

Hooper Bay (A.K.A. Naparyarmiut)



People and Place

Location^{1,2}

The City of Hooper Bay is located on the north shore of Hooper Bay, 20 miles south of Cape Romanzof and 25 miles south of Scammon Bay in the Yukon-Kuskokwim Delta. The community is separated into two sections, including Hooper Bay “old town” located on gently rolling hills, and a new development area built in the lowlands closer to the coast. Hooper Bay is located 500 miles west of Anchorage. Hooper Bay is located in the Wade Hampton Census Area and the Bethel Recording District. The area encompasses 8.7 square miles of land and 0.1 square miles of water.

*Demographic Profile*³

In 2010, there were 1,093 residents in Hooper Bay, making it the 62nd largest of 352 total Alaskan communities with recorded populations that year. Overall between 1990 and 2010, the population increased by 29.3%. According to Alaska Department of Labor estimates, between 2000 and 2009, the population increased by 14.2% (Table 1). The average annual growth rate during this period was 0.74%, close to the statewide average of 0.75%.⁴ The change in population from 1990 to 2010 is provided below in Table 1. In a survey conducted by NOAA’s Alaska Fisheries Science Center (AFSC) in 2011, community leaders estimated that an additional five people are present in Hooper Bay each year as seasonal workers or transients, primarily working as supervisors of construction projects. Community leaders also indicated that Hooper Bay reaches an annual population peak in August, and said that population fluctuations are somewhat driven by employment in fishing sectors.

In 2010, the majority of Hooper Bay residents identified themselves as American Indian and Alaska Native (94.6%), while 3.4% identified as two or more races, and 1.9% identified as White. Compared to 2000, a slightly higher percentage of the population identified as American Indian and Alaska Native in 2010, with slightly smaller percentages in the other two categories. Also in 2000, 0.1% of Hooper Bay residents identified themselves as Hispanic or Latino, while no Hispanic or Latino population appears to have been represented in 2010. In addition, in 2010, 0.1% of the Hooper Bay population identified themselves as ‘some other race’. Changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

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

² ASCG Inc. 2004. *Hooper Bay Comprehensive Economic Development Strategy Plan*. Retrieved October 15, 2012 from <http://www.commerce.state.ak.us/dca/plans/HooperBay-EDP-2004.pdf>.

³ 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>.

⁴ Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from <http://labor.alaska.gov/research/pop/popest.htm>.

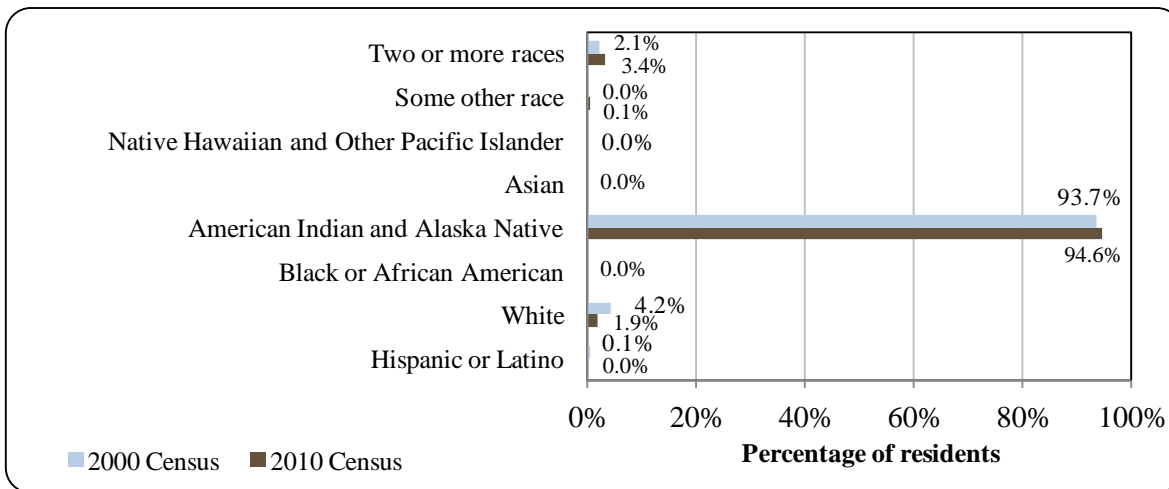
Table 1. Population in Hooper Bay from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	845	-
2000	1,014	-
2001	-	1,043
2002	-	1,075
2003	-	1,108
2004	-	1,129
2005	-	1,133
2006	-	1,157
2007	-	1,145
2008	-	1,158
2009	-	1,158
2010	1,093	-

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>.

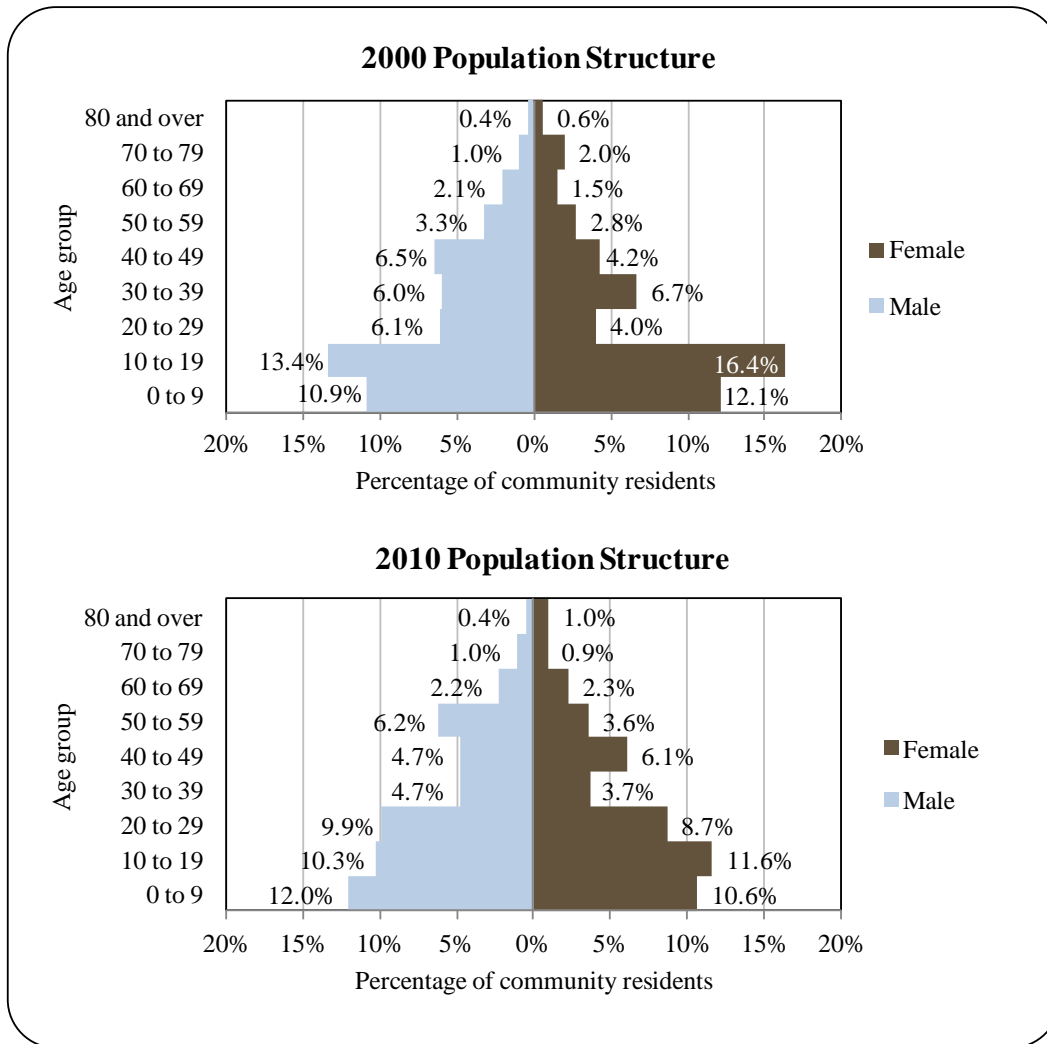
² Alaska Department of Labor. (2011). Current population estimates for Alaskan Communities. Retrieved April 15, 2011, from <http://labor.alaska.gov/research/pop/popest.htm>.

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



Between 1990 and 2010, the total number of households in Hooper Bay increased, from 190 in 1990 to 227 in 2000, and 256 occupied housing units in 2010. The average household size initially increased from 4.4 in 1990 to 4.97 in 2000, and then decreased to 4.27 in 2010. Of the 283 housing units surveyed for the 2010 U.S. Census, 67.1% were owner-occupied, 23.3% were rented, and 9.5% were vacant. Of these vacant housing units, one was vacant due to seasonal use. Between 1990 and 2010, no Hooper Bay residents lived in group quarters.

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



In 2010, the gender makeup of Hooper Bay’s population was in 51.5% male and 48.5% female, very similar to the gender makeup in the state as a whole (52% male, 48% female). That year, the median age in Hooper Bay was estimated to be 22.1 years, lower than both the U.S. national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, 7.8% of the Hooper Bay population was age 60 or older. The overall population structure of Hooper Bay in 2000 and 2010 is shown in Figure 2.

In terms of educational attainment, the U.S. Census’ 2006-2010 American Community Survey (ACS)⁵ estimated that 74% of residents aged 25 and over held a high school diploma or

⁵ 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.

higher degree in 2010, significantly less than an estimated 90.7% of Alaskan residents overall. Also in that year, an estimated 11.8% of residents had less than a 9th grade education, compared to an estimated 3.5% of Alaskan residents overall; an estimated 14.2% of residents had a 9th to 12th grade education but no diploma, compared to an estimated 5.8% of Alaskan residents overall; an estimated 20.2% of resident had some college but no degree, compared to an estimated 28.3% of Alaskan residents overall; no residents were estimated to hold a Bachelor's degree, compared to an estimated 17.4% of Alaskan residents overall; and 1% of Hooper Bay residents were estimated to hold a graduate or professional degree, compared to an estimated 9.6% of Alaskan residents overall.

History, Traditional Knowledge, and Culture

Yup'ik Eskimo people were historically very mobile, following the migration and seasonal availability of subsistence resources.⁶ The Nuvugmiut, Miluqautmiut, and Nenerrlugarmiut were all ancestral people of Hooper Bay.⁷ Early Eskimo names for the village included "Askinuk" or "Askinaghmiut," referring to the mountainous area between Hooper Bay and Scammon Bay. The traditional village was located on a hilly point of land near the present-day community.⁸ During an expedition through the Yukon-Kuskokwim delta in the winter of 1878-1879, American Edward Nelson provided the first written report of the village.⁹ The 1890 U.S. Census found 138 persons in Hooper Bay living in 14 homes.¹⁰

Ancestors of current Hooper Bay residents were involved in the centuries-long Bow and Arrow War Days, involving conflict between Yup'ik people living along the Bering Sea coast south of the Yukon River and riverine Yup'ik people living along the Yukon. Hooper Bay is located in the region known as 'the Triangle', which also includes the villages of Chevak and Scammon Bay and smaller villages that no longer exist today. People within the Triangle often banded together during raids to the north and came to each others' aid when under attack. The Bow and Arrow War Days continued up until the arrival of Russian explorers in the 1840s.¹¹

Hooper Bay's modern name came into popular use after a post office was established in 1934 using the name. The present-day community is also known by the Eskimo name of "Naparyarmiut," derived from the nearby Napareayak slough. The City of Hooper Bay was incorporated in 1966. Today, Hooper Bay is the second-largest community in the Yukon-Kuskokwim delta after Bethel, and is the largest traditional village in the region.¹² Residents of nearby villages travel to Hooper Bay to access businesses and services provided there.¹³ Commercial fishing and subsistence harvest activities are fundamental to the economy and way

⁶ Alaska Native Heritage Center. (n.d.) *Yup'ik & Cup'ik - Who We Are website*. Retrieved December 8, 2011 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/yupik/.

⁷ Funk, C. 2010. The Bow and Arrow War Days on the Yukon-Kuskokwim Delta of Alaska. *Ethnohistory* 57(4).

⁸ ASCG Incorporated. 2004. *Hooper Bay Comprehensive Economic Development Strategy Plan*. Retrieved October 15, 2012 from <http://www.commerce.state.ak.us/dca/plans/HooperBay-EDP-2004.pdf>.

⁹ Baker, Marcus. 1906. *Geographic Dictionary of Alaska. Second Edition*. Prepared by James McCormick. Dept. of the Interior, U.S. Geological Survey.

¹⁰ 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.

¹¹ See footnote 7.

¹² See footnote 8.

¹³ Crawford, Drew L., and Lingnau, Tracy L. 2004. *Hooper Bay Subsistence Salmon Monitoring Project, 2003*. Alaska Dept. of Fish and Game, Regional Information Report No. 3A04-15. Retrieved October 15, 2012 from <http://www.sf.adfg.state.ak.us/fedaidpdfs/RIR.3A.2004.15.pdf>.

of life in Hooper Bay. Members of the Village of Paimiut also live in Hooper Bay. The sale and importation of alcohol is banned in the village by local option.¹⁴

Natural Resources and Environment

Hooper Bay is located in a maritime climate zone, although winter ice pack and winds often lead to harsher conditions than other coastal areas. Sea ice is generally present between October and June. The mean annual snowfall is 75 inches, with total annual precipitation of 16 inches. Temperatures range between -25 and 79 °F.¹⁵ The community of Hooper Bay is located in the Yukon-Kuskokwim Delta, an alluvial flood plain characterized by numerous lakes and slough channels interwoven through the tundra wetland complex. North of the community, the Askinuk Mountains rise to over 2,300 feet above sea level. The Bering Sea coast is lined with long sand dunes,¹⁶ and the shore of Hooper Bay is lined by shallow low-lying marshes.¹⁷

Hooper Bay is located within the boundaries of the Yukon Delta National Wildlife Refuge (NWR). The NWR was established “to conserve fish and wildlife populations and habitats in their natural diversity, including, but not limited to shorebirds, seabirds, tundra swans, emperor, white-fronted and cackling geese, black brant and other migratory birds, salmon, muskoxen, and marine mammals; to fulfill treaty obligations; to provide the opportunity for continued subsistence uses; and to ensure water quality and necessary water quantity. NWR lands are open to sport and subsistence hunting and fishing.”¹⁸ In addition, the Clarence Rhode National Wildlife Range is located just south of Hooper Bay, also within the Yukon Delta NWR. The Wildlife Range encompasses Nunivak Island and additional lands on the mainland. The Wildlife Range contains excellent coastal and upland habitat suitable as nesting grounds for waterfowl, shorebirds, and sandhill cranes. When the Alaska National Interest Lands Conservation Act of 1980 was passed, the Clarence Rhode National Wildlife Range and other protected areas were combined and enlarged to create the Yukon Delta NWR.^{19,20}

Natural hazard risks that are present in Hooper Bay include flood, wildland fire, earthquake, severe weather, and erosion. Hazards that have been rated as having the highest likelihood of occurrence in Hooper Bay are erosion, flooding, and severe weather. Land use in Hooper Bay has been largely dictated by physical factors, including presence of permafrost, drainage problems, wind direction, and potential for erosion and flooding. In the 1990s, a survey found that the Hooper Bay area is underlain by an extensive, continuous layer of permafrost. Village elders observe that the climate in Hooper Bay is warming and that the permafrost is melting. Warming temperatures have also led to increased occurrence of flooding and erosion. The possibility of relocating the village of Hooper Bay to higher ground is under discussion,

¹⁴ See footnote 10.

¹⁵ See footnote 10.

¹⁶ See footnote 8.

¹⁷ See footnote 13.

¹⁸ U.S. Fish and Wildlife Service. (2011). *Yukon Delta National Wildlife Refuge*. Retrieved December 8, 2011 from <http://yukondelta.fws.gov/>.

¹⁹ U.S. Fish and Wildlife Service. (n.d.). *Yukon Delta National Wildlife Refuge History, Continued*. Retrieved October 17, 2012 from <http://www.fws.gov/refuges/profiles/History.cfm?ID=74540>.

²⁰ National Park Service. 2012. *Clarence Rhode National Wildlife Range*. Retrieved October 17, 2012 from <http://nature.nps.gov/nnl/site.cfm?Site=CLRH-AK>.

although these talks are in early stages and a water source would have to be identified before a serious relocation plan could be pursued.²¹

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Hooper Bay as of October, 2012.²²

Current Economy²³

According to the 2011 AFSC survey, community leaders indicated that fishing is the most important natural resource-based industry in Hooper Bay. Coastal Villages Seafoods, a subsidiary of the Coastal Villages Region Fund (CVRF), the Community Development Quota (CDQ) non-profit for the Yukon-Kuskokwim Delta,²⁴ operates a halibut processing facility in the community.²⁵ Despite the importance of commercial and subsistence fishing, a relatively low percentage of the local population works in fishing-related industries and occupations. Community leaders are looking for ways to increase employment opportunities in fisheries and have discussed improvements that need to be made, such as more efficient harvest methods, value-added processing, new marketing strategies, supporting fishing-related businesses and services in Hooper Bay, and fishery diversification.²⁶ Between 2000 and 2010, the number of Hooper Bay residents holding state commercial fisheries permits was equivalent to approximately 6% of the total local population.

The public sector and service industries are major employers in Hooper Bay, and most wage employment is seasonal. Some community members also produce grass baskets and carve ivory for sale. Subsistence harvest provides an important supplement to wage employment. Important subsistence species in Hooper Bay include marine mammals such as walrus and beluga whale, salmon and other freshwater fish, waterfowl, and local plants and berries.²⁷ In addition, between 2005 and 2010, approximately 10 major construction projects were built in Hooper Bay, generating many local construction and construction support jobs.²⁸

Based on household surveys for the 2006-2010 ACS,²⁹ in 2010, the per capita income in Hooper Bay was estimated to be \$8,635 and the median household income was estimated to be \$34,375. These estimates represent increases from the per capita and median household incomes reported in the year 2000 (\$7,841 and \$26,667, respectively). However, if inflation is taken into

²¹ City of Hooper Bay, ASGC Incorporated of Alaska, and Bechtol Planning and Development. 2007. *The City of Hooper Bay Local Hazards Mitigation Plan*. Retrieved October 15, 2012 from <http://www.commerce.state.ak.us/dcra/planning/nfip/mitigation.htm>.

²² Alaska Dept. of Environmental Conservation. 2012. *List of Contaminated Site Summaries By Region*. Retrieved October 3, 2012 from <http://dec.alaska.gov/spar/csp/list.htm>.

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

²⁴ Coastal Villages Region Fund. (n.d.). *Homepage*. Retrieved December 12, 2011 from <http://www.coastalvillages.org/>.

²⁵ 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.

²⁶ ASGC Incorporated. 2004. *Hooper Bay Comprehensive Economic Development Strategy Plan*. Retrieved October 15, 2012 from <http://www.commerce.state.ak.us/dca/plans/HooperBay-EDP-2004.pdf>.

²⁷ See footnote 25.

²⁸ See footnote 26.

²⁹ 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>.

account by converting the 2000 values to 2010 dollars,³⁰ real per capita and median household income are both shown to have decreased, from a real per capita income of \$10,311 and real median household income of \$35,067 in 2000. In 2010, Hooper Bay ranked 288th of 305 Alaskan communities with per capita income data that year, and 219th in median household income, out of 299 Alaskan communities with household income data.

However, Hooper Bay's small population size may have prevented the ACS from accurately portraying economic conditions.³¹ 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 Bureau, the resulting per capita income estimate for Hooper Bay in 2010 is \$6,123.^{32,33} This estimate is lower than the 2000 per capita income reported in by the U.S. Census, providing additional evidence for a decline in per capita income in Hooper Bay between 2000 and 2010. The lower per capita income estimate derived from the ALARI database is supported by the fact that the community was recognized as "distressed" by the Denali Commission in 2011,³⁴ indicating that over 70% of residents aged 16 and older earned less than \$16,120 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 much lower percentage of Hooper Bay residents were estimated to be in the civilian labor force (54.8%) than in the civilian labor force statewide (68.8%). Also in 2010, 44.7% of Hooper Bay residents were estimated to be living below the poverty line, more than four times the statewide poverty rate estimate of 9.5%, and the unemployment rate was estimated to be 16.6%, almost three times 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 28.9%, more than double the statewide unemployment rate estimate of 11.5%.³⁵

Also based on the 2006-2010 ACS, a majority of workers was estimated to be employed in the public sector (71.8%), along with 28.2% in the private sector. Of the 291 people aged 16 and over that were estimated to be employed in the civilian labor force, the greatest number of workers was estimated to be employed in educational services, health care, and social assistance (31.6%) and public administration (31.3%), along with 13.4% estimated to be employed in transportation, warehousing, and utilities (Figure 3). The greatest shifts in employment by

³⁰ 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>).

³¹ 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.

³² 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/>.

³³ 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>.

³⁴ Denali Commission. (2011). *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.

³⁵ See footnote 32.

industry between 2000 and 2010 included a 37% decrease in employment in education services, health care and social assistance industries, a 62% decrease in employment in retail trade industries, a 71% increase in employment in public administration industries, and a more than 200% increase in employment in transportation, warehousing, and utilities industries.

The shifts in industry employment described above are reflected in shifts in distribution of employment by occupation in Hooper Bay between 2000 and 2010 (Figure 4). The percentage of the workforce employed in service occupations remained relatively stable over the decade. Declines were observed in the percentage of the workforce employed in management and professional occupations decreased (almost 50% decline) and the percentage in production, sales and office occupations (34% decline). Over the same period, large increases were estimated in the percentage of the workforce employed in production, transportation, and material moving occupations (more than 100% increase) and natural resource, construction, and maintenance occupations (more than 300% increase).

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

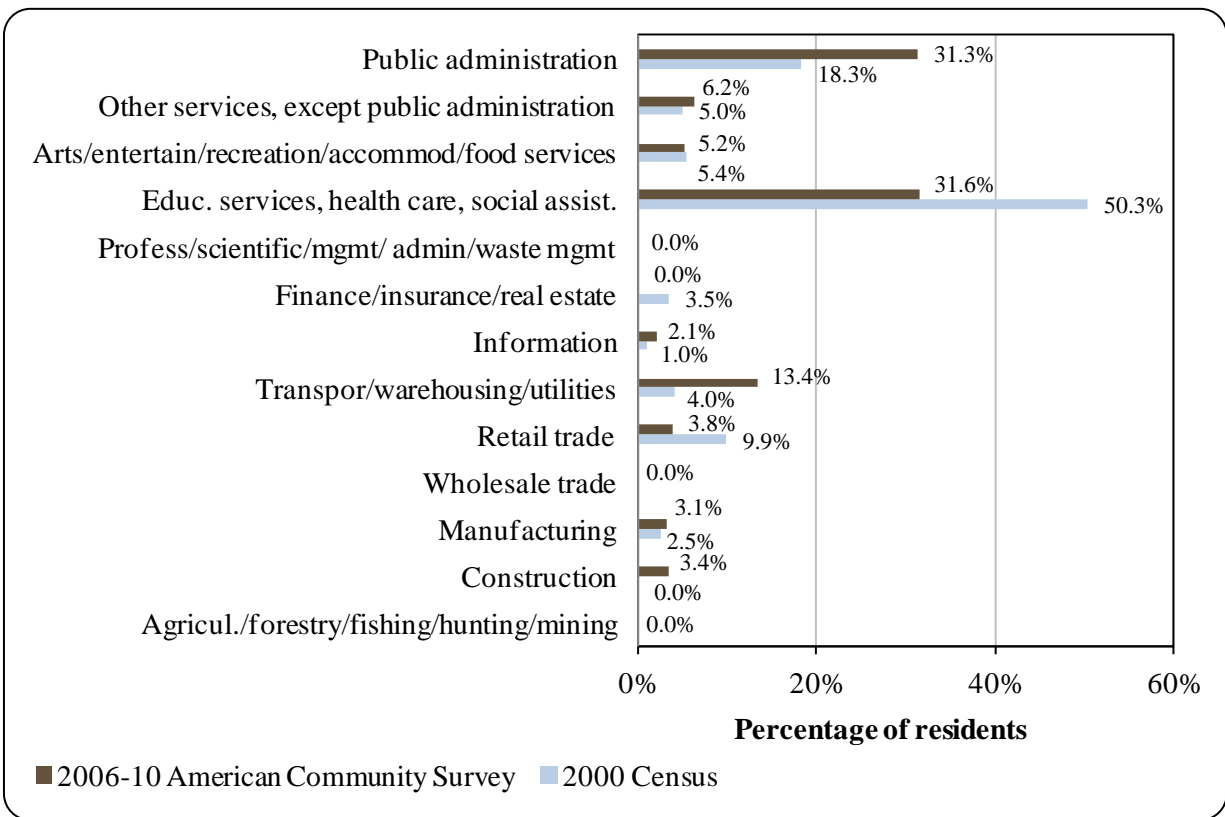
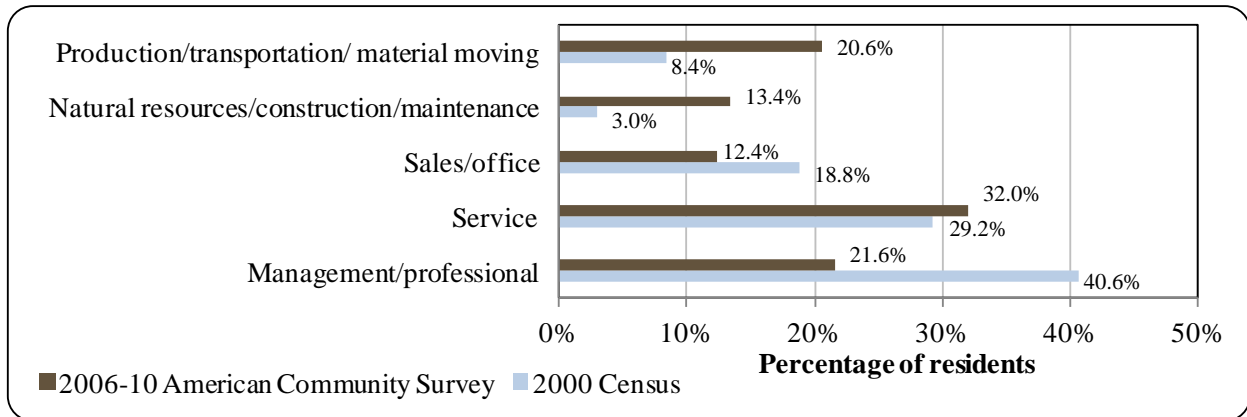


Figure 4. Local Employment by Occupation in 2000-2010, Hooper Bay (U.S. Census).



An alternative estimate of employment by industry is provided by economic data compiled in the ALARI database, which indicate that there were 486 employed residents in Hooper Bay in 2010. Compared to 2006-2010 ACS estimates, ALARI data show similar employment distribution in public administration and transportation and utilities industry categories, but suggest a smaller percentage of the workforce was employed in educational services and health care industries. ALARI data suggest that 44.2% were employed in local government, 11.9% in trade, transportation, and utilities, 10.7% in financial activities, 7.4% in education and health services, 5.6% in manufacturing, 4.3% in state government, 1.9% in professional and business services, 1.4% in information, 1.2% in construction, 0.6% in natural resources and mining, 0.2% in leisure and hospitality, 3.3% in unknown industries, and 7.2% in other industries.³⁶ 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

Hooper Bay is a 2nd Class City, and was incorporated in 1967. It is not located within an organized borough. The City has a manager, or “Strong Mayor,” form of government, with a seven-person city council that includes the Mayor, a nine-person school board, an appointed seven-member planning commission, and several municipal employees.³⁷ The City collects a 4% sales tax and does not administer a property tax.³⁸

In addition to sales tax revenues, other locally-generated income sources in Hooper Bay between 2000 and 2010 included contracted services (electric utility and health clinic operations), washeteria/sauna usage fees, bingo and pull tab receipts, and building and equipment rentals. Outside revenue sources included various shared funds from state and federal sources as well as grants in some years. Shared funds came from state programs including the State Revenue Sharing Program (\$25,000 to \$35,000 per year from 2000 to 2003), the SAFE

³⁶ Ibid.

³⁷ ASCG Incorporated. 2004. *Hooper Bay Comprehensive Economic Development Strategy Plan*. Retrieved October 15, 2012 from <http://www.commerce.state.ak.us/dca/plans/HooperBay-EDP-2004.pdf>.

³⁸ 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.

Communities program, the Community Revenue Sharing program (over \$150,000 per year in 2009 and 2010), telephone / electric cooperative tax refunds, and fish tax refunds (see the *Fisheries-Related Revenue* section). No state or federal fisheries-related grants were reported to have been received by Hooper Bay during the 2000-2010 period. Further information about selected municipal revenue streams in Hooper Bay is presented in Table 2.

Hooper Bay was included under the Alaska Native Claims Settlement Act (ANCSA), and is federally recognized as a Native village. The authorized traditional entity, recognized by the Bureau of Indian Affairs (BIA), is the Native Village of Hooper Bay.³⁹ The office of the Native Village of Paimiut is also located in Hooper Bay, and members of this federally recognized Tribe also live in the City.⁴⁰ The Native village corporation for Hooper Bay is the Sea Lion Corporation, which manages 161,280 acres of land. The Native village corporation for Paimiut is the Paimiut Corporation, which manages 69,120 acres of land. The regional Native corporation to which both Villages belong is the Calista Corporation.⁴¹

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Hooper 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	\$892,685	\$127,138	\$26,772	n/a
2001	\$1,207,952	\$253,701	\$25,442	n/a
2002	\$1,158,182	\$196,782	\$25,950	n/a
2003	\$923,666	\$176,377	\$35,279	n/a
2004	\$1,079,793	\$153,668	n/a	n/a
2005	\$1,008,474	\$181,352	n/a	n/a
2006	\$1,038,552	\$200,699	n/a	n/a
2007	\$1,531,395	\$233,507	n/a	n/a
2008	\$1,386,373	\$212,642	n/a	n/a
2009	\$1,587,097	\$252,355	\$155,177	n/a
2010	\$1,756,142	\$248,060	\$154,076	n/a

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

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

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

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

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

³⁹ Ibid.

⁴⁰ University of Alaska, Center for Economic Development (n.d.). *Sea Lion Corporation*. Retrieved October 23, 2012 from <http://ced.uaa.alaska.edu/vibes/Indiv.%20case%20studies/Sea%20Lion%20Corporation.pdf>.

⁴¹ See footnote 38.

The Villages of Hooper Bay and Paimiut are also members of the Association of Village Council Presidents (AVCP), a tribal 501(c)(3) non-profit organization headquartered in Bethel that serves communities in the Yukon-Kuskokwim Delta. At the request of villages, AVCP provides social services, human development and culturally relevant programming to “promote tribal self-determination and self-governance and to work to protect tribal culture and traditions.”⁴² The AVCP is one of the 12 regional Alaska Native 501(c)(3) nonprofit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native Associations receive federal funding to administer a broad range of services to villages in their regions.⁴³ AVCP is made up of 56 villages and 45 village corporations.⁴⁴

The nearest Alaska Department of Fish and Game (ADF&G) office is located in the city of Emmonak, but is a seasonal office. A year-round ADF&G office is located in Bethel, along with the nearest office of the Alaska Department of Commerce, Community, and Economic Development. A National Marine Fisheries Service (NMFS) field office is also located in Bethel, and a larger office is located in Anchorage. The nearest Alaska Department of Natural Resources and U.S. Bureau of Citizenship and Immigration Services offices are located in Anchorage.

Infrastructure

Connectivity and Transportation

Hooper Bay is accessible by air or water transportation. A state-owned 3,300 ft long by 75 foot wide paved runway is located approximately one mi west of Hooper Bay, near the Bering Sea coast.⁴⁵ As of June 2012, roundtrip airfare from Anchorage to Hooper Bay cost \$834.⁴⁶ In summer months, barge lines deliver shipments of fuel and other bulk supplies.⁴⁷ Most local overland transportation takes place using four-wheelers in summer and snowmobiles in winter. Winter trails exist to Scammon Bay (32 mi), Chevak (20 mi), and Paimiut (14 mi). Skiffs are also used in summer. There is no formal boat landing area in Hooper Bay. Boats are hauled up on shore to be stored during the winter.^{48,49}

Facilities

Water in Hooper Bay is sourced from three wells that were drilled northeast of town in 1997.⁵⁰ The City operates a piped water and sewer system which serves the school, teacher

⁴² Association of Village Council Presidents. (n.d.). *Homepage*. Retrieved December 6, 2011 from www.avcp.org.

⁴³ 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>.

⁴⁴ Calista Corporation. (2011). *Our Communities: The Villages of the Calista Region*. Retrieved February 6, 2012 from <http://www.calistacorp.com/shareholders/communities>.

⁴⁵ 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.

⁴⁶ Airfare was averaged from prices found on travel websites, including <http://www.travelocity.com> (retrieved June 2004) and <http://www.cheaptickets.com> (retrieved October 2011).

⁴⁷ See footnote 45.

⁴⁸ ASCG Incorporated. 2004. *Hooper Bay Comprehensive Economic Development Strategy Plan*. Retrieved October 15, 2012 from <http://www.commerce.state.ak.us/dca/plans/HooperBay-EDP-2004.pdf>.

⁴⁹ See footnote 45.

⁵⁰ See footnote 48.

housing, the old clinic building, Head Start building, and the City washeteria.⁵¹ No homes in Hooper Bay are plumbed,⁵² and residents haul water from the washeteria or a second watering point located in the center of the village. Residents use honeybuckets for sewage disposal, and individually haul them to the city-operated sewage lagoon to dump. The sewage lagoon is located adjacent to the landfill, which was expanded in 1997. The landfill is operated by the City, but no refuse collection services are provided; residents haul garbage to the landfill individually.⁵³ According to the 2011 AFSC survey, community leaders reported that improvements to water treatment, sewage treatment, and the piped water and sewer system are currently in progress, and a new landfill/solid waste site is expected to be in place within the next 10 years. Electricity in Hooper Bay is provided a diesel generator operated by the Alaska Village Electric Cooperative (AVEC).⁵⁴ In 2004, AVEC began planning, design, construction, and commissioning of three 100-kW wind turbines to augment diesel power generation. The 32-meter high turbines are located adjacent to the sewage lagoon/landfill site, and are connected to the new power plant via a distribution line.⁵⁵ The turbines replace about 24% of the energy previously generated by diesel, and excess energy is provided to the water treatment plant.⁵⁶

Security is provided by the Hooper Bay Police Department and a Village Public Safety Officer (VPSO) stationed in Hooper Bay. The nearest state trooper post is located in Bethel. Fire and rescue services are provided by the City Volunteer Fire Department, the VPSO, and Project Code Red Equipment.⁵⁷ Additional community facilities include a Traditional Council Building, the Native Village of Hooper Bay administration building, the City Office, public safety building, youth/elder center, community center, teen center, a building containing the fire hall, search and rescue, and substance abuse program offices, and a building containing the office of the Sea Lion Corporation and the post office.⁵⁸ The school library is also available as a resource to the community. Telephone, internet, and cable services are all available in Hooper Bay.⁵⁹

With regard to fishing-related infrastructure, a fishing dock is available in Hooper Bay,⁶⁰ although community leaders reported in the 2011 AFSC survey that no public dock space is available for permanent or transient vessel moorage. However, they also indicated that a new dock is expected to be constructed within the next 10 years, along with a breakwater, jetty, dry dock storage, haul-out facilities, an EPA-certified boat cleaning station, and improvements to the existing dock structure. Currently, informal boat pullouts and some boat storage areas are available in Hooper Bay.⁶¹ In the 2011 AFSC survey, community leaders indicated that Hooper Bay currently has the capacity to handle fuel barges, and improvements to the barge landing area are currently in process. In addition, community leaders also reported that a variety of fisheries-related businesses and services are present in Hooper Bay, including boat repair (welding, mechanical services, machine shop, and hydraulics), marine refrigeration, sales of boat fuel and

⁵¹ See footnote 45.

⁵² See footnote 48.

⁵³ See footnote 45.

⁵⁴ Ibid.

⁵⁵ Alaska Village Electric Cooperative. (2009). Hooper Bay's Wind Turbine Project. *Renewable Energy Projects*. Retrieved October 17, 2012 from <http://www.avec.org/renewable-energy-projects/>.

⁵⁶ See footnote 45.

⁵⁷ Ibid.

⁵⁸ See footnote 48.

⁵⁹ See footnote 45.

⁶⁰ Ibid.

⁶¹ See footnote 48.

ice, fish processing, and cold storage. Some of these services are provided at a fishing support center operated in Hooper Bay by Coastal Villages Seafoods, Inc. The service center helps local fishing families maintain, repair, service, and modify their boats, motors, and fishing gear.⁶²

Medical Services

The Hooper Bay Subregional Clinic provides medical services to residents of Hooper Bay as well as Scammon Bay, Paimiut, and Chevak.⁶³ The clinic is owned by the City of Hooper Bay and operated by the Yukon-Kuskokwim Health Corporation. It is a Community Health Aid Program facility. Emergency services have coastal and air access.⁶⁴ The clinic is staffed by eight health aides, as well as midlevels, behavioral health aides, lab and x-ray technicians, and visiting specialists including dentists.⁶⁵

Educational Opportunities

There is one school in Hooper Bay that offers preschool through 12th grade education. As of 2011, the Hooper Bay School had 414 students and 29 teachers.⁶⁶ In addition, the Rural Alaska Community Action Program (RurAL CAP) runs Head Start (ages 3 to 5 years) and Early Head Start (birth to 3 years) programs in Hooper Bay.⁶⁷

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Yup'ik Eskimo people were historically very mobile, following the migration and seasonal availability of subsistence resources.⁶⁸ Traditional subsistence fishing activities continue to provide a primary source of food for residents of Hooper Bay.⁶⁹ In addition, between 2000 and 2010, Hooper Bay residents were engaged in commercial fisheries for herring, salmon, and halibut.

Hooper Bay is located in the Yukon-Kuskokwim delta, on Bering Sea coast approximately 80 miles southwest of the mouth of the Yukon River. This coastal area of the Bering Sea is included in Federal Statistical and Reporting Area 514, Pacific Halibut Fishery Regulatory Area 4E, the Bering Sea Sablefish Regulatory Area, and the Coastal District (District

⁶² Coastal Villages Seafoods, Inc.. (2010). *Community Service Centers*. Retrieved October 16, 2012 from <http://coastalvillages.org/>.

⁶³ Yukon-Kuskokwim Health Corporation. 2012. *Hooper Bay Subregional Clinic*. Retrieved October 16, 2012 from <http://www.ykhc.org/about-ykhc/medical-facilities/subregional-clinics/hooper-bay-subregional-clinic/>.

⁶⁴ See footnote 45.

⁶⁵ Lower Yukon School District. (2011). Subregional Clinic Opens. *Hooper Bay School, Community Tab*. Retrieved October 17, 2012 from <http://hpb.lower yukon.org/>.

⁶⁶ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

⁶⁷ Rural Alaska Community Action Program, Inc. 2010 *Head Start Report*. Retrieved on December 20, 2011 from <http://www.ruralcap.com/>.

⁶⁸ Alaska Native Heritage Center. (n.d) *Yup'ik & Cup'ik - Who We Are website*. Retrieved December 8, 2011 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/yupik/.

⁶⁹ See footnote 66.

7) of the Yukon River commercial salmon fishery. The Coastal District is open to subsistence fishing only.⁷⁰ The subsistence fishery at Hooper Bay primarily targets chum and pink salmon bound for the Yukon River, and also chum salmon bound for Kotzebue and Norton Sound rivers.⁷¹ Between 2000 and 2010, Hooper Bay residents participated in commercial salmon fisheries in the Lower Yukon River districts (Districts 1, 2, and 3), as well as Kuskokwim River and Bristol Bay salmon fishery (see the *Commercial Fishing* section).

Commercial exploitation of halibut first extended into the Bering Sea region in 1928 after development of diesel engines, which allowed fishing vessels to undertake longer trips.⁷² Today, Pacific halibut fisheries are managed under the International Pacific Halibut Commission. In 1995, management of the Pacific halibut fishery shifted from limited entry to a catch share program. The program includes allocation of the annual Total Allowable Catch (TAC) of halibut 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.⁷³ CVRF receives halibut CDQ allocations in Pacific Halibut Management Areas 4D and 4E.⁷⁴ In Area 4E, 100% of halibut quota is allocated to the CDQ program, while 30% of Area 4D halibut quota is designated for CDQ.⁷⁵ Managers of CDQ organizations authorize individual fishermen and fishing vessels to harvest a certain portion of the allocated CDQ.⁷⁶

Commercial catch of herring for human consumption began in Alaska in 1878, harvest for bait began around 1900, and herring sac roe fisheries developed in the late 1970s. Along the Yukon-Kuskokwim coast there are six commercial gillnet sac roe districts: Security Cove, Goodnews Bay, Cape Avinof, Nelson Island, Nunivak Island, and Cape Romanzof. Harvests in these areas have been declining in recent years, in part due to lack of processing capacity in the region.⁷⁷

In a survey conducted by the AFSC in 2011, community leaders reported that Hooper Bay participates in the fisheries management process in Alaska through sending a representative to participate in North Pacific Fishery Management Council (NPFMC) committees and/or advisory groups. When asked to describe current challenges facing Hooper Bay's fishing

⁷⁰ 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/afbr/clarv12n1.pdf>.

⁷¹ Crawford, Drew L., and Lingnau, Tracy L. 2004. *Hooper Bay Subsistence Salmon Monitoring Project, 2003*. Alaska Dept. of Fish and Game, Regional Information Report No. 3A04-15. Retrieved October 15, 2012 from <http://www.sf.adfg.state.ak.us/fedaidpdfs/RIR.3A.2004.15.pdf>.

⁷² 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://www.iphc.int/publications/scirep/Report0005.pdf>.

⁷³ 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.

⁷⁴ Coastal Villages Region Fund. 2012. *2012 Benefits Catalog*. Retrieved October 16, 2012 from http://www.coastalvillages.org/sites/www.coastalvillages.org/files/documents/benefits_catalog_2012.pdf.

⁷⁵ Coastal Villages Seafood, Inc. (2010). *History*. Retrieved October 16, 2012 from <http://www.coastalvillages.org/about-us/history>.

⁷⁶ International Pacific Halibut Commission. 2012. *Pacific Halibut Fishery Regulations 2012*. Retrieved October 16, 2012 from <http://www.iphc.int/publications/regs/2012iphcregs.pdf>.

⁷⁷ 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>.

economy, community leaders noted the lack of a commercial salmon fishery in the Coastal District of the Yukon River salmon fishery, and also indicated that reduced gillnet mesh sizes from 8 to 7 ¼ inches have negatively impacted the local Chinook salmon fishery. When asked to comment on potential future fishery policy decisions that concern Hooper Bay, community leaders again expressed concern that a coastal commercial salmon fishery may not be approved, and indicated that Hooper Bay is actively seeking to start a commercial salmon fishery.

It is important to note that Hooper Bay is not eligible to participate in the Community Quota Entity (CQE) program.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, Coastal Villages Seafood, Inc., a subsidiary of CVRF, currently operates a halibut processing plant in Hooper Bay. Although the Hooper Bay facility is focused on processing halibut in June and July, some salmon is also processed between June and August. Coastal Villages Seafoods also maintains a community service center in Hooper Bay to help local fishing families maintain, repair, service, and modify their boats, motors, and fishing gear. The local plant provides free room and board to its fish processing workers, as well as transportation to and from the plant site and a cash bonus for all those who complete their contracts.⁷⁸

Fisheries-Related Revenue

According to information provided in Hooper Bay's annual municipal budget, the primary source of fisheries-related revenue in Hooper Bay is the Shared Fisheries Business Tax. In 2001, \$5,013 was reported as received from this source, although the total revenue was much smaller in other years during the 2000-2010 period. Total revenues received in other years from the Shared Fisheries Business Tax varied from \$1 to \$296, for those years in which data were available. Information about selected fisheries-related revenue sources is found in Table 3.⁷⁹

It is also important to note that the CVRF uses fisheries revenue from the CDQ program to provide grants, scholarships and training, and other financial assistance to fishermen and residents of member villages.⁸⁰

Commercial Fishing

According to the 2011 AFSC survey, community leaders reported that commercial fishing is the natural resource-based industry upon which Hooper Bay's economy is most dependent. In 2010, there were 69 Hooper Bay residents holding a total of 73 state Commercial Fisheries Entry Commission (CFEC) permits, 16 fishing vessels were primarily owned by Hooper Bay residents, and 6 residents held commercial crew licenses. Permit numbers remained

⁷⁸ Coastal Villages Seafoods, Inc. (2010). *Community Service Centers and Commercial Fishing*. Retrieved October 16, 2012 from <http://coastalvillages.org/>.

⁷⁹ 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.

⁸⁰ Coastal Villages Region Fund (n.d.). *Home page*. Retrieved December 12, 2011 from <http://www.coastalvillages.org/>.

relatively steady between 2000 and 2010, while crew license and vessel ownership number declined over the period (Table 5).

The number of vessels homeported in Hooper Bay also declined over the decade, from 29 in 2000 to 16 in 2010, although this number remained relatively stable between 2005 and 2010 (Table 5). This is reflected in results of the 2011 AFSC survey, in which community leaders indicated that the number of commercial fishing vessels present in Hooper Bay has not changed significantly in the last 5 years. However, community leaders did observe that a greater percentage of the fleet is focused on fishing for halibut than in previous years, and there has been an increase in smaller vessels (shorter than 35 feet in length) and a substantial decline in larger vessels in Hooper Bay within the last five years.

Of the 73 CFEC permits held in 2010, 54 were held for the Cape Romanzof herring gillnet fishery, 11 for salmon fisheries (6 Bristol Bay set gillnet, 3 Lower Yukon gillnet, and 2 Bristol Bay drift gillnet permits), and 8 were for halibut fisheries (3 statewide longline, 3 statewide mechanical jig, and 2 statewide hand troll permits). It is important to note that, in previous years of the 2000-2010 period, one salmon permit was also held by a Hooper Bay resident in the Kuskokwim River gillnet fishery.

The number of herring and salmon permit holders in Hooper Bay remained relatively stable between 2000 and 2010, as did the total number of herring and salmon permits held. However, the percentage of permits that was actively fished declined in both cases. The decline in permit activity was the most dramatic in the case of herring, from a 47% active rate in 2000 to 0% of permits actively fished between 2007 and 2010. The decline in active herring permits reflects the closure of the Yukon-Kuskokwim herring fishery beginning in the mid-2000s.⁸¹ Halibut permit activity was more variable, rising from 1 CFEC permit held in 2000 by 1 permit holder to 46 permits held by 35 permit holders in 2003, and then declining to 8 permits held by 8 permit holders in 2010. CFEC permit numbers are presented in Table 4.

Between 2000 and 2010, no Hooper Bay residents held federal fisheries permits (Table 4) or quota shares in federal catch share fisheries (Tables 6 through 8).

According to the Alaska processors' Weekly Production Reports, a shore-side processing facility was present in Hooper Bay each year from 2002 to 2010, while data from the Alaska Commercial Fisheries Commission indicates a fish buyer was only present from 2006 to 2008. Vessels were only recorded as landing catch in Hooper Bay during the years in which fish buyers were reported to be present (Table 5). Information regarding landings in Hooper Bay is considered confidential between 2002 and 2010 due to the small number of processing facilities present (Tables 5 and 9).

Table 10 presents information about landings and ex-vessel revenue earned by vessel owners residing in Hooper Bay, regardless of location of landings. For those years in which data can be reported between 2000 and 2010, Hooper Bay vessel owners landed an average of 171,986 net pounds of herring and 2,572 net pounds of halibut, valued at \$8,084 and \$9,836 in ex-vessel revenue, respectively. In other years, landings of herring and halibut are considered confidential due to the small number of participants. Data on salmon landings and ex-vessel revenue are considered confidential for all years during the 2000-2010 period.

⁸¹ Coastal Villages Region Fund. (2010). *Herring Fishery Cancelled*. Retrieved April 11, 2012 from <http://coastalvillages.org/current-issues/herring-fishery-cancelled>.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Shared Fisheries Business Tax ¹	n/a	\$5,012	n/a	\$145	n/a	\$32	\$1	\$154	\$109	\$296	\$138
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 revenue⁴	<i>n/a</i>	<i>\$5,012</i>	<i>n/a</i>	<i>\$145</i>	<i>n/a</i>	<i>\$32</i>	<i>\$1</i>	<i>\$154</i>	<i>\$109</i>	<i>\$296</i>	<i>\$138</i>
Total municipal revenue⁵	<i>\$892,685</i>	<i>\$1,207,952</i>	<i>\$1,158,182</i>	<i>\$923,666</i>	<i>\$1,079,793</i>	<i>\$1,008,474</i>	<i>\$1,038,552</i>	<i>\$1,531,395</i>	<i>\$1,386,373</i>	<i>\$1,587,097</i>	<i>\$1,756,142</i>

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

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

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

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

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

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

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) ²	Total permits	1	0	10	46	22	19	11	8	8	12	8
	Fished permits	1	0	0	15	2	6	5	5	5	10	7
	% of permits fished	100%	-	0%	33%	9%	32%	45%	63%	63%	83%	88%
	Total permit holders	1	0	10	35	15	14	9	8	8	11	8
Herring (CFEC) ²	Total permits	51	52	52	52	52	52	54	54	54	54	54
	Fished permits	24	17	15	5	0	5	3	0	0	0	0
	% of permits fished	47%	33%	29%	10%	0%	10%	6%	0%	0%	0%	0%
	Total permit holders	54	53	52	53	54	53	54	54	54	54	54

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other Finfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	10	10	11	11	12	12	12	10	10	11	11
	Fished permits	2	0	1	2	1	1	1	0	0	1	1
	% of permits fished	20%	0%	9%	18%	8%	8%	8%	0%	0%	9%	9%
	Total permit holders	11	10	11	11	12	12	12	10	10	11	11
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>62</i>	<i>62</i>	<i>73</i>	<i>109</i>	<i>86</i>	<i>83</i>	<i>77</i>	<i>72</i>	<i>72</i>	<i>77</i>	<i>73</i>
	<i>Fished permits</i>	<i>27</i>	<i>17</i>	<i>16</i>	<i>22</i>	<i>3</i>	<i>12</i>	<i>9</i>	<i>5</i>	<i>5</i>	<i>11</i>	<i>8</i>
	<i>% of permits fished</i>	<i>44%</i>	<i>27%</i>	<i>22%</i>	<i>20%</i>	<i>3%</i>	<i>14%</i>	<i>12%</i>	<i>7%</i>	<i>7%</i>	<i>14%</i>	<i>11%</i>
	<i>Permit holders</i>	<i>63</i>	<i>60</i>	<i>66</i>	<i>82</i>	<i>72</i>	<i>71</i>	<i>67</i>	<i>67</i>	<i>67</i>	<i>71</i>	<i>69</i>

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

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

Table 5. Characteristics of the Commercial Fishing Sector in Hooper 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 Hooper Bay ²	Total Net Pounds Landed in Hooper Bay ^{2,5}	Total Ex-Vessel Value of Landings in Hooper Bay ^{2,5}
2000	84	0	0	34	29	0	0	\$0
2001	8	0	0	25	22	0	0	\$0
2002	50	0	1	32	27	0	0	\$0
2003	17	0	1	43	38	0	0	\$0
2004	7	0	1	24	21	0	0	\$0
2005	6	0	1	18	17	0	0	\$0
2006	11	1	1	15	15	5	-	-
2007	2	1	1	9	10	7	-	-
2008	4	1	1	8	8	10	-	-
2009	6	0	1	11	11	0	0	\$0
2010	6	0	1	16	16	0	0	\$0

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

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

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

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

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

⁵ Totals only represent non-confidential data.

Table 6. Halibut Catch Share Program Participation in Hooper Bay: 2000-2010.

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

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

Table 7. Sablefish Catch Share Program Participation by Residents of Hooper 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 Hooper 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.]

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

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

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

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

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

² Totals only represent non-confidential data.

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

	<i>Total Net Pounds¹</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	1,747	-	2,254	322	3,539	2,187	1,596	6,359
Herring	429,284	144,774	147,293	44,630	-	93,951	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	-	-	-	-	-
<i>Total²</i>	<i>429,284</i>	<i>144,774</i>	<i>147,293</i>	<i>46,377</i>	<i>0</i>	<i>96,205</i>	<i>322</i>	<i>3,539</i>	<i>2,187</i>	<i>1,596</i>	<i>6,359</i>
	<i>Ex-vessel Value (Nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	\$2,184	-	\$4,425	\$1,156	\$15,360	\$9,430	\$3,999	\$20,030
Herring	\$29,749	\$5,067	\$7,070	\$2,410	-	\$4,885	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	-	-	-	-	-	-
<i>Total²</i>	<i>\$29,749</i>	<i>\$5,067</i>	<i>\$7,070</i>	<i>\$4,595</i>	<i>\$0</i>	<i>\$9,311</i>	<i>\$1,156</i>	<i>\$15,360</i>	<i>\$9,430</i>	<i>\$3,999</i>	<i>\$20,030</i>

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

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

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

² Totals only represent non-confidential data.

Recreational Fishing

Between 2000 and 2010, no active sport fish guide businesses or licensed sport fish guides were present in Hooper Bay. In most years during the period, a greater number of sport fishing licenses was sold to Hooper Bay residents than the total number of sport fishing licenses sold in Hooper Bay overall (Table 11). This indicates that sport fishing is not a major tourism draw in the community.

Community leaders echoed this in the 2011 AFSC survey, reporting that minimal sport fishing activity takes place in Hooper Bay. However, community leaders did indicate that halibut is caught recreationally by Hooper Bay fishermen. In addition, the Alaska Statewide Harvest Survey,⁸² conducted by ADF&G between 2000 and 2010, reported sport harvest of Chinook and pink salmon in some years by private anglers. Given the lack of active sport fish guide businesses in Hooper Bay, no kept/released log book data were reported for local fishing charters between 2000 and 2010.⁸³

Hooper Bay is located within Alaska Sport Fishing Survey Area Y – Yukon River Drainage. Information is available about both saltwater and freshwater sport fishing activity at this regional scale. Between 2000 and 2010, saltwater sport fishing activity was minimal, with between 0 and 81 non-Alaska resident angler days fished per year, and between 0 and 89 Alaska resident angler days fished per year. The low numbers reported for saltwater sport fishing make sense given that a majority of residents in Yukon drainage communities live at a great distance from the ocean, and fishing activities take place primarily in fresh water. Between 2000 and 2010, Alaska resident anglers in the Yukon River drainage consistently fished more days in freshwater (4,783 – 10,400 angler days per year) than non-Alaska resident anglers (2,573 – 5,761 angler days per year) (Table 11).

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

Year	Active Sport Fish Guide Businesses¹	Sport Fish Guide Licenses¹	Sport Fishing Licenses Sold to Residents²	Sport Fishing Licenses Sold in Hooper Bay²
2000	0	0	96	81
2001	0	0	99	83
2002	0	0	109	98
2003	0	0	106	105
2004	0	0	110	104
2005	0	0	101	92
2006	0	0	87	85
2007	0	0	94	89
2008	0	0	130	175
2009	0	0	114	113
2010	0	0	130	155

⁸² 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).

⁸³ 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, Hooper Bay: 2000-2010.

Year	Saltwater		Freshwater	
	Angler Days Fished – Non-Residents ³	Angler Days Fished – Alaska Residents ³	Angler Days Fished – Non-Residents ³	Angler Days Fished – Alaska Residents ³
2000	81	45	3,345	7,878
2001	29	14	4,063	6,454
2002	n/a	89	5,761	9,194
2003	n/a	17	3,344	5,756
2004	17	n/a	5,479	7,613
2005	n/a	n/a	4,182	4,783
2006	n/a	n/a	3,607	7,816
2007	n/a	n/a	3,168	8,226
2008	n/a	n/a	2,573	10,400
2009	n/a	n/a	2,969	7,639
2010	n/a	n/a	3,983	5,151

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

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

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

Subsistence Fishing

Subsistence harvest of wild resources is a fundamental part of Hooper Bay's economy and way of life. Subsistence activities take place year-round, and are important both as a food source and for maintaining cultural traditions.⁸⁴ In the 2011 AFSC survey, community leaders reported that the most important subsistence fish species include salmon, cisco, whitefish, and halibut, and important marine mammals species include ringed and bearded seals and beluga whales.

Between 2000 and 2010, no information was reported by ADF&G regarding per capita subsistence harvest in Hooper Bay or the percentage of households utilizing various marine resources for subsistence purposes (Table 12). However, data are available regarding subsistence salmon permits, halibut subsistence harvests and some marine mammal harvests.

From 2000 to 2008, between 193 and 218 Hooper Bay households per year were issued subsistence salmon permits. The coastal subsistence salmon fishery at Hooper Bay primarily targets chum and pink salmon bound for the Yukon River, and also chum salmon bound for

⁸⁴ ASCG Inc. 2004. *Hooper Bay Comprehensive Economic Development Strategy Plan*. Retrieved October 15, 2012 from <http://www.commerce.state.ak.us/dca/plans/HooperBay-EDP-2004.pdf>.

Kotzebue and Norton Sound rivers.⁸⁵ Reported salmon harvest based on returned subsistence salmon permits reflect this focus: chum salmon was the most heavily harvested species, with an average of 11,140 harvested per year, and the next most heavily harvested species was pink salmon (1,746 harvested per year on average). Smaller subsistence harvests of Chinook, coho, and sockeye salmon were also reported for most years during the 2000-2008 period. It is important to note that, in the 2011 AFSC survey, community leaders noted Chinook salmon as a particularly important subsistence resource in Hooper Bay. Table 13 presents further information about subsistence salmon fishing participation, as well as information about marine invertebrate and non-salmon fish subsistence harvest.

Participation in the Subsistence Halibut Registration Certificates (SHARC) program declined substantially in Hooper Bay between 2003 and 2010, from 94 permits issued to residents in 2003 and 2004 to 14 in 2010. The highest volume of halibut was reported harvested in 2005 (3,431 pounds), when 93 SHARC cards were issued and 34 were returned. In 2010, the last year for which data are available in the 2000-2010 period, 2 of the 14 issued permits were fished, and 185 pounds of halibut were harvested. Further information about the subsistence halibut fishery is presented in Table 14.

Some information is also available from management agencies regarding subsistence harvest of marine mammals in Hooper Bay between 2000 and 2010. Based on a NMFS study of beluga whale harvest, Hooper Bay residents were reported to harvest from 3 to 69 beluga whales per year between 2000 and 2006, with an average harvest of 32 during this period. Based on a U.S. Fish and Wildlife Service (FWS) study, the number of walrus harvested in Hooper Bay varied from 1 to 37 per year between 2000 and 2009, with an average harvest of 18. No data are available from the FWS regarding sea otter harvest in Hooper Bay during the 2000-2010 period, and no data are reported in ADF&G's Community Subsistence Information System regarding harvest of harbor seal, spotted seal, or Steller sea lion. Further information about marine mammal harvest in Hooper Bay is presented in Table 15.

Additional information about marine mammal harvest is available from a study conducted in Hooper Bay and nearby coastal communities by ADF&G in 1998. The study found that ringed seal was the most common seal harvested in Hooper Bay, along with bearded seal, and a smaller number of ribbon seal and Steller sea lions. Key respondents reported that seal hunting is best when north or northwesterly winds push sea ice toward shore, bringing seals closer to shore as well. Spring months, as well as September and October, are important seal hunting periods.⁸⁶

⁸⁵ Crawford, Drew L., and Lingnau, Tracy L. 2004. *Hooper Bay Subsistence Salmon Monitoring Project, 2003*. Alaska Dept. of Fish and Game, Regional Information Report No. 3A04-15. Retrieved October 15, 2012 from <http://www.sf.adfg.state.ak.us/fedaidpdfs/RIR.3A.2004.15.pdf>.

⁸⁶ Coffing, Michael, Scott, Cheryl, and Utermohle, Charles. 1988. *The Subsistence Harvest of Seals and Sea Lions by Alaska Natives in Three Communities of the Yukon-Kuskokwim Delta, Alaska, 1997-98*. Alaska Dept. of Fish and Game, Technical Paper No. 255. Retrieved October 16, 2012 from <http://www.subsistence.adfg.state.ak.us/TechPap/tp255.pdf>

Table 12. Subsistence Participation by Household and Species, Hooper 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, Hooper 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	218	47	114	9,256	218	901	n/a	n/a	n/a
2001	213	69	2,150	12,957	439	32	n/a	n/a	n/a
2002	201	63	282	9,824	125	5,475	n/a	n/a	n/a
2003	197	62	722	10,698	244	473	n/a	n/a	n/a
2004	193	77	1,042	3,506	9	5,418	n/a	n/a	n/a
2005	196	67	157	9,772	n/a	860	n/a	n/a	n/a
2006	196	59	376	19,614	175	1,433	n/a	n/a	n/a
2007	196	63	430	12,298	26	113	n/a	n/a	n/a
2008	203	84	388	12,336	66	1,013	8	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, Hooper Bay: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	94	33	788
2004	94	24	1,740
2005	93	34	3,431
2006	89	18	647
2007	89	25	3,304
2008	17	5	1,753
2009	17	11	1,187
2010	14	2	185

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, Hooper 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	39	n/a	29	n/a	n/a	n/a	n/a
2001	69	n/a	22	n/a	n/a	n/a	n/a
2002	46	n/a	37	n/a	n/a	n/a	n/a
2003	8	n/a	10	n/a	n/a	n/a	n/a
2004	3	n/a	6	n/a	n/a	n/a	n/a
2005	29	n/a	17	n/a	n/a	n/a	n/a
2006	33	n/a	4	n/a	n/a	n/a	n/a
2007	73	n/a	5	n/a	n/a	n/a	n/a
2008	13	n/a	1	n/a	n/a	n/a	n/a
2009	26	n/a	4	n/a	n/a	n/a	n/a
2010	25	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.