

Toksook Bay (TOOK-sook or TUCK-sook)



People and Place

*Location*¹

Toksook Bay, also known as Nunakauyak, is one of several villages located on Nelson Island, which lies 115 miles northwest of Bethel. The community is on Kangirlvar Bay, across the water from Nunivak Island. The community of Tununak is about 8 miles to the northwest. Toksook Bay is located in the Bethel Recording District and the Bethel Census Area, but is not located within an organized Borough. The community encompasses 33.1 square miles of land and 40.9 square miles of water.

*Demographic Profile*²

In 2010, there were 590 inhabitants in Toksook Bay, making it the 101st largest of 352 total Alaskan communities with recorded populations that year. Between 2000 and 2009, the population of Toksook Bay grew by 12.03% with an average annual growth rate of 0.73%, indicating a slow rate of growth. The change in population between 1990 and 2010 is presented in Table 1.

Almost all of Toksook Bay residents identified themselves as American Indian and Alaska Native in 2010 (92%). Other ethnic groups present in Toksook Bay in that year included: White (4.4%), two or more races (2%), some other race (1%), Hispanic or Latino (1%), Black or African American (0.3%), and Asian (0.2%). Between 2000 and 2010, the percentage of the population identifying themselves as American Indian and Alaska Native decreased by 2.4%, with another decrease in the percentage of the population identifying themselves as two or more races. During this period there were corresponding increases in the percentage of the population identifying themselves as White, some other race, Asian, Black or African American, and Hispanic or Latino. Changes in racial and ethnic composition between 2000 and 2010 are presented in Figure 1.

The average household size in Toksook Bay in 2010 was 4.72, an increase from 4.7 persons per household in 1990 and a decrease from 5.02 in 2000. The total number of households in Toksook Bay increased from 88 in 1990 to 106 in 2000 to 125 occupied housing units by 2010. Of the 135 housing units surveyed for the 2010 Decennial Census, 79 were owner-occupied, 46 were renter-occupied, and 10 were vacant or used only seasonally. Throughout this period no residents of Toksook Bay were reported to be living in group quarters.

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

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

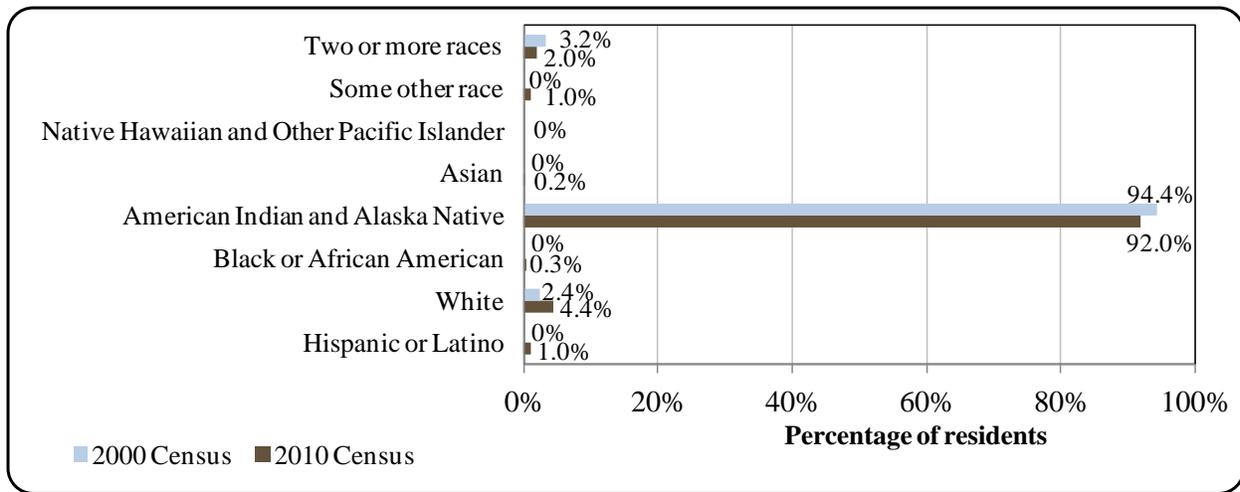
Table 1. Population in Toksook Bay from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	420	-
2000	532	-
2001	-	547
2002	-	549
2003	-	571
2004	-	563
2005	-	596
2006	-	601
2007	-	608
2008	-	603
2009	-	596
2010	590	-

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>.

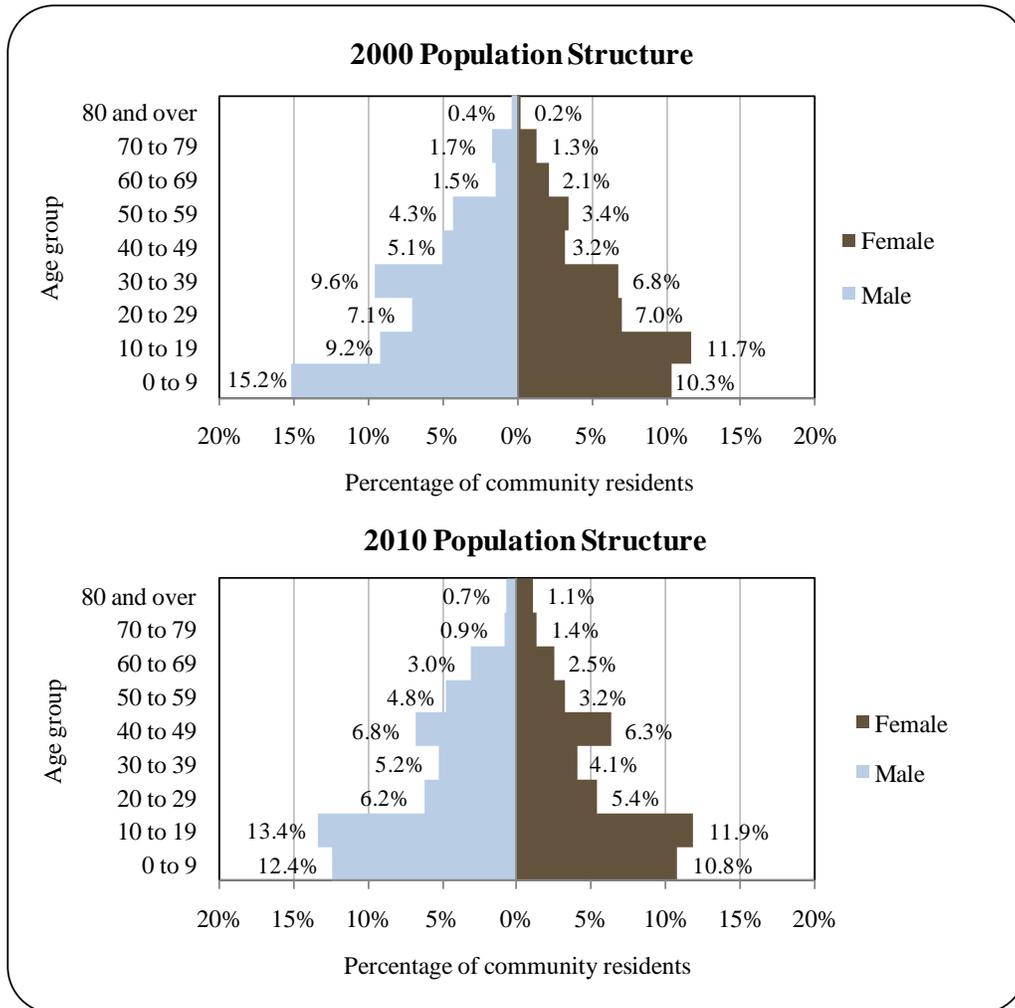
² Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from <http://labor.alaska.gov/research/pop/popest.htm>.

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



In 2010, the gender makeup in Toksook Bay was 53.4% male and 46.6% female, slightly more skewed than the state as a whole (52% male, 48% female). The median age was estimated to be 21.1 years, lower than both the U.S. national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, the largest percentage of the population fell within the age category 0-19 years old, with the next largest percentage falling in the age category 30-49 years old. Relatively few individuals were age 70 or older in 2010. The overall population structure of Toksook Bay in 2000 and 2010 is shown in Figure 2.

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



According to the 2006-10 American Community Survey,³ in terms of educational attainment, 68.3% of Toksook Bay residents aged 25 and over were estimated to hold a high school diploma or higher degree in 2010, compared to 90.7% of Alaska residents overall. Also in 2010, 26.7% of residents aged 25 and older were estimated to have less than a ninth grade education, compared to 3.5% of Alaska residents overall; 5% were estimated to have a ninth to 12th grade education but no diploma, compared to 5.8% of Alaska residents overall; 31.7% were estimated to have a high school diploma or equivalent, compared to 27.4% of Alaska residents overall; 23.3% were estimated to have some college but no degree, compared to 28.3% of Alaska residents overall; 3.4% were estimated to have an Associate’s degree, compared to 8% of Alaska residents overall; 3.7% were estimated to have a Bachelor’s degree, compared to 17.4% of

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

Alaska residents overall; and 6.3% were estimated to have a graduate or professional degree, compared to 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture^{4,5}

The Nelson Island area has been inhabited and utilized by Yup'iks for thousands of years. Contact was first made with Russian fur traders in the Nushagak area in 1818. Toksook Bay was established in 1964 along the Tuqsuk River by residents of Nightmute. Cyril Chanar, Tom Sunny, and Nasgauq Tangaq were the earliest inhabitants. Toksook Bay was settled to be more accessible to the annual freighter ship, the North Star. The city was incorporated in 1972. Today, Toksook Bay is a traditional Yup'ik Eskimo community with a reliance on fishing and subsistence activities. The sale and importation of alcohol is banned in the village. Yup'ik is the primary language spoken in Toksook Bay, with English as secondary.

Natural Resources and Environment

Toksook Bay is located in a marine climate. Annual precipitation averages 22 inches, with 43 inches of snowfall. Summer temperatures range from 41 to 57 °F (5 to 13.9 °C), and winter temperatures run 6 to 24 °F (-14.4 to -4.4 °C).⁶

Toksook Bay is located on Nelson Island, the second largest island within the Yukon Delta National Wildlife Refuge (Refuge). The southern portion of the island, where Toksook Bay is located, is low-lying and covered with small lakes and streams. The northern portion of the island hosts more rugged terrain, with several peaks over 1,300 feet in elevation. The Bering Sea coast along the Yukon-Kuskokwim River delta is characterized by sandy beaches that merge into active sand dunes greater than 100 feet in height. The dunes are particularly susceptible to erosion.⁷

The Refuge 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.” Refuge lands are open to sport and subsistence hunting and fishing. The most productive wildlife habitat is the coastal region between Nelson Island and the Askinuk Mountains to the north.⁸

Natural hazards that have been identified to be present in the Bethel Census Area include flooding, earthquakes, and severe weather.⁹ Communities in the region are also suffering from severe erosion of both riverbanks and coastal shorelines, and are susceptible to tundra fires.^{10,11}

⁴ 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.

⁵ Rural Alaska Community Action Program. (2008). *Toksook Bay Community Plan*. Retrieved July 11, 2012 from: <http://www.commerce.state.ak.us/dca/plans/ToksookBay-CP-2008.pdf>.

⁶ Ibid.

⁷ U.S. Fish and Wildlife Service. 2011. Yukon Delta National Wildlife Refuge website. Retrieved December 8, 2011 from <http://yukondelta.fws.gov/>.

⁸ Ibid.

⁹ State of Alaska. 2002. *Hazard Mitigation Plan*. Retrieved February 8, 2012 from <http://biotech.law.lsu.edu/blaw/DOD/manual/.%5CFull%20text%20documents%5CState%20Authorities%5CAla.%20SHMP.pdf>.

Current Economy¹²

Commercial fishing and the school, city, and tribal council are the primary income producers. Subsistence activities supplement income and provide essential food sources. In 2010, 77 residents held commercial fishing permits for herring roe and salmon net fisheries. Coastal Villages Seafood, Inc., processes halibut and salmon in Toksook.¹³ Top employers in 2010¹⁴ included Nunakuiak Yup'ik Corp., Lower Kuskokwim School District, Nunakuyak Traditional Council, Coastal Villages Seafoods Inc., AVCP Housing Authority, Yukon Kuskokwim Health Corp. 90, City of Toksook Bay, Bayview General Merchandise, Coastal Villages Region Fund, and Association of Village Council Presidents.

In 2010, per capita income in Toksook Bay was estimated to be \$15,326 and the median household income was estimated to be \$53,750, compared to \$8,761 and \$30,208 in 2000, respectively. Taking inflation into account by converting the 2000 values to 2010 dollars,¹⁵ the real per capita income in 2000 is shown to have been \$11,521 and the real 2000 median household income was \$39,723. This shows that there was a real increase in both per capita and median household income during this period. In 2010, Toksook Bay ranked 201st of 305 Alaskan communities with per capita income that year, and 110th of 299 Alaskan communities with household income data. However, Toksook Bay's small population size may have prevented the American Community Survey from accurately portraying economic conditions.¹⁶ 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, the per capita income in Toksook Bay in 2010 was \$7,463, which indicates an overall decrease compared to the real per capita income values reported by the U.S. Census in 2000. This is supported by the fact that the community was recognized as "distressed" by the Denali Commission indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010.¹⁷ However, it should be noted that American Community Survey and DOLWD data are based on wage earnings and does not take into account the value of subsistence within the local economy.

Based on the 2006-2010 American Community Survey, in the same year, 63.4% 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 21.7%, compared to the statewide unemployment rate of 5.9%. Approximately 13% of local residents were living below the

¹⁰ Climate Adaptation Knowledge Exchange (CAKE). 2011. Relocating the Village of Newtok, Alaska due to Coastal Erosion. Retrieved January 19, 2012 from <http://www.cakex.org>.

¹¹ Village of Newtok, Alaska. March 12, 2008. Local Hazards Mitigation Plan. Retrieved January 19, 2012 from http://www.dced.state.ak.us/dca/planning/pub/Newtok_HMP.pdf.

¹² Unless otherwise noted, all monetary data are reported in nominal values.

¹³ See footnote 4.

¹⁴ 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/>.

¹⁵ 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>).

¹⁶ See footnote 3.

¹⁷ Denali Commission. 2011. Distressed Community Criteria 2011 Update. Retrieved April 16, 2012 from: www.denali.gov.

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 Toksook Bay are not reflective of the value of subsistence to the local economy. In addition, these unemployment and poverty statistics are likely inaccurate given the small population of Toksook Bay. A more accurate estimate is based on the ALARI database, which indicates that the unemployment rate in 2010 was 20.3%.

Based on household surveys conducted for the 2006-2010 American Community Survey, the greatest percentage of workers was employed in the public sector (57%), while 35.1% were employed in the private sector, 4.1% were self-employed, and 3.7% were unpaid family workers. Out of 242 people aged 16 and over that were estimated to be employed in the civilian labor force in 2010, the greatest percentage worked in educational services, health care, and social assistance (40.2%), public administration (18.9%), and retail trade (18.5%). Smaller percentages of the workforce were employed in other services except public administration (5.8%), arts, entertainment, recreation, accommodation, and food service (4.6%), information (1.2%), transportation, warehousing, and utilities (6.2%), and construction (4.6%). No individuals indicated that they work in natural resource based industries or occupations 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 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.

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

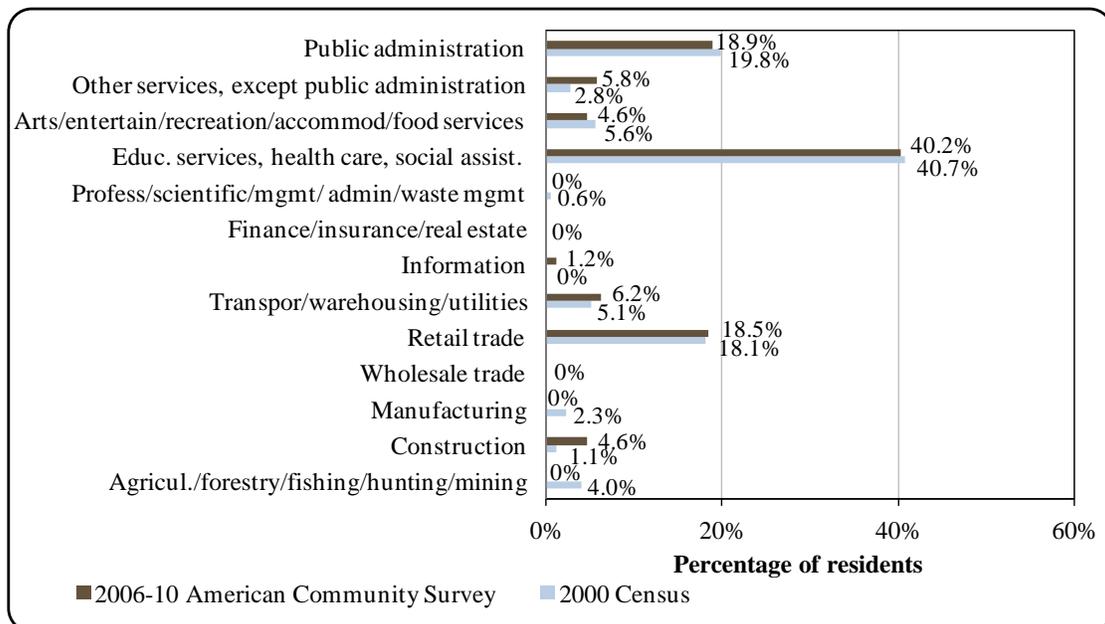
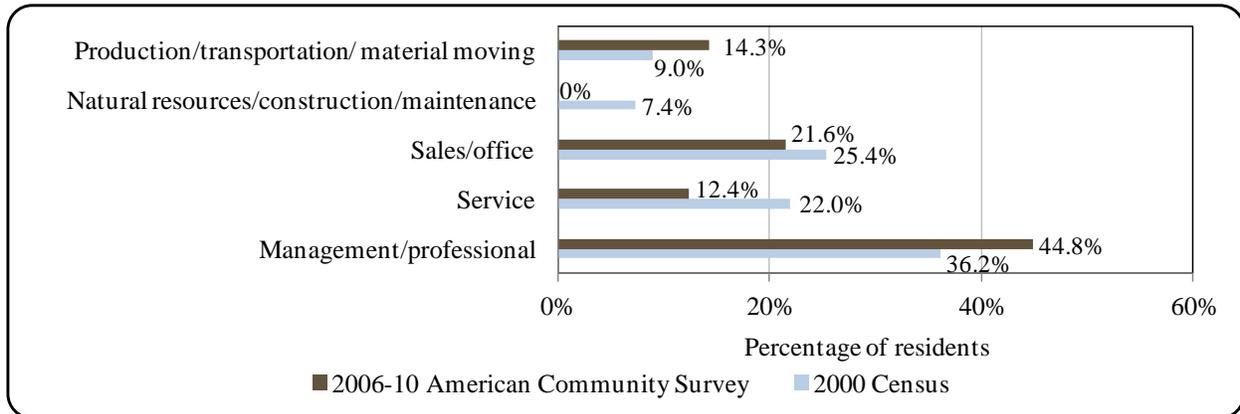


Figure 4. Local Employment by Occupation in 2000-2010, Toksook Bay (U.S. Census).



Governance

Toksook Bay administers a 2% sales tax. With the exception of 2006, municipal revenue figures for 2000 through 2010 were taken from *Community Financial Statements* (CFS).¹⁸ In that year, no CFS was available. When adjusted for inflation,¹⁹ total municipal revenues increased by 7.1% between 2000 and 2010 from \$656,785, to \$909,555. In 2010, locally generated funds accounted for 77.2% of the total municipal budget. Most (64.3%) locally generated revenues came from enterprise services including gaming (\$374,658), and utilities (\$76,789); followed by contracted services (9.0%); and sales tax revenues (5.9%). “Other” contributions accounted for 18.2% of locally generated revenues. Most (61.0%) outside revenues were collected from state allocated Community Revenue Sharing. Payments in lieu of taxes accounted for the remainder of outside revenues. Overall, sales tax revenues accounted for 4.6% of total municipal revenues in 2010, compared to 4.3% in 2000. Also in that year, Community Revenue Sharing accounted for 13.8% of total municipal revenues, compared to 4.1% from State Revenue Sharing in 2000. In addition, Toksook Bay received two fisheries-related grants between 2000 and 2010 for a seawall and trash bins. Information about selected aspects of Toksook Bay’s community revenue is presented in Table 2.

Toksook Bay is a Second-class city that is not located within an organized borough. In addition, 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 Nunakuiak Yup’ik Corporation. The regional native corporation to which Toksook Bay belongs is the Calista Corporation. The region Calista Corporation serves is a vast and beautiful corner of the world. Tucked between two of Southwest Alaska’s mightiest rivers – the Yukon and the Kuskokwim – this unique isolated area is the traditional home of the state’s indigenous Yup’ik, Cup’ik and Athabascan people, Calista Corporation’s shareholders. The Calista Region encompasses 57,000 square miles and is the second largest ANCSA region in land size. The land entitlement to Calista, however, is only 6.5 million acres - less than 20 % of the land area. Approximately 75 % of the land within the

¹⁸ 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.

¹⁹ Inflation calculated using Anchorage CPI from Alaska DOL: <http://labor.alaska.gov/research/cpi/cpi.htm>.

Region is owned by the U.S. Fish and Wildlife Service. Most of the remaining lands are owned by federal and state governments, with a very small amount privately owned. Surrounded by mostly federally owned lands, the Region is about the size of New York State. It encompasses nearly 10 % of Alaska’s land area and is comprised of 56 federally recognized tribes. There are no roads that connect the region with the rest of Alaska. Because everything must be flown or barged to each community, the cost of food, fuel, transportation and energy are extraordinarily high. Calista Corporation works hard and partners with many to improve and enrich the way of life for its Shareholders and Descendants.²⁰

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

Year	Total Municipal Revenue¹	Sales Tax Revenue²	State/Community Revenue Sharing^{3,4}	Fisheries-Related Grants (State and Federal)⁵
2000	\$656,785	\$28,065	\$26,943	\$44,000
2001	\$489,872	\$23,689	\$25,543	\$9,227
2002	\$656,822	\$22,963	\$25,546	n/a
2003	\$564,011	\$22,365	\$25,745	n/a
2004	\$749,704	\$30,000	-	n/a
2005	\$465,635	\$24,182	-	n/a
2006	\$903,542	\$37,566	-	n/a
2007	\$613,446	\$45,421	-	n/a
2008	\$749,821	\$37,013	-	n/a
2009	\$925,222	\$44,979	\$126,864	n/a
2010	\$909,555	\$41,428	\$125,890	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.

The nearest offices of Alaska Department of Fish and Game (ADF&G) and Alaska Department of Commerce, Community and Economic Development are located in Bethel. 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 (DNR), Bureau of Citizenship and Immigration Services, and U.S. Immigration and Customs Enforcement offices are located in Anchorage.

²⁰ Calista Corporation (2011). *Shareholder Overview: Our History*. Retrieved on May 11, 2012 from <http://www.calistacorp.com/shareholders/shareholder-overview>.

Infrastructure

Connectivity and Transportation

A state-owned 3,218 foot long by 60 foot wide gravel airstrip provides year-round scheduled and chartered service. Fishing boats, skiffs, snowmobiles, and all-terrain vehicles (ATVs) are used by residents for local travel. Winter trails with markers exist to Nightmute (20 miles), Tununak (8 miles), Newtok (40 miles), and Chefnak (50 miles). There are no docking facilities, but boat haul-out services are available. Barges deliver goods during the summer months.²¹ The cost of round-trip airfare between Toksook Bay and Anchorage in June 2012 was \$756.²²

*Facilities*²³

Water is derived from a well and infiltration gallery and is treated and stored in a 212,000-gallon tank, then piped throughout the community. A gravity piped sewer system also serves most households. Most occupied homes have complete plumbing. However, several homes have failed plumbing and haul water and honeybuckets. The city collects refuse and maintains the unpermitted landfill. The traditional council operates the washeteria.

Law enforcement services are provided by a Village Public Safety Officer, tribal police officers, and state troopers located in Bethel, which is approximately 105 miles away. Fire and rescue services are provided by the state/city Village Public Safety Officer and volunteer fire department. The city hall houses a multi-purposes community facility, and the Yukon-Kuskokwim Health Corporation provides home care to some local elders. There is also a school library in Toksook Bay.

*Medical Services*²⁴

Medical care is provided by the Toksook Bay Subregional Clinic, which is owned by the Village Council and operated by the Yukon Kuskokwim Health Corporation. The clinic is a Community Health Aid Program site. Emergency services have coastal and air access and are provided by a health aide. The nearest Acute Care Facility and Emergency Care Center is located in Bethel.

²¹ 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.

²² Airfare was calculated 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.

²³ 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.

²⁴ Ibid.

Educational Opportunities

The Nelson Island Area School provides instruction to students from pre-school through 12th grade. In 2011 the school had 225 students and 13 teachers.²⁵ Toksook Bay is also a Head Start site.²⁶

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Toksook Bay is located on Nelson Island and is on Kangirivar Bay, across the water from Nunivak Island.²⁷ The area is located in Federal Statistical and Reporting Area 514, Pacific Halibut Fishery Regulatory Area 4E, and the Bering Sea Sablefish Regulatory Area. Toksook Bay participates in the Community Development Quota (CDQ) program through the Coastal Villages Region Fund (CVRF). 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.²⁸ 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 508, International Pacific Halibut Commission (IPHC) Regulatory Area 4E, and the Bering Sea Sablefish Regulatory District. The mission of CVRF is to provide the means for development of its member communities by sensibly creating tangible, long-term opportunities for all residents who want to fish and work. On behalf of the 20 member communities, CVRF has grown to be the largest seafood owner/operator headquartered in Alaska. CVRF is now able to take a broader and more balanced approach to managing the Kuskokwim Delta and Bering Sea seafood resources. For its residents, CVRF must continue to protect its fisheries and its investments in these fisheries, grow in a strategic and sustainable manner, and remain adaptable to take advantage of all positive opportunities. CVRF's investments in the Bering Sea, particularly the pollock fishery, enables CVRF to provide fishing opportunities in salmon, halibut, and herring in the region.²⁹

In 2003, a halibut processing plant was built and a Fisheries Support Center was constructed in 2006. Coastal Villages Seafoods, a CVRF subsidiary, hired 36 residents of Toksook Bay in 2007. In that year, Toksook Bay was the second top producing halibut plant in Alaska. Halibut, herring, salmon, and numerous mammals including seal and musk-ox are

²⁵ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

²⁶ Rural Alaska Community Action Program (2010). *2010 Annual Report*. Retrieved December 20, 2011 from www.ruralcap.com.

²⁷ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

²⁸ 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.

²⁹ Coastal Villages Region Fund. 2010. CVRF: Who We Are. Retrieved on May 11, 2012 from <http://www.coastalvillages.org/>.

harvested for subsistence purposes. The nearby community of Nightmute maintains historical subsistence fish camps on the edges of Toksook Bay.³⁰

Processing Plants

According to ADF&G's 2010 Intent to Operate list, there was one processing plant operating in Toksook Bay in 2010. The Coastal Villages Seafoods, LLC fish processing plant in Toksook Bay is a CDQ operation, a subsidiary of the CVRF. The Toksook Bay facility processes halibut in June and July. CVRF maintains a local community service center that helps 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.³¹

Fisheries-Related Revenue

Between 2000 and 2010, Toksook Bay received fisheries-related revenue from the raw fish tax and the Shared Fisheries Business Tax. Amounts of revenue received from these sources varied widely from year to year. In all years except 2000 and 2010, the total revenue received from fisheries-related sources was minimal compared to total municipal revenue.³² Information on known fisheries-related revenue received by Toksook Bay between 2000 and 2010 is presented in Table 3.

Commercial Fishing

In 2010, Toksook Bay ranked 54th in landings and 52nd in ex-vessel value out of 67 communities that received commercial fisheries landings. That year, the total amount of pounds landed and the associated ex-vessel value was considered confidential due to a small number of participants.

A total of 87 Toksook Bay residents held 114 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC) for other shellfish, halibut, herring, groundfish, and salmon. Of these, 42 permits were reported as fished, the majority in the halibut fishery. The majority of halibut CFEC permits issued in 2010 were for the statewide longline fishery using vessels under 60 feet, with the remainder issued for the statewide hand troll fishery and the statewide mechanical jig fishery. Overall between 2000 and 2010, the number of CFEC permits, permit holders, and permits reported as fished has decreased. While there were 61 herring permits and one groundfish permit in 2010, none of those permits were reported as fished in that year. Nearly all the herring CFEC permits issued in 2010 were for the Nelson Island gill net fishery, with the remainder issued for the Nunivak Island gill net fishery. The groundfish CFEC permit was issued for the statewide miscellaneous saltwater finfish longline fishery using vessels under 60 feet. For both the halibut and salmon CFEC fisheries, the number of permits, permits held, and permits reported as fished decreased between 2000 and 2010. Salmon CFEC

³⁰ Rural Alaska Community Action Program. (2008). *Toksook Bay Community Plan*. Retrieved July 11, 2012 from: <http://www.commerce.state.ak.us/dca/plans/ToksookBay-CP-2008.pdf>.

³¹ Coastal Villages Seafoods. (n.d.). Company website. Retrieved April 15, 2012 from <http://coastalvillages.org/>.

³² 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.

permits issued in 2010 were for the Bristol Bay drift gill net fishery. There was one Federal Fisheries Permit held in Toksook Bay in both 2009 and 2010, though that permit was not reported as fished. Information on permits and permit holders by species between 2000 and 2010 is presented in Table 4.

The number of crew license holders in Toksook Bay varied between 19 and 82 between 2000 and 2010, with 33 crew license holders in 2010. During this period, the number of fish buyers in Toksook Bay varied between one and five, with one fish buyer in Toksook Bay in 2010. Throughout this period, there has been one shore-side processing facility located in Toksook Bay. Both the number of commercial fishing vessels owned by community residents and the number of vessels homeported in the community decreased between 2000 and 2010. The number of vessels landing catch in Toksook Bay varied between 2000 and 2010, but decreased overall during this period. The total net pounds landed in Toksook Bay and the ex-vessel value of those landings was considered confidential between 2000 and 2010 due to a small number of participants, with the exception of landings and ex-vessel value in 2003 and 2004. Both landings and ex-vessel value were more than twice as large in 2003 as they were in 2004. Information on characteristics of the commercial fishing sector in Toksook Bay between 2000 and 2010 is presented in Table 5.

Between 2000 and 2010, an average of 49,545 halibut quota shares were held by residents of Toksook Bay; however, there was no Individual Fishing Quota (IFQ) allotment associated with those shares during this period. Information on halibut quota and IFQ between 2000 and 2010 is presented in Table 6. There were no sablefish quota shares held between 2000 and 2010 (Table 7) and no crab quota shares held between 2005 and 2010 (Table 8) in Toksook Bay.

As stated previously, information on landed pounds and ex-vessel revenue in Toksook Bay between 2000 and 2010 is considered confidential for all species in all years with the exception of crab between 2000 and 2010 (though there were no landings of crab recorded during this period) and halibut in 2003 and 2004. Information on landed pounds and ex-vessel revenue by species in Toksook Bay between 2000 and 2010 is presented in Table 9. Landings recorded by Toksook Bay residents are also considered confidential during this period with the exception of halibut and salmon between 2000 and 2010 and herring between 2000 and 2006. Landings and ex-vessel revenue of all three species were variable during this period. Information on landed pounds and ex-vessel revenue by community residents between 2000 and 2010 is presented in Table 10.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a	n/a	\$115	\$150	\$3,000	n/a	\$3,000	n/a	n/a	n/a	n/a
Shared Fisheries Business Tax ¹	\$5,116	\$1,717	\$1,779	\$4,357	\$1,123	\$1,567	\$983	\$2,325	\$4,166	\$7,105	\$121
Fisheries Resource Landing Tax ¹	n/a										
Fuel transfer tax ²	n/a										
Extraterritorial fish tax ²	n/a										
Bulk fuel transfers ¹	n/a										
Boat hauls ²	n/a										
Harbor usage ²	n/a										
Port/dock usage ²	n/a										
Fishing gear storage on public land ³	n/a										
Marine fuel sales tax ³	n/a										
Total fisheries-related revenue⁴	\$5,116	\$1,717	\$1,894	\$4,507	\$4,123	\$1,567	\$3,983	\$2,325	\$4,166	\$7,105	\$121
Total municipal revenue⁵	\$656,785	\$489,872	\$656,822	\$564,011	\$749,704	\$465,635	\$903,542	\$613,446	\$749,821	\$925,222	\$909,555

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.

NOAA-TM-AFSC-259 – Volume 10
Community Profiles for North Pacific Fisheries – Alaska: Toksook Bay

Table 4. Permits and Permit Holders by Species, Toksook 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	1	1
	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	0	0	1	1
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	1	1	0	0	0
	Fished permits	0	0	0	0	0	0	1	1	0	0	0
	% of permits fished	-	-	-	-	-	-	100%	100%	-	-	-
	Total permit holders	0	0	0	0	0	0	1	1	0	0	0
Halibut (CFEC) ²	Total permits	69	71	67	53	44	45	42	59	47	44	42
	Fished permits	53	58	45	47	24	35	34	47	36	36	33
	% of permits fished	77%	82%	67%	89%	55%	78%	81%	80%	77%	82%	79%
	Total permit holders	57	62	56	46	40	42	40	53	44	41	41
Herring (CFEC) ²	Total permits	68	62	59	56	55	53	57	58	58	61	61
	Fished permits	36	21	23	16	17	17	10	0	0	0	0
	% of permits fished	53%	34%	39%	29%	31%	32%	18%	%	%	%	%
	Total permit holders	65	62	59	55	55	55	56	56	57	62	60

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) ²	Total permits	2	2	2	2	2	2	1	1	1	1	1
	Fished permits	0	0	0	0	1	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%
	Total permit holders	2	2	2	2	2	2	1	1	1	1	1
Other Finfish (CFEC) ²	Total permits	1	1	1	1	1	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%	0%	0%	-	-	-	-	-	-
	Total permit holders	1	1	1	1	1	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	15	14	15	14	14	12	13	12	12	10	10
	Fished permits	14	12	7	8	10	10	11	10	10	8	9
	% of permits fished	93%	86%	47%	57%	71%	83%	85%	83%	83%	80%	90%
	Total permit holders	16	16	15	15	15	13	15	13	12	11	10
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>155</i>	<i>150</i>	<i>144</i>	<i>126</i>	<i>116</i>	<i>112</i>	<i>114</i>	<i>131</i>	<i>118</i>	<i>116</i>	<i>114</i>
	<i>Fished permits</i>	<i>103</i>	<i>91</i>	<i>75</i>	<i>71</i>	<i>52</i>	<i>62</i>	<i>56</i>	<i>58</i>	<i>46</i>	<i>44</i>	<i>42</i>
	<i>% of permits fished</i>	<i>66%</i>	<i>61%</i>	<i>52%</i>	<i>56%</i>	<i>45%</i>	<i>55%</i>	<i>49%</i>	<i>44%</i>	<i>39%</i>	<i>38%</i>	<i>37%</i>
	<i>Permit holders</i>	<i>96</i>	<i>99</i>	<i>92</i>	<i>78</i>	<i>79</i>	<i>79</i>	<i>82</i>	<i>89</i>	<i>85</i>	<i>87</i>	<i>87</i>

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

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

Table 5. Characteristics of the Commercial Fishing Sector in Toksook 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 Toksook Bay ²	Total Net Pounds Landed in Toksook Bay ^{2,5}	Total Ex-Vessel Value of Landings in Toksook Bay ^{2,5}
2000	82	3	1	88	81	108	--	--
2001	58	2	1	85	78	104	--	--
2002	45	2	1	79	72	87	--	--
2003	36	4	1	71	65	116	99,082	\$124,215
2004	41	5	1	65	57	67	43,578	\$53,652
2005	47	3	1	69	60	79	--	--
2006	44	2	1	61	55	82	--	--
2007	29	2	1	68	59	117	--	--
2008	19	2	1	65	54	85	--	--
2009	20	1	1	53	48	40	--	--
2010	33	1	1	56	53	43	--	--

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 in Toksook Bay: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (Pounds)
2000	0	47,054	0
2001	0	48,829	0
2002	0	49,901	0
2003	0	49,901	0
2004	0	49,901	0
2005	0	49,901	0
2006	0	49,901	0
2007	0	49,901	0
2008	0	49,901	0
2009	0	49,901	0
2010	0	49,901	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 Toksook 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 Toksook 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.]

NOAA-TM-AFSC-259 – Volume 10
Community Profiles for North Pacific Fisheries – Alaska: Toksook Bay

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

	<i>Total Net Pounds¹</i>										
	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	--	--	--	99,082	43,578	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total²</i>	0	0	0	99,082	43,578	0	0	0	0	0	0
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	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	--	--	--	\$124,215	\$53,652	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total²</i>	\$0	\$0	\$0	\$124,215	\$53,652	\$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.

NOAA-TM-AFSC-259 – Volume 10
Community Profiles for North Pacific Fisheries – Alaska: Toksook Bay

Table 10. Landed Pounds and Ex-vessel Revenue, by Species, by Toksook 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	43,450	85,631	46,776	52,281	15,012	53,761	73,420	101,153	106,869	113,864	118,755
Herring	492,876	670,409	893,109	633,933	856,559	764,526	226,538	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	643,731	491,826	183,866	457,196	635,102	694,857	579,433	655,459	623,947	567,140	596,935
<i>Total²</i>	<i>1,180,057</i>	<i>1,247,866</i>	<i>1,123,751</i>	<i>1,143,410</i>	<i>1,506,673</i>	<i>1,513,144</i>	<i>879,391</i>	<i>756,612</i>	<i>730,816</i>	<i>681,004</i>	<i>715,690</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	\$54,340	\$105,650	\$93,673	\$65,521	\$18,521	\$115,744	\$274,375	\$434,342	\$438,710	\$250,632	\$373,869
Herring	\$48,626	\$33,520	\$46,442	\$34,232	\$90,795	\$40,520	\$12,686	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	\$423,532	\$191,408	\$81,811	\$213,220	\$302,883	\$388,180	\$350,626	\$406,817	\$440,034	\$421,433	\$541,355
<i>Total²</i>	<i>\$526,498</i>	<i>\$330,578</i>	<i>\$221,926</i>	<i>\$312,973</i>	<i>\$412,199</i>	<i>\$544,444</i>	<i>\$637,688</i>	<i>\$841,158</i>	<i>\$878,744</i>	<i>\$672,065</i>	<i>\$915,224</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

There were no Toksook Bay residents holding sport fish guide licenses or active sport fish guide business in Toksook Bay between 2000 and 2010. In 2010, there were 82 sportfishing licenses sold to Toksook Bay residents (irrespective of the location of the point of sale), representing 13.8% of the population, an increase from 16 licenses sold in 2000. In most years between 2000 and 2010, the number of sportfishing licenses sold in the community was greater than the number of licenses sold to community residents, indicating the potential that visitors to Toksook Bay pursue recreational fishing activities.

The Alaska Statewide Harvest Survey,³³ conducted by ADF&G between 2000 and 2010, did not provide information about species targeted by private anglers in Toksook Bay. In addition, since no sportfishing businesses were present in town, no kept/released log book data were reported for fishing charters out of Toksook Bay between 2000 and 2010.³⁴ However, information is available about both saltwater and freshwater sportfishing activity at a regional scale. Toksook Bay is located within Alaska Sport Fishing Survey Area V – Kuskokwim River and Bay Drainages. Between 2000 and 2010, saltwater sportfishing activity in this region was minimal, with between 0 and 28 non-Alaska resident angler days fished per year, and between zero and 108 Alaska resident angler days fished per year. A majority of sportfishing activity occurred in freshwater, with non-Alaska resident anglers fishing consistently more angler days (12,624 – 17,582 angler days per year) than Alaska resident anglers (5,166 – 9,152 angler days per year). This information about the sportfishing sector in and near Toksook Bay is displayed in Table 11.

Table 11. Sport Fishing Trends, Toksook 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 Toksook Bay ²
2000	0	0	16	34
2001	0	0	25	43
2002	0	0	35	73
2003	0	0	43	31
2004	0	0	46	51
2005	0	0	39	34
2006	0	0	44	64
2007	0	0	41	53
2008	0	0	52	66
2009	0	0	84	96
2010	0	0	82	134

³³ 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).

³⁴ 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, Toksook Bay: 2000-2010.

Year	Saltwater		Freshwater	
	Angler Days Fished – Non-Residents ³	Angler Days Fished – Alaska Residents ³	Angler Days Fished – Non-Residents ³	Angler Days Fished – Alaska Residents ³
2000	27	13	13,388	6,602
2001	0	0	16,437	4,236
2002	0	0	14,583	6,062
2003	28	63	16,923	7,355
2004	0	15	16,239	9,152
2005	19	18	13,725	5,685
2006	0	0	14,773	7,616
2007	0	0	13,390	7,816
2008	0	108	17,582	8,172
2009	0	0	12,625	5,166
2010	0	0	14,033	5,422

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

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

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

Subsistence Fishing

Toksook Bay is a traditional Yup'ik Eskimo community with a reliance on fishing and subsistence activities. Subsistence activities supplement income and provide essential food sources.³⁵ Data were not reported between 2000 and 2010 for subsistence participation by household and species or per capita subsistence harvest (Table 12).

In years for which data were reported between 2000 and 2010, an average of 121 subsistence salmon permits was issued to Toksook Bay households, with an average of 21 permits returned each year. Chum salmon were the primary species harvested for subsistence (an average of 553 chum per year), along with several hundred Chinook, coho, pink, and sockeye salmon each year (Table 13). Data were not reported during this period for subsistence harvest of marine invertebrates or non-salmon fish (not including halibut).

Between 2003 and 2010, the number of Subsistence Halibut Registration Certificate (SHARC) cards issued to Toksook Bay residents decreased substantially, from an average of 530 per year between 2003 and 2007 to an average of 33 in 2008 and 2010. The number of permits fished each year varied significantly between 2000 and 2010, from 9 to 206 in any given year. In

³⁵ 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.

2010, 32 SHARC were issued, 10 were fished, and 1,250 pounds of halibut were reported as harvested. This is a large decline from 2003, when 532 SHARC were issued, 54 were fished, and 24,500 pounds of halibut were reported as harvested. Information about subsistence halibut harvest is presented in Table 14.

Information about subsistence harvest of marine mammals was reported between 2000 and 2010. In those years, beluga whales and walrus were among the marine mammals harvested by Toksook Bay residents. This is of note as Toksook Bay is one of only a few communities where walrus are reported to be harvested. In terms of marine mammal harvests, an estimated 49 beluga whales and 38 walrus were harvested between 2000 and 2010. While walrus harvests were spread out over the years, beluga harvests were concentrated on 2007, when 20 were harvested (Table 15). Finally, the ADF&G Division of Subsistence reported that herring (food and sac roe) are harvested or used for subsistence in Toksook Bay.³⁶

Table 12. Subsistence Participation by Household and Species, Toksook 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).

³⁶ 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, Toksook 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	132	11	58	217	112	n/a	253	n/a	n/a
2001	132	3	130	234	16	n/a	12	n/a	n/a
2002	136	8	54	657	74	n/a	32	n/a	n/a
2003	136	3	51	133	58	n/a	n/a	n/a	n/a
2004	115	70	327	938	661	n/a	359	n/a	n/a
2005	115	1	8	27	11	n/a	5	n/a	n/a
2006	106	70	667	2,092	365	376	1,438	n/a	n/a
2007	106	1	16	125	n/a	4	5	n/a	n/a
2008	114	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, Toksook Bay: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	532	54	24,500
2004	529	56	8,794
2005	522	206	14,842
2006	533	113	36,481
2007	533	112	7,921
2008	34	9	2,143
2009	33	10	1,055
2010	32	10	1,250

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, Toksook Bay: 2000-2010.

Year	# of Beluga Whales ¹	# of Sea Otters ²	# of Walrus ²	# of Polar Bears ²	# of Steller Sea Lions ³	# of Harbor Seals ³	# of Spotted Seals ³
2000	n/a	n/a	10	n/a	n/a	n/a	n/a
2001	n/a	n/a	5	n/a	n/a	n/a	n/a
2002	3	n/a	4	n/a	n/a	n/a	n/a
2003	n/a	n/a	2	n/a	n/a	n/a	n/a
2004	n/a	n/a	9	n/a	n/a	n/a	n/a
2005	n/a	n/a	2	n/a	n/a	n/a	n/a
2006	8	n/a	3	n/a	n/a	n/a	n/a
2007	20	n/a	3	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	5	n/a	n/a	n/a	n/a	n/a	n/a
2010	13	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.