scale. Between 2000 and 2010, sportfishing activity in this region 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 Sand Point is also displayed in Table 11.

In a survey conducted by the AFSC in 2011, community leaders confirmed this by reporting that Chinook, coho, and sockeye salmon, halibut, crab, shrimp, and clams are targeted by recreational fishermen that use boats based in Sand Point. Community leaders also noted that some recreational fishing in Sand Point takes place on charter/party boats, private boats owned by local residents, and private boats owned by non-residents.

Table 11. Sport Fishing Trends, Sand Point: 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 Sand Point[2]
2000	0	3	38	50
2001	0	3	44	66
2002	1	4	39	51
2003	0	4	33	38
2004	0	2	40	41
2005	0	0	55	75
2006	0	0	54	127
2007	0	0	62	78
2008	0	0	47	64
2009	0	0	54	46
2010	0	0	56	71

[692] Personal communication from a Qagan Tayagungin Tribal leader. Email sent Oct. 9 and received Oct. 17, 2013.

Table 11, Cont. Sport Fishing Trends, Sand Point: 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

According to a survey conducted by the AFSC in 2011, community leaders indicated that salmon, halibut, and crab are the three most important subsistence marine or aquatic resources to the residents of Sand Point. Data were not available from ADF&G regarding per capita subsistence harvest or the percentage of Sand Point households that utilized various marine resources for subsistence purposes between 2000 and 2010 (Table 12). Some data were available from management agencies, however, regarding total subsistence harvest numbers of salmon, halibut and some marine mammals. These data are presented below. However, it is important to note that, according to a representative of the Qagan Tayagungin Tribe, these subsistence data that are available from management agencies significantly underestimate the level of engagement of local residents in subsistence harvest; not all residents engaged in salmon and halibut subsistence harvest acquire subsistence permits, and even fewer return surveys.[693]

Available data about annual subsistence salmon harvest show a decrease between 2000 and 2010 in the number of subsistence salmon permits issued, the number of those permits reported as fished, and the number of salmon harvested (Table 13). Available data regarding annual subsistence halibut fishing participation, based on participation in the Subsistence Halibut

[693] See footnote 692.

Registration Certificate (SHARC) program, show an overall increase between 2003 and 2007 in the number of SHARC cards issued and the number actively fished. The total lbs of halibut reported harvested was at its maximum in 2005, when 1,581,787 lbs were harvested on 5,941 active SHARC cards. The number of SHARC cards issued and actively fished declined subsequent to 2007, along with the lbs of halibut harvested per year (Table 14).

Finally, some information was reported by various management agencies regarding subsistence harvest of marine mammals by Sand Point residents between 2000 and 2010. According to available data provided by the U.S. Fish and Wildlife Service (FWS), between one and five sea otters were harvested (for those years in which data were reported). The FWS also reported harvest of one walrus by Sand Point residents in 2010 only. In addition, ADF&G reported Steller sea lion harvest ranging from 1 to 8 animals per year and harbor seal harvest ranging from 4 to 49 animals per year (for those years in which data were reported). No information was reported by NMFS regarding beluga whale harvest, and ADF&G did not report harvest of spotted seal by Sand Point residents between 2000 and 2010. This information about marine mammal harvest in Sand Point is presented in Table 15.

Although no information is available during the 2000-2010 period regarding total marine invertebrate and non-salmon fish harvest by Sand Point residents (Table 13), some species-level information is provided from a 1992 subsistence survey conducted by the ADF&G Division of Subsistence. Results of the survey indicate that the following species of marine invertebrates were used for subsistence in Sand Point in 1992: black (small) chitons, butter clams, cockles, Dungeness crab, hair crab, horse clams (gaper), king crab, limpets, mussels, octopus, Pacific littleneck clams (steamers), pinkneck clams, razor clams, red (large) chitons, scallops, sea cucumber, sea urchin, shrimp, snails, Tanner crab, and unknown crab. Non-salmon fish species reported as harvested for subsistence in 1992 included: black rockfish, brook trout, burbot, capelin (grunion), cutthroat trout, Dolly Varden, eel, eulachon (hooligan candlefish), greenling, herring, herring roe/unspecified, herring spawn on kelp, lingcod, mackerel, Pacific cod (gray), pike, rainbow smelt, rainbow trout, red rockfish, sablefish (black cod), sea perch, sheefish, skates, smelt, starry flounder, steelhead, unknown char, unknown cod, unknown flounder, unknown greenling, unknown rockfish, unknown sculpin, unknown smelt, unknown sole, unknown whitefish, walleye pollock, whitefish, and yellowfin sole. In addition, marine mammals reported as harvested for subsistence in 1992 included harbor seal, Steller sea lion, and unknown whale. [694]

[694] 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, Sand Point: 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 (lbs)
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, Sand Point: 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	62	49	296	919	647	674	4,282	n/a	n/a
2001	61	49	330	1,394	840	766	4,600	n/a	n/a
2002	31	24	102	1,000	283	375	2,019	n/a	n/a
2003	30	26	171	1,088	258	489	2,069	n/a	n/a
2004	24	22	92	385	147	359	1,813	n/a	n/a
2005	35	31	67	320	1,083	456	2,952	n/a	n/a
2006	30	26	51	261	165	447	1,557	n/a	n/a
2007	38	29	55	156	190	420	2,269	n/a	n/a
2008	46	35	63	406	683	1,001	2,003	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, Sand Point: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	73	21	4,819
2004	351	109	15,140
2005	321	100	21,417
2006	365	133	20,214
2007	364	138	24,615
2008	342	130	25,013
2009	137	70	11,759
2010	130	26	4,220

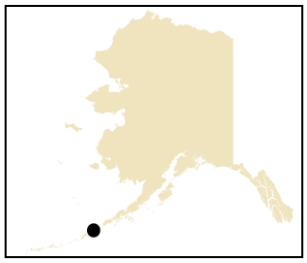
Note: n/a indicates that no data were reported for that year.
Source: Fall, J.A. and D. Koster. 2011. Subsistence harvests of Pacific halibut in Alaska, 2009. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 357, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

Table 15. Subsistence Harvests of Marine Mammal Resources, Sand Point: 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	5	15	n/a
2001	n/a	2	n/a	n/a	5	11	n/a
2002	n/a	2	n/a	n/a	n/a	15	n/a
2003	n/a	4	n/a	n/a	1	14	n/a
2004	n/a	1	n/a	n/a	n/a	15	n/a
2005	n/a	n/a	n/a	n/a	n/a	15	n/a
2006	n/a	5	n/a	n/a	6	4	n/a
2007	n/a	5	n/a	n/a	8	49	n/a
2008	n/a	1	n/a	n/a	3	31	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	1	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.

Unalaska (*un-uh-LASS-kuh*)



People and Place

Location [695]

Unalaska overlooks Iliuliuk Bay and Dutch Harbor on Unalaska Island in the Aleutian Chain. It lies 800 air mi from Anchorage (a two- to three-hour flight) and 1,700 mi northwest of Seattle. The name Dutch Harbor is often applied to the portion of the city on Amaknak Island, which is connected to Unalaska Island by bridge. Unalaska is located within the Aleutians West Census Area and is not under the jurisdiction of a borough. The community encompasses 111.0 sq mi of land and 101.3 sq mi of water.

Demographic Profile [696]

In 2010, there were 4,376 residents in Unalaska, making it the 26th largest of 352 total Alaskan communities with recorded populations that year. Between 2000 and 2009, the Alaska Department of Labor and Workforce Development (DOLWD) estimated that the average annual growth rate was -1.81%, indicating a declining population. This was reflected in the overall growth rate of -14.5%. However, the U.S. Decennial Census indicated that the population of Unalaska increased between 2000 and 2010. Based on both estimates, the population of Unalaska increased between 1990 and 2010. The change in population between 1990 and 2010 is provided in Table 1.

In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders estimated that approximately 2,500 seasonal or transient workers come to Unalaska each year. Community leaders also noted that the population of Unalaska reaches its annual peak between January 15th and April 1st each year (during Pollock "A" Season), and that this annual peak in population is "entirely" driven by employment in the fishing sectors.

In 2010, a majority of Unalaska residents identified themselves as White (39.2%) and Asian (32.6%). Other ethnic groups present in Unalaska that year included Hispanic or Latino (15.2%), some other race (7.4%), Black or African American (6.9%), American Indian and Alaska Native (6.1%), two or more races (5.6%), and Native Hawaiian and Other Pacific Islander (2.2%). Between 2000 and 2010, the percentage of the population identifying themselves as White, American Indian and Alaska Native, and some other race decreased, with corresponding increases in the percentage of the population identifying themselves as Asian, two or more races, Native Hawaiian and Other Pacific Islander, Black or African American, and Hispanic or Latino. Changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

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[695] 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.

[696] 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.

The average household size in Unalaska in 2010 was 2.46, a slight decrease from 2.50 persons per household in 1990 and 2.51 in 2000. The total number of households in Unalaska increased from 575 in 1990 to 834 in 2000 and 927 in 2010. Of the 1,106 households surveyed in 2010, 21% were owner-occupied, compared to 19% in 2000; 63% were renter occupied, compared to 66% in 2000; 13% were vacant, compared to 11% in 2000; and 3% were occupied seasonally, compared to 4% in 2000. Also in that year, 2,099 residents lived in group quarters, compared to 2,192 in 2000.

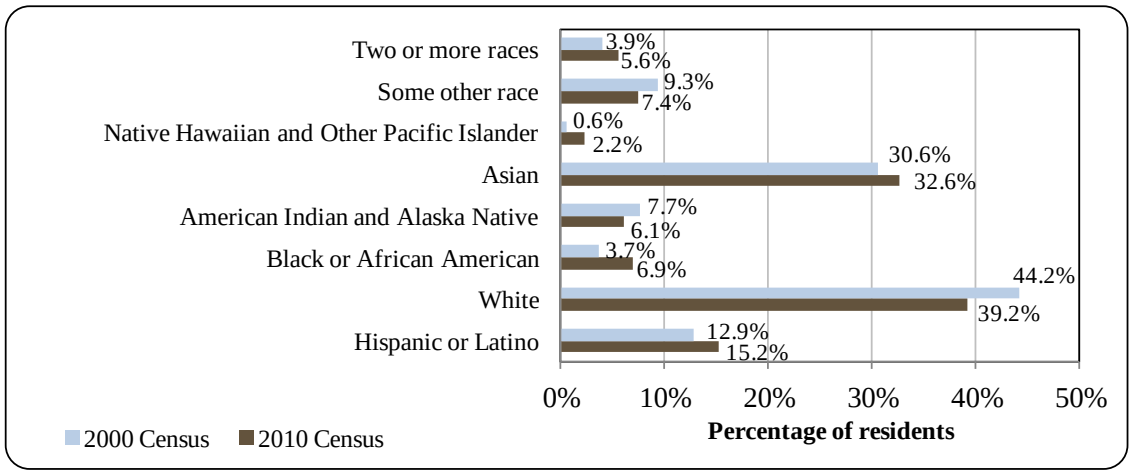
Table 1. Population in Unalaska from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Dept. of Labor Estimate of Permanent Residents[2]
1990	3,089	-
2000	4,283	-
2001	-	4,248
2002	-	4,035
2003	-	4,370
2004	-	4,363
2005	-	4,299
2006	-	4,028
2007	-	3,652
2008	-	3,549
2009	-	3,662
2010	4,376	-

[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.

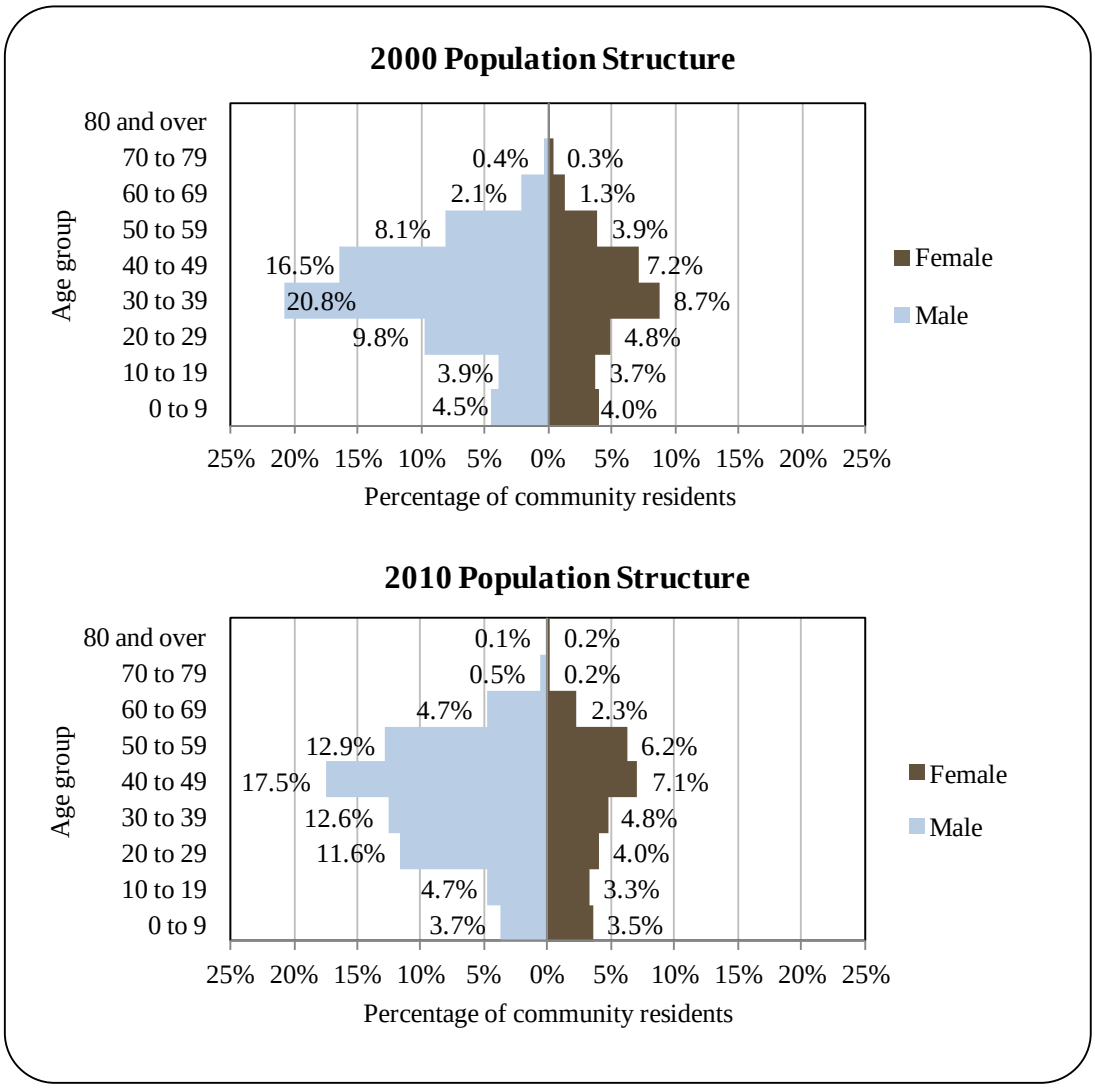
[2] Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from http://labor.alaska.gov/research/pop/popest.htm.

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



In 2010, the gender distribution in Unalaska was 68.4% male and 31.6% female, which was substantially more skewed than the state as a whole (52.0% male, 48.0% female), and similar to the distribution in 2000 (66.1% male, 33.9% female). The median age that year was 40.7 years, which was higher than both the statewide median of 33.8 years, and 2000 median of 36.5 years. The largest percentage of the population fell within the age group 40 to 59 years old, with the next largest percentage in the age group 20 to 39 years old. Relatively few individuals were age 70 or older, and only a small percentage of the population was age 19 or younger. The overall population structure of Unalaska in 2000 and 2010 is shown in Figure 2.

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



In terms of educational attainment, the 2006-10 American Community Survey (ACS)[697] estimated that 65.3% of Unalaska residents aged 25 and over held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaska residents overall. Also in that year, 22.1% were estimated to have less than a 9th grade education, compared to an estimated 3.5% of Alaska residents overall; 12.5% were estimated to have a 9th to 12th grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; 30.2% were estimated to have a high school diploma or equivalent, compared to an estimated 27.4% of Alaska residents overall; 22.7% were estimated to have some college but no degree, compared to an estimated 28.3% of Alaska residents overall; 3.2% were estimated to have an Associate's degree, compared to an estimated 8.0% of Alaska residents overall; 7.7% were estimated to have a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall; and 1.6% were estimated to have a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture[698]

It is believed that the first inhabitants to the area came across the Bering Land Bridge approximately 10,000 years ago. Archaeological sites on Anangula Island, near Nikolski, are thought to be around 8,000 years old and provide some of the earliest evidence of human occupation of the area.[699]

Russian ships first reached the Aleutians in 1741, lured by the abundance of fur bearing animals. At the time of Russian contact, there was thought to be around 16,000 Aleut inhabitants on the island chain, and more than 3,000 Unangan (known since the Russian era as "Aleuts") lived in 24 settlements on Unalaska and Amaknak Islands in 1759.[700] During the beginning of Russian occupation, many social and cultural upheavals took place in the Aleutians, often to the detriment of the indigenous population. Many local inhabitants were placed into slavery, while most others feel victim to diseases brought from Europe.[701] Unalaska became a Russian trading port for the fur seal industry in 1768. In 1787, many hunters and their families were enslaved and relocated by the Russian American Company to the Pribilof Islands to work the fur seal harvest.[702]

By the late eighteenth century, the Aleutians had for the most part been abandoned by Russians in favor of eastern trapping grounds. However, several strategic outposts remained including one in Iliuliuk Harbor. In 1825, the Russian Orthodox Church of the Holy Ascension of Christ was constructed. The founding priest, Ivan Veniaminov, composed the first Aleut writing system with local assistance and translated scripture into Aleut. Since Aleuts were not

[697] 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.
[698] 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.
[699] Trych, Nyman & Hayes (1977). *City of Unalaska, Alaska: Recommended Community Development Plan.* (Retrieved June 12, 2012 from: http://www.commerce.state.ak.us/dca/plans/Unalaska-CP-1977.pdf.
[700] See footnote 698.
[701] See footnote 699.
[702] See footnote 698.

forced to give up their language or culture by the Russian Orthodox priests, the church became strong in the community. By 1830 and 1840, however, only 200 to 400 Aleuts lived in Unalaska.

By 1850, Russians abandoned the outpost due to the diminished availability of furs. American influence in Alaska increased as people migrated northward; drawn by furs, fishing, and whaling. Dutch harbor flourished in the 1880s as a coaling station and commercial trade center. The Klondike Gold Rush of the 1890s brought many ships to Dutch Harbor, lured by its position as a gateway to the gold fields of northwest Alaska. By the turn of the twentieth century, several seafood processors may have been in operation processing herring, salmon, and whale meat.[703]

As coal began to be replaced by oil as ship fuel, the coal trade began to diminish in Dutch Harbor. Fox farming became popular throughout the Aleutians in 1910, which brought economic relief to Unalaska until the Great Depression of the 1930s saw the demise of the fur industry.

The City of Unalaska was incorporated in March 1942. Dutch Harbor Naval Station and Fort Mears were established in Unalaska as diplomatic relations with the Japanese deteriorated. Other military installations were established on Hog Island and remote locations throughout the area. Permanent facilities including a major hospital complex, docking and fueling facilities, submarine drydocking and repair facilities, an airport, and extensive living and recreational facilities were built to serve military personnel stationed in Unalaska. During this time, many Native residents were evacuated to Southeast Alaska communities. On June 3, 1942, Japanese naval forces bombarded Dutch Harbor, damaging or destroying several facilities and killing dozens of U.S. military personnel. Following the war, many villages returned only to find their villages severely damaged or destroyed. The population of Unalaska following the conflict was reported to be about 300.[704]

Interest in fishery resources in the Aleutians began to increase around 1950 with the harvesting and processing of halibut, salmon, and king crab. The growth of the king crab fishery in the early 1960s greatly improved the local economic condition. Unalaska became a rapidly-growing and culturally-diverse community, primarily focused on fishing and fish-processing activities. Subsistence activities are important to both the Unangan community and many long-term non-Native residents, as well.

Unalaska has four sites that appear on the National Register of Historic Places. These include the Church of the Holy Ascension, the Dutch Harbor Naval Operating Base and Fort Mears, the S.S. *Northwestern* shipwreck site, and the Sitka Spruce Plantation.[705]

Natural Resources and Environment

January temperatures range from 25 to 35 °F (-3.9 to 1.7 °C); summers range from 43 to 53 °F (6.1 to 11.7 °C). Average annual precipitation is 58 inches. The mean wind speed is 17 mph.[706] In a survey conducted by the AFSC in 2011, community leaders reported that Unalaska's economy relies on the following natural resource-based industries: fishing, ecotourism, and sport hunting and fishing.

[703] See footnote 699.
[704] Ibid.
[705] City of Unalaska (2005). *Unalaska Economic Development Plan.* Retrieved June 12, 2012 from: http://www.commerce.state.ak.us/dca/plans/Unalaska-EDP-2004.pdf.
[706] See footnote 698.

The Aleutian Range was formed by volcanic outpourings which began around sixty million years ago, and have continued to shape the region since. Erosive forces shaped Unalaska Island, lending to its current, tempered form. Less than a million years ago, volcanic activity on the island diminished, and glaciers and streams began eroding the slopes of the then rugged landscape. The summit of Makushin Volcano eventually collapsed to form a caldera. Periods of glaciations covered most of the high country south of Makushin Volcano and smaller glaciers covered lower parts of the island. Much of Unalaska Island's surface has been scoured by glaciers, leaving cirques. Soils are generally thin and consist of glacial moraine and till, which is gravelly and unsorted in nature. Alluvial deposits exist around drainages, especially around Unalaska Creek. The Unalaska townsite is located on alluvial deposits resulting from stream deposition and wave formed beach deposits. Organic soils are humus and clay rich overlying volcanic materials. Much of the island's topography is steep and unsuitable for development. Groundforms vary from broad, flat valleys and coastlines, to steep mountainous ridges.[707]

Vegetation found in Unalaska consists primarily of alpine tundra. The cool climate, windy conditions, shallow soils, topography, and relative isolation prevent the establishment of larger vegetation types. Lowland areas support the diverse populations of lichens, heaths, and other tundra vegetation; while steeper slopes support less. Plant species include blueberry, crowberry, lichens, small shrubs, herbs, ferns, mosses, and grasses. Trees in the area were introduced artificially. Wildlife found in the Unalaska vicinity includes Steller sea lions, harbor seals, sea otters, and a variety of small terrestrial mammals, birds, and fish.[708]

Unalaska and the surrounding areas are home to a diverse array of wildflowers, berries, and medicinal plants, and wildlife such as seabirds, bald eagles, and a number of endemic birds not often seen outside the Aleutian Islands. Much of the land on Unalaska is privately owned by the Native-owned Ounalashka Corporation, and a land-use permit is required before visitors may explore the area. Makushin Volcano, at 6,680 ft, is the highest point on the island. The volcano steams regularly, but has not had an eruption since an ash discharge in 1980. The city, state, and private industry are investigating possibilities for tapping into the geothermal energy produced by the volcano.[709]

Natural hazards include earthquakes, tsunamis or seiches, and erosion caused by extreme weather events or land disturbance. Earthquake potential is considered high due to the elevated seismicity of the region. Unalaska falls within earthquake zones 3 and 4, which carry a high risk of substantial seismic damage. While tsunamis present a threat, the city is located north side of Unalaska Island which may lessen impacts of waves originating around the Aleutian Megathrust fault. Finally, there is the potential for flooding and erosion along coastal areas of Unalaska Island as well as throughout the Unalaska Creek valley. Damming and obstructions downstream of Unalaska Creek may produce more frequent flooding within upstream areas.[710]

According to the Alaska Department of Environmental Conservation (DEC), there was one significant environmental remediation site active at Rocky Point, outside Dutch Harbor. As of 2002, the DEC reported hydrocarbon contaminants within groundwater, including diesel and gasoline range organics. Sources of contaminates include pre- and post-World War II fuel

[707] Trych, Nyman & Hayes (1977). *City of Unalaska, Alaska: Recommended Community Development Plan.* (Retrieved June 12, 2012 from: http://www.commerce.state.ak.us/dca/plans/Unalaska-CP-1977.pdf.
[708] Ibid.
[709] Unalaska/Port of Dutch Harbor (2010). *Undiscovered, Unforgettable, Unalaska. Official 2010 Visitor Guide*. Unalaska/Port of Dutch Harbor Convention and Visitors Bureau.
[710] See footnote 707.

storage sites, which were operated under multiple entities. It is estimated that the history of these tank farms spans over 60 years, and that the facilities have been the site of numerous spills, leaks, and releases. The DEC has been working with Chevron, Delta Western, and the U.S. Army Corps. of Engineers since 1989 to identify the source and extent of contamination, as well as any responsible parties. As of 2002, ground and surface water contaminates were not believed to be a public health threat.[711]

Current Economy[712]

Unalaska's economy is based on commercial fishing, fish processing, and fleet services, such as fuel, repairs, maintenance, trade, and transportation. The community enjoys a strategic position as the center of a rich fishing area and is used for transferring cargo between Pacific Rim trading partners. The Great Circle shipping route from major U.S. west coast ports to the Pacific Rim passes within 50 mi of Unalaska, and Dutch Harbor provides natural protection for fishing vessels. Onshore and offshore processors provide some local employment. However, non-resident workers are usually brought in during the peak season. In 2010, 31 residents held commercial fishing permits. Westward Seafoods, Unisea, Alyeska Seafoods, Icicle Seafoods, Trident Seafoods, and Royal Aleutian Seafoods process the commercial catch. Unalaska also has a small tourist industry.[713] Top employers in 2010[714] included Unisea, Westward Seafoods, the City of Unalaska, Horizon Lines of Alaska LLC, the Unalaska School District, Alyeska Seafoods, Safeway Inc., Pacific Stevedoring Inc., WSTN Pioneer Inc., and American President Lines Ltd.

In 2010,[715] the per capita income in Unalaska was estimated to be $25,353 and the median household income was estimated to be $80,625, compared to $24,676 and $69,539 in 2000, respectively. Taking inflation into account by converting the 2000 values to 2010 dollars,[716] the real per capita income in 2000 is shown to have been $32,449 and the real 2000 median household income was $91,443. This shows that both per capita and household income decreased between 2000 and 2010. In 2010, Unalaska ranked 102nd of 305 Alaskan communities with per capita income that year, and 25th of 299 Alaskan communities with household income data.

However, Unalaska's small population size may have prevented the ACS from accurately portraying economic conditions.[717] Another understanding of per capita income is obtained

[711] Alaska Dept. of Environmental Conservation (2002). *Contaminated Sites Program.* Retrieved June 12, 2012 from: http://dec.alaska.gov/spar/csp/list.htm.
[712] Unless otherwise noted, all monetary data are reported in nominal values.
[713] 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.
[714] 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/.
[715] 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.
[716] 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).
[717] 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.

through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by DOLWD. According to the ALARI database, residents earned a $66.92 million in total wages in 2010.[718] When matched with the population in 2010, the per capita income equals $15,293, suggesting that caution should be used when comparing 2010 ACS estimates with the 2000 Census.[719] Again, because labor force data presented by DOLWD does not include self-employed residents, many residents working in fisheries sectors may not have been captured by estimates. This is an especially important consideration concerning Unalaska.

Based on the 2006-10 ACS,[720] 97.3% of the population aged 16 and older was estimated to be in the civilian labor force, compared to a statewide rate of 68.8%. The local unemployment rate was 2.2%, compared to the statewide unemployment rate of 5.9%. Approximately 11.5% of local residents were living below the poverty line, 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; figures reported for Unalaska 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 Unalaska. A more accurate estimate is based on the ALARI database, which indicates that the unemployment rate in 2010 was 23.6%.

Based on household surveys conducted for the 2006-2010 ACS,[721] the greatest percentage of workers were employed in the private sector (95.0%), while 3.8% of workers were employed in the public sector and 1.1% were self-employed. By industry, most (82.6%) employed residents were estimated to work in manufacturing sectors in 2010; followed by transportation, warehousing, and utilities sectors (5.7%); and education service, health care, and social assistance sectors (2.0%). By occupation type, most (70.6%) employed residents were estimated to hold production, transportation, or material moving positions; followed by service positions (7.8%); management or professional positions (7.4%); natural resources, construction, or maintenance positions (7.4%); and sales or office positions (6.8%). Between 2000 and 2010 there was a significant proportional increase in employment in manufacturing sectors as well as in production, transportation, and material moving occupations. This may be attributed to evolving economic conditions; however, it may also be attributed to sampling, coverage, or measurement error within the ACS sample as a result of a high number of transient residents residing within the city. Unalaska is known to be one of the top commercial fishing ports in Alaska. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in farming, fishing, and forestry 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.

According to 2010 ALARI estimates,[722] most (46.4%) of employed residents work in manufacturing sectors; followed by trade, transportation, and utilities (23.5%) and local government sectors (14.4%).

[718] ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.
[719] See footnote 717.
[720] See footnote 715.
[721] Ibid.
[722] See footnote 714.

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

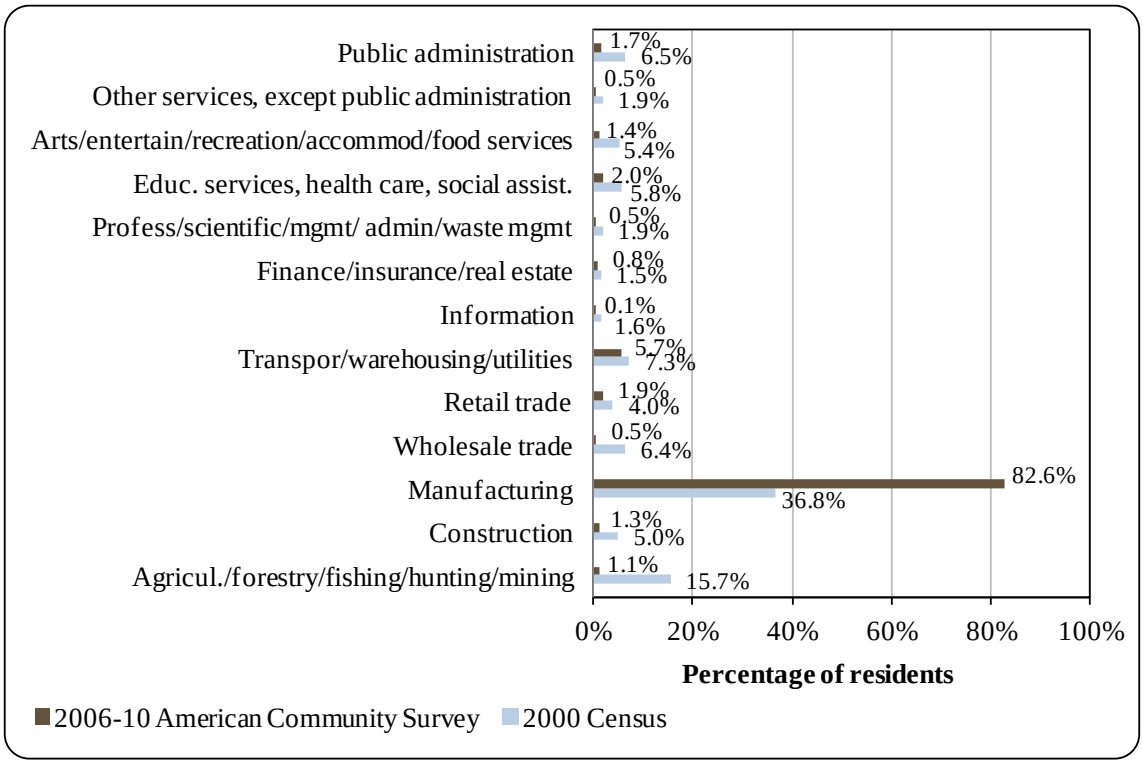
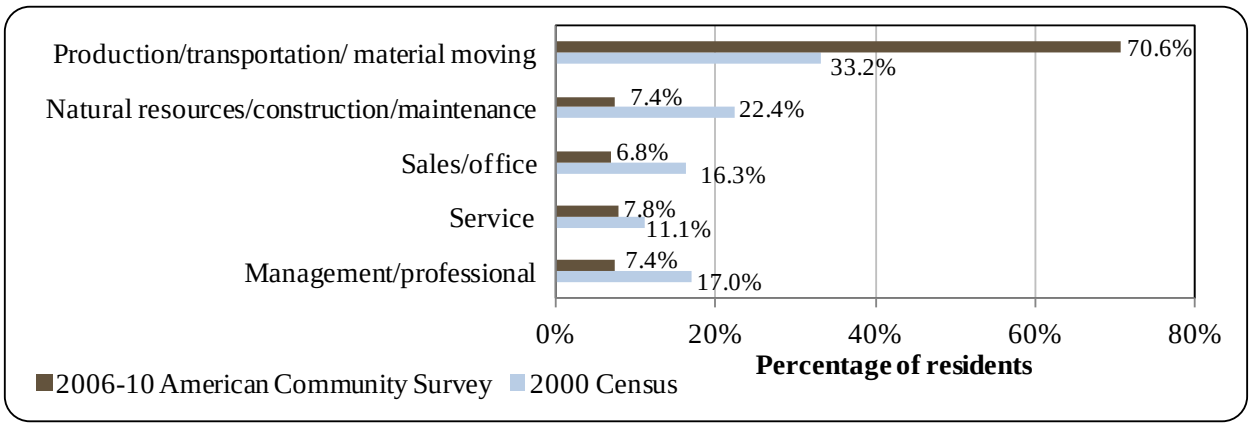


Figure 4. Local Employment by Occupation in 2000-2010, Unalaska (U.S. Census).



Governance

Unalaska is a First-class city that is not located within an organized borough. The city administers a 2% sales tax and a 2% raw fish tax. The total municipal revenue received by Unalaska in 2010 was approximately $29.0 million, an amount which has increased overall since the year 2000. General fund revenues peaked in 2009 at approximately $34.9 million. Sales tax revenue received by the city also increased between 2000 and 2010, though the peak years of sales tax revenue were in 2008 and 2009. Unalaska received State and Community Revenue

Sharing between 2000 and 2003 of approximately $100,000-129,000 per year, and in 2009 and 2010, the amount of approximately $278,000 per year. In addition, Unalaska received fisheries-related grants between 2000 and 2010 for projects including an assessment of fish and other biological waste from Unalaska Fish Oil, harbor and navigation improvements and construction, funds toward boat harbor maintenance, and funds toward improvements and construction for the Unalaska Little South America (LSA) harbor. Information about selected aspects of Unalaska's community revenue is presented in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Unalaska 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	$19,413,550	$3,269,242	$129,402	$5,000
2001	$22,170,479	$3,625,064	$103,053	n/a
2002	$20,015,517	$5,233,203	$106,462	$7,500,000
2003	$20,193,196	$5,906,859	$106,094	$7,500,000
2004	$22,933,930	$6,350,610	-	n/a
2005	$20,097,405	$7,646,280	-	n/a
2006	$21,895,565	$6,049,831	-	$5,324,500
2007	$24,196,040	$6,297,674	-	n/a
2008	$31,338,570	$11,036,560	-	n/a
2009	$34,903,838	$10,431,035	$277,152	$1,500,000
2010	$28,984,464	$8,733,038	$279,655	n/a

[1] Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from 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, 2011from 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, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

Unalaska 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 Ounalashka Corporation. Unalaska also is represented by the Aleut Corporation, a regional Native corporation. The Aleut Corporation is committed to promoting economic, cultural, and social growth for its shareholders through its subsidiaries, partnerships and foundation. The Aleut Corporation is one of the 13 regional Native corporations that were established in 1972 under ANCSA. The Aleut Corporation received a settlement of $19.5 million, 66,000 acres of surface lands, and 1.572 million acres of subsurface estate. Lands selected by the Aleut Corporation include areas on the Alaska Peninsula and the Aleutian, Shumagin, and Pribilof Islands. Among the Corporation's holdings is the village site of Attu and numerous historical and cemetery sites throughout the Aleut Region. Operations of the Aleut Corporation and subsidiaries include Government Contracting, Telecommunications,

Environmental Remediation, Fuel Sales, and Real Estate Management. The Company also participates in various partnerships, joint ventures and other business activities.[723]

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

Infrastructure

Connectivity and Transportation

Daily scheduled flights serve the community at the state-owned 3,900 ft long by 100 ft wide paved runway. A seaplane base is also available. In June 2012, round-trip airfare between Unalaska and Anchorage was $958.[724] The state ferry operates on a bi-monthly schedule from Kodiak between April and October. There are 10 major docks in Unalaska; three are operated by the city. The International Port of Dutch Harbor serves fishing vessels and shipping, with 5,200 ft of moorage and 1,232 ft of floating dock. The small boat harbor provides 238 moorage slips. The Unalaska Marine Center and U.S. Coast Guard dock offers cargo, passenger, and other port services.[725]

Facilities[726]

Water is supplied by a dam at Pyramid Creek and Unalaska Creek and a water reservoir at Icy Creek. It is then chlorinated and stored in a tank. All homes and on-shore fish processors are served by the city's piped water system. Piped sewage receives primary treatment before discharge into Unalaska Bay. Nearly all households have plumbing; a few homes use septic tanks or privies. The city has a class-1 lined 6-acre landfill and baler; recycling and hazardous waste disposal is provided. All shore-based processers generate their own electrical power.

Law enforcement is provided by the city police department, a state troopers post, and a Village Public Safety Officer. Fire and rescue services are provided by the Unalaska Fire/Emergency Medical Services and the Unalaska Search and Rescue Divers. The city maintains a community center, city hall, and city jail. Senior services are provided by the Unalaska Senior Citizens, Incorporated, and the Father Ishmail Gromoff Senior Center. There are both public and school libraries in Unalaska, and Unalaska also has the Museum of the Aleutians and the Aleutian World War II Historical Park.

According to a survey conducted by the AFSC in 2011, community leaders reported that the following infrastructure projects have been completed within the past 10 years: fish cleaning

[723] Aleut Corporation: Corporation (n.d.). *Homepage.* Retrieved on May 11, 2012 from http://www.aleutcorp.com/index.php.
[724] 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.
[725] 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.
[726] Ibid.

station, improvements to existing dock structure, electricity serving the dock, water serving the dock, harbor dredging, dry dock space, a jetty, and a school. Community leaders also noted that the following infrastructure projects are in progress: barge landing area, construction of new dock space, and a breakwater. In the same survey, community leaders noted that Unalaska has 7,026 ft of space available for permanent vessels to moor and 2,305 ft of dock space available for transient vessels, and that vessels up to 200 ft long can use moorage in Unalaska including rescue vessels, cruise ships, ferries, and fuel barges. Community leaders reported that public moorage facilities earned $501,313 in revenue in 2010.

Medical Services[727]

Medical services are provided by the Oonalaska Wellness Center, which is owned by a Tribal non-profit and operated by the Aleutian Pribilof Island Association, Incorporated. The center is a Community Health Aid Program site. The center is a qualified Emergency Care Center. Emergency services have limited highway, marine, and airport access and are provided by 911 telephone services volunteers and a health aide. Alternate health care is provided by the Unalaska Fire/Emergency Management Services. The nearest qualified Emergency Care Center is located in Akutan and the nearest hospital is located in Soldotna.

Educational Opportunities[728]

There are two schools in Unalaska. Eagle's View Elementary School provides instruction to students in pre-school through sixth grade. In 2011 the school had 212 students and 17 teachers. The Unalaska Junior/Senior High School provides instruction to students in grades seven through 12. In 2011 the school had 203 students and 15 teachers.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries[729]

In the early 20th century, seafood processing of salmon, herring, and salt cod was established in Unalaska; although major fisheries were not established until the late 1920s. By the 1940s, the military presence in the region overshadowed commercial fishing, and Dutch Harbor was mostly repurposed as a naval port.

Following World War II the community entered a period of economic depression until the 1960s when halibut, salmon, and king crab fisheries began to develop in earnest. During the 1970s, the Bering Sea/Aleutian Islands (BSAI) king crab fishery brought about an economic boom. During that time, there was a dramatic increase in the number of commercial fishing vessels and seafood processors within the community.

By 1979, the Port of Dutch Harbor was a leading U.S. commercial fishing port as crab harvests boomed during the 1970s. Between 1975 and 1977, the Tanner crab harvest jumped

[727] Ibid.
[728] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[729] City of Unalaska (2005). *Unalaska Economic Development Plan.* Retrieved June 12, 2012 from: http://www.commerce.state.ak.us/dca/plans/Unalaska-EDP-2004.pdf.

from 7 million lbs to an estimated 50 million lbs. King crab harvests grew to an excess of 60 million lbs by 1977.[730] The king crab fishery continued to sustain a local boom until stocks collapsed in the early 1980s. The collapse led to an economic bust until 1986, when Unalaska transitioned to a groundfish-based economy. Rapid growth occurred in the BSAI pollock fishery between 1988 and 1992.

By 1992, Dutch Harbor was the number one U.S. port in amount and value of commercial fish landed. In the years following, the commercial fishing and fish processing industry grew rapidly and diversified. Today, major varieties of fish processed in Unalaska include king, Tanner (*bairdi*) and snow (*opilio*) crab, pollock, Pacific cod, salmon, herring, halibut, sablefish, turbot, Atka mackerel, and rockfish.

Although the majority of Unalaska residents depend on income derived directly or indirectly from the commercial fishing and fish processing industry, few have ownership interest in major sea-food related firms. Many of the largest shore-side fish processors are wholly- or partially-owned by Japanese interests. Many other large processor vessels (motherships), or floating processor barges are owned by non-Alaskan firms. Many commercial vessels are non-Alaskan owned as well, although this trend has been changing.

Unalaska is located in the Aleutian Island Chain. The area is included in Federal Statistical and Reporting Area 610, Pacific Halibut Fishery Regulatory Area 4A, and the Western Gulf of Alaska Sablefish Regulatory Area. Unalaska is not eligible to participate in the Community Development Quota or Community Quota Entity programs.

In a survey conducted by the AFSC in 2011, community leaders reported that Unalaska participates in the fisheries management process in Alaska though a paid staff member who attends North Pacific Fishery Management Council (NPFMC) and/or Board of Fisheries meetings, a representative who participates in NPFMC committees or advisory groups, and a representative who sits in on regional fisheries advisory and/or working groups conducted by ADF&G. In addition, Unalaska relies on regional organizations to provide information on fisheries management issues. Finally, Unalaska financially supports research organization, industry coalitions, and trade associations related to North Pacific fisheries.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, two processing facilities were in operation in Unalaska. Alyeska Seafood Inc. is a shore-based processer that began operations in Unalaska in 1986. The plant employs a between 50 and 500 workers each year. The plant provides living accommodations to the majority of its employees and can accommodate 500 people.[731] Unisea Inc. is a large processing facility that began operations in Unalaska in 1975. The plant employs between 400 and 1,250 workers each year. In 2010, the plant employed a total of 1,222 in the months of February and March.[732]

[730] Trych, Nyman & Hayes (1977). *City of Unalaska, Alaska: Recommended Community Development Plan.* (Retrieved June 12, 2012 from: http://www.commerce.state.ak.us/dca/plans/Unalaska-CP-1977.pdf.
[731] This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.
[732] Ibid.

Fisheries-Related Revenue

Unalaska receives fisheries-related revenue from a 2% raw fish tax, the Shared Fisheries Business Tax, the Fisheries Resource Landing Tax, and harbor usage fees. The total fisheries-related revenue received by Unalaska increased slightly between 2000 and 2010.[733] In 2010, fisheries-related revenue peaked at approximately $19.8 million, compared to approximately $11.0 million in 2000. Information about reported fisheries-related revenue received by the community of Unalaska between 2000 and 2010 is provided in Table 3.

In a survey conducted by the AFSC in 2011, community leaders reported that the following public services are at least partially supported or funded by the raw fish tax, Shared Fisheries Business Tax, Fisheries Resource Landing Tax, or the marine fuel sales tax: maintaining the harbor, hospital/medical clinic/emergency response, educational scholarships, roads, social services, water and wastewater systems, roads, and police/enforcement/fire protection.

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

Commercial Fishing

In Unalaska in 2010, there were 42 permit holders that held a total of 95 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC) for crab, halibut, herring, sablefish, groundfish, and salmon. Overall, the number of CFEC permits and permit holders decreased between 2000 and 2010, though the number of permits reported as fished remained relatively stable. Between 2000 and 2010, the number of crab CFEC permit holders and permits held remained relatively stable, as did the number/percentage of permits reported as fished. Crab CFEC permits issued in 2010 were for the Cook Inlet Dungeness crab pot fishery, the westward Dungeness crab pot fishery using vessels 60 ft in length or over, the Dutch Harbor, Aleutian CDQ (Aleutian Pribilof Island Community Development Association), Bering Sea, and Bristol Bay king crab pot fisheries using vessels 60 ft or over. Other crab CFEC permits issued in 2010 were for the Dutch Harbor Tanner crab pot fishery using vessels under 60 ft, the Peninsula-Aleutians, Dutch Harbor, and Bering Sea Tanner crab pot fisheries using vessels 60 ft or over, and the Kodiak Tanner (*bairdi*) crab pot fishery using vessels up to 120 ft. The number of salmon CFEC permits and permit holders increased between 2000 and 2010, though the percentage of those permits reported as fished actually decreased during this period. Salmon CFEC permits issued in 2010 were for the Prince William Sound, Chignik, and Peninsula-Aleutians purse seine fisheries, the Prince William Sound, Peninsula-Aleutians, and Bristol Bay drift gill net fisheries, the Peninsula-Aleutians set gill net fishery, and the statewide hand troll fishery. The number of groundfish and halibut CFEC permits and permit holders decreased between 2000 and 2010, though in both fisheries the percentage of permits reported as fished increased during this period. Halibut CFEC permits issued in 2010 were for the statewide longline vessel fisheries using vessels under 60 ft and 60 ft or over. Groundfish CFEC permits issued in 2010 were for the following statewide miscellaneous saltwater finfish fisheries: longline using vessels under 60 ft, pot gear using vessels under 60 ft, mechanical jig, longline

[733] 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.

vessels 90 ft or over, otter trawl using vessels between 90 and 125 ft, and otter trawl using vessels over 125 ft. The number of sablefish and herring CFEC permits and permit holders experienced an increase followed by a decrease between 2000 and 2010. Sablefish permits issued in 2010 were for the statewide longline and pot gear fisheries using vessels under 60 ft. Herring CFEC permits issued in 2010 were for the Bristol Bay roe herring (purse seine and gill net) fisheries and the Alaska Peninsula herring food/bait gillnet fishery. During that same period, the percentage of sablefish CFEC permits reported as fished increased, while the percentage of herring CFEC permits reported as fished decreased.

The number of Federal Fisheries Permits and permit holders increased and then decreased between 2000 and 2010, while the percentage of those permits reported as fished increased overall during that same period. There were 17 permit holders that held 22 groundfish License Limitation Program (LLP) permits in 2010, representing an increase in number of permits and permit holders between 2000 and 2010. The number of groundfish LLP permits reported as fished also increased during this period. Also in 2010, there were five individuals holding seven crab LLP permits, both of which represent a slight increase from the amount of permits and permit holders in 2000. Between 2000 and 2010, the number of crab LLP permits reported as fished remained between zero and three each year. Information on commercial fishing permits and permit holders by species between 2000 and 2010 is presented in Table 4.

In 2010, there were 181 crew license holders, 14 fish buyers, and seven shore-side processing facilities in Unalaska, all of which represent decreases from the number of crew license holders (197), fish buyers (29), and shore-side processing facilities (8) in 2000. Between 2000 and 2010 there was also an overall decrease in the number of vessels owned primarily by Unalaska residents and in vessels homeported in Unalaska. The number of vessels landing catch in Unalaska also decreased between 2000 and 2010, as did the total number of net lbs landed in Unalaska. The amount of ex-vessel value of the catch landed in Unalaska briefly increased between 2000 and 2010, though in 2010 the amount of ex-vessel revenue from catch landed in Unalaska was similar to the amount of ex-vessel revenue in 2000. Information regarding characteristics of the commercial fishing sector in Unalaska between 2000 and 2010 is provided in Table 5. Unalaska was the top port in Alaska in landings and ex-vessel revenue in 2010, ranking first in landings and ex-vessel revenue out of 67 Alaskan communities that received commercial fisheries landings.

Between 2000 and 2010, the number of halibut quota share account holders and the number of quota shares held increased substantially, though the halibut Individual Fishing Quota (IFQ) allotment (in lbs) increased only slightly (Table 6). The number of sablefish quota share account holders increased and then decreased between 2000 and 2010, as did the number of quota shares held and the sablefish IFQ allotment (Table 7). Between 2005 and 2010, the number of crab quota share account holders decreased from three to two, while the total number of quota shares and the crab IFQ allotment increased slightly (Table 8).

For at least some years between 2000 and 2010, the number of lbs landed (and the associated ex-vessel revenue) for finfish, herring, and salmon is considered confidential due to a small number of participants. For years and species for which data are not considered confidential, the total number of lbs landed in Unalaska decreased overall between 2000 and 2010. Both landings and associated ex-vessel revenue decreased steadily between 2000 and 2010 for halibut, herring, other groundfish, and Pacific cod landed in Unalaska. In contrast, landings and associated ex-vessel revenue increased steadily for sablefish during this same period. For other shellfish and pollock, landings and associated ex-vessel revenue experienced an increase

followed by a decrease during this period. Information on landings and ex-vessel revenue by species in Unalaska between 2000 and 2010 is presented in Table 9.

When landings and ex-vessel revenue are examined by vessel owner residence, for vessels owned by Unalaska residents, both overall landings and overall ex-vessel value increased between 2000 and 2010. During this period, landings and ex-vessel revenue for crab, finfish, herring, other groundfish, other shellfish, pollock, and sablefish are considered confidential for some or all years due to a small number of participants. For years in which data were available, both landings and associated ex-vessel revenue increased between 2000 and 2010 for crab, halibut, herring, Pacific cod, and salmon. While landings of other shellfish increased between 2000 and 2010, the ex-vessel revenue of those landings decreased during the same period. Also between 2000 and 2010, the landings and associated ex-vessel revenue for other groundfish and sablefish both decreased. Information on landed lbs and ex-vessel revenue by species by Unalaska residents between 2000 and 2010 is presented in Table 10.

In a survey conducted by the AFSC in 2011, community leaders reported that commercial fishing vessels between 35 and 60 ft, from 61 to 125 ft, and over 125 ft use Unalaska as their base of operations during the fishing season. Community leaders also noted that the predominant gear types used by these vessels include: trawl, pots, longline, gillnet, purse seine, and jig. In the same survey, community leaders reported that, for fishing-related businesses that are not available in Unalaska, people travel to Seattle, WA, Kodiak, AK, and Seward, AK.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax[1]	$3,431,229	$3,077,083	$3,339,469	$3,662,645	$4,190,139	$3,888,475	$4,193,082	$4,076,762	$4,690,713	$4,633,809	$3,596,623
Shared Fisheries Business Tax[1]	$2,483,670	$3,249,218	$3,179,798	$2,838,536	$3,272,188	$3,659,452	$3,446,661	$3,749,004	$3,554,414	$3,877,701	$4,547,085
Fisheries Resource Landing Tax[1]	$2,224,904	$2,813,251	$3,000,184	$4,183,141	$2,579,844	$3,876,282	$3,736,810	$4,889,966	$4,717,052	$5,200,898	$4,040,106
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]	$2,891,500	$2,923,670	$3,020,200	$3,093,100	$3,856,650	$4,068,250	$4,229,750	$4,164,750	$4,166,750	$3,996,950	$3,849,539
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	$3,743,700
Total fisheries-related revenue[4]	*$11.03 M*	*$12.06 M*	*$12.54 M*	*$13.78 M*	*$13.90 M*	*$15.49 M*	*$15.61 M*	*$16.88 M*	*$17.13 M*	*$17.71 M*	*$19.78 M*
Total municipal revenue[5]	*$19.41 M*	*$22.17 M*	*$20.02 M*	*$20.19 M*	*$22.93 M*	*$20.10 M*	*$21.90 M*	*$24.20 M*	*$31.34 M*	*$34.90 M*	*$28.98 M*

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 brings in each year from all sources, including fisheries-related revenue streams. Alaska Dept. of Comm. and Rural Affairs. (n.d.) *Financial Documents Delivery System*. Retrieved April 15, 2011 at http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	15	16	19	19	19	19	19	22	25	23	22
	Active permits	6	6	6	4	6	10	10	11	10	12	10
	% of permits fished	40%	37%	31%	21%	31%	52%	52%	50%	40%	52%	45%
	Total permit holders	12	12	14	14	13	13	14	16	17	17	17
Crab (LLP) [1]	Total permits	5	5	5	5	5	5	5	5	7	7	7
	Active permits	1	2	1	0	3	3	3	2	2	3	2
	% of permits fished	20%	40%	20%	0%	60%	60%	60%	40%	28%	42%	28%
	Total permit holders	3	3	3	3	3	3	3	3	4	4	5
Federal Fisheries Permits[1]	Total permits	15	15	15	22	28	29	19	19	21	16	16
	Fished permits	1	1	1	13	12	13	12	13	12	10	11
	% of permits fished	7%	7%	7%	59%	43%	45%	63%	68%	57%	63%	69%
	Total permit holders	15	15	15	18	22	23	18	18	19	15	15
Crab (CFEC) [2]	Total permits	22	19	15	22	44	60	25	34	26	25	23
	Fished permits	13	11	10	10	26	30	12	22	14	17	14
	% of permits fished	59%	58%	67%	45%	59%	50%	48%	65%	54%	68%	61%
	Total permit holders	12	8	6	13	26	42	16	26	17	17	15
Other shellfish (CFEC) [2]	Total permits	4	2	1	0	10	8	6	2	0	0	0
	Fished permits	0	0	0	0	3	1	0	0	0	0	0
	% of permits fished	0%	0%	0%	n/a	30%	12%	0%	0%	n/a	n/a	n/a
	Total permit holders	4	2	1	0	10	8	6	2	0	0	0
Halibut (CFEC) [2]	Total permits	25	28	30	24	24	21	19	22	17	21	20
	Fished permits	20	17	24	18	19	16	14	17	16	16	19
	% of permits fished	80%	61%	80%	75%	79%	76%	74%	77%	94%	76%	95%
	Total permit holders	23	26	27	21	20	20	18	21	17	20	20
Herring (CFEC) [2]	Total permits	1	11	19	22	19	8	4	6	3	5	6
	Fished permits	0	6	15	17	13	1	2	2	1	2	1
	% of permits fished	0%	55%	79%	77%	68%	13%	50%	33%	33%	40%	17%
	Total permit holders	1	10	17	20	18	7	3	5	3	4	4

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	7	10	10	20	9	7	5	8	9	9	6
	Fished permits	5	5	7	6	5	4	5	7	8	8	5
	% of permits fished	71%	50%	70%	30%	56%	57%	100%	88%	89%	89%	83%
	Total permit holders	7	10	9	15	7	6	4	7	8	8	5
Groundfish (CFEC) [2]	Total permits	46	44	49	49	42	45	32	31	27	23	22
	Fished permits	22	15	19	22	18	18	20	17	14	12	15
	% of permits fished	48%	34%	39%	45%	43%	40%	63%	55%	52%	52%	68%
	Total permit holders	40	33	34	35	32	31	27	25	20	18	17
Other Finfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) [2]	Total permits	8	6	8	8	17	18	20	16	15	15	18
	Fished permits	5	5	4	4	10	10	8	7	5	7	9
	% of permits fished	63%	83%	50%	50%	59%	56%	40%	44%	33%	47%	50%
	Total permit holders	8	6	7	7	15	16	17	14	13	13	15
Total CFEC Permits[2]	*Permits*	*113*	*120*	*132*	*145*	*165*	*167*	*111*	*119*	*97*	*98*	*95*
	Fished permits	*65*	*59*	*79*	*77*	*94*	*80*	*61*	*72*	*58*	*62*	*63*
	% of permits fished	*58%*	*49%*	*60%*	*53%*	*57%*	*48%*	*55%*	*61%*	*60%*	*63%*	*66%*
	Permit holders	*54*	*57*	*58*	*57*	*62*	*63*	*50*	*54*	*40*	*42*	*42*

[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 Unalaska: 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 Unalaska[2]	Total Net Lbs Landed In Unalaska[2,5]	Total Ex-Vessel Value Of Landings In Unalaska[2,5]
2000	197	29	8	42	53	350	790,615,622	$174,458,581
2001	193	33	8	44	56	364	952,112,511	$163,550,512
2002	197	37	9	50	51	345	1,033,813,180	$192,495,740
2003	220	31	9	39	44	317	1,031,927,937	$213,171,334
2004	228	26	7	59	55	312	1,041,336,167	$193,029,153
2005	212	23	6	52	54	297	1,032,293,981	$215,908,691
2006	206	24	7	41	42	239	1,042,595,882	$212,957,412
2007	197	26	6	44	47	241	919,210,055	$226,415,140
2008	198	19	7	31	36	245	718,780,458	$278,039,242
2009	236	17	7	33	36	204	583,538,417	$184,465,644
2010	181	14	7	33	37	196	598,832,454	$177,265,345

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 Unalaska: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (lbs)
2000	23	764,445	233,257
2001	26	1,035,951	307,718
2002	29	1,163,263	363,817
2003	28	960,982	307,387
2004	31	978,516	232,401
2005	30	1,051,552	240,805
2006	30	1,357,183	292,388
2007	31	1,294,174	242,590
2008	29	1,470,877	303,688
2009	30	1,627,762	286,955
2010	30	1,621,798	262,700

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 Unalaska: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (lbs)
2000	3	1,304	106
2001	5	994,172	80,690
2002	8	1,410,481	131,777
2003	9	1,471,751	198,501
2004	6	1,047,896	140,762
2005	8	1,303,593	147,739
2006	9	1,685,377	220,527
2007	9	1,756,771	237,553
2008	9	1,756,771	223,439
2009	9	1,192,585	140,088
2010	6	645,879	71,437

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 Unalaska: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (lbs)
2005	3	5,409,814	169,993
2006	3	5,745,564	157,046
2007	3	5,745,564	242,422
2008	2	5,534,552	221,695
2009	2	5,534,552	176,972
2010	2	5,534,552	183,863

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 Unalaska: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	8,806,624	6,965,412	6,544,566	6,098,296	4,747,960	4,397,199	3,691,249	3,463,925	3,064,403	3,156,026	2,660,462
Herring	--	--	5,597,239	2,934,518	2,522,997	--	--	--	--	--	--
Other Groundfish	8,306,823	3,072,855	3,592,310	3,317,838	4,823,815	3,862,873	5,593,941	6,919,682	6,178,205	11,400,580	5,486,728
Other Shellfish	11,948	1,819,587	444,172	587,934	1,401,323	1,214,185	1,068,354	291,671	377,289	92,585	247,311
Pacific Cod	59,805,350	43,197,794	59,064,568	56,483,533	62,225,432	61,594,050	63,187,655	47,386,862	50,018,188	28,051,065	48,821,227
Pollock	693,722,181	877,220,689	936,318,660	938,304,905	943,518,287	935,392,356	939,634,886	825,014,409	617,217,587	507,772,449	509,608,605
Sablefish	896,536	1,199,068	2,024,173	1,827,679	1,962,169	2,091,137	1,807,935	2,571,450	1,263,663	1,360,998	1,256,158
Salmon	--	--	--	--	--	--	--	--	--	--	31,811
Total[2]	*771,549,462*	*933,475,405*	*1,013,585,688*	*1,009,554,703*	*1,021,201,983*	*1,008,551,800*	*1,014,984,020*	*885,647,999*	*678,119,335*	*551,833,703*	*568,112,302*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	$21,814,085	$13,415,663	$14,233,950	$17,324,784	$13,611,667	$12,609,283	$13,684,654	$14,569,818	$11,538,993	$8,267,668	$12,056,952
Herring	--	--	$927,805	$380,769	$385,998	--	--	--	--	--	--
Other Groundfish	$487,656	$185,751	$266,567	$162,943	$294,398	$103,209	$142,740	$207,562	$120,783	$159,454	$141,715
Other Shellfish	$23	$37,282	$8,903	$170,291	$604,535	$248,262	$149,953	$47,102	$77,184	$5,053	$26,548
Pacific Cod	$17,981,796	$10,500,953	$12,380,529	$15,762,947	$14,325,809	$16,131,747	$24,824,574	$22,299,230	$28,870,146	$6,905,765	$13,760,274
Pollock	$80,176,569	$87,789,785	$101,030,630	$101,622,304	$96,497,785	$112,034,504	$115,265,862	$95,044,526	$122,145,606	$90,887,890	$70,811,938
Sablefish	$3,183,669	$3,610,506	$5,146,653	$5,843,384	$4,877,279	$5,719,929	$6,051,955	$8,165,167	$4,855,102	$5,265,209	$5,753,158
Salmon	--	--	--	--	--	--	--	--	--	--	$0
Total[2]	*$123,643,798*	*$115,539,940*	*$133,995,037*	*$141,267,422*	*$130,597,470*	*$146,846,934*	*$160,119,739*	*$140,333,405*	*$167,607,814*	*$111,491,039*	*$102,550,584*

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.

Table 10. Landed Pounds and Ex-Vessel Revenue, by Species, by Unalaska Residents: 2000-2010.

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	159,727	456,995	234,293	212,321	236,892	35,294	547,803	413,573
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	293,200	409,860	482,207	489,878	432,764	330,633	353,343	354,725	382,887	339,742	551,044
Herring	--	--	266,488	176,259	366,274	--	--	--	--	--	--
Other Groundfish	--	67,877	--	--	15,420	--	--	--	4,015	522	1,116
Other Shellfish	--	--	--	--	2,686	9,778	24,884	7,641	--	5,780	7,890
Pacific Cod	721,495	1,290,943	916,605	1,237,263	191,683	905,723	2,436,760	2,182,645	2,682,169	2,342,198	3,349,215
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	257,317	345,944	207,599	31,202
Salmon	343,552	557,698	109,544	--	741,275	1,630,368	1,324,132	1,740,565	906,240	978,220	1,066,270
Total[2]	*1,358,247*	*2,326,378*	*1,774,844*	*2,063,127*	*2,207,097*	*3,110,795*	*4,351,440*	*4,779,785*	*4,356,549*	*4,421,864*	*5,420,310*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	$491,220	$903,978	$363,836	$240,623	$412,233	$58,248	$863,326	$684,952
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	$719,010	$790,144	$1,059,245	$1,391,557	$1,240,750	$959,751	$1,314,286	$1,519,828	$1,468,392	$901,336	$2,500,779
Herring	--	--	$53,298	$34,469	$62,632	--	--	--	--	--	--
Other Groundfish	--	$37,689	--	--	$5,969	--	--	--	$1,223	$357	$1,213
Other Shellfish	--	--	--	--	$2,323	$7,501	$11,271	$3,950	--	$1,952	$117
Pacific Cod	$423,127	$568,114	$340,387	$453,061	$55,317	$290,144	$1,047,157	$1,136,951	$1,634,648	$687,970	$1,018,201
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	$784,866	$1,390,265	$910,655	$163,001
Salmon	$222,378	$217,649	$55,047	--	$343,263	$594,151	$527,539	$616,483	$536,866	$607,317	$853,144
Total[2]	*$1,364,515*	*$1,613,595*	*$1,507,977*	*$2,370,306*	*$2,614,231*	*$2,215,383*	*$3,140,875*	*$4,474,311*	*$5,089,641*	*$3,972,912*	*$5,221,406*

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

In 2010, there were two sport fish guide businesses active in Unalaska, and two sport fish guide licenses were held by residents. Both the number of sport fish guide businesses and the number of sport fish guide licenses decreased between 2000 and 2010. Log book data for sportfishing charters out of Unalaska between 2000 and 2010 reported that the following species were kept/released on charters during this period: halibut, lingcod, other rockfish, pink salmon, pelagic rockfish, and shark.[734]

In 2010, there were 542 sportfishing licenses sold to Unalaska residents (irrespective of the location of the point of sale), a number which declined steadily between 2000 and 2010. However, in 2010 there were 1,163 sportfishing licenses sold in Unalaska, representing an overall increase between 2000 and 2010. This indicates the potential that visitors to Unalaska are participating in recreational fishing activities.

Unalaska is located within the Alaska Sport Fishing Survey Area R – Alaska Peninsula/Aleutian Islands. Information is available about both saltwater and freshwater sportfishing activity at this regional scale. Between 2000 and 2010, sportfishing activity in this region 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 region (18,462 on average) than Alaska resident anglers (15,290 on average). This information about the sportfishing sector in and near Unalaska is also displayed in Table 11.

The Alaska Statewide Harvest Survey, conducted by ADF&G between 2000 and 2010, noted the following species targeted by private anglers in Unalaska: all five species of salmon, Dolly Varden, Pacific halibut, rockfish, Pacific cod, Tanner crab, and razor clam.[735]

According to a survey conducted by the AFSC in 2011, community leaders reported that recreational fishing in Unalaska takes place from charter/party boats, private boats owned by local residents, private boats owned by non-residents, shore-based or dock fishing by local residents, shore-based or dock fishing by non-residents, and fishing on lakes, in rivers, and on ocean banks. In the same survey, community leaders indicated that the following saltwater species are targeted by recreational fishermen that use boats based in Unalaska: pink salmon, chum salmon, Chinook salmon, coho salmon, sockeye salmon, halibut, rockfish, crab, black cod/sablefish, shrimp, and octopus.

[734] 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.]
[735] 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).

Table 11. Sport Fishing Trends, Unalaska: 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 Unalaska[2]
2000	3	14	843	795
2001	6	16	808	714
2002	4	12	744	794
2003	4	7	641	643
2004	5	9	621	684
2005	2	4	554	671
2006	2	3	567	640
2007	3	4	534	779
2008	1	1	542	769
2009	1	1	558	1,013
2010	2	2	542	1,163

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 activities are important to the Unangan community and to many long-term non-Native residents of Unalaska.[736] According to a survey conducted by the AFSC in 2011, community leaders reported that the more important subsistence marine or aquatic resources to the residents of Unalaska are sockeye salmon, halibut, coho salmon, and crab. While data on subsistence participation by household and species were not available between 2000 and 2010 (Table 12), data are available for total harvest of subsistence resources at the species level.

According to 2005 U.S. Fish and Wildlife Service (USFWS)[737] interviews, Unalaska residents reported that overall, local salmon numbers had diminished compared to decades prior. Poor conditions of local fish, including observed cysts or burns, had lead residents to suspect that waste outfalls and industrial pollutants were impacting local fish stocks. The effects of the Kuroshima oil spill in 1997 were also believed to have impacted shellfish populations. Several respondents mentioned the local practice of beached whale harvests. Other marine mammals mentioned in 2002 interviews included a heavy dependence on harbor seal, Steller sea lion, and Pribilof Islands' northern fur seals. Residents subsisting on these resources will often venture out in search of halibut, and will bring a rifle in case a seal presents itself. There is perceived competition with the commercial fishing industry for subsistence resources. Local residents complain of seasonal or transient residents crowding local subsistence areas and depleting fish stocks.

In 2008, the most recent year for which data were available for salmon harvesting, there were 199 subsistence salmon permits issued to Unalaska residents, a value which ranged from 172 subsistence salmon permits issued in 2007 to 226 permits issued in 2002. Also in 2008, 158 of the subsistence salmon permits were reported as fished. Subsistence salmon harvest between 2000 and 2008 included Chinook salmon, chum salmon, coho salmon, pink salmon, and sockeye salmon, though the amount of each species harvested for subsistence use varied from year to year during this period. Sockeye salmon were the primary species harvested under subsistence permits between 2000 and 2008 (Table 13). Information regarding subsistence harvest of marine invertebrates and non-salmon fish was not available during this period.

Between 2003 and 2009, the number of Subsistence Halibut Registration Certificate (SHARC) cards issued increased overall, as did the number of SHARC cards reported as fished. The number of pounds of halibut harvested for subsistence purposes using SHARC cards also increased during this period. However, in 2010 there was a significant drop in the number of SHARC held, SHARC fished, and halibut harvested. In that year, an estimated 12,610 pounds of halibut was harvested on 55 SHARC, compared to an estimated 29,306 pounds harvested on 76 SHARC in 2009. Information regarding subsistence halibut harvests can be found in Table 14.

Information about subsistence harvest of marine mammals was available between 2000 and 2008, with the exception of 2007. No known harvesting of beluga whales, sea otters, or walrus for subsistence purposes occurs in Unalaska. Harvest data were reported for sea lion and harbor seal harvest between 2000 and 2008, though the numbers of each species harvested decreased substantially during that period. The number of sea lions harvested decreased from 49

[736] 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.
[737] U.S. Fish and Wildlife Service. (2005). *Subsistence Fisheries Harvest Assessment and Traditional Ecological Knowledge, Lower Alaska Peninsula and Aleutian Islands.* Retrieved June 13, 2012 from: http://alaska.fws.gov/asm/pdf/fisheries/reports/02-032Final.pdf.

in 2000 to 3 in 2008, and the number of harbor seals harvested decreased from 34 in 2000 to 0 in 2008. Information on subsistence harvest of marine mammal resources is provided in Table 15.

Table 12. Subsistence Participation by Household and Species, Unalaska: 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 (Lbs)
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, Unalaska: 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	206	162	7	25	615	569	3,935	n/a	n/a
2001	202	168	6	77	724	786	4,258	n/a	n/a
2002	226	178	3	65	706	385	5,618	n/a	n/a
2003	220	172	24	40	572	378	5,094	n/a	n/a
2004	210	173	7	25	955	437	4,757	n/a	n/a
2005	208	146	6	14	423	527	4,055	n/a	n/a
2006	198	161	17	74	422	675	2,085	n/a	n/a
2007	172	122	14	43	254	683	2,649	n/a	n/a
2008	199	158	7	90	829	660	1,855	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, Unalaska: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	92	50	10,860
2004	131	81	20,706
2005	150	88	17,417
2006	171	81	16,331
2007	176	82	13,250
2008	173	88	13,710
2009	164	76	29,306
2010	155	55	12,610

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, Unalaska: 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	49	34	n/a
2001	n/a	n/a	n/a	n/a	23	38	n/a
2002	n/a	n/a	n/a	n/a	10	14	n/a
2003	n/a	n/a	n/a	n/a	10	14	n/a
2004	n/a	n/a	n/a	n/a	11	29	n/a
2005	n/a	n/a	n/a	n/a	12	30	n/a
2006	n/a	n/a	n/a	n/a	9	9	n/a
2007	n/a	n/a	n/a	n/a	9	9	n/a
2008	n/a	n/a	n/a	n/a	3	0	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.
[1] Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.
[2] U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.
[3] Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.

Additional Information

The Museum of the Aleutians in Unalaska is the only archaeological research and museum storage facility for the Aleutian region. The Aleutian World War II Visitor Center contains informational exhibits about the men and women who served in the US Armed Forces in the Aleutian Islands during World War II, as well as about the removal and internment of the Unangax (Aleuts) during the war.[738]

When asked in a survey conducted by the AFSC in 2011 to describe the effects seen on Unalaska as a result of fisheries policies or management actions, community leaders reported that regulations resulting from the 2010 Steller sea lion protection measures have had impacts on harvesters, processors, and fishery support sector businesses. In addition, restrictive bycatch regulations on various species have impacted harvests, processors, and fisheries support sector businesses. Finally, Essential Fish Habitat closures have had impacts on Aleutian and Pribilof Island area. Positive impacts include catch share programs for pollock, crab, halibut, and sablefish.

According to community leaders, future salmon bycatch restrictions for chum salmon in the Bering Sea would have the potential to impact the Eastern Bering Sea Pollock "B" season. That season constitutes 60% of the annual Eastern Bering Sea pollock allocation. If restrictions result in the closure of the entire "B" season, impacts on Unalaska's economy are expected.

[738] Unalaska/Port of Dutch Harbor (2010). *Undiscovered, Unforgettable, Unalaska. Official 2010 Visitor Guide*. Unalaska/Port of Dutch Harbor Convention and Visitors Bureau.

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