

Chefnak (chuh-FORE-nuck)



People and Place

*Location*¹

Chefnak is located on the south bank of the Kinia River, at its junction with the Keguk River, in the Yukon-Kuskokwim Delta. Chefnak is 98 mi southwest of Bethel and 490 mi southwest of Anchorage. The area encompasses 5.7 sq mi of land and 0.8 sq mi of water. The community was incorporated as a Second-class city in 1974, is located within the Bethel Census Area, and is not under the jurisdiction of a borough.

*Demographic Profile*²

In 2010, there were 418 residents, ranking Chefnak 131st of 352 Alaskan communities in terms of population size. Between 1990 and 2010, the population grew by 30.6%. Between 2000 and 2009, the population grew by 20.56% with an average annual growth rate of 1.05%; which was slightly higher than the statewide average annual growth rate of 0.75% and indicative of steady growth. However, this figure does not account for the dip in population between the 2009 state estimate and 2010 census number, which brought the total population closer to what it was in 2000.

In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that there were more than 475 permanent residents estimated to be living in Chefnak in 2010. Also in that year, approximately 500 seasonal or transient workers were living in the community. Peaks in population are typically seen between May and August, and are somewhat driven by employment in fishing sectors. Further information regarding population trends can be found in Table 1.

Chefnak was predominantly Yup'ik Eskimo in 2010.³ In that year, 95.7% of residents identified themselves as American Indian or Alaska Native, compared to 93.4% in 2000; 3.3% identified themselves as White, compared to 2.0% in 2000; 0.2% identified themselves as Black or African American, compared to 0.0% in 2000; and 0.7% identified themselves as two or more races, compared to 4.6% in 2000 (Figure 1).

In 2010, the average household size was 4.54, compared to 5.0 in 1990 and 5.25 in 2000. In that year, there were 99 total housing units, compared to 79 in 1990 and 82 in 2000. Of the households surveyed in 2010, 52.5% were owner-occupied, compared to 80.5% in 2000; 40.4% were renter-occupied, compared to 11.0% in 2000; 4.0% were vacant, compared to 7.3% in 2000; and 3.0% were occupied seasonally, compared to 1.2% in 2000. There were no reports of residents living in group quarters between 1990 and 2010.

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

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>.

³ See footnote 1.

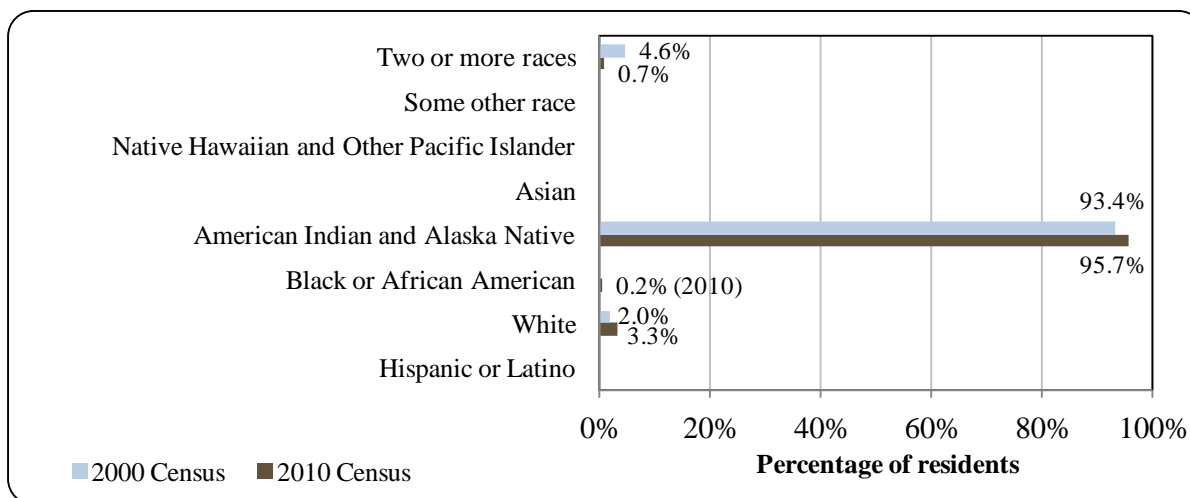
Table 1. Population in Chefnak from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Department of Labor Estimate of Permanent Residents ²
1990	320	-
2000	394	-
2001	-	397
2002	-	420
2003	-	433
2004	-	440
2005	-	458
2006	-	460
2007	-	448
2008	-	470
2009	-	475
2010	418	-

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

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

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



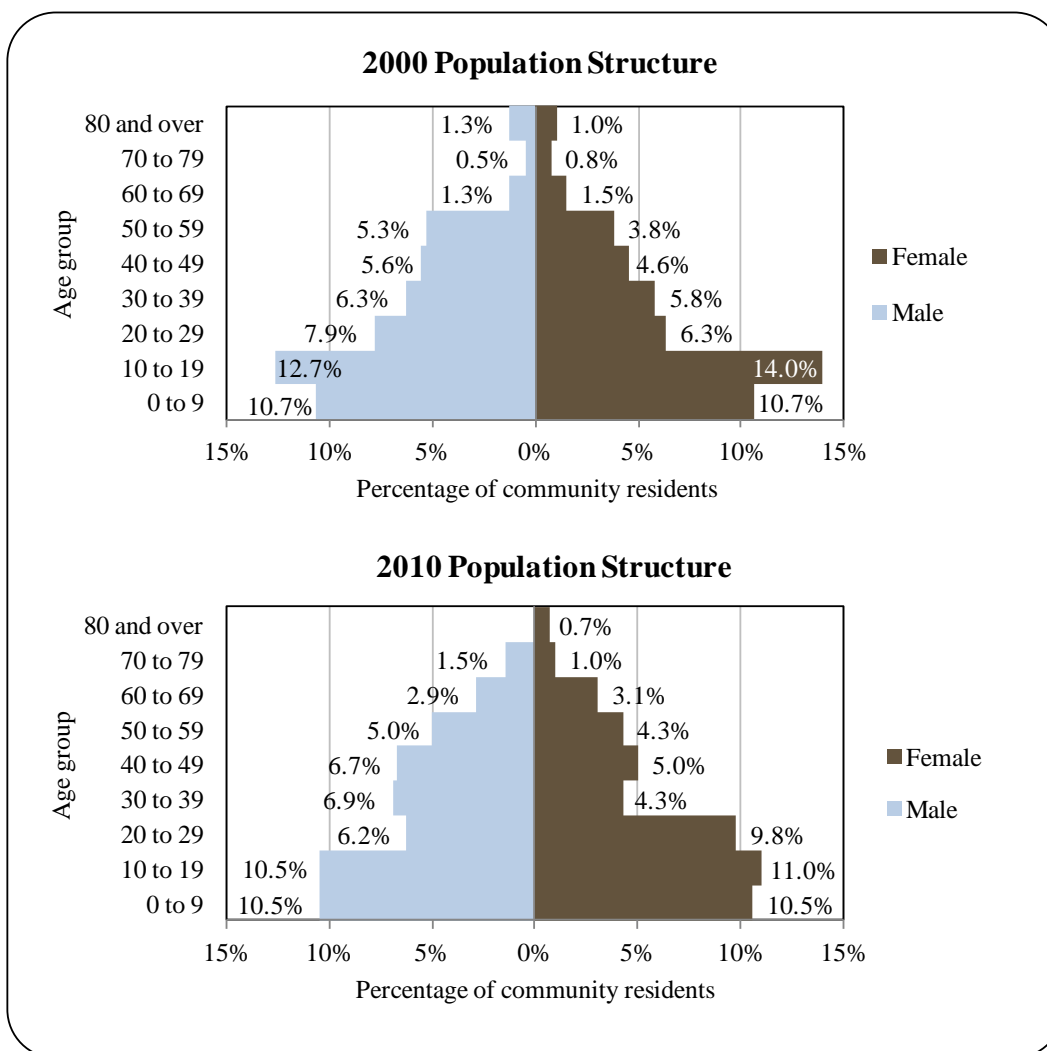
Gender distribution in 2010 was even at 50.2% male and 49.8% female. This was more even than both the distribution statewide (52.0% male, 48.0% female) and in 2000 (51.5% male, 48.5% female). The median age that year was 23.6 years, which was significantly younger than the statewide median of 33.8 years, and somewhat older than the 2000 median of 20.8 years.

Compared with 2000, the population structure in 2010 was somewhat less expansive. In that year, 42.5% of residents were under the age of 20, compared to 48.1% in 2000; 9.2% were

over the age of 59, compared to 6.4% in 2000; 32.2% were between the ages of 30 and 59, compared to 31.4% in 2000; and 16.0% were between the ages of 20 and 29, compared to 14.2% in 2000.

Gender distribution by age cohort was less even in 2010 than in 2000. In that year, the greatest absolute gender difference occurred in the 20 to 29 range (9.8% female, 6.2% male), followed by 30 to 39 (6.9% male, 4.3% female) and 40 to 49 (6.7% male, 5.0% female) ranges. Information regarding trends in Chefnak’s population structure can be found in Figure 2.

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



In terms of educational attainment, the U.S. Census' 2006-10 American Community Survey (ACS)⁴ estimated that 74.7% of the population aged 25 and older held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaska residents overall. Also in that year, an estimated 20.7% had less than a ninth grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 4.6% had a ninth to twelfth grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 12.6% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 2.9% had an Associate's degree, compared to an estimated 8% of Alaska residents overall; no residents were estimated to have a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall; and an estimated 3.4% had a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall.

*History, Traditional Knowledge, and Culture*⁵

The Native people of the Yukon-Kuskokwim (Y-K) Delta region have followed a traditionally nomadic, subsistence lifestyle dating back centuries. Extensive trade networks throughout the Y-K Delta were established prior to contact with Russian explorers in the late nineteenth century, and by the time of contact the Native people in the region already had access to Eurasian goods from trade routes across the Bering Strait. *Pastuliarraq*, near present-day Kotlik, was a trading center which connected these routes with the lower Y-K Delta region.

The nineteenth century was a time of European expansion and development in the region and with it came waves of disease epidemics which had disastrous effects on the Native peoples in the area. In the early twentieth century, the influence of missionaries coinciding with the influenza epidemics of 1900 and 1912 drastically changed the social and cultural identity of an entire generation within the region.

The village of Chefnak was not established in its current location until the mid-twentieth century, when Alexie Amagiqchik founded a small general store at the site. He had moved from a village on the Bering Sea to the new location one mi inland to escape potential floodwaters. Others from the original village followed and settled in Chefnak. The city was incorporated in 1974.⁶

Natural Resources and Environment

Chefnak is located in a marine climate. Precipitation averages 22 in, with 43 in of snowfall annually. Summer temperatures range from 41 to 57 °F (5 to 14 °C). Winter temperatures range 6 to 24 °F (-14 to -4 °C).⁷ The community lies within the Clarence Rhode National Wildlife Refuge, established for migratory waterfowl protection.

⁴ 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.

⁵ Association of Village Council Presidents. (2000). *2000 Yukon-Kuskokwim Strategic Plan*. Retrieved January 12, 2012 from: <http://www.commerce.state.ak.us/dca/plans/YukonKuskokwimDelta-EDP-2000.pdf>

⁶ See footnote 1.

⁷ Ibid.

The geography of the Y-K Delta region is characterized by sub-arctic tundra, tidal wetlands, and boreal forests. The region contains more than 400,000 charted lakes and ponds. Soils around Chefnak consist of alluvial delta sediments and coastal marine deposits. The soil is fine grained and poorly drained. Permafrost in the area varies in depth and while there is limited local data, regional depths can extend to around 600 ft in some areas. The active layer is estimated to range between 1.5 and 3 ft deep, depending on conditions. Coastal areas are classified typically as wet tundra consisting of marshes, swamps, and water ponds. Vegetation in tundra areas consists of sedges, grass, dwarf shrub, and peatland. Fish in the area include all five species of Pacific salmon, boreal smelt, arctic cisco, northern pike, blackfish, stickleback, sheefish, burbot, and whitefish. Terrestrial wildlife includes bear, moose, hares, beaver, mink, muskrat, otter, fox, weasel, and caribou. Aquatic mammals include seals, walrus, and several species of whale. In addition, the Y-K delta is renowned as one of the most productive waterfowl breeding areas in the world.⁸

On a regional level, natural hazards present in coastal areas of western Alaska include storm urges, flooding, shoreline erosion, and sea level rise.⁹ While Chefnak is not located directly on the coast, it is subject to marine influences due to its close proximity. Snow-drifting is a potential hazard due to strong prevailing winds during the winter and low vegetation.

According to the Alaska Department of Environmental Conservation, there were no significant environmental remediation sites active in 2010.¹⁰

Current Economy¹¹

Chefnak is largely dependent on a subsistence economy, with employment opportunities limited to part time and seasonal work. The local seafood processor provides some employment when in operation. Top employers in 2010¹² included the Lower Kuskokwim School District, Chefnak Traditional Council, Chefnarmute Inc., Coastal Villages Seafoods Inc., City of Chefnak, Yukon Kuskokwim Health Corp. 90, Naterkaq Light Plant, Chefnak Water & Sewer Supply, Rural Alaska Community Action Program, and Association of Village Council Presidents. In a survey conducted by the AFSC in 2011, community leaders reported that an estimated 20 to 30 permanent residents worked in the local seafood processing industry in 2010.

In 2010,¹³ the estimated per capita income was \$11,562 and the estimated median household income was \$39,583, compared to \$8,474 and \$35,556 in 2000, respectively. However, after accounting for inflation,¹⁴ the adjusted per capita income (\$11,143) and adjusted

⁸ See footnote 5.

⁹ Alaska Department of Natural Resources. (n.d.). *Alaska Coastal Hazards*. Retrieved January 12, 2012 from: http://www.alaskacoast.state.ak.us/ACMPGrants/EGS_05/pdfs/CoastalHazards.pdf.

¹⁰ Alaska Department of Environmental Conservation. (n.d.). *Contaminated Sites Program*. Retrieved June 21, 2012 from: <http://dec.alaska.gov/spar/csp/list.htm>.

¹¹ Unless otherwise noted, all monetary data are reported in nominal values.

¹² 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/>.

¹³ U.S. Census Bureau (n.d.). Profile of selected social, economic and housing characteristics of all places within Alaska. Datasets utilized include the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

¹⁴ 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>).

median household income (\$46,756) indicate that individual earnings have stayed the same while household earnings declined. In 2010, Chefnak ranked 248th of 305 communities reporting per capita earnings and 193rd of 299 communities reporting median household earnings.

Chefnak's small population size may have prevented the ACS from accurately portraying economic conditions.¹⁵ Another way of understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). According to the ALARI database, residents earned \$3.01 million in total wages in 2010.¹⁶ When compared with the population in 2010, the per capita income equals \$7,202, suggesting that caution should be used when comparing 2010 ACS estimates with the 2000 Census.¹⁷ In addition, the community was recognized as "distressed" by the Denali Commission indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010.¹⁸ However, it should be noted that American Community Survey and DOLWD data are based on wage earnings and does not take into account the value of subsistence within the local economy.

According to 2006-2010 ACS estimates,¹⁹ 62.3% of residents aged 16 and over were part of the civilian labor force in 2010. In that year, the estimated unemployment rate was 15.6%, compared to an estimated 5.9% statewide; and an estimated 24.2% of residents were estimated to be living below the poverty line, compared to an estimated 9.5% statewide. However, there is the possibility that unemployment and poverty statistics are likely inaccurate given the small population of 418. The ALARI database indicates that the unemployment rate in 2010 was 24.6% based on unemployment claimants.

Of those employed in 2010,²⁰ an estimated 43.0% worked in the private sector and an estimated 57.0% worked in the public sector. By industry, most (37.7%) of those employed were estimated to work in education service, health care, and social assistance sectors in 2010; followed by public administration sectors (22.8%); transportation, warehousing, and utilities sectors (11.4%); and retail trade sectors (11.4%). By occupation type, most (28.9%) employed residents were estimated to hold service positions that year; followed by sales or office positions (25.4%); management or professional positions (21.9%); natural resources, construction, or maintenance positions (13.2%); and production, transportation, or material moving positions (9.6%). Between 2000 and 2010, there were significant proportional increases in public administration, finance, insurance, and real estate sectors; while were proportional declines in education service, health care and social assistance sectors. Information regarding employment trends can be found in Figures 3 and 4.

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

¹⁵ See footnote 4.

¹⁶ ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.

¹⁷ See footnote 12.

¹⁸ Denali Commission. 2011. Distressed Community Criteria 2011 Update. Retrieved April 16, 2012 from: www.denali.gov.

¹⁹ See footnote 4.

²⁰ See footnote 13.

According to 2010 ALARI estimates, most (40.1%) employed residents worked in local government sectors; followed by trade, transportation, and utilities sectors (25.3%) and manufacturing sectors (10.1%).

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

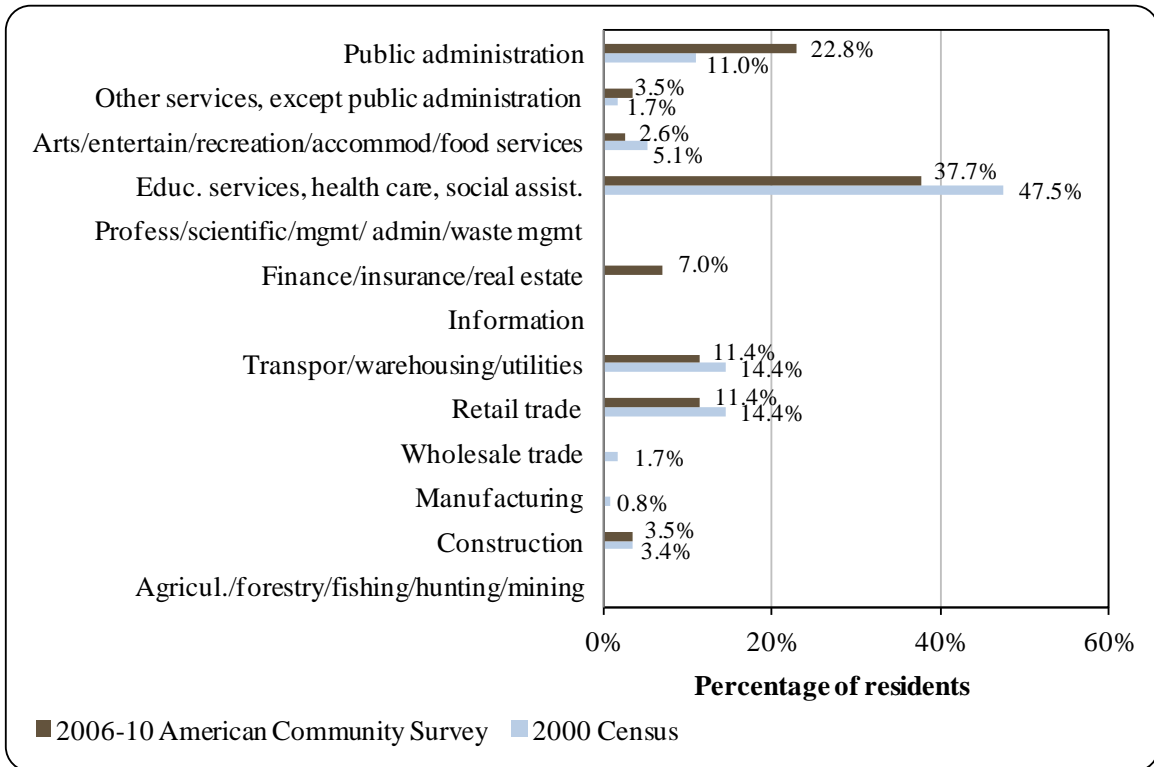
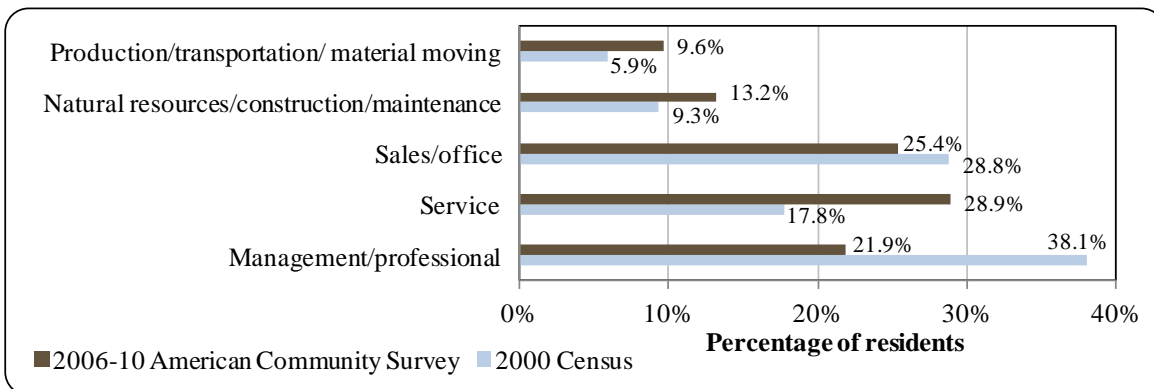


Figure 4. Local Employment by Occupation in 2000-2010, Chefnak (U.S. Census).



Governance

Chefnak is a Second-class city with a mayoral form of government. In addition, there is a U.S. Bureau of Indian Affairs (BIA) recognized Tribal government (Village of Chefnak) and Alaska Native Claims Settlement Act (ANCSA) chartered Native village corporation (Chefnakmute Inc.). The regional ANCSA Native Corporation representing Chefnak is the Calista Corporation. The closest Alaska Department of Fish and Game (ADF&G) and National Marine Fisheries Services (NMFS) offices are located in Bethel, 98 mi northeast. The closest

U.S. Bureau of Citizenship and Immigration Services office is located in Anchorage, 490 mi northeast.

Chefnak administered a 2% sales tax in 2010. When adjusted for inflation,²¹ total municipal revenues increased 86.1% between 2000 and 2010 from \$417,064 to \$1.0 million. In 2010, most locally generated revenues were collected from utility rents, gaming fees, and sales taxes. Most outside revenues were collected from Community Revenue Sharing and payments in lieu of taxes. In that year, sales tax accounted for 4.5% of total municipal revenues, compared to 4.3% in 2000. State allocated Community Revenue Sharing accounted for 11.9% of total municipal revenues in 2010, compared to 6.4% from State Revenue Sharing in 2000. Between 2000 and 2010, there were no state or federal fisheries-related grants awarded to Chefnak. Information regarding municipal revenue trends can be found in Table 2.

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

Year	Total Municipal Revenue ¹	Sales Tax Revenue ²	State/Community Revenue Sharing ^{3,4}	Fisheries-Related Grants (State and Federal) ⁵
2000	\$417,064	\$18,130	\$26,566	n/a
2001	\$323,673	\$13,438	\$25,359	n/a
2002	\$513,215	\$1,926	\$25,387	n/a
2003	\$479,516	\$55,840	\$26,108	n/a
2004	\$511,312	\$24,027	-	n/a
2005	\$301,143	\$29,842	-	n/a
2006	\$479,292	\$52,788	-	n/a
2007	\$621,182	\$27,000	-	n/a
2008	\$648,767	\$36,492	-	n/a
2009	\$1,336,253	\$40,935	\$119,977	n/a
2010	\$1,003,835	\$45,446	\$119,822	n/a

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

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

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

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

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

²¹ Inflation calculated using Anchorage CPI from Alaska DOL: <http://labor.alaska.gov/research/cpi/cpi.htm>.

Infrastructure

*Connectivity and Transportation*²²

A state-owned 2,500-ft long by 28-ft wide gravel airstrip provides chartered and private air access year-round, and a seaplane base is available. Although there are no docking facilities, a number of fishing boats and skiffs are used for local travel. “Snowmachines” are relied upon during the winter. Winter trails are marked to Kipnuk, 20 mi southeast and Kasigluk 83 mi northeast. Roundtrip airfare between Anchorage and Chefnak in June 2012 was \$724.²³

*Facilities*²⁴

One well and a water treatment plant serve 12 watering points. The treated water is undrinkable due to saltwater intrusion. Residents drink melted ice cut from a local pond in the winter and rain catchment the rest of the year. High snow drifts make the boardwalk impassable for winter haul service. The community has requested a grant for a new water treatment plant. The school is in the process of establishing its own water system using reverse osmosis to treat the salty water. Public safety services are provided by Chefnak police department. Fire and rescue services are provided by Chefnak volunteer fire department. Additional public facilities include a school gym, community center, and school library. Communications services include local and long distance telephone, internet, local and cable television, and local radio.

In a survey conducted by the AFSC in 2011, community leaders reported that infrastructure projects completed or still in progress as of 2010 included a fish cleaning station, jetty, diesel powerhouse, water treatment facilities, public safety improvements, telephone service, fire department improvements, school improvements, and post office improvements. In addition, projects under development include airport improvements, water and sewer pipelines, alternative energy systems, land fill, and a barge landing area. There is no public dock space available for permanent and transient moorage, and vessels under 35 ft typically use Chefnak as their base of operations. Fuel barges were the only regulated vessel type being handled by Chefnak’s port infrastructure as of 2010. Fisheries-businesses and services in the area include a seafood processing plant, fishing gear sales, boat repair (electrical, welding, mechanical services, machine shop), tackle sales, bait sales, commercial cold storage facilities, boat fuel sales, and air taxi services. Residents travel to Bethel and Anchorage for businesses and services not available locally.

*Medical Services*²⁵

The Chefnak Clinic is a Primary Health Care facility and Community Health Aid Program (CHAP) site. Acute, specialized, and long-term care is provided in Bethel.

²² Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

²³ Airfare was calculated using lowest fare. Source: <http://www.travelocity.com> (retrieved November 22, 2011).

²⁴ See footnote 22.

²⁵ Ibid.

*Educational Opportunities*²⁶

Chaputnguak School offers preschool through 12th grade instruction. In 2011, there were 163 students enrolled and 13 teachers employed.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Like many communities on the Y-K Delta, Chefnak has an extensive history of involvement in subsistence fisheries. Commercial harvest of salmon first took place in the Kuskokwim area in 1913, although in the early years it was a quasi-commercial fishery with limited distribution. Harvest levels continued to increase until the mid-1990s, after which time fishing effort, harvest levels and salmon prices decreased. Current management is focused on sustainability of salmon runs, ensuring subsistence needs are met, and with a precautionary approach, providing opportunity for commercial harvest of available surpluses.²⁷ However, the salmon resource is not as easily accessible for communities along the Bering Sea coast as in other regions of Alaska.²⁸

Today, subsistence activities continue to be an important part of the community's identity; however, commercial fishing has also taken root as a driver of the local economy. In a survey conducted by the AFSC in 2011, community leaders reported that there have been a lot less charter and private boats, as well as vessels greater 35 ft in length between 2005 and 2010. Chefnak does not participate in the fisheries management process in Alaska.

Chefnak is located in Federal Reporting Area 415, International Halibut Fishery Regulatory Area 4E, and the Bering Sea Sablefish Regulatory District. The community is eligible for participation in the Community Development Quota (CDQ) program and represented by the Coastal Villages Region Fund (CVRF). The CDQ program was implemented to help alleviate economic distress in rural communities in western Alaska by allocating a percentage of halibut, crab, and groundfish to six CDQ non-profit organizations representing 65 communities in the Bering Strait and Aleutian Islands region.²⁹ Managers of CDQ organizations authorize individual fishermen and fishing vessels to harvest a certain portion of the allocated CDQ.

²⁶ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

²⁷ Clark, McGregor, Mecum, Krasnowski and Carroll. 2006. "Kuskokwim Commercial Salmon Fishery." In *The Commercial Salmon Fishery in Alaska*. Alaska Department 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.

²⁸ Woodby, Doug, Dave Carlile, Shareef Siddeek, Fritz Funk, John H. Clark, and Lee Hulbert. 2005. *Commercial Fisheries of Alaska*. Alaska Department of Fish and Game, Special Publication No. 05-09. Retrieved December 29, 2011 from <http://www.adfg.alaska.gov/FedAidPDFs/sp05-09.pdf>.

²⁹ Fina, M. (2011). Evolution of Catch Share Management: Lessons from Catch Share Management in the North Pacific. *Fisheries*, Vol. 36(4). Retrieved September 12, 2012 from http://www.fakr.noaa.gov/npfmc/PDFdocuments/catch_shares/Fina_CatchShare_411.pdf.

Processing Plants

The Coastal Villages Seafoods fish processing plant in Chefnak is a CDQ operation and a subsidiary of the CVRF. This facility processes halibut in June and July.³⁰ Coastal Villages Seafoods processing facilities (including the other facilities in Quinhagak, Toksook Bay, Mekoryuk, Tununak, Kipnuk, Hooper Bay, and Platinum) also process black cod, Pacific cod, King and Snow crab, salmon (Chinook, chum, coho, sockeye).³¹ CVRF maintains a local community service center that helps local fishing families maintain, repair, service, and modify their boats, motors, and fishing gear. The local plant provides free room and board to its fish processing workers, as well as transportation to and from the plant site and a cash bonus for all those who complete their contracts.³²

Fisheries-Related Revenue

The community of Chefnak took in very little fisheries-related revenue between 2000 and 2010. Revenues that were collected came from raw fish taxes and Shared Fisheries Landings taxes for the most part. In a survey conducted by the AFSC in 2011, community leaders reported that revenues that were collected from fisheries-related sources were put towards roads, water and wastewater systems, and police and fire services. It is not known if the community received any funds from CVRF in 2010. Information regarding fisheries-related revenue trends can be found in Table 3.

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

Commercial Fishing

In a survey conducted by the AFSC in 2011, community leaders reported that the halibut season runs on average between June 1st and August 15th. Gear types used by commercial fishing vessels that used Chefnak as their base of operations during the fishing season include longline, gill net, and rod and reel. In 2010, 36 residents, 8.6% of the population, held 48 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 30 residents held 59 CFEC permits. In that year, 65% of CFEC permits issued were for halibut; compared to 46% in 2000; 19% were for herring, compared to 41% in 2000; and 17% were for salmon, 14% in 2000. Between 2000 and 2010, no residents held Federal Fishery Permits (FFP) or License Limitation Program (LLP) permits. No residents held halibut, sablefish, or crab quota between 2010 and when the programs began.

In 2010, 14 residents held commercial crew licenses, compared to 21 in 2000. In addition, residents held majority ownership of 35 vessels, compared to 33 in 2000. Of the CFEC permits held in 2010, 63% were actively fished, compared to 41% in 2000. This varied by fishery from 81% of halibut permits, to 63% of salmon and 0% of herring permits. Herring permit activity had been in decline since 2000 when 38% of permits were actively fished.

³⁰ Coastal Villages Seafood. (n.d.). Retrieved from: <http://coastalvillages.org/>.

³¹ Alaska Seafood Marketing Institute (n.d.) Retrieved from <http://alaskaseafood.org/industry/suppliers/detail.cfm?Supplier=419>.

³² See footnote 30.

Conversely, halibut permit activity increased during that time. Fisheries prosecuted by Chefnak residents in 2010 included: statewide longline, mechanical jig, and hand troll halibut; and Bristol Bay drift gillnet salmon.

Landings made in Chefnak in 2009 and 2010 are considered confidential. In 2010, residents landed 22,697 lbs of halibut valued at \$72,342 ex-vessel, compared to 12,298 lbs valued at \$15,383 ex-vessel; an increase of \$1.43 per pound after adjusting for inflation.³³ In that same year, 270,487 lbs of salmon were landed valued at \$248,649 ex-vessel, compared to 339,705 lbs valued at \$224,000 ex-vessel in 2000; an increase of \$0.01 per pound after adjusting for inflation³⁴ and without considering the species composition of landings. Information regarding commercial fishing trends can be found in Tables 4 through 10.

³³ Inflation calculated using Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, <http://www.bls.gov/ppi/#data>

³⁴ Ibid.

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

Revenue Source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	\$250	\$693	\$700	\$343	\$149	\$293	n/a	\$430	\$300	\$800	\$1,100
Shared Fisheries Business Tax ¹	\$693	\$538	\$121	\$384	\$149	\$292	\$420	\$364	\$695	\$1,043	\$110
Fisheries Resource Landing Tax ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	\$123
Fuel transfer tax ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Extraterritorial fish tax ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulk fuel transfers ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Port/dock usage ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fishing gear storage on public land ³	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marine fuel sales tax ³	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Total fisheries-related revenue⁴</i>	<i>\$943</i>	<i>\$1,231</i>	<i>\$821</i>	<i>\$727</i>	<i>\$298</i>	<i>\$585</i>	<i>\$420</i>	<i>\$794</i>	<i>\$995</i>	<i>\$1,843</i>	<i>\$1,333</i>
<i>Total municipal revenue⁵</i>	<i>\$417,064</i>	<i>\$232,673</i>	<i>\$513,215</i>	<i>\$479,292</i>	<i>\$511,312</i>	<i>\$301,143</i>	<i>\$479,292</i>	<i>\$621,182</i>	<i>\$648,767</i>	<i>\$1.34 M</i>	<i>\$1.00 M</i>

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

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

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

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

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

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

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) ²	Total permits	27	43	35	25	27	25	24	35	34	31	31
	Fished permits	10	25	16	10	18	16	18	30	29	22	25
	% of permits fished	37%	58%	46%	40%	67%	64%	75%	86%	85%	71%	81%
	Total permit holders	18	29	24	19	21	20	20	31	30	28	28
Herring (CFEC) ²	Total permits	24	20	18	15	15	15	13	11	10	9	9
	Fished permits	9	4	4	1	1	0	1	0	0	0	0
	% of permits fished	38%	20%	22%	7%	7%	0%	8%	0%	0%	0%	0%
	Total permit holders	22	18	16	14	14	14	12	10	9	8	8

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other Finfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	8	8	8	8	8	8	8	9	9	9	8
	Fished permits	5	5	5	5	5	5	5	5	5	5	5
	% of permits fished	63%	63%	63%	63%	63%	63%	63%	56%	56%	56%	63%
	Total permit holders	9	8	8	8	8	8	8	9	9	9	8
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>59</i>	<i>71</i>	<i>61</i>	<i>48</i>	<i>50</i>	<i>48</i>	<i>45</i>	<i>55</i>	<i>53</i>	<i>49</i>	<i>48</i>
	<i>Fished permits</i>	<i>24</i>	<i>34</i>	<i>25</i>	<i>16</i>	<i>24</i>	<i>21</i>	<i>24</i>	<i>35</i>	<i>34</i>	<i>27</i>	<i>30</i>
	<i>% of permits fished</i>	<i>41%</i>	<i>48%</i>	<i>41%</i>	<i>33%</i>	<i>48%</i>	<i>44%</i>	<i>53%</i>	<i>64%</i>	<i>64%</i>	<i>55%</i>	<i>63%</i>
	<i>Permit holders</i>	<i>30</i>	<i>37</i>	<i>32</i>	<i>28</i>	<i>30</i>	<i>29</i>	<i>29</i>	<i>39</i>	<i>39</i>	<i>37</i>	<i>36</i>

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

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

Table 5. Characteristics of the Commercial Fishing Sector in Chefnak: 2000-2010.

Year	Crew License Holders ¹	Count Of All Fish Buyers ²	Count Of Shore-Side Processing Facilities ³	Vessels Primarily Owned By Residents ⁴	Vessels Homeported ⁴	Vessels Landing Catch In Chefnak ²	Total Net Lbs Landed In Chefnak ^{2,5}	Total Ex-Vessel Value Of Landings In Chefnak ^{2,5}
2000	21	0	1	33	26	0	0	\$0
2001	19	0	1	34	27	0	0	\$0
2002	12	0	1	28	22	0	0	\$0
2003	16	0	1	25	18	0	0	\$0
2004	17	0	1	27	20	0	0	\$0
2005	14	0	1	26	21	0	0	\$0
2006	18	0	1	27	22	0	0	\$0
2007	16	0	1	38	33	0	0	\$0
2008	15	0	1	37	31	0	0	\$0
2009	17	1	1	34	28	21	--	--
2010	14	1	1	35	29	24	--	--

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

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

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

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

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

⁵ Totals only represent non-confidential data.

Table 6. Halibut Catch Share Program Participation by Residents of Chefnak: 2000-2010.

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

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

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

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

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

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

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

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

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

	<i>Total Net Pounds¹</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	0	0	0	0	0	0	0	0	0	--	--
Finfish	0	0	0	0	0	0	0	0	0	--	--
Halibut	0	0	0	0	0	0	0	0	0	--	--
Herring	0	0	0	0	0	0	0	0	0	--	--
Other Groundfish	0	0	0	0	0	0	0	0	0	--	--
Other Shellfish	0	0	0	0	0	0	0	0	0	--	--
Pacific Cod	0	0	0	0	0	0	0	0	0	--	--
Pollock	0	0	0	0	0	0	0	0	0	--	--
Sablefish	0	0	0	0	0	0	0	0	0	--	--
Salmon	0	0	0	0	0	0	0	0	0	--	--
<i>Total²</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>--</i>	<i>--</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	--	--
Finfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	--	--
Halibut	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	--	--
Herring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	--	--
Other Groundfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	--	--
Other Shellfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	--	--
Pacific Cod	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	--	--
Pollock	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	--	--
Sablefish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	--	--
Salmon	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	--	--
<i>Total²</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>--</i>	<i>--</i>

Note: Cells showing “--” indicate that the data are considered confidential.

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

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

² Totals only represent non-confidential data.

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

	<i>Total Net Pounds¹</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	12,298	14,202	6,993	6,304	5,315	7,060	16,360	23,445	47,124	28,884	22,967
Herring	156,104	34,502	28,404	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	339,705	216,431	178,697	296,139	429,440	353,904	415,651	404,944	347,728	333,908	270,487
<i>Total²</i>	<i>508,107</i>	<i>265,135</i>	<i>214,094</i>	<i>302,443</i>	<i>434,755</i>	<i>360,964</i>	<i>432,011</i>	<i>428,389</i>	<i>394,852</i>	<i>362,792</i>	<i>293,454</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	\$15,383	\$16,993	\$10,894	\$7,881	\$6,646	\$12,303	\$59,892	\$101,481	\$145,193	\$66,861	\$72,342
Herring	\$14,814	\$1,622	\$1,415	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	\$224,000	\$84,388	\$78,220	\$137,760	\$203,406	\$198,197	\$252,944	\$251,542	\$251,700	\$254,051	\$248,649
<i>Total²</i>	<i>\$254,197</i>	<i>\$103,003</i>	<i>\$90,529</i>	<i>\$145,641</i>	<i>\$210,052</i>	<i>\$210,500</i>	<i>\$312,835</i>	<i>\$353,023</i>	<i>\$396,892</i>	<i>\$320,912</i>	<i>\$320,991</i>

Note: Cells showing “--” indicate that the data are considered confidential.

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

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

² Totals only represent non-confidential data.

Recreational Fishing

Chefnak is located in the Kuskokwim River and Bay Drainages ADF&G Harvest Survey Area, which includes all waters flowing into Kuskokwim Bay. In a survey conducted by the AFSC in 2011, community leaders reported that no recreational fishing takes place in the area. In addition, there were no active sport fish businesses or guides located in the community between 2000 and 2010. However, in 2010, 18 sportfishing licenses were sold in the community, compared to 20 in 2006. In that same year, 30 sportfishing licenses were sold to residents, compared to two in 2000.

In 2010, there was a total of 19,455 freshwater angler days fished, compared to 19,940 in 2000. In that year, non-Alaska residents accounted for 72.1% of the freshwater angler days fished, compared to 67.1% in 2000. Data regarding saltwater angler days fished is limited; however, resident angler days fished in the survey area peaked in 2008 with 108. ADF&G data on species targeted by local private anglers are unavailable. Information regarding recreational fishing trends can be found in Table 11.

Subsistence Fishing

Most residents in the community practice a subsistence lifestyle, which supplements diets and incomes as well as sustaining community identity. ADF&G data on subsistence is limited, and there is no information available on household participation in subsistence fisheries. Records on subsistence salmon, marine invertebrates, and non-salmon fish harvests are limited to 2004, when 63 salmon were taken. In 2010, 14 residents held Subsistence Halibut Registration Certificates (SHARC), compared to 20 in 2003. In that year an estimated 371 lbs of halibut was harvested on 3 SHARC, compared to 3,492 lbs on all 20 SHARC in 2003. The steep decline in reported halibut harvests since 2003 is related to the decline in SHARC cards fished. Between 2000 and 2010, an estimated four walrus were harvested, with reports of one being harvested in 2010. Data are unavailable for Steller sea lion, harbor seal, and spotted seal harvests. Information regarding subsistence participation can be found in Tables 12 through 15.

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

Year	Active Sport Fish Guide Businesses ¹	Sport Fish Guide Licenses ¹	Sport Fishing Licenses Sold to Residents ²	Sport Fishing Licenses Sold in Chefnak ²
2000	0	0	2	0
2001	0	0	3	0
2002	0	0	14	0
2003	0	0	4	0
2004	0	0	12	0
2005	0	0	9	0
2006	0	0	21	20
2007	0	0	32	21
2008	0	0	33	29
2009	0	0	39	38
2010	0	0	30	18

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

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

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

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

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

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

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

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

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

Year	Subsistence Salmon Permits Issued ¹	Salmon Permits Returned ¹	Chinook Salmon Harvested ¹	Chum Salmon Harvested ¹	Coho Salmon Harvested ¹	Pink Salmon Harvested ¹	Sockeye Salmon Harvested ¹	Lbs of Marine Inverts ²	Lbs of Non-Salmon Fish ²
2000	93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	93	1	5	15	15	n/a	10	n/a	n/a
2004	91	3	6	13	18	n/a	26	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	92	1	n/a	n/a	n/a	n/a	2	n/a	n/a
2008	79	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

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

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

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

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	20	20	3,492
2004	20	20	2,852
2005	20	13	2,746
2006	20	10	2,078
2007	25	18	2,066
2008	15	8	1,010
2009	15	3	250
2010	14	3	371

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, Chefnak: 2000-2010.

Year	# of Beluga Whales ¹	# of Sea Otters ²	# of Walrus ²	# of Polar Bears ²	# of Steller Sea Lions ³	# of Harbor Seals ³	# of Spotted Seals ³
2000	n/a	n/a	1	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	1	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	1	n/a	n/a	n/a	n/a
2010	n/a	n/a	1	n/a	n/a	n/a	n/a

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

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

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

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