

## **Nunapitchuk (*noo-nah-PIT-chuck*; a.k.a. *Akolmiut*)**



### **People and Place**

#### *Location*<sup>1</sup>

Nunapitchuk is located on both banks of the Johnson River, 22 miles northwest of Bethel in the Yukon-Kuskokwim Delta. Nunapitchuk is in the Bethel Recording District and Bethel Census Area. The City encompasses 7.9 square miles of land and 0.7 square miles of water.

#### *Demographic Profile*<sup>2</sup>

In 2010, there were 496 inhabitants in Nunapitchuk, making it the 119<sup>th</sup> largest of 352 total Alaskan communities with recorded populations that year. The community first appeared in U.S. Census records in 1920 with 134 inhabitants. Overall between 1990 and 2010, the population of Nunapitchuk increased by 31.2%. According to Alaska Department of Labor population estimates, between 2000 and 2009, the population of permanent residents increased by 15.7%, with an average annual growth rate of 1.33%. In 2010, a majority of Nunapitchuk residents identified themselves as American Indian and Alaska Native (95.8%), while 2.4% identified as White, and 1.8% identified with two or more races. The change in population from 1990 to 2010 is provided in Table 1 below, and changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

In 2010, the average household size in Nunapitchuk was 4.0, a slight decrease from 4.44 in 2000, but the same as the average in 1990. The total number of households in Nunapitchuk increased steadily over time, from 87 in 1990 to 110 in 2000, and 124 occupied housing units in 2010. Of the 132 housing units surveyed for the 2010 Decennial Census, 58.3% were owner-occupied, 35.6% were renter-occupied, and 6.1% of all housing units were vacant or used only seasonally. Between 1990 and 2010, no residents of Nunapitchuk were reported to be living in group quarters.

In 2010, the gender makeup of Nunapitchuk's population (53.6% male and 46.4% female) was more weighted toward males than the population of the State as a whole, which was 52% male and 48% female. That year, the median age of Nunapitchuk residents was 22.9 years, much younger than the national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, the age groups most skewed toward males were ages 10-19 and 50-59 cohorts, while there was a relatively even spread of males and females across other age categories. Also in 2010, 8% of Nunapitchuk's population was age 60 or older. The overall population structure of Nunapitchuk in 2000 and 2010 is shown in Figure 2.

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<sup>1</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>2</sup> 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 Nunapitchuk from 1990 to 2010 by Source.

Year	U.S. Decennial Census <sup>1</sup>	Alaska Dept. of Labor Estimate of Permanent Residents <sup>2</sup>
1990	378	-
2000	466	-
2001	-	489
2002	-	512
2003	-	497
2004	-	529
2005	-	516
2006	-	547
2007	-	542
2008	-	539
2009	-	539
2010	496	-

<sup>1</sup> (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>.

<sup>2</sup> 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, Nunapitchuk: 2000-2010 (U.S. Census).

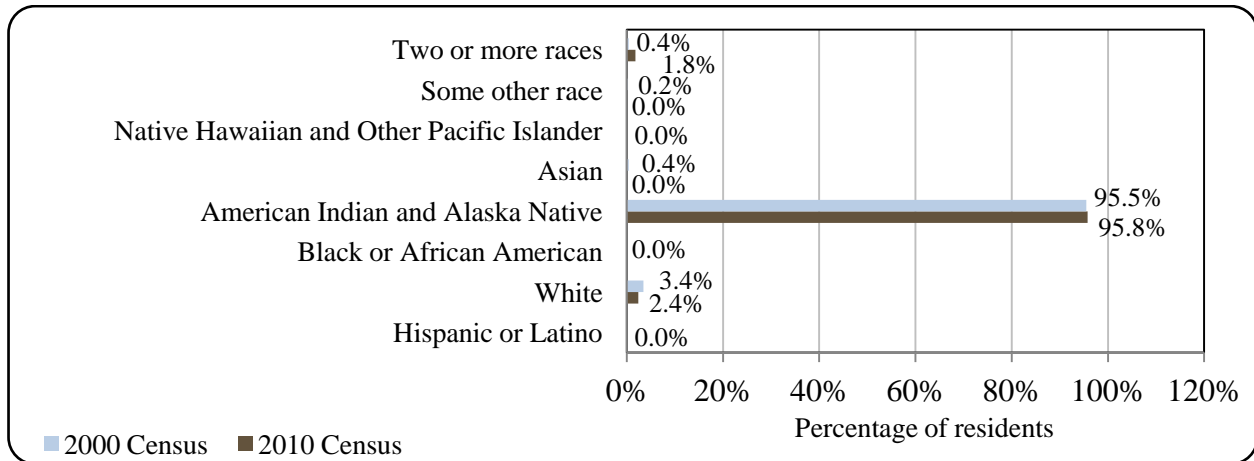
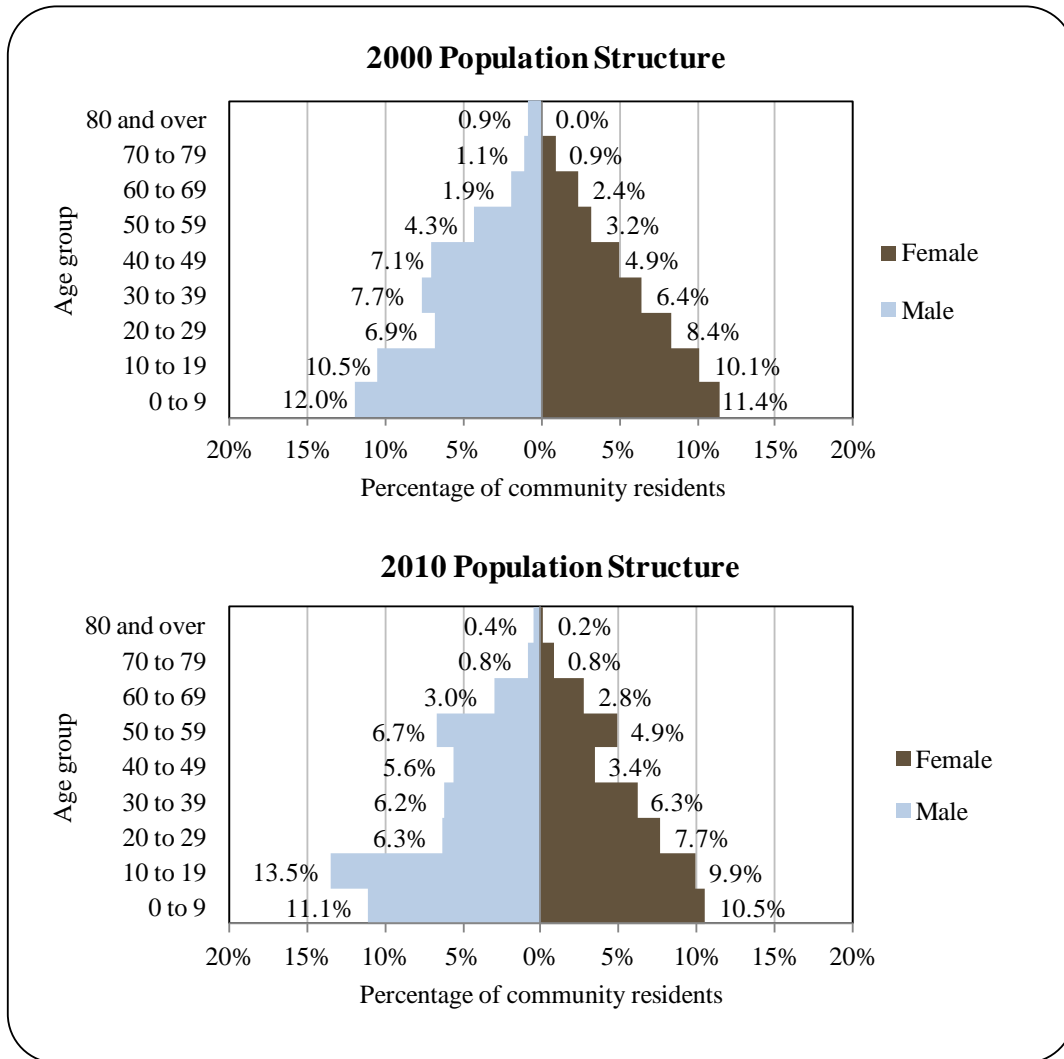


Figure 2. Population Age Structure in Nunapitchuk Based on the 2000 and 2010 U.S. Decennial Census.



In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS),<sup>3</sup> 65.7% of Nunapitchuk 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, 19.7% of the population was estimated to have less than a 9<sup>th</sup> grade education, compared to 3.5% of Alaska residents overall; 14.6% were estimated to have a 9<sup>th</sup> to 12<sup>th</sup> grade education but no diploma, compared to 5.8% of Alaska residents overall; 19.7% were estimated to have some college but no degree, compared to 28.3% of Alaska residents overall; 2% were estimated to have an Associate's degree, compared to 8% of Alaska residents overall; 11.1% were estimated to have a Bachelor's degree, compared to 17.4% of Alaska residents overall; and 1.5% were

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

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

### *History, Traditional Knowledge, and Culture*

Yup'ik Eskimos have inhabited the Yukon-Kuskokwim area for thousands of years. Historically, the Yup'ik people were very mobile, traveling with the migration of game and fish resources. Ancient settlements and seasonal camps contained small populations, with numerous settlements throughout the region consisting of extended families or small groups of families.<sup>4</sup> Residents of Nunapitchuk and two nearby villages, Atmautluak and Kasigluk, are collectively known as the Akulmiut, a sub-group of Yup'ik Eskimo.<sup>5</sup> Nunapitchuk was first listed in the 1920 U.S. Census with a population of 134. The community was incorporated as a 2<sup>nd</sup> Class City in 1969. During the 1970 U.S. Census, Nunapitchuk, Atmautluak, and Kasigluk were enumerated as one village, called “Akolmiut.” Today, subsistence activities remain a focal point of local culture. The sale, importation, and possession of alcohol are banned in the village.<sup>6</sup>

### **Natural Resources and Environment**

Nunapitchuk is located within a maritime climate zone. Each year, the area averages 16 inches of precipitation and 50 inches of snowfall. Summer temperatures range from 42 to 62 °F, and winter temperatures run from -2 to 19 °F.<sup>7</sup> The terrain of the Lower Kuskokwim River region is characterized as a level to rolling delta plain crossed by many river channels, meander scars, oxbow lakes, sloughs, and thousands of lakes. The area is underlain by permafrost, preventing drainage.<sup>8</sup>

Nunapitchuk 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.”<sup>9</sup>

Geological formations in the Nunapitchuk area are not indicative of metallic mineral deposits. The greatest concentration of known mineral occurrences in the Lower Kuskokwim River region is located east of Nunapitchuk, in the region of the Kilbuk Mountains. In addition,

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<sup>4</sup> 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/](http://www.alaskanative.net/en/main_nav/education/culture_alaska/yupik/).

<sup>5</sup> Ceñaliulriit Coastal Resource Service Area. 2008. *Coastal Management Plan: Final Plan Amendment*. Retrieved February 9, 2012 from [http://www.alaskacoast.state.ak.us/District/DistrictPlans\\_Final/Cenaliulriit/plan/plan-4-08.pdf](http://www.alaskacoast.state.ak.us/District/DistrictPlans_Final/Cenaliulriit/plan/plan-4-08.pdf).

<sup>6</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>7</sup> Ibid.

<sup>8</sup> Lower Kuskokwim Economic Development Council. 2006. *Comprehensive Economic Development Strategy & Area Plan*. Retrieved March 6, 2012 from <http://www.lkedc.org/ARDPLAN1.pdf>.

<sup>9</sup> U.S. Fish and Wildlife Service. 2011. Yukon Delta National Wildlife Refuge. Retrieved December 8, 2011 from <http://yukondelta.fws.gov/>.

four exploratory oil wells were drilled near Nunavakpak Lake, just southwest of Nunapitchuk. These wells were dry and have been plugged and abandoned.<sup>10</sup>

According to a local hazard mitigation plan published by the City of Bethel in 2008, the Nunapitchuk area is at high risk of floods, severe weather, and erosion. The threat of earthquakes is also noted. The plan addresses the role of climate change in exacerbating threats from flooding and erosion. Warming temperatures have led to thawing permafrost. This has caused severe subsidence, which constrains development of resources, transportation and utility systems, and community expansion. In addition, delayed formation of protective shore ice along the coast leaves shorelines more vulnerable to fall storms and storm surges, resulting in increased flooding and erosion.<sup>11</sup>

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Nunapitchuk as of July 2012.<sup>12</sup>

### **Current Economy<sup>13</sup>**

In 2010, top employers of Nunapitchuk residents included local government offices, the Lower Kuskokwim School District, the local village Native corporation, regional health and other service providers, utilities, and the State of Alaska.<sup>14</sup> Commercial fishing and subsistence activities are also important for local economy and culture.<sup>15</sup> Between 2000 and 2010, the number of Nunapitchuk residents holding state Commercial Fisheries Entry Commission (CFEC) varied between 52 and 56, equivalent to between 10% and 11.5% of the total local population. A majority of CFEC permits were held in the Kuskokwim set gillnet fishery (see *Commercial Fisheries* section).

Based on household surveys for the 2006-2010 ACS,<sup>16</sup> in 2010, the per capita income in Nunapitchuk was estimated to be \$12,321 and the median household income was estimated to be \$38,281. This represents an increase from the per capita and median household incomes reported in the year 2000 (\$8,411 and \$29,286, respectively). If inflation is taken into account by converting the 2000 values to 2010 dollars,<sup>17</sup> real per capita income in 2000 was \$10,999 and real median household income was \$38,511, revealing that while per capita income shows a real increase, median household income remained stable over the period. In 2010, Nunapitchuk ranked 236<sup>th</sup> of 305 Alaskan communities with per capita income data that year, and 198<sup>th</sup> in median household income, out of 299 Alaskan communities with household income data.

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<sup>10</sup> See footnote 5.

<sup>11</sup> City of Bethel. 2008. *Local Hazards Mitigation Plan*. Retrieved February 7, 2012 from [http://www.dced.state.ak.us/dca/planning/nfip/Hazard\\_Mitigation\\_Plans/Bethel\\_LHMP.pdf](http://www.dced.state.ak.us/dca/planning/nfip/Hazard_Mitigation_Plans/Bethel_LHMP.pdf).

<sup>12</sup> Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites by Region*. Retrieved April 17, 2012 from <http://dec.alaska.gov/spar/csp/list.htm>.

<sup>13</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>14</sup> 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/>.

<sup>15</sup> See footnote 6.

<sup>16</sup> 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>.

<sup>17</sup> 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>).

However, Nunapitchuk's small population size may have prevented the ACS from accurately portraying economic conditions.<sup>18</sup> An alternative estimate of per capita income is provided by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Nunapitchuk in 2010 is \$6,541.<sup>19</sup> This estimate is lower than the 2000 per capita income reported in by the U.S. Census, suggesting that caution is warranted when citing an increase in per capita income in Nunapitchuk between 2000 and 2010. The lower per capita income estimate derived from the ALARI database is reflected in the fact that the community was recognized as "distressed" by the Denali Commission in 2011,<sup>20</sup> 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 lower percentage of Nunapitchuk residents were estimated to be in the civilian labor force (66.1%) than was in the civilian labor force statewide (68.8%). Also in 2010, 22.5% of Nunapitchuk residents were estimated to be living below the poverty line, compared to a 9.5% of Alaska residents overall, and the unemployment rate was estimated to be 18.5%, compared to a statewide unemployment rate of 5.9%. An additional estimate of unemployment is based on the ALARI database, which indicates that the unemployment rate in 2010 was 28.9%, compared to a statewide unemployment rate estimate of 11.5%.<sup>21</sup>

Also based on the 2006-2010 ACS, a majority of workers were estimated to be employed in the public sector (58.6%), along with 35.7% in the private sector, and 5.7% estimated to be self-employed. Of the 140 people aged 16 and over that were estimated to be employed in the civilian labor force, the greatest number of workers were estimated to be employed in educational services, health care, and social assistance (48.6%), public administration (17.1%), and retail trade (14.3%). None of the civilian labor force was estimated to be working in agriculture, forestry, fishing, hunting, and mining in 2010. However, the number of individuals employed in farming, fishing and forestry industries is probably underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly. This information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 226 employed residents in Nunapitchuk in 2010, of which 70.8% were employed in local government, 7.1% in education and health services, 4% in trade, transportation, and utilities, 3.1% in state government, 1.1% in financial activities, 1.3% in information, 0.4% in leisure and hospitality, 0.4% in natural resources and

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<sup>18</sup> 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.

<sup>19</sup> See footnotes 14 and 16.

<sup>20</sup> Denali Commission. 2011. *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from [www.denali.gov](http://www.denali.gov).

<sup>21</sup> See footnote 14.

mining, 0.4% in construction, and 8.8% in other industries.<sup>22</sup> As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents’ activity in the subsistence economy.

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

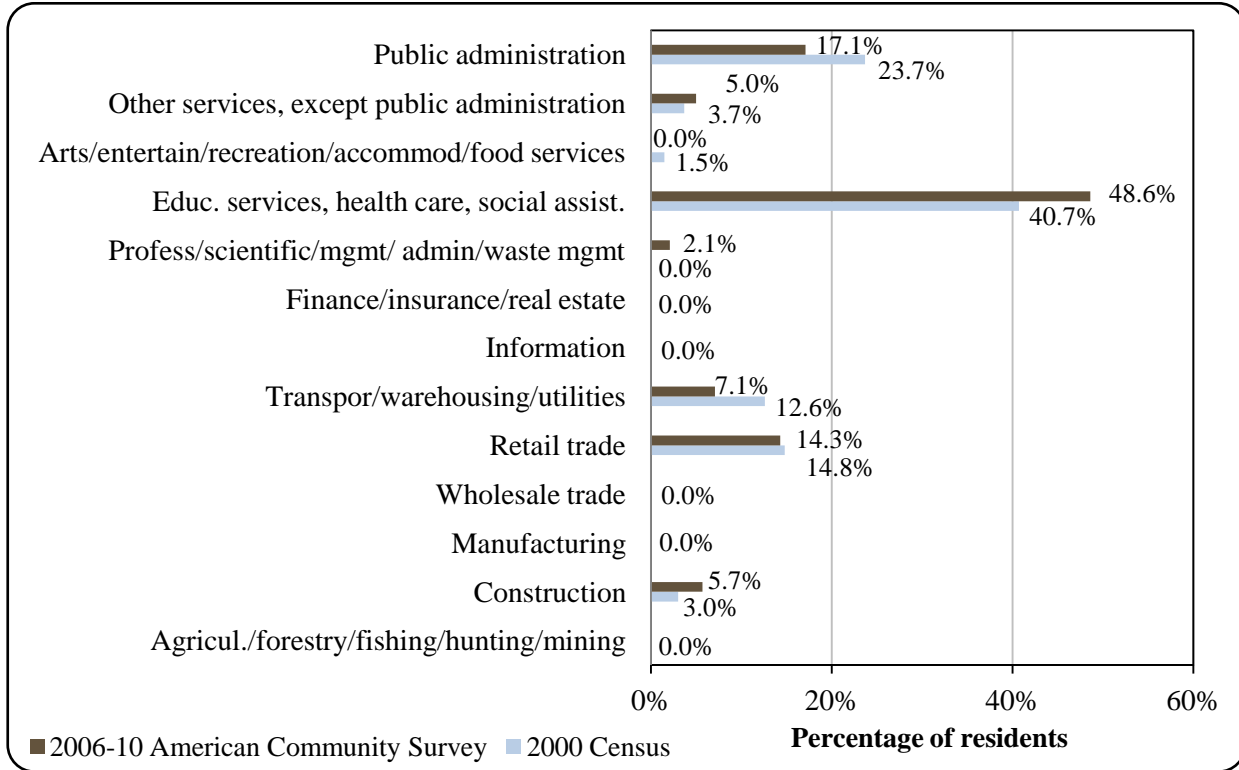
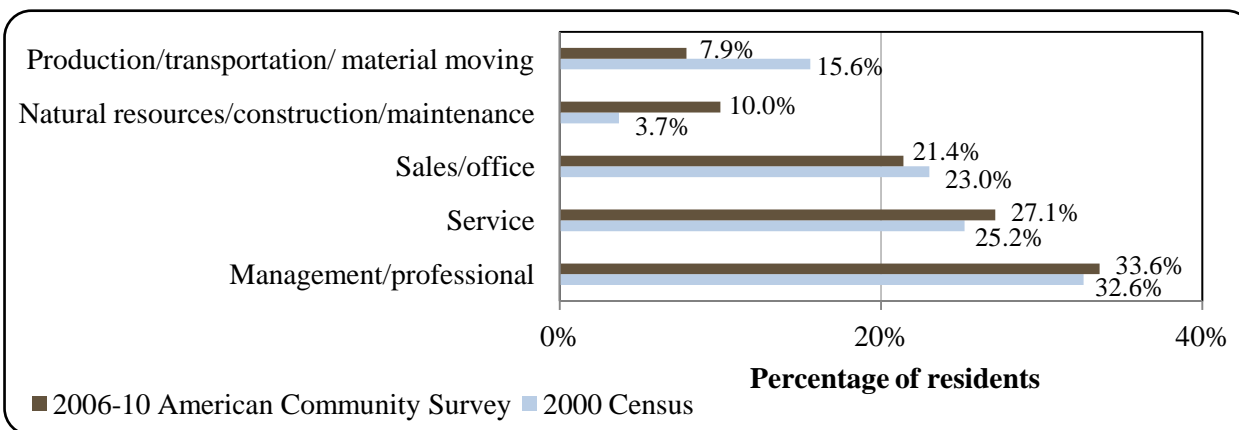


Figure 4. Local Employment by Occupation in 2000-2010, Nunapitchuk (U.S. Census).



<sup>22</sup> Ibid.

## Governance

Nunapitchuk was incorporated as a 2<sup>nd</sup> Class City in 1969 and is not part of an organized borough. A 4% sales tax is collected by the City. The City has a Strong Mayor form of government, including a seven-person city council which includes the Mayor, a nine-person advisory school board, and several municipal employees. The City administers a 4% sales tax, and no other taxes.<sup>23</sup> In addition to sales tax revenues, other locally-generated revenue sources in Nunapitchuk include building leases, building and equipment rentals, service fees from the washeteria/sauna, water/sewer, and garbage collection, and bingo and pull tab receipts. Outside revenue sources during the 2000-2010 period included various state and federal revenue sharing programs, including state fish tax refunds (see the *Fisheries-Related Revenue* section of this profile), contributions from the federal Payment in Lieu of Taxes program, and contributions from the State Revenue Sharing and Community Revenue Sharing programs. Nunapitchuk received contributions from the State Revenue Sharing program of approximately \$30,000 per year between 2000 and 2003, and larger contributions from the state Community Revenue Sharing program in 2009 and 2010. No information was reported regarding receipt of fisheries-related grants in Nunapitchuk during this period. Information about selected aspects of Nunapitchuk’s municipal revenue is presented in Table 2.

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

Year	Total Municipal Revenue <sup>1</sup>	Sales Tax Revenue <sup>2</sup>	State/Community Revenue Sharing <sup>3,4</sup>	Fisheries-Related Grants (State and Federal) <sup>5</sup>
2000	\$414,481	\$26,091	\$31,739	n/a
2001	\$254,608	\$32,114	\$28,962	n/a
2002	\$256,068	\$26,572	\$30,740	n/a
2003	\$365,373	\$38,267	\$30,500	n/a
2004	\$420,889	\$35,752	n/a	n/a
2005	\$430,210	\$46,038	n/a	n/a
2006	\$494,398	\$100,384	n/a	n/a
2007	\$331,545	\$16,645	n/a	n/a
2008	\$510,734	\$59,582	n/a	n/a
2009	\$433,210	\$33,210	\$124,087	n/a
2010	\$403,300	\$44,281	\$123,548	n/a

<sup>1</sup> 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](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm).

<sup>2</sup> 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](http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm).

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

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

<sup>5</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm).

<sup>23</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).



Nunapitchuk 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 Nunapitchuk. The Native village corporation is Nunapitchuk, Limited, which manages 115,200 acres of land.<sup>24</sup> Nunapitchuk belongs to the Calista Corporation, the regional Native corporation of the lower Yukon River, the central and lower Kuskokwim River, and the Bering Sea coast from the mouth of the Yukon River south to Cape Newenham.<sup>25</sup>

Nunapitchuk is also a member of the Association of Village Council Presidents (AVCP), a tribal 501(c)(3) non-profit organization headquartered in Bethel that serves communities in the Yukon-Kuskokwim Delta. At the request of villages, AVCP provides social services, human development and culturally relevant programming to “promote tribal self-determination and self-governance and to work to protect tribal culture and traditions.”<sup>26</sup> 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.<sup>27</sup> AVCP is made up of 56 villages and 45 village corporations.<sup>28</sup>

The closest offices of the Alaska Department of Fish and Game (ADF&G) and Alaska Department of Commerce, Community, and Economic Development (DCCED) are located in Bethel. A National Marine Fisheries Service (NMFS) field office is located in Bethel and a main office is located in Anchorage. The nearest offices of the Alaska Department of Natural Resources (DNR) and the Bureau of Citizenship and Immigration Services are located in Anchorage.

## Infrastructure

### *Connectivity and Transportation*

A state-owned 2,420 feet long by 75 feet wide gravel airstrip provides chartered or private air access year-round.<sup>29</sup> The approximate cost to travel by air roundtrip to Anchorage from Nunapitchuk in early June 2012 was \$588.<sup>30</sup> A dock, small boat harbor, and seaplane landing area are available on the Johnson River. Snowmobiles, ATVs, and dogsleds are used in winter months. Winter trails exist to Atmautluak (7 miles) and Akula Heights (2.5 miles).<sup>31</sup>

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<sup>24</sup> Ibid.

<sup>25</sup> Calista Corporation. *Region/Land Description*. Retrieved December 6, 2011 from [http://www.calistacorp.com/about/region\\_description.html](http://www.calistacorp.com/about/region_description.html).

<sup>26</sup> Association of Village Council Presidents. (n.d.). *Homepage*. Retrieved December 6, 2011 from [www.avcp.org](http://www.avcp.org).

<sup>27</sup> 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>.

<sup>28</sup> Calista Corporation. 2011. *Our Communities: The Villages of the Calista Region*. Retrieved February 6, 2012 from <http://www.calistacorp.com/shareholders/communities>.

<sup>29</sup> See footnote 23.

<sup>30</sup> This price was calculated on November 21, 2011 using [kayak.com](http://kayak.com).

<sup>31</sup> See footnote 23.

### *Facilities*

Water in Nunapitchuk is derived from a community well and is filtered and chlorinated. Some homes have a flush/haul system, with water delivery and tank hauling services. Other households haul their own water from a central community tap, and use honeybuckets. Honeybuckets are emptied into sewage containers located throughout the City, and these are emptied into one of two sewage lagoons (one on either side of the river). Some outhouses are also in use. The City provides piped water to the school. Teachers' housing, located in the old school building, has an independent water and sewer system. The City operates a landfill and provides refuse collection services. Electricity is provided in the community by a diesel powerhouse, operated by the Rural Electrification Administration (REA) Co-op.<sup>32</sup> With funding received from the Denali Commission, a new bulk fuel tank farm and automated, fuel-efficient power plant was built in Kasigluk in 2006, along with three 100kW wind turbines. Power is provided to Nunapitchuk via an electric intertie from Kasigluk.<sup>33</sup>

Police services are provided in Nunapitchuk by two Village Public Safety Officers (VPSO) stationed locally,<sup>34</sup> as well as a City Village Police Officer and state troopers stationed in Bethel. Fire and rescue services are provided by the state troopers, VPSOs, the City, and a volunteer fire department. Additional community facilities include a City Recreation Center, a Community Building, and a school library. Internet, cable, and telephone service are available in Nunapitchuk.<sup>35</sup>

### *Medical Services*

A local health clinic is owned by the City and operated in conjunction with the Yukon-Kuskokwim Health Corporation. The Eliza Maxie Memorial Clinic is a Community Health Aide Program site. Emergency Services have river, air, and floatplane access. Emergency service is provided by a health aide.<sup>36</sup> The nearest hospital is located in Bethel.

### *Educational Opportunities*

There is one school in the community, which offers preschool through 12<sup>th</sup> grade. As of 2011, the Anna Tobeluk Memorial School had a total of 178 students and 13 teachers.<sup>37</sup> 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 Nunapitchuk.<sup>38</sup>

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<sup>32</sup> Ibid.

<sup>33</sup> AVEC website. 2012. *AVEC Facilities: Nunapitchuk*. Retrieved March 6, 2012 from <http://www.avec.org/communities/community.php?ID=32>.

<sup>34</sup> Dept. of Public Safety (n.d.). *Active VPSO's by Village, December 2011*. Retrieved December 12, 2011 from <http://www.dps.alaska.gov/>.

<sup>35</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>36</sup> Ibid.

<sup>37</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

<sup>38</sup> Rural Alaska Community Action Program, Inc (2011). *2010 Head Start Report*. Retrieved on December 20, 2011 from <http://www.ruralcap.com/>.

## Involvement in North Pacific Fisheries

### *History and Evolution of Fisheries*

Subsistence harvest has been important to residents of the Nunapitchuk area for thousands of years.<sup>39</sup> Subsistence salmon harvest continues to be a primary economic activity along the Kuskokwim River. In addition to salmon, spring harvest of herring roe on kelp or hemlock boughs is an important subsistence resource for coastal Alaskan communities.<sup>40</sup>

Commercial harvest of salmon first took place in the Kuskokwim River in 1913, although in the early years it was a quasi-commercial fishery with limited distribution. Catch was dried and sold as food for sled dogs during the 1930s when dog teams were the primary means of hauling freight to villages in Western Alaska. When Alaska became a state in 1959, commercial fishing districts were defined along the Kuskokwim River. In the 1960s and 1970s, commercial salmon fisheries in the Kuskokwim River were still considered experimental, and management efforts focused on increasing commercial use while ensuring continued supply for subsistence use. Harvest levels continued to increase until the mid-1990s, after which time fishing effort, harvest levels, and salmon prices decreased. Current state-dictated management is focused on sustainability of salmon runs, ensuring first that subsistence needs are met, and providing opportunity for commercial harvest of available surpluses.<sup>41</sup>

Commercial catch of herring for human consumption began in 1878 in Alaska, while harvest of herring for bait began around 1900, and herring sac roe fisheries developed in the late 1970s. Between 2000 and 2010, Nunapitchuk residents held permits in the Goodnews Bay roe and foot/bait herring fishery and the Bristol Bay spawn on kelp, hand pick herring fishery. (For more information see the *Commercial Fisheries* section of this profile.) The largest aggregation of herring in Alaska spawns along the northern shore of Bristol Bay, near the village of Togiak. Spawning herring are harvested using purse seines and gillnets in the Togiak sac roe fishery. A spawn-on-kelp harvest is also taken, primarily by local residents. Along the coast of the Yukon-Kuskokwim Delta there are six commercial gillnet sac roe districts: Security Cove, Goodnews Bay, Cape Avinof, Nelson 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.<sup>42</sup>

Nunapitchuk is located closest to the Lower Kuskokwim salmon fishing district (District 1). The closest marine area to Nunapitchuk, Kuskokwim Bay, is included in Federal Statistical and Reporting Area 514, Pacific Halibut Fishery Regulatory Area 4E, and the Bering Sea Sablefish Regulatory Area. Nunapitchuk is a member of the Coastal Villages Region Fund (CVRF), a Community Development Quota group that promotes employment opportunities for

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<sup>39</sup> 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/](http://www.alaskanative.net/en/main_nav/education/culture_alaska/yupik/).

<sup>40</sup> 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>.

<sup>41</sup> Clark, McGregor, Mecum, Krasnowski and Carroll. 2006. "Kuskokwim Commercial Salmon Fishery." In *The Commercial Salmon Fishery in Alaska*. Alaska Dept. of Fish and Game, Pgs. 105-146. Retrieved December 28, 2011 from [http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1\\_p4.pdf](http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1_p4.pdf).

<sup>42</sup> See footnote 40.

residents as well as participation in the Bering Sea crab and groundfish fisheries.<sup>43</sup> Nunapitchuk is not eligible to participate in the Community Quota Entity program.

### *Processing Plants*

ADF&G's 2010 Intent to Operate list does not list a registered processing plant in Nunapitchuk. However, the Intent to Operate list does list *a small processing facility in nearby Bethel. The plant, run by Kuskokwim Seafoods LLC, was started in 2010 to provide a market to local salmon fishers to help them sell their catch closer to home. Kuskokwim Seafoods processes four salmon species: Chinook, sockeye, chum, and coho.*<sup>44</sup>

### *Fisheries-Related Revenue*

According to information provided in Nunapitchuk's annual municipal budget between 2000 and 2010, the primary sources of fisheries-related revenue in Nunapitchuk were a raw fish tax and the Shared Fisheries Business Tax. In 2010, Nunapitchuk received \$100 in raw fish tax revenues and \$116 from the Shared Fisheries Business Tax. That year, the City also received \$130 from the Fisheries Resource Landing Tax. During the 2000-2010 period, 2010 was the only year in which revenue was reported from the Shared Fisheries Business Tax. Information about fisheries-related revenue is presented in Table 3.<sup>45</sup>

It is also important to note that the CVRF uses fisheries revenue from CDQ revenue to provide grants, scholarships and training, and other financial assistance to fishermen and residents of member villages.<sup>46</sup>

### *Commercial Fishing*

Between 2000 and 2010, Nunapitchuk residents participated in commercial fisheries as crew members, vessel owners, and permit holders. In 2010, 54 Nunapitchuk residents held a total of 56 Commercial Fisheries Entry Commission (CFEC) permits, including 46 salmon permits in the Kuskokwim River gillnet fishery, 2 salmon permits in the Bristol Bay drift gillnet fishery, 7 permits in the Goodnews Bay herring roe and foot/bait fishery, and 1 permit in the Bristol Bay herring spawn on kelp, hand pick fishery. These permit numbers were stable between 2000 and 2010, although the percentage of permits that were actively fished declined in both salmon and herring fisheries over the period. Two out of six herring permits (33%) were actively fished in 2000, but starting in 2001 none were fished. After the year 2000, when 42 out of 51 (82%) salmon permits were actively fished, the number fell to 19 out of 50 fished (38%) in 2003. By 2010, the number had climbed again to 28 out of 48 salmon permits actively fished (58%). It is important to note that, in the year 2000, one 'other finfish' CFEC permit was also held by a resident of Nunapitchuk. The permit was held for the statewide freshwater fish set gillnet fishery.

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<sup>43</sup> Coastal Villages Region Fund. (n.d.). *Homepage*. Retrieved December 12, 2011 from <http://www.coastalvillages.org/>.

<sup>44</sup> Kuskokwim Seafoods LLC. (n.d.). *Homepage*. Retrieved August 2011 from <http://kuskokwimseafoods.com/>.

<sup>45</sup> 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.

<sup>46</sup> See footnote 43.

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

In 2010, a total of 42 Nunapitchuk residents held commercial crew licenses and 3 fishing vessels were primarily owned by Nunapitchuk residents. The number of crew license holders fluctuated during the decade, with 61 in 2000 falling to 11 in 2003, and climbing again to 42 in 2010. The number of vessels owned by Nunapitchuk residents declined substantially from 2000, when 14 vessels were owned, to 3 owned in 2010. The number of vessels homeported in Nunapitchuk followed a similar pattern, with 12 in 2001 and only 2 in 2010.

No landings were recorded in Nunapitchuk between 2000 and 2010 (Table 9), given the lack of fish buyers in the community (Table 5). Information about landings and ex-vessel revenue generated by vessels owned by Nunapitchuk residents (irrespective of delivery locations) is largely considered confidential between 2000 and 2010 due to the small number of participants, with the exception of salmon harvest data in 2005. That year, Nunapitchuk vessel owners landed 84,540 net pounds of salmon, valued at \$31,681 in ex-vessel revenue. Information about commercial harvest and ex-vessel revenue earned by vessel owners residing in Nunapitchuk is presented in Table 10.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	\$276	\$250	\$400	n/a	n/a	n/a	n/a	n/a	\$130	\$130	\$100
Shared fisheries business tax <sup>1</sup>	\$727	\$564	\$111	\$143	\$118	\$288	\$336	\$176	\$130	\$110	\$116
Fisheries resource landing tax <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	\$130
Fuel transfer tax <sup>2</sup>	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 <sup>2</sup>	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 <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage <sup>2</sup>	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 <sup>2</sup>	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 <sup>3</sup>	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 <sup>3</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Total fisheries-related revenue<sup>4</sup></b>	<b>\$1,003</b>	<b>\$814</b>	<b>\$511</b>	<b>\$143</b>	<b>\$118</b>	<b>\$288</b>	<b>\$336</b>	<b>\$176</b>	<b>\$260</b>	<b>\$240</b>	<b>\$346</b>
<b>Total municipal revenue<sup>5</sup></b>	<b>\$414,481</b>	<b>\$254,608</b>	<b>\$256,068</b>	<b>\$365,373</b>	<b>\$420,889</b>	<b>\$430,210</b>	<b>\$494,398</b>	<b>\$331,545</b>	<b>\$510,734</b>	<b>\$433,210</b>	<b>\$403,300</b>

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

<sup>1</sup> 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](http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm).

<sup>2</sup> 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](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm).

<sup>3</sup> Reported by community leaders in a survey conducted by the AFSC in 2011.

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

<sup>5</sup> 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](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm).

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) <sup>1</sup>	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) <sup>1</sup>	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 <sup>1</sup>	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) <sup>2</sup>	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) <sup>2</sup>	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) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Herring (CFEC) <sup>2</sup>	Total permits	6	6	7	8	8	8	9	9	9	9	8
	Fished permits	2	0	0	0	0	0	0	0	0	0	0
	% of permits fished	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	6	6	7	8	8	8	9	10	9	9	8

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	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) <sup>2</sup>	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) <sup>2</sup>	Total permits	1	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	-	-	-	-	-	-	-	-	-	-
	Total permit holders	1	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) <sup>2</sup>	Total permits	51	51	50	50	51	49	50	50	49	50	48
	Fished permits	42	28	21	19	23	34	27	31	27	29	28
	% of permits fished	82%	55%	42%	38%	45%	69%	54%	62%	55%	58%	58%
	Total permit holders	54	54	50	51	51	51	51	55	52	51	51
<i>Total CFEC Permits<sup>2</sup></i>	<i>Permits</i>	<i>58</i>	<i>57</i>	<i>57</i>	<i>58</i>	<i>59</i>	<i>57</i>	<i>59</i>	<i>59</i>	<i>58</i>	<i>59</i>	<i>56</i>
	<i>Fished permits</i>	<i>44</i>	<i>28</i>	<i>21</i>	<i>19</i>	<i>23</i>	<i>34</i>	<i>27</i>	<i>31</i>	<i>27</i>	<i>29</i>	<i>28</i>
	<i>% of permits fished</i>	<i>76%</i>	<i>49%</i>	<i>37%</i>	<i>33%</i>	<i>39%</i>	<i>60%</i>	<i>46%</i>	<i>53%</i>	<i>47%</i>	<i>49%</i>	<i>50%</i>
	<i>Permit holders</i>	<i>54</i>	<i>56</i>	<i>52</i>	<i>53</i>	<i>53</i>	<i>53</i>	<i>54</i>	<i>58</i>	<i>55</i>	<i>54</i>	<i>54</i>

<sup>1</sup> 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.]

<sup>2</sup> 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 Nunapitchuk: 2000-2010.

Year	Crew License Holders <sup>1</sup>	Count Of All Fish Buyers <sup>2</sup>	Count Of Shore-Side Processing Facilities <sup>3</sup>	Vessels Primarily Owned By Residents <sup>4</sup>	Vessels Homeported <sup>4</sup>	Vessels Landing Catch In Nunapitchuk <sup>2</sup>	Total Net Pounds Landed In Nunapitchuk <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Nunapitchuk <sup>2,5</sup>
2000	61	0	0	14	8	0	0	\$0
2001	33	0	0	16	12	0	0	\$0
2002	23	0	0	14	11	0	0	\$0
2003	11	0	0	11	8	0	0	\$0
2004	32	0	0	10	7	0	0	\$0
2005	49	0	0	11	8	0	0	\$0
2006	27	0	0	9	7	0	0	\$0
2007	28	0	0	6	4	0	0	\$0
2008	26	0	0	5	3	0	0	\$0
2009	38	0	0	4	2	0	0	\$0
2010	42	0	0	3	2	0	0	\$0

<sup>1</sup> 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.]

<sup>2</sup> 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.]

<sup>3</sup> 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.]

<sup>4</sup> 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.]

<sup>5</sup> Totals only represent non-confidential data.

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

<b>Year</b>	<b>Number of Halibut Quota Share Account Holders</b>	<b>Halibut Quota Shares Held</b>	<b>Halibut IFQ Allotment (pounds)</b>
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 Nunapitchuk: 2000-2010.

<b>Year</b>	<b>Number of Sablefish Quota Share Account Holders</b>	<b>Sablefish Quota Shares Held</b>	<b>Sablefish IFQ Allotment (pounds)</b>
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 Nunapitchuk: 2000-2010.

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

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

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

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

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

<sup>1</sup> Net pounds refers to the landed weight recorded in fish tickets.

<sup>2</sup> Totals only represent non-confidential data.

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

	<i>Total Net Pounds<sup>1</sup></i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	84,540	-	-	-	-	-
<i>Total<sup>2</sup></i>	-	-	-	-	-	84,540	-	-	-	-	-
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	-	-	-	-	-	\$31,681	-	-	-	-	-
<i>Total<sup>2</sup></i>	-	-	-	-	-	\$31,681	-	-	-	-	-

*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.]

<sup>1</sup> Net pounds refers to the landed weight recorded in fish tickets.

<sup>2</sup> 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 Nunapitchuk. However, residents of Nunapitchuk did participate in sportfishing. Between 2000 and 2010, the number of Nunapitchuk residents that purchased sportfishing licenses (irrespective of point of sale) varied between 27 and 80 per year. Between 2000 and 2003, no sportfishing licenses sold locally. However, starting in 2004, license sales were reported, varying between 34 and 100 licenses sold per year from 2004 to 2010. The fact that a greater number of licenses were sold in the City than were purchased by Nunapitchuk residents indicates that sport fisheries brought a small influx of non-locals to the community.

The Alaska Statewide Harvest Survey,<sup>47</sup> conducted by ADF&G between 2000 and 2010, did not provide information regarding the species targeted by private anglers on the Johnson River near Nunapitchuk. However, the survey did note the following species as targeted by private anglers in Napakiak, located on the main stem of the Kuskokwim River: Dolly Varden char, northern pike, and whitefish. No kept/release log book data were reported for fishing charters out of Nunapitchuk between 2000 and 2010.<sup>48</sup>

Nunapitchuk is located within Alaska Sport Fishing Survey Area V – Kuskokwim River and Bay Drainages. Information is available about both saltwater and freshwater sportfishing activity at this regional scale. Between 2000 and 2010, saltwater sportfishing activity 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 Nunapitchuk is displayed in Table 11.

Table 11. Sport Fishing Trends, Nunapitchuk: 2000-2010.

Year	Active Sport Fish Guide Businesses <sup>1</sup>	Sport Fish Guide Licenses <sup>1</sup>	Sport Fishing Licenses Sold to Residents <sup>2</sup>	Sport Fishing Licenses Sold in Nunapitchuk <sup>2</sup>
2000	0	0	47	0
2001	0	0	52	0
2002	0	0	51	0
2003	0	0	27	0
2004	0	0	45	34
2005	0	0	45	41
2006	0	0	40	55
2007	0	0	41	42
2008	0	0	37	42
2009	0	0	68	75
2010	0	0	80	100

<sup>47</sup> 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).

<sup>48</sup> 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. Sport Fishing Trends, Nunapitchuk: 2000-2010.

Year	Saltwater		Freshwater	
	Angler Days Fished – Non-residents <sup>3</sup>	Angler Days Fished – Alaska Residents <sup>3</sup>	Angler Days Fished – Non-residents <sup>3</sup>	Angler Days Fished – Alaska Residents <sup>3</sup>
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

<sup>1</sup> 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.]

<sup>2</sup> 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.]

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

### *Subsistence Fishing*

Subsistence activities are a focal point of Nunapitchuk culture.<sup>49</sup> Results of a subsistence survey conducted by ADF&G in 1983 suggest that the community has a high dependence on fish resources, including all five species of Pacific salmon, as well as a variety of non-salmon fish.<sup>50</sup> In the 1983 survey, 100% of households reported harvesting pike, 94% reported harvesting whitefish, 77% reported harvest of burbot, 53% reported harvest of blackfish, and 12% reported harvest of sheefish. In addition, the 1983 ADF&G survey found that 29% of households reported harvesting seal for subsistence purposes that year. No information was provided regarding the species of seal harvested.<sup>51</sup> Kuskokwim Bay is an important site for both seal and beluga whale hunts. In addition, waterfowl are an important subsistence resource during spring, late summer,

<sup>49</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>50</sup> Ceñaliulriit Coastal Resource Service Area. 2008. *Coastal Management Plan: Final Plan Amendment*. Retrieved February 9, 2012 from [http://www.alaskacoast.state.ak.us/District/DistrictPlans\\_Final/Cenaliulriit/plan/plan-4-08.pdf](http://www.alaskacoast.state.ak.us/District/DistrictPlans_Final/Cenaliulriit/plan/plan-4-08.pdf).

<sup>51</sup> 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).

and early fall. A 1989 ADF&G study of subsistence territory found that Nunapitchuk residents used an area of approximately 2,500 to 3,000 square miles for subsistence harvest of fish and wildlife resources.<sup>52</sup>

A subsistence survey conducted by ADF&G in 2004 found that 4% of Nunapitchuk households participated in Pacific halibut subsistence and 53% of Nunapitchuk households participated in non-salmon fish subsistence (other than halibut). No information was reported regarding the species of non-salmon fish included in this harvest. Likewise, no information was reported regarding the percentage of households participating in salmon, marine mammal, or marine invertebrate subsistence that year, and no information was reported regarding per capita subsistence in the community that year (Table 12). However the total pounds of non-salmon fish harvested by Nunapitchuk residents for subsistence purposes was reported for 2004: 89,846 pounds (Table 13).

Data are available during the 2000-2010 period regarding subsistence salmon permits. From 2000 to 2008, the number of Nunapitchuk households that were issued subsistence salmon permits varied between 102 and 115 per year. On average, 4,899 chum, 3,732 Chinook, 1,905 sockeye, and 711 coho salmon were harvested per year. Between 2005 and 2007, harvest of several pink salmon per year was also reported. Information about subsistence salmon permits and harvest is presented in Table 13.

One Subsistence Halibut Registration Certificate (SHARC) was issued to a Nunapitchuk resident each year in 2004 and 2005. However, no information was reported about the number of SHARC cards that were returned or the total pounds of subsistence halibut harvested by Nunapitchuk residents during these years (Table 14). In addition, no information was reported by management agencies regarding subsistence harvest of marine mammals by Nunapitchuk residents between 2000 and 2010 (Table 15).

Table 12. Subsistence Participation by Household and Species, Nunapitchuk: 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	4%	n/a	n/a	53%	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).

<sup>52</sup> See footnote 50.

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

Year	Subsistence Salmon Permits Issued <sup>1</sup>	Salmon Permits Returned <sup>1</sup>	Chinook Salmon Harvested <sup>1</sup>	Chum Salmon Harvested <sup>1</sup>	Coho Salmon Harvested <sup>1</sup>	Pink Salmon Harvested <sup>1</sup>	Sockeye Salmon Harvested <sup>1</sup>	Lbs of Marine Inverts <sup>2</sup>	Lbs of Non-Salmon Fish <sup>2</sup>
2000	103	92	3,354	4,694	366	n/a	2,111	n/a	n/a
2001	104	80	3,250	4,749	392	n/a	2,583	n/a	n/a
2002	102	81	3,883	6,917	790	n/a	1,382	n/a	n/a
2003	103	77	3,763	4,139	676	n/a	2,521	n/a	n/a
2004	109	74	4,104	4,200	416	n/a	1,381	n/a	n/a
2005	115	76	3,480	3,640	716	32	1,589	n/a	89,846
2006	110	59	3,357	4,266	567	6	1,548	n/a	n/a
2007	112	65	4,664	6,588	1,765	11	2,124	n/a	n/a
2008	111	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.

<sup>1</sup> 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.

<sup>2</sup> 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, Nunapitchuk: 2003-2010.

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

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

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



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

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

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

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.