

## **Nanwalek (*nan-WAH-leck*; Formerly English Bay)**



### **People and Place**

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

Nanwalek is located at the southern tip of the Kenai Peninsula, at the mouth of Cook Inlet. The community lies 10 miles southwest of Seldovia, and 3 miles east of Port Graham. The community encompasses 8.5 square miles of land and 0 square miles of water. Nanwalek is located in the Seldovia Recording District and the Kenai Peninsula Borough Census Area.

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

In 2010, there were 254 residents in Nanwalek, ranking it as the 176<sup>th</sup> largest of 352 communities in Alaska with recorded populations that year. Overall between 1990 and 2010, the population of Nanwalek increased by 60.8%. According to Alaska Department of Labor population estimates, the population of permanent residents increased by 27.7% between 2000 and 2009. The average annual growth during this period was 0.97%, reflecting an overall positive population trend with small decreases in population in some years. The change in population from 1990 to 2010 is provided in Table 1.

In 2010, a majority of the population of Nanwalek identified themselves as American Indian and Alaska Native (80.3%), while 10.6% identified as White, and 9.1% identified with two or more races. In addition, 2.0% of Nanwalek's population identified themselves as Hispanic in 2010. The percentage of residents that identified as White decreased from 8.9% in 1990 to 6.8% in 2000, then increased to 10.6% by 2010. At the same time, the percentage of the population that identified as American Indians and Alaska Natives increased slightly, from 91.1% in 1990 to 93.2% in 2000, and then decreased to 89.4% by 2010. The percentage of individuals identifying with two or more races increased from 4% in 2000 to 9.1% in 2010. Changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

Based on the U.S. Census, in 2010, the average household size Nanwalek was 4.62 persons per household, an increase from 3.7 in 1990 and 3.93 in 2000. The number of households in Nanwalek also increased over time, from 42 households in 1990 and 45 in 2000, to 55 in 2010. Of the 73 housing units surveyed for the 2010 U.S. Census, 42.5% were owner-occupied, 32.9% were rented, and 24.7% were vacant or used only seasonally. From 1990 to 2010, no residents of Nanwalek were living in group quarters. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that the population of Nanwalek reaches its peak during the months of June, July, and August, and approximately 25 seasonal workers or transients are present in the town between May and

<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>.

September. They indicated that population fluctuations are mostly driven by employment in the commercial fishing sector.

In 2010, the gender makeup of Nanwalek’s population (51.2% male and 48.8% female) was more gender balanced than the state population as a whole, which had 52% males and 48% females. The median age of Nanwalek residents was 23.3 years, much younger than the national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, the age group most heavily skewed toward males was 40 to 49, while there was a relatively even spread of males and females across other age categories. In 2010, only 3.1% of Nanwalek’s population was age 60 or older. The overall population structure of Nanwalek in 2000 and 2010 is shown in Figure 2.

Table 1. Population in Nanwalek 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	158	-
2000	177	-
2001	-	184
2002	-	219
2003	-	214
2004	-	204
2005	-	220
2006	-	228
2007	-	216
2008	-	228
2009	-	226
2010	254	-

<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, Nanwalek: 2000-2010 (U.S. Census).

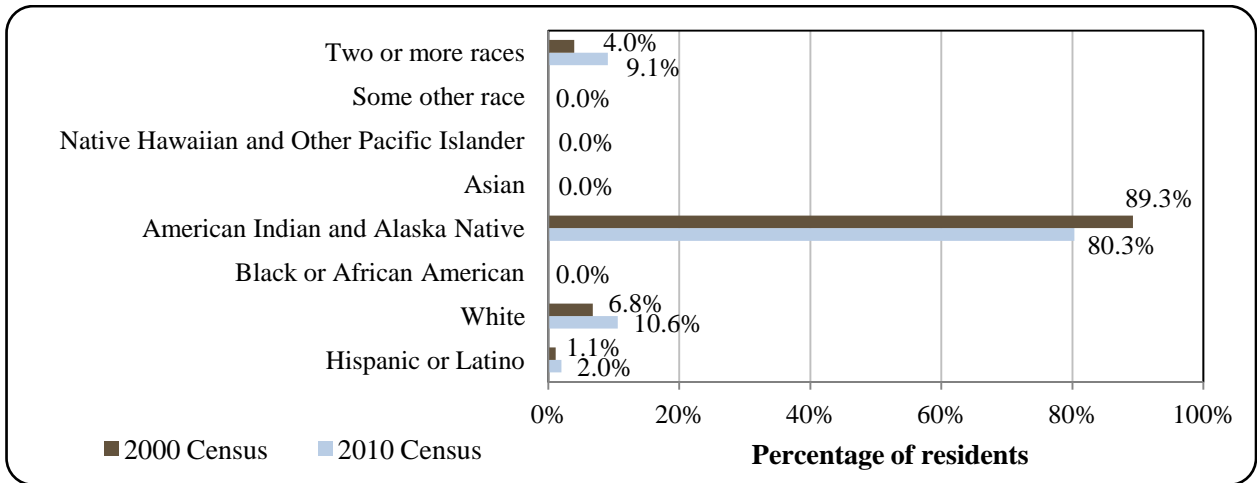
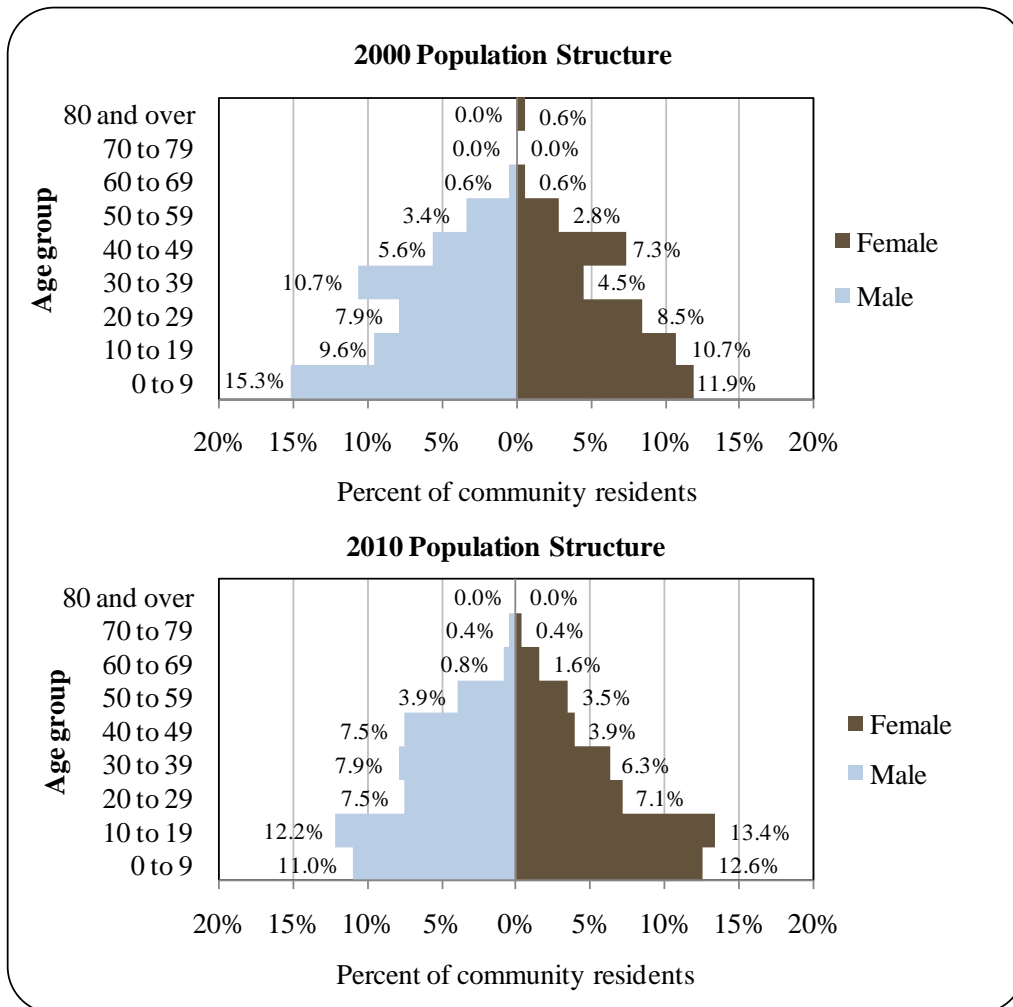


Figure 2. Population age structure in Nanwalek based on the 2000 and 2010 U.S. Decennial Census.



According to the 2006-2010 American Community Survey (ACS),<sup>3</sup> 86.2% of Nanwalek 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, 6.4% of the population was estimated to have less than a 9<sup>th</sup> grade education, compared to 3.5% of Alaska residents overall; 7.4% 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; 21.3% were estimated to have some college but no degree, compared to 28.3% of Alaska residents overall; 0% were estimated to have an Associate's degree, compared to 8% of Alaska residents overall; 0% were estimated to have a Bachelor's degree, compared to 17.4% of Alaska residents overall; and 0% were estimated to have a graduate or professional degree, compared to 9.6% of Alaska residents overall.

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

Nanwalek is an Alutiiq village. Villagers speak Sugtestun, a dialect of Eskimo similar to Yup'ik.<sup>4</sup> The subgroup of Alutiiq who occupied the outer Kenai coast are called the *Unegkurmiut* in ethnographic literature, meaning “down that way.” This name may have been used by the Alutiiq of Prince William Sound to refer to those other Alutiiq who lived along the outer Kenai Peninsula coast.<sup>5</sup> The people of Nanwalek call themselves *Sugpiaq* meaning “real people.” Their heritage is strongly based in their language, subsistence lifestyle, cultural traditions, and self-government.<sup>6</sup> Many residents of Nanwalek also have Russian, Euro-American, Asian, American Indian, and Aleut ancestry.<sup>7</sup>

Nanwalek is the site of one of the oldest villages in the North Pacific rim area, and was also used as a summer fish camp by prehistoric coastal peoples from other villages on the Kenai Peninsula and from Prince William Sound,<sup>8</sup> including the coast of what is now Kenai Fjords National Park.<sup>9</sup> An occupied village at the site was noted by Russian explorers in 1741. In 1781, Gregory Shelikov established a fort and trading post of the American Northeastern Fur Company at the site.<sup>10</sup> The Russians maintained a presence at the site until the sale of Alaska to the United States in 1867. The village was initially called Alexandrovsk, and was later called Odinochka, meaning “a person living in solitude.”<sup>11</sup> In 1909, a U.S. Geological Survey (USGS) survey and mapping party called the village English Bay. The name of the village was changed to Nanwalek in 1991, an Alutiiq name meaning “place by a lagoon.” A Russian Orthodox church was built in

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<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.

<sup>4</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>5</sup> Stanek, R. T. (1999). *Ethnographic Overview and Assessment for Nanwalek and Port Graham*. Draft. Division of Subsistence, Alaska Department of Fish and Game. Retrieved December 27, 2011 from <http://www.alaska.boemre.gov/>.

<sup>6</sup> Chugachmiut (2011). *Tribes: Nanwalek Village IRA*. Retrieved December 26, 2011 from <http://www.chugachmiut.org/tribes/nanwalek.html>.

<sup>7</sup> See footnote 5.

<sup>8</sup> ASCG Inc. (2006). *Chugachmiut Facilitated Integrated Resources Management Plan for Nanwalek and Port Graham*. Retrieved December 26, 2011 from <ftp://200-10-178-69.static.gci.net/>.

<sup>9</sup> See footnote 5.

<sup>10</sup> See footnote 8.

<sup>11</sup> See footnote 4.

Nanwalek in 1870. After the church burned down in 1890 it was reconstructed. Today the original church is listed on the National Register of Historic Places, and is not usable due to its unsafe condition. A second church was built in 1930 to serve the community.<sup>12</sup> The sale of alcohol is banned in the community.<sup>13</sup>

## Natural Resources and Environment

Nanwalek is located in a maritime climactic zone, dominated by the moderating effects of a marine environment and characterized by high humidity, precipitation, and fog cover as well as warm winters and cool summers. In addition, Nanwalek experiences frequent winds from the inlet. Winter temperatures range from 14 to 27 °F, and summer temperatures vary from 45 to 60 °F.<sup>14</sup> Average annual precipitation is 27 inches and average annual snowfall is 103 inches.<sup>15</sup>

The Kenai Mountains provide a dramatic backdrop to the Village of Nanwalek. The mountains rise to 3,000 ft above sea level within 1.5 miles of the coast. Lowlands are covered in a mixed forest of Sitka spruce and cottonwood with an understory of riparian willow. This area is used by moose, black bear, hawk, and bald eagle, and smaller mammals such as beaver, river otter, and mink.<sup>16</sup> Alpine tundra meadows are found at higher elevations.<sup>17</sup> The shoreline is rugged, abrupt, and fringed with many small islands. One of the most prominent features of the landscape is the massive glaciers, both landlocked and tidewater, and the Harding Ice Field in the central and northeastern portions of nearby Kenai Fjords National Park.<sup>18</sup>

Protected areas near Nanwalek include Kachemak Bay State Park and State Wilderness Park, Kenai Fjords National Park, and the Kenai Wilderness. Nanwalek is located less than 20 miles from the western boundary of Kachemak Bay State Park and State Wilderness Park, which are Alaska's first State Park, and only Wilderness Park, respectively. Together, they are made up of approximately 400,000 acres of mountains, glaciers, forests, and ocean. Adjacent to these land-based protections, Kachemak Bay and Fox River Flats have both been designated as Critical Habitat Areas under Alaska Statutes, Title 16,<sup>19</sup> protecting habitat for sea otters, seals, porpoises, and whales. Visitors to the State Park and Wilderness Park enjoy fishing, boating, wildlife viewing, kayaking, hiking, camping, and mountain sports.<sup>20</sup>

The western border of Kenai Fjords National Park lies less than 35 miles east of Nanwalek. This National Park was established in 1980 to “maintain unimpaired the scenic and environmental integrity of the Harding Icefield, its outflowing glaciers, and coastal fjords and islands.” Fifty-six percent of the park is covered by ice. Animals living in the mountains, the shores, and the fjords of the National Park include black bear, brown bear, moose, mountain

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<sup>12</sup> See footnotes 4 and 8.

<sup>13</sup> Alaska Dept. of Public Safety (2011). *Local Option Restrictions*. Retrieved May 31, 2012 from <http://dps.alaska.gov/abc/restrictions.aspx>.

<sup>14</sup> See footnote 8.

<sup>15</sup> Precipitation and snowfall information retrieved December 27, 2011 from <http://www.weatherbase.com/>.

<sup>16</sup> See footnote 8.

<sup>17</sup> U.S. Environmental Protection Agency (2000). *Tribal Wetland Program Highlights*. EPA 843-R-99-002. Retrieved December 26, 2011 from <http://water.epa.gov/>.

<sup>18</sup> See footnote 9.

<sup>19</sup> Alaska Statutes, Title 16. *AS 16.20.590* and *AS 16.20.580*. Retrieved February 8, 2012 from <http://touchngo.com/1glcntr/akstats/Statutes/Title16/Chapter20.htm>.

<sup>20</sup> Alaska Dept. of Natural Resources (2009). *Kachemak Bay State Park and State Wilderness Park*. Retrieved January 27, 2012 from <http://dnr.alaska.gov/parks/units/kbay/kbay.htm>.

goat, sea otter, Steller sea lion, harbor seal, Dall’s porpoise, Pacific white-sided dolphin, orca, minke whale, humpback whale, fin whale, and birds including bald eagles, puffins, murre, Steller’s jay, black-billed magpie, peregrine falcon, and marbled murrelet.<sup>21</sup> Portions of both Kenai Fjords National Park and the Kachemak Bay State Park and State Wilderness Park are included in the Kenai Wilderness, which covers a total of 1,354,247 acres on the Kenai Peninsula.<sup>22</sup>

The shoreline of the Kenai Peninsula along Cook Inlet is located at the edge of the North American Plate, leading to frequent and often devastating earthquakes and volcanic activity in the area. Five active volcanoes are located within the Kenai Peninsula Borough, all situated on the west side of Cook Inlet. They are Fourpeaked, Augustine, Iliamna, Redoubt, and Mount Spurr. Major damage can also be caused by secondary earthquake hazards, including landslides, floods, avalanches, tsunamis, uplift, subsidence, infrastructure failures, and soil liquefaction.<sup>23</sup>

The Kenai Peninsula and Cook Inlet oil and gas industry is very active, with a number of new wells being drilled each year. As of 2010, there were 28 producing oil and gas fields on and off shore in the area. Oil production has declined from a peak in 1970 of 230,000 barrels per day. In 2010, only 12,000 barrels were produced per day. Cook Inlet natural gas production has also been declining in recent years.<sup>24</sup>

Nanwalek is one of seven Chugach Region tribes that joined to establish the Chugach Regional Resources Commission (CRRC) in 1984. CRRC was formed to “collectively address issues of mutual concern regarding stewardship of the natural resources, subsistence, the environment, and to develop culturally appropriate economic projects that promote the sustainable development of the natural resources.”<sup>25</sup>

The Port Graham/Nanwalek Watershed Council was formed in the 1990s to protect and preserve the two adjacent watersheds of English Bay River and Port Graham River and their tributaries. Because the ecosystems are largely healthy, the management approach of the Watershed Council is to prevent degradation as both communities experience growth in transportation systems, housing, and commercial resource harvests of timber and fish. The Watershed Council was formed as a result of meetings convened by the Chugachmiut Environmental Health Program to examine where funding for wetlands protection was most needed in the region.<sup>26</sup>

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Nanwalek as of May 2012.<sup>27</sup>

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<sup>21</sup> Kenai Fjords National Park website (2010). Retrieved December 27, 2011 from <http://www.nps.gov/kefj/>.

<sup>22</sup> Wilderness.net (n.d.). *Kenai Wilderness*. Retrieved January 26, 2012 from <http://www.wilderness.net>.

<sup>23</sup> Kenai Peninsula Borough (2010). *All-Hazard Mitigation Plan*. Retrieved January 26, 2012 from <http://www2.borough.kenai.ak.us/emergency/hazmit/plan.htm>

<sup>24</sup> Resource Development Council (n.d.). *Alaska’s Oil and Gas Industry*. Retrieved January 26, 2012 from <http://www.akrdc.org/issues/oilgas/overview.html>.

<sup>25</sup> Chugachmiut (2009). *Chugach Region Comprehensive Economic Development Strategy, Draft Version 5*. Retrieved December 26, 2011 from <http://www.chugachmiut.org/>.

<sup>26</sup> See footnote 17.

<sup>27</sup> Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved April 17, 2012 from <http://dec.alaska.gov/spar/csp/list.htm>.

## Current Economy<sup>28</sup>

The economy of Nanwalek is heavily tied to subsistence activities. According to a survey conducted by the AFSC in 2011, Nanwalek community leaders reported that commercial fishing is the most important natural resource-based industry in Nanwalek. In 2010, eight residents held commercial fishing permits (Table 4). As of 2010, additional employment was also provided by the school, the office of the Village of Nanwalek, the village Native corporation, the regional Native non-profit organization, the North Pacific Rim Housing Authority, and a private construction company.<sup>29</sup> A cannery in nearby Port Graham has also been an important source of local employment in recent decades.<sup>30</sup> However, in the 2011 AFSC survey, Port Graham community leaders indicated that the processing plant is not currently operating.

Based on household surveys conducted for the 2006-2010 ACS,<sup>31</sup> in 2010, the per capita income in Nanwalek was estimated to be \$7,540 and the median household income was estimated to be \$28,846. This represents a sizeable decrease in income from the per capita and median household incomes reported in 2000 (\$10,577 and \$42,500, respectively). If inflation is taken into account by converting the 2000 values to 2010 dollars,<sup>32</sup> the decrease is even greater, from a real per capita income of \$13,909 and real median household income of \$55,887 in 2000. In 2010, Nanwalek ranked 301<sup>st</sup> of 305 Alaskan communities with per capita income data that year, and 251<sup>st</sup> in median household income, out of 299 Alaskan communities with household income data.

Although Nanwalek's small population size may have prevented the ACS from accurately portraying economic conditions,<sup>33</sup> the 2010 ACS per capita income estimate is supported 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 Mountain Village in 2010 is \$5,387.<sup>34</sup> This is slightly lower than the 2006-2010 ACS estimate, and provides additional evidence that per capita income declined in Nanwalek from 2000 to 2010. This decline is reflected in the fact that the community was recognized as "distressed" by the Denali Commission, indicating that over 70% of residents aged 16 and older earned less than

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<sup>28</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>29</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>30</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>31</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>32</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>).

<sup>33</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>34</sup> See footnotes 29 and 31.

\$16,120 in 2010.<sup>35</sup> It is important to note that both ACS and DOLWD data are based on wage earnings, and do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a smaller percentage of Nanwalek's population was estimated to be in the labor force (55%) compared to the percentage of Alaskans in the labor force statewide (68.8%). That year, 31.4% of local residents were estimated to be living below the poverty line, compared to 9.5% of Alaska residents overall, and the unemployment rate was estimated to be 25%, 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 Nanwalek in 2010 was 22.1%, compared to a statewide unemployment rate estimate of 11.5%.<sup>36</sup>

Also based on the 2006-2010 ACS, a majority of Nanwalek's workforce was estimated to be employed in the public sector (80.6%), and the remaining 19.4% were estimated to be employed in the private sector. The 36 people aged 16 and over that were estimated to be employed in the civilian labor force were estimated to be employed in the following industries: public administration (50%), educational services, health care, and social assistance (25%), retail trade (13.9%), and finance/real estate (11.1%). Occupations in which the greatest percentages of the workforce were estimated to be employed in 2010 were management/professional (38.9%) and service occupations (38.9%). Compared to 2000, employment estimates in Nanwalek appear to have become highly concentrated in some industries and occupations, while employment in other industries appears to have entirely ceased. These changes may be partly a result of the shift to a new sampling system with the ACS.<sup>37</sup> In 2010, no Newhalen residents were estimated to be employed in fishing-related industries or occupations. It is important to note that the number of individuals employed by fishing is probably 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.

An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 136 employed residents in Nanwalek in 2010, of which 55.6% were employed in local government, 7.8% in trade, transportation, and utilities, 5.6% in financial activities, 4.4% in construction, 1.1% in natural resources and mining, 1.1% in professional and business services, 1.1% in education and health services, and 23.3% in other industries.<sup>38</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.

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<sup>35</sup> Denali Commission (2011). *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from [www.denali.gov](http://www.denali.gov).

<sup>36</sup> See footnote 29.

<sup>37</sup> See footnote 33.

<sup>38</sup> *Ibid.*



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

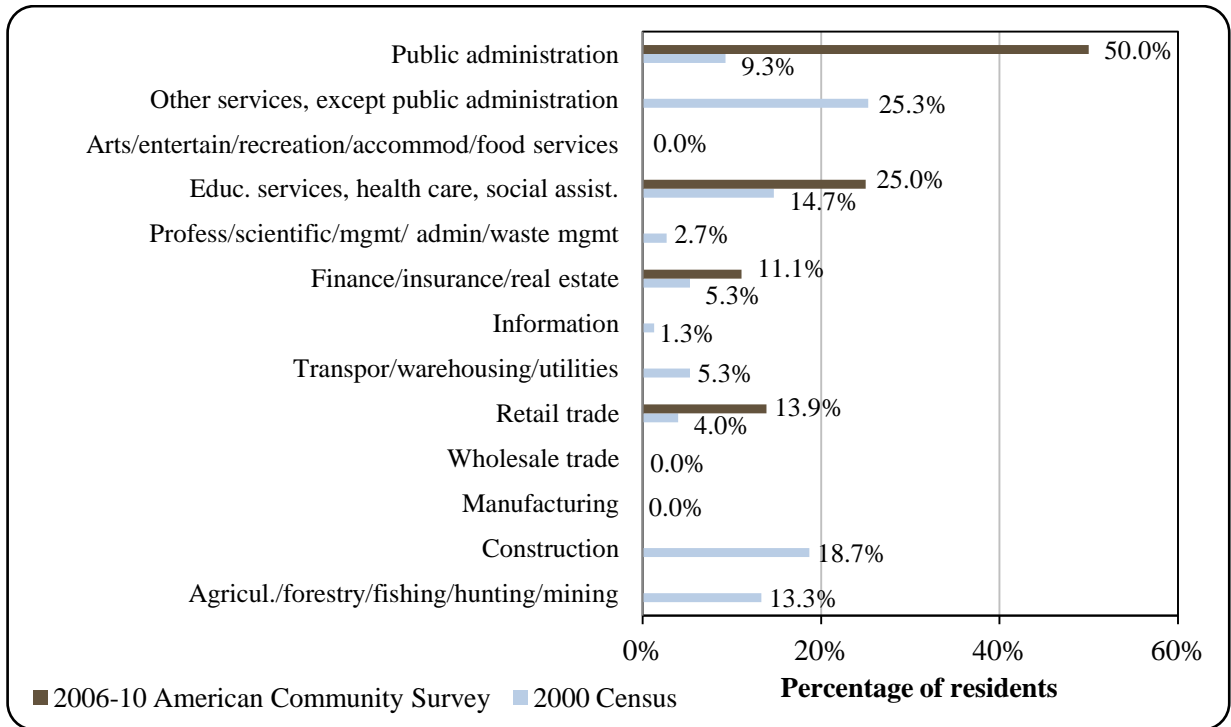
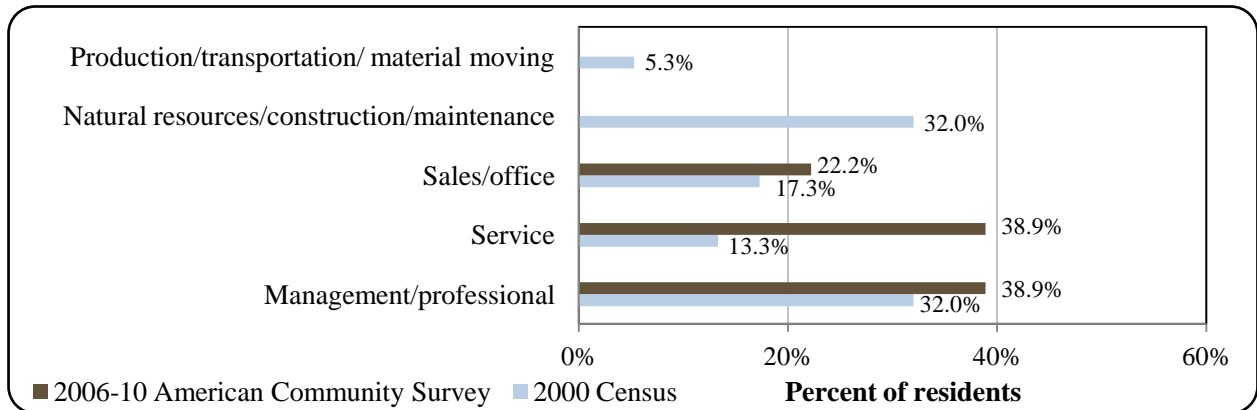


Figure 4. Local Employment by Occupation in 2000-2010, Nanwalek (U.S. Census).



## Governance

Nanwalek is an unincorporated community in the Kenai Peninsula Borough. The community does not administer any local taxes, although the Borough does administer a 3% sales tax and 4.5 mills property tax.<sup>39</sup> Given that Nanwalek is not incorporated, there was no municipal revenue or municipal sales tax revenue between 2000 and 2010. No information was reported regarding State or Community Revenue Sharing contributions or fisheries related grants received by the community between 2000 and 2010 (Table 2).

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

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

<sup>1</sup> Alaska Department of Commerce, Community, and Economic Development. (n.d.). *Financial Documents Delivery System*. Retrieved at [http://www.commerce.state.ak.us/dcra/commfin/CF\\_FinRec.cfm](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm). Data retrieved April 15, 2011.

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

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

<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 Department of Commerce, Community, and Economic Development. (n.d.). *Community Funding Database*. Retrieved at [http://www.commerce.state.ak.us/dca/commdb/CF\\_Grants.htm](http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm). Data retrieved April 15, 2011.

Nanwalek was included under the Alaska Native Claims Settlement Act (ANCSA), and is federally recognized as a Native village. The authorized traditional entity, recognized by the Bureau of Indian Affairs, is the Native Village of Nanwalek.<sup>40</sup> The Village is governed by the Nanwalek Indian Reorganization Act Council, consisting of an elected seven-member body. The

<sup>39</sup> Alaska Dept. of Comm. And Rural Affairs. (n.d.). *Community Information Summaries*. Retrieved December 27, 2011 from [http://www.commerce.state.ak.us/dca/commdb/CF\\_CIS.htm](http://www.commerce.state.ak.us/dca/commdb/CF_CIS.htm).

<sup>40</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).

Council consists of a First Chief, Second Chief, Secretary, Treasurer, and three Council Members.<sup>41</sup> The local Native village corporation is the English Bay Corporation, which manages 76,400 acres of land. The regional Native corporation to which Nanwalek belongs is the Chugach Alaska Corporation.<sup>42</sup>

Nanwalek is also a member of Chugachmiut, a tribal 501(c)(3) non-profit organization with the goal of advancing the overall economic, social, and cultural development of the people of the Chugach Region.<sup>43</sup> Chugachmiut is one of the 12 regional Alaska Native 501(c)(3) non-profit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native associations receive federal funding to administer a broad range of services to villages in their regions.<sup>44</sup> Chugachmiut offers education, training, and community organizing opportunities, and runs programs including Community Health Aides and Practitioners, Contract Health Care, Community Health Representatives, substance abuse treatment and prevention, Cardiovascular Disease and Diabetes prevention and case management, maternal health, forestry, child care, Head Start, Elders, Indian Child Welfare Act, housing, tribal law, and more.<sup>45</sup>

The office of the English Bay Corporation, along with the closest offices of ADF&G, the Alaska Department of Natural Resources, and an enforcement office of the National Marine Fisheries Service (NMFS), are located in Homer, approximately 17 air miles and 35 water miles away from Nanwalek. The office of Chugachmiut is located in Anchorage, along with the closest offices of the Alaska Department of Commerce, Community, and Economic Development and the U.S. Bureau of Citizenship and Immigration Services.

## Infrastructure

### *Connectivity and Transportation*

Nanwalek is not accessible by road. Boats are the primary means of transportation locally.<sup>46</sup> A state-owned, 1,850-ft-long by 50-ft-wide gravel airstrip is available for air taxis and general aviation. No scheduled commercial flights serve Nanwalek.<sup>47</sup> The nearest commercial airport is in Homer, 35 miles away by water. The price of a roundtrip ticket by plane from Homer to Anchorage in early June of 2012 was \$239.<sup>48</sup> The state ferry provides service from nearby Seldovia to Kodiak, Homer, Whittier, and Chenega Bay, as well as ports in Southeast Alaska, British Columbia, and Washington State. The summer 2012 passenger fare for a roundtrip ferry ticket between Seldovia and Homer was \$66, a ticket between Seldovia and Juneau was \$768, and a ticket between Seldovia and Bellingham, Washington, was \$1420.<sup>49</sup>

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<sup>41</sup> Chugachmiut (2011). *Tribes: Nanwalek Village IRA*. Retrieved December 26, 2011 from <http://www.chugachmiut.org/tribes/nanwalek.html>.

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

<sup>43</sup> Chugachmiut (2011). *About Us*. Retrieved December 26, 2011 from <http://www.chugachmiut.org/about.html>.

<sup>44</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>45</sup> Cook Inlet Tribal Council. (n.d.). *What We Do*. Retrieved February 23, 2012 from <http://www.citci.com/>.

<sup>46</sup> See footnote 40.

<sup>47</sup> Airport information retrieved December 14, 2011 from <http://www.airnav.com/>.

<sup>48</sup> Fare calculated on November 21, 2011 using kayak.com.

<sup>49</sup> Fare information retrieved December 26, 2011 from <http://www.dot.state.ak.us/amhs/>.

### *Facilities*

The Village of Nanwalek operates a piped water and sewer system that serves the village. Most homes are completely plumbed.<sup>50</sup> Nanwalek's water source is a small dam located northeast of the Village. In periods of low precipitation this source is variable, and the community identified Switchback Creek as an option to supplement water supply.<sup>51</sup> Water in Nanwalek is filtered, but not chlorinated.<sup>52</sup> There is a community septic tank, and some outhouses are also in use. The Kenai Peninsula Borough operates a landfill, but does not provide refuse collection services.<sup>53</sup> According to the Chugach Region Comprehensive Economic Development Strategy, Nanwalek is in need of a larger water storage tank, water treatment, new water and sewer mains, new fire hydrants, and a landfill expansion.<sup>54</sup>

Electricity is provided to the Village by the Homer Electric Association using hydroelectric and natural gas.<sup>55</sup> According to a survey conducted by the AFSC in 2011, community leaders reported that a diesel powerhouse is also present in the community. There is no VPSO (Village Public Safety Officer) stationed in Nanwalek.<sup>56</sup> The nearest state trooper post is in Homer.<sup>57</sup> In the 2011 AFSC survey, community leaders reported that a food bank and a fire department are present in Nanwalek, and that additional public safety and emergency response services are in process. Community facilities in Nanwalek include a U.S. post office, school library, and a community building. Several guest accommodations are available in town, and broadband and telephone service are available.<sup>58</sup> The English Bay Corporation runs a grocery store in the Village.<sup>59</sup>

With respect to fishing-related facilities, community leaders reported in the 2011 AFSC survey that no dock space is available for permanent or transient vessel moorage in Nanwalek, although there is public moorage space available for vessels up to 30 ft in length. They reported that a barge landing area and haul-out facilities are under development in the Village. They also said that residents travel to Homer to access fisheries-related businesses and services not available in Nanwalek.

### *Medical Services*

Medical services are available from the Nanwalek Clinic, owned by the Village Council and operated by Chugachmiut, a regional non-profit organization serving Native communities in the Chugach region. The Nanwalek Clinic is a Community Health Aid Program site. Alternative health care is provided by Nanwalek First Responders. Emergency services have coastal,

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<sup>50</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>51</sup> Chugachmiut (2009). *Chugach Region Comprehensive Economic Development Strategy, Draft Version 5*. Retrieved December 26, 2011 from <http://www.chugachmiut.org/>.

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

<sup>53</sup> Ibid.

<sup>54</sup> See footnote 51.

<sup>55</sup> See footnote 50.

<sup>56</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>57</sup> See footnote 50.

<sup>58</sup> Ibid.

<sup>59</sup> See footnote 51.

floatplane, and air access. Emergency service is provided by volunteers and the local health aide.<sup>60</sup> The nearest hospital is located in Homer.

### *Educational Opportunities*

One school is present in Nanwalek. The Nanwalek School serves Kindergarten through 12<sup>th</sup> grade. As of 2011, 81 students attended Nanwalek School, and 8 teachers were employed.<sup>61</sup>

## **Involvement in North Pacific Fisheries**

### *History and Evolution of Fisheries*

Nanwalek has been the site of subsistence harvest of marine resources for thousands of years. The site was used as a fish camp by prehistoric peoples from villages on the Kenai Peninsula and in Prince Williams Sound.<sup>62</sup> Archaeological evidence reveals that marine mammals were a primary food source for early Eskimo residents of the area, and that finfish and shellfish increased in importance over time.<sup>63</sup>

With the purchase of Alaska by the United States in 1867, the commercial fishing industry began to grow in the Cook Inlet region. In 1883, a salmon saltery was opened by the Alaska Commercial Company in Port Graham Bay. In 1911, a cannery was established at Seldovia, and the community of Port Graham was founded when a cannery was built there in 1912. The Port Graham Cannery drew Nanwalek residents for seasonal work. Salmon was the primary focus of fishing and processing effort in early years of the fishing industry, and herring was also an important early product. A cannery was built at English Bay in 1920 which was the first to can king crab, known at that time as “spider crab.”<sup>64</sup>

In the early years of commercial fishing, Native residents of the Cook Inlet area typically lacked the resources to purchase expensive fishing vessels. Instead, they participated in commercial fishing as cannery workers, salmon trap attendants, and setnet fishers. Native residents were also unable to work a full summer season at the cannery, since they also needed to put up subsistence resources for their winter food supply. By the 1950s, villagers were able to afford to lease or purchase commercial fishing vessels and gear.<sup>65</sup>

Nanwalek is located at English Bay, within the Southern district of the ADF&G-managed Lower Cook Inlet salmon fishery. Lower Cook Inlet is divided into the Southern, Outer, Eastern, and Kamishak Bay fishing districts. Purse seine gear is used throughout the Lower Cook Inlet

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<sup>60</sup> See footnote 50.

<sup>61</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

<sup>62</sup> ASCG Inc. (2006). *Chugachmiut Facilitated Integrated Resources Management Plan for Nanwalek and Port Graham*. Retrieved December 26, 2011 from <ftp://200-10-178-69.static.gci.net/>.

<sup>63</sup> Stanek, R. T. (1999). *Ethnographic Overview and Assessment for Nanwalek and Port Graham*. Draft. Division of Subsistence, Alaska Department of Fish and Game. Retrieved December 27, 2011 from <http://www.alaska.boemre.gov/>.

<sup>64</sup> Ibid.

<sup>65</sup> Ibid.

management area, while set gill nets are limited to the Kachemak Bay sub-district.<sup>66</sup> Between 2000 and 2010, all actively fished salmon permits held by Nanwalek residents were fished in the Lower Cook Inlet set gill net fishery (see *Commercial Fishing* section). Sockeye salmon escapement in the English Bay River system reached a low of 5,000 adults in 1985, from a historical high of 40,000 fish. ADF&G closed the fishing season to allow the stock to recover. To meet the needs for a local salmon resource, the Nanwalek Salmon Enhancement Project began operations in 1990 at the Port Graham hatchery facility.<sup>67</sup> In 2011, the Cook Inlet Aquaculture Association coordinated cost recovery harvest of Port Graham Bay and other Cook Inlet hatchery returns.<sup>68</sup>

Nanwalek is also located in Pacific Halibut Fishery Regulatory Area 3A, the Central Gulf of Alaska Sablefish Regulatory Area, and Federal Statistical and Reporting Area 630. Nanwalek is eligible to participate in the Community Quota Entity (CQE) program. The community governing body that recommended CQE membership is the Village of Nanwalek, and the CQE entity is Nanwalek Natural Resources/Fisheries Board, Inc. As of Fall 2013, the Nanwalek Natural Resources/Fisheries Board had not yet purchased commercial halibut quota shares or non-trawl groundfish License Limitation Program permits for lease to eligible community members. However, the non-profit had acquired seven halibut charter permits for lease to community members.<sup>69</sup> Nanwalek is not eligible to participate in the Community Development Quota (CDQ) program. According to a survey conducted by the AFSC in 2011, community leaders reported that the community of Nanwalek actively participates in fisheries management processes in Alaska.

### *Processing Plants*

ADF&G's 2010 Intent to Operate list does not list a registered processing plant in Nanwalek. A number of plants are registered in the nearby City of Homer. In addition, a cannery in nearby Port Graham has been an important source of local employment since the early 1900s.<sup>70,71</sup> However, in the 2011 AFSC survey, Port Graham community leaders indicated that the processing plant is not currently operating.

### *Fisheries-Related Revenue*

Between 2000 and 2010, no data were reported about fisheries-related revenue received by Nanwalek (Table 3).

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<sup>66</sup> Clark, McGregor, Mecum, Krasnowski and Carroll (2006). The Commercial Salmon Fishery in Alaska. *Alaska Fisheries Research Bulletin* 12(1):1-146. Alaska Dept. of Fish and Game. Retrieved January 4, 2012 from <http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1.pdf>.

<sup>67</sup> Ibid.

<sup>68</sup> Cook Inlet Aquaculture Association (2011). *2011 Prospective Fish Sales*. Retrieved December 27, 2011 from <http://www.ciaa.net.org/>.

<sup>69</sup> NOAA Fisheries. (2013). *Community Quota and License Programs and Community Quota Entities*. Retrieved October 30, 2013 from <http://alaskafisheries.noaa.gov/ram/cqp.htm>.

<sup>70</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>71</sup> See footnote 63.

### *Commercial Fishing*

In addition to high involvement in subsistence hunting and fishing (see the *Subsistence* section of this profile), Nanwalek residents are engaged in commercial fishing as vessel owners, permit holders, and crew license holders. Between 2000 and 2010, the number of Nanwalek residents holding commercial crew licenses declined from a high of 11 in 2003 to 1 crew license held in 2010. The number of vessel owners residing in Nanwalek declined from three in 2000 to one in 2010, while the number of vessels homeported in Nanwalek declined from three to zero. According to a survey conducted by the AFSC in 2011, community leaders reported that fishing boats using Nanwalek as their base of fishing operations are typically longline, gill net, and troll vessels under 35 ft in length. There were no processing facilities or fish buyers located in Nanwalek between 2000 and 2010. These characteristics of the Nanwalek commercial fishing sector are presented in Table 5.

In 2010, eight state Commercial Fisheries Entry Commission (CFEC) permits were held by a total of nine Nanwalek permit holders. All of the permits were for the Cook Inlet purse seine and set gill net salmon fisheries. Of these, the only salmon permits that were actively fished between 2000 and 2010 were set gill net permits. The number of salmon permits held stayed quite consistent between 2000 and 2010, although the percentage of permits that were actively fished varied, with 0% fished in 2001, 63% fished in 2002 and 2003, and 25% fished in 2010 (two out of eight total permits held). Between 2000 and 2010, no federal License Limitation Program permits (LLP) or Federal Fisheries Permits (FFP) were held by Nanwalek residents, and no quota shares accounts were held in the federal halibut, sablefish, or crab fisheries. Information about permits is presented in Table 4, and information about federal catch share participation is presented in Tables 6 through 8.

No landings or ex-vessel revenue were recorded in Nanwalek during the 2000-2010 period (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 Nanwalek residents, including all delivery locations, is considered confidential between 2000 and 2010 due to the small number of participants (Table 10).

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <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
Shared Fisheries Business Tax <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
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	n/a
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
<i>Total fisheries-related revenue</i> <sup>4</sup>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
<i>Total municipal revenue</i> <sup>5</sup>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>

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

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

<sup>2</sup> Alaska Department of Commerce, Community, and Economic Development. (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 financial statements. Alaska Department of Commerce, Community, and Economic Development. (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, Nanwalek: 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	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0

Table 4 cont'd. Permits and Permit Holders by Species, Nanwalek: 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	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) <sup>2</sup>	Total permits	8	7	8	8	8	8	8	8	8	8	8
	Fished permits	3	0	5	5	2	0	3	2	2	2	2
	% of permits fished	38%	0%	63%	63%	25%	0%	38%	25%	25%	25%	25%
	Total permit holders	8	7	8	8	9	8	9	8	8	8	9
<i>Total CFEC Permits<sup>2</sup></i>	<i>Permits</i>	8	7	8	8	8	8	8	8	8	8	8
	<i>Fished permits</i>	3	0	5	5	2	0	3	2	2	2	2
	<i>% of permits fished</i>	38%	0%	63%	63%	25%	0%	38%	25%	25%	25%	25%
	<i>Permit holders</i>	8	7	8	8	9	8	9	8	8	8	9

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

<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 Nanwalek: 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 Nanwalek <sup>2</sup>	Total Net Lb Landed In Nanwalek <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Nanwalek <sup>2,5</sup>
2000	3	0	0	3	3	0	0	\$0
2001	4	0	0	3	3	0	0	\$0
2002	2	0	0	2	2	0	0	\$0
2003	11	0	0	2	2	0	0	\$0
2004	2	0	0	1	1	0	0	\$0
2005	6	0	0	0	0	0	0	\$0
2006	4	0	0	1	1	0	0	\$0
2007	2	0	0	2	2	0	0	\$0
2008	3	0	0	1	1	0	0	\$0
2009	5	0	0	1	1	0	0	\$0
2010	1	0	0	1	1	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 by Residents of Nanwalek: 2000-2010.

<b>Year</b>	<b>Number Of Halibut Quota Share Account Holders</b>	<b>Halibut Quota Shares Held</b>	<b>Halibut IFQ Allotment (Lb)</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 the AFSC, Seattle.

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

<b>Year</b>	<b>Number Of Sablefish Quota Share Account Holders</b>	<b>Sablefish Quota Shares Held</b>	<b>Sablefish IFQ Allotment (Lb)</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 the AFSC, Seattle.

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

<b>Year</b>	<b>Number Of Crab Quota Share Account Holders</b>	<b>Crab Quota Shares Held</b>	<b>Crab IFQ Allotment (Lb)</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 the AFSC, Seattle.

Table 9. Landed Pounds and Ex-vessel Revenue, by Species, in Nanwalek: 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 lb 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 Nanwalek Residents:  
 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	-	-	-	-	-
Finfish	-	-	-	-	-	0	-	-	-	-	-
Halibut	-	-	-	-	-	0	-	-	-	-	-
Herring	-	-	-	-	-	0	-	-	-	-	-
Other Groundfish	-	-	-	-	-	0	-	-	-	-	-
Other Shellfish	-	-	-	-	-	0	-	-	-	-	-
Pacific Cod	-	-	-	-	-	0	-	-	-	-	-
Pollock	-	-	-	-	-	0	-	-	-	-	-
Sablefish	-	-	-	-	-	0	-	-	-	-	-
Salmon	-	-	-	-	-	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	-	-	-	-	-
Finfish	-	-	-	-	-	\$0	-	-	-	-	-
Halibut	-	-	-	-	-	\$0	-	-	-	-	-
Herring	-	-	-	-	-	\$0	-	-	-	-	-
Other Groundfish	-	-	-	-	-	\$0	-	-	-	-	-
Other Shellfish	-	-	-	-	-	\$0	-	-	-	-	-
Pacific Cod	-	-	-	-	-	\$0	-	-	-	-	-
Pollock	-	-	-	-	-	\$0	-	-	-	-	-
Sablefish	-	-	-	-	-	\$0	-	-	-	-	-
Salmon	-	-	-	-	-	\$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>

*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 lb refers to the landed weight recorded in fish tickets.

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

### *Recreational Fishing*

Residents of Nanwalek participated in recreational fishing activities through purchase of sportfishing licenses and through the presence of licensed sport fish guides in some years between 2000 and 2010. Although there were no active sport fish guide businesses registered in Nanwalek from 2000 to 2010, one or two licensed sport fish guide were present from 2001 to 2004. Between 2000 and 2010, the number of Nanwalek residents that purchased sportfishing licenses varied between 11 and 42 per year (24 on average). No licenses were sold in Nanwalek itself. Information about sportfishing activity in Nanwalek is presented in Table 11.

In a survey conducted by the AFSC in 2011, community leaders reported that sportfishing activity in the Nanwalek area is primarily done by residents using private boats. They noted Chinook salmon, Pacific halibut, and rockfish as three target species of sportfishing activity in the area. The Alaska Statewide Harvest Survey,<sup>72</sup> conducted by ADF&G between 2000 and 2010, noted the following species targeted by private anglers in Nanwalek: Chinook, coho, and sockeye salmon, Dolly Varden char, and Pacific halibut. The survey also noted sport harvest of “other shellfish”<sup>73</sup> by Nanwalek residents. No kept/released log book data were reported for fishing charters out of Nanwalek between 2000 and 2010.<sup>74</sup>

Nanwalek is located within Alaska Sport Fishing Survey Area P, including saltwater fishing in Cook Inlet and freshwater fishing on the Kenai Peninsula. Between 2000 and 2010, saltwater and freshwater sportfishing at this regional level was substantial. In 2010, Alaska residents logged 47,656 saltwater angler days and 28,294 freshwater angler days, while non-Alaska residents logged 20,292 saltwater angler days and 71,555 freshwater angler days. Typically, Alaska residents took part in saltwater sportfishing at greater rates than non-Alaska resident anglers, and the opposite was true of freshwater sportfishing. For both resident and non-resident anglers in both freshwater and saltwater, the number of angler days fished per year decreased between 2000 and 2010. This information about regional sportfishing activity is presented in Table 11.

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<sup>72</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. Retrieved from <http://www.adfg.alaska.gov/sf/sportfishingsurvey/>. (Accessed September 2011).

<sup>73</sup> The Alaska Statewide Harvest Survey includes separate categories for Dungeness crab, Tanner crab, razor clams, hardshell clams, and shrimp. Remaining species fall into the ‘other shellfish’ category.

<sup>74</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. Sport Fishing Trends, Nanwalek: 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 Nanwalek <sup>2</sup>
2000	0	0	11	0
2001	0	1	42	0
2002	0	2	25	0
2003	0	2	19	0
2004	0	2	20	0
2005	0	0	14	0
2006	0	0	16	0
2007	0	0	28	0
2008	0	0	26	0
2009	0	0	32	0
2010	0	0	27	0

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	68,928	40,179	42,157	139,737
2001	62,340	22,585	28,245	69,053
2002	53,537	22,745	26,479	83,335
2003	49,366	24,522	35,299	80,368
2004	57,167	24,224	39,009	83,478
2005	65,997	27,827	37,309	91,489
2006	67,259	23,225	33,988	76,100
2007	67,556	24,465	31,105	89,061
2008	54,136	21,762	28,780	70,285
2009	41,925	21,446	24,959	77,945
2010	47,656	20,292	28,294	71,555

<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*

Nanwalek has been the site of subsistence harvest of marine resources for thousands of years. The site was used as a fish camp by prehistoric peoples from villages on the Kenai Peninsula and in Prince Williams Sound.<sup>75</sup> Historically, Native people living in Nanwalek also utilized sites along the coast of the present day Kenai Fjords National Park, but under the Alaska National Interest Lands Conservation Act of 1980, the National Park was closed to all subsistence hunting and fishing.<sup>76</sup> Archaeological evidence reveals that early Eskimo residents of the area had a highly developed technology for hunting marine mammals including seals, sea lions, sea otters, and whales. In more recent sites, there is increased evidence of use of finfish and shellfish, but marine mammals appear to have remained the primary food source for residents of the area.<sup>77</sup>

Today, subsistence harvest remains a primary focus of Nanwalek's economy and culture.<sup>78</sup> In 2003, the only year that a subsistence survey was conducted by ADF&G in Nanwalek between 2000 and 2010, 93% of households were reported participating in salmon subsistence, 91% participated in halibut subsistence, 35% in marine mammal subsistence, 72% in marine invertebrate subsistence, and 64% in non-salmon fish subsistence (other than halibut). That year residents of Nanwalek were estimated to harvest 394 lb of land and sea-based subsistence resources per capita. Information about household participation and per capita use of subsistence resources is presented in Table 12.

For years in which data were reported, an average of 25 subsistence salmon permits were issued to Nanwalek households per year. Based on reported harvests, sockeye salmon were the most heavily harvested salmon species in all years (3,146 harvested per year on average), followed by pink (1,229 harvested on average) and coho salmon (959 harvested on average). An average of 235 chum and 36 Chinook salmon were also reported as harvested using subsistence salmon permits per year. Information about subsistence salmon harvest is presented in Table 13. In 2003, 3,580 lb of marine invertebrates and 8,655 lb of non-salmon fish (not including halibut) were also harvested for subsistence purposes (Table 13).

Between 2003 and 2010, an average of 44 Subsistence Halibut Registration Certificates (SHARC) was issued to residents of Nanwalek. Of these, an average of almost 30 cards were fished, with an average subsistence halibut harvest of 12,739 lb per year. The highest harvest of halibut during the period occurred in 2008, when 42 SHARC cards were fished and a total of 24,755 lb of halibut were harvested. Information about subsistence harvest of halibut is presented in Table 14.

Information about subsistence harvest of several species of marine mammals was reported between 2000 and 2010. According to data reported by ADF&G, between 1 and 6 Steller sea lions were harvested per year between 2000 and 2008, and harbor seal harvests varied

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<sup>75</sup> ASCG Inc. (2006). *Chugachmiut Facilitated Integrated Resources Management Plan for Nanwalek and Port Graham*. Retrieved December 26, 2011 from <ftp://200-10-178-69.static.gci.net/>.

<sup>76</sup> Fall, James A., Ronald T. Stanek, Brian Davis, Liz Williams and Robert Walker (2004). *Cook Inlet Customary and Traditional Subsistence Fisheries Assessment*. Final Report for Study No. FIS 03-045. Retrieved December 27, 2011 from <http://alaska.fws.gov/asm/index.cfml>.

<sup>77</sup> Stanek, R. T. (1999). *Ethnographic Overview and Assessment for Nanwalek and Port Graham*. Draft. Division of Subsistence, Alaska Department of Fish and Game. Retrieved December 27, 2011 from <http://www.alaska.boemre.gov/>.

<sup>78</sup> Alaska Dept. of Comm. And Rural Affairs. (n.d.). *Community Information Summaries*. Retrieved December 27, 2011 from [http://www.commerce.state.ak.us/dca/commdb/CF\\_CIS.htm](http://www.commerce.state.ak.us/dca/commdb/CF_CIS.htm).

between 20 and 53 animals per year during the same period. No information was reported by management agencies regarding harvest of beluga whale, sea otter, walrus, or spotted seal between 2000 and 2010. Information about subsistence harvest of marine mammals in Nanwalek is presented in Table 15.

### Additional Information

Several decades after the Russians abandoned Alexandrovsk, the Native population was also forced to temporarily evacuate when Mount Augustine erupted in 1883. The following summary account from George Davidson of the U.S. Coast and Geodetic Survey (USCGS) and Captains Sands and Cullie of the Alaska Commercial Company, was published by geographer William Dall in 1884:

“Smoke first arose from the peak in August. On the morning of Oct. 6 the inhabitants heard a heavy report, and saw smoke and flames issuing from the summit of the island. The sky became obscured, and a few hours later there was a shower of pumice-dust. About half-past eight o’clock the same day an earthquake wave, estimated at thirty feet height, rolled in upon the shore, deluging the houses on the lowland, and washing the boats and canoes from the beach. It was followed by others of less height. The ash fell to a depth of several inches, and darkness required lamps to be lighted. At night flames were seen issuing from the summit. After the first disturbances were over, it was found that the northern slope of the summit had fallen to the level of the . . . shore, and the mountain appeared as if split in two. . . . The cleft . . . crosses the island from east to west.”<sup>79</sup>

Table 12. Subsistence Participation by Household and Species, Nanwalek: 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	93%	91%	35%	72%	64%	394
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).

<sup>79</sup> Alaska Volcano Observatory (n.d.). *Augustine Reported Activity: Augustine – 1883*. Retrieved December 27, 2011 from <http://avo.alaska.edu/volcanoes/>.

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Nanwalek: 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>	Lb Of Marine Inverts <sup>2</sup>	Lb Of Non-Salmon Fish <sup>2</sup>
2000	n/a	32	18	470	1,579	1,251	3,880	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	56	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	35	n/a	n/a	n/a	n/a	n/a	1,179	8,655
2004	25	25	52	95	842	1,277	2,968	n/a	n/a
2005	22	22	27	128	1,142	1,259	1,934	n/a	n/a
2006	n/a	39	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	29	29	47	247	274	1,128	3,802	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, Nanwalek: 2003-2010.

Year	SHARC issued	SHARC cards fished	SHARC halibut lb harvested
2003	37	31	8,080
2004	37	28	15,928
2005	37	32	9,215
2006	31	17	6,146
2007	58	38	11,872
2008	51	42	24,701
2009	51	21	13,234
2010	48	20	12,865

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, Nanwalek: 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.