

## **Adak (A-dack)**

### **People and Place**

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

Adak is located on Kuluk Bay on Adak Island. It lies 1,300 mi southwest of Anchorage and 350 mi west of Unalaska in the Aleutian Island Chain. Flight time to Anchorage is 3 hours. Adak is the southern-most community in Alaska, on the latitude of Vancouver Island in Canada. The area encompasses 122.4 sq mi of land and 4.9 sq mi of water. Adak was incorporated as a city in 2001, is located in the Aleutians West Census Area, and is not under the jurisdiction of a borough.

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

In 2010, there were 326 residents living in Adak, which ranked the community 156<sup>th</sup> of 352 Alaska communities in terms of population size. Between 1990 and 2010, the population declined by 93.0%. Between 2000 and 2009, the population declined by 47.8% with an average annual growth rate of 8.1% which was much higher than the statewide average of 0.75% and indicative of a significantly variable population. Information regarding population trends can be found in Table 1.

In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that the permanent population in Adak was estimated to be between 120 to 140 residents. Typically there are seasonal residents living in Adak from January through April as well as June through October. Peaks in population seen in July and January through April are entirely attributed to employment in fisheries sectors.

Adak's racial and ethnic composition was relatively mixed in 2010. In that year, 52.5% of residents identified themselves as Asian, compared to 9.8% in 2000; 19.6% identified themselves as White, compared to 49.7% in 2000; 10.7% identified themselves as two or more races, compared to 2.2% in 2000; 5.5% identified themselves as American Indian or Alaska Native, compared to 35.1% in 2000; 4.0% identified themselves as Black or African American, compared to 1.3% in 2000; 1.5% identified themselves as Native Hawaiian or Other Pacific Islander, compared to 1.9% in 2000; and 6.1% identified themselves as some other race, compared to 0% in 2000. In addition, 8.9% of residents identified themselves as Hispanic of Latino in 2010, compared to 5.1% in 2000. Information regarding racial and ethnic trends can be found in Figure 1.

Although unconfirmed, it is highly likely that the 2010 U.S. Census captured a large population of seasonal workers. This would explain the significant variation in racial

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

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

composition between 2000 and 2010, and the discrepancy between 2010 Census population figures and local and state estimates. Locally, more of the population is identified as White, with American Indian or Alaska Native residents comprising the second largest racial or ethnic group.

The average household size in 2010 was 2.48, compared to 3.10 in 1990 and 1.99 in 2000. In that year there were a total of 500 housing units, compared to 1,051 in 1990 and 884 in 2000. Of the households surveyed in 2010, 6% were owner-occupied, compared to 0% in 2000; 3% were renter-occupied, compared to 18% in 2000; 85% were vacant, compared to 81% in 2000; and 7% were occupied seasonally, compared to 1% in 2000.

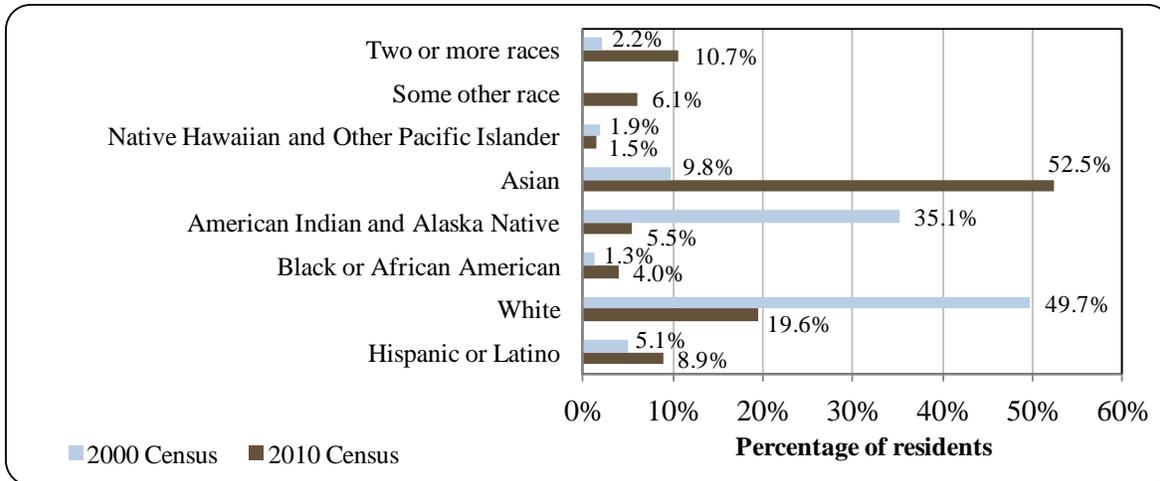
Table 1. Population in Adak from 1990 to 2010 By Source.

Year	U.S. Decennial Census <sup>1</sup>	Alaska Dept. of Labor Estimate of Permanent Residents <sup>2</sup>
1990	4,633	-
2000	316	-
2001	-	153
2002	-	166
2003	-	74
2004	-	70
2005	-	167
2006	-	146
2007	-	137
2008	-	178
2009	-	165
2010	326	-

<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>.

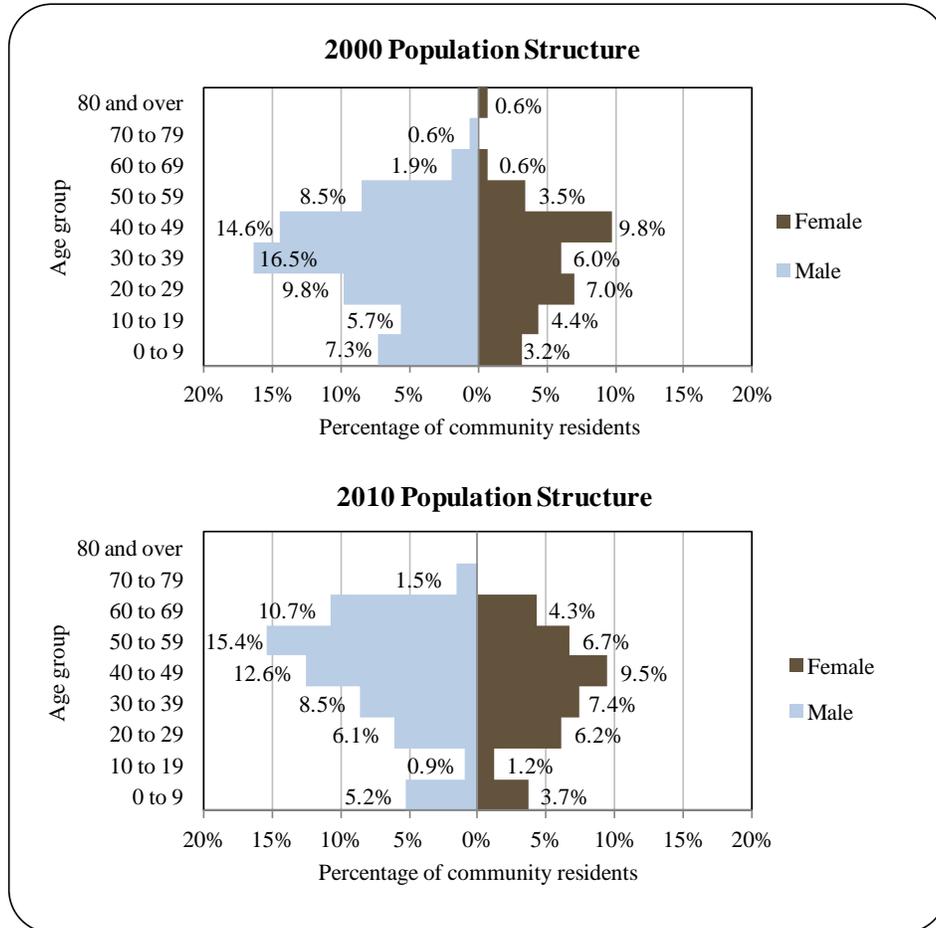
Figure 1. Racial And Ethnic Composition, Adak: 2000-2010 (U.S. Census).



The gender distribution in 2010 was moderately skewed at 61.0% male and 39.0% female. This was significantly more skewed than the distribution statewide (52.0% male, 48.0% female), and somewhat less skewed than the distribution in 2000 (64.9% male, 35.1% female). The median age in 2010 was 45.5 years, which was significantly older than the statewide median of 33.8 years and 2000 median of 35.2 years. Gender distribution by age cohort was more even in 2010 than in 2000, with male biases among most age ranges. In that year, the greatest absolute gender difference occurred within the 50 to 59 range (15.4% male, 6.7% female), followed by the 60 to 69 (10.7% male, 4.3% female) and 40 to 49 (12.6% male, 9.5% female) ranges. Of those three, the greatest relative gender difference occurred in the 60 to 69 range.

Compared with the year 2000, the population structure was less expansive in 2010, with older cohorts showing age transitions consistent with a stable population; meaning that overall, older cohorts appeared to age with little attrition compared with younger cohorts. In 2010, 11.0% of residents were under the age of 20, compared to 20.6% in 2000; 16.5% were over the age of 59, compared to 3.7% in 2000; 60.1% were between the ages of 30 and 59, compared to 58.9% in 2000; and 12.3% were between the ages of 20 and 29, compared to 16.8% in 2000. It should be noted that seasonal workers captured in the 2010 Census may have affected Adak’s population structure. Because of this, determining a trend may be difficult. Information regarding population structure can be found in Figure 2.

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



In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)<sup>3</sup> estimated that 97.6% of residents aged 25 and older held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaskan residents overall. Also in that year, an estimated 2.4% had less than a 9<sup>th</sup> grade education, compared to an estimated 3.5% of Alaskan residents overall; and estimated 46.3% had some college but no degree, compared to an estimated 28.3% of Alaskan residents overall; an estimated 2.4% held an Associate's degree, compared to an estimated 8.0% of Alaskan residents overall; an estimated 7.3% held a Bachelor's degree, compared to an estimated 17.4% of Alaskan residents overall; and an estimated 12.2% held a graduate or professional degree, compared to an estimated 9.6% of Alaskan residents overall.

#### *History, Traditional Knowledge, and Culture<sup>4</sup>*

There is evidence of human occupation of the Aleutian Islands dating back at least 8,000 years; however, it is believed that humans were populating the Americas at least 13,000 years

<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).

ago during the end of the last glacial maximum. Archaeological sites dating back over 11,000 years have been found on Prince of Wales Island, lending evidence to a possible coastal migration route.<sup>5</sup> Archaeological evidence in the vicinity of Clam Lagoon shows that confirmed occupation of Adak Island dates back approximately 6,000 years.<sup>6</sup>

The island was abandoned in the early 17<sup>th</sup> Century when Aleut hunters moved or were forced eastward because of the Russian fur trade. The Native people continued to use the island as a place to fish and hunt until the beginning of World War II. The island had been designated in 1913 as part of the Aleutian Island Reservation, but in the 1940's became "a key operations and supply location for United States military forces after the Japanese occupation of Kiska and Attu Islands during World War II". Adak's population in the spring of 1944 was made up of at least 32,000 military personnel, peaking at approximately 90,000 during the early staging periods of the war. After World War II, Adak was developed into a Naval Air Station and played an important role during the Cold War as a submarine surveillance center. The navy base housed 6,000 personnel and their families during its peak, but harsh cut-backs occurred in 1994 and navy family housing and schools were closed. Adak Naval Station officially closed on March 31, 1997. Aleut Corporation acquired the majority of Adak's facilities in 2004 in a land transfer agreement and in 1998 about 30 families with children (mostly Aleut Corp. shareholders) relocated to Adak.<sup>7</sup>

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<sup>5</sup> National Park Service. (n.d.). *Archaeological Overview of Alaska*. Retrieved May 30, 2012 from: <http://www.nps.gov/akso/akarc/early.htm>.

<sup>6</sup> West, D. (n.d.). *The Prehistory of Clam Lagoon*. Retrieved May 30, 2012 from: <http://www.adakdiscovery.org/>.

<sup>7</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).

## Natural Resources and Environment<sup>8</sup>

Located in Alaska's maritime climate zone, Adak's weather is characterized by frequent and intense storms in the winter and extensive fog in the summer. Temperatures average from 20 °F (-7 °C) to 60 °F (16 °C). Total precipitation is 64 inches annually, with an average accumulated snowfall of 100 inches, primarily in the mountains.

Adak Island is located in the Alaska Maritime National Wildlife Refuge (AMNWR), which includes over 3,000 islands, islets, rocks, pinnacles, and headlands covering 3.4 million acres. Subsurface geology on Adak Island consists primarily of volcanic basalts and lahar deposits. Soils are generally thin, and there is evidence of Holocene age moraine deposits.<sup>9</sup> Much of Adak's local topography is characterized by steep to moderate relief alpine tundra. Coastal regions consist of lowland tundra and meadows. Vegetation includes grasses, sedges, lichens, mosses, wildflowers, and heath plants.<sup>10</sup> Trees are few in number and limited to introduced spruce.

There are no terrestrial mammals endemic to AMNWR although foxes, rats, caribou, cattle, and ground squirrels have been introduced. Marine mammals include sea otter, Steller sea lion, northern fur seal, harbor seal, walrus, and beluga, blue, bowhead, gray, humpback, and orca whales. Marine fish include lampreys, mackerel sharks, skates, all five species of Pacific salmon, Dolly Varden, smelts, toothed cod, Pacific cod, walleye pollock, stickleback, rockfish, sablefish, greenling, mackerel, sculpin, Pacific halibut, sole, and flounder. Marine invertebrates include king, Tanner and Dungeness crab, shrimp, scallop, razor clam, and hardshell clam. Finally, AMNWR provides critical birding habitat for approximately 40 million seabirds.<sup>11</sup>

Although Adak does not have a hazard mitigation plan, the Aleutians East Borough identified several natural hazards with the potential to impact Aleutian communities, including volcanic eruptions, earthquakes, coastal flooding and erosion, ground failure, tsunami, and extreme weather. All of these hazards have records of occurrence in the area and have a high potential for future occurrence.<sup>12</sup>

Since the closure of the Adak Naval Station in 1997, the U.S. Navy and U.S. Environmental Protection Agency has been performing Superfund clean-up and restoration of Adak. Contamination was the result of hazardous substances including PCBs (polychlorinated biphenyl), petroleum, chlorinated solvents, and contaminants sourced from discarded batteries that were released over a 40-year period during base operation.<sup>13</sup> Site cleanup was still in progress as of 2010.<sup>14</sup>

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<sup>8</sup> Ibid.

<sup>9</sup> Wilson, F. H.; Mohadjer, S.; and Grey, D. M. (2006). *Reconnaissance Geologic Map of The Western Aleutian Islands, Alaska*. Retrieved May 30, 2012 from: [http://pubs.usgs.gov/of/2006/1302/waleut\\_text.pdf](http://pubs.usgs.gov/of/2006/1302/waleut_text.pdf).

<sup>10</sup> Heusser, C. J. (1978). Postglacial Vegetation on Adak Island, Aleutian Islands, Alaska. *Bulletin of the Torrey Botanical Club*, 105, 18-23.

<sup>11</sup> National Park Service. (n.d.). *Alaska Maritime National Wildlife Refuge*. Retrieved May 30, 2012 from:

<sup>12</sup> Aleutians East Borough. (2010). *Multi-Jurisdictional Hazards Mitigation Plan*. Retrieved December 28, 2011 from: <http://www.aleutianseast.org/vertical/Sites/%7BEBDABE05-9D39-4ED4-98D4-908383A7714A%7D/uploads/%7B5F7E9057-83A3-4DBA-B144-073C3F6461D6%7D.PDF>.

<sup>13</sup> U.S. Environmental Protection Agency. (2002). *Adak Naval Air Station, Alaska EPA ID# AK4170024323 (EPA Region 10, Aleutian Islands, Adak)*. Retrieved May 30, 2012 from: <http://yosemite.epa.gov>.

<sup>14</sup> U.S. Environmental Protection Agency (n.d.). *Superfund Information Systems*. Retrieved May 30, 2012 from: <http://cfpub.epa.gov/supercpad/cursites/csitinfo.cfm?id=1000128#CleanupProgress>.

## Current Economy<sup>15</sup>

Adak provides a fueling port and crew transfer facility for foreign fishing fleets, and an airport, dock, housing facilities, restaurant, grocery store, and ship supply store are available. Adak has a shore-based processing plant capable of processing more than 500,000 lbs of fish per day.<sup>16,17</sup> However, the plant closed in 2013 because of concerns over the viability of the Aleutian Pacific cod resource.<sup>18</sup> A land exchange between Aleut Corp., the U.S. Navy, and the Department of the Interior has transferred most of the naval facilities to the Aleut Corporation. A portion of the island remains within the AMNWR, managed by the U.S. Fish & Wildlife Service. A portion of northern Adak Island is still held by the U.S. Navy. In a survey conducted by the AFSC in 2011, community leaders reported that Adak's economy is reliant on fishing, fuel sales (predominately related to fishing), ecotourism, sportfishing and hunting, and historical tourism. Top employers<sup>19</sup> in 2010 included: Adak Seafoods LLC, City of Adak, Adak Petroleum LLC, Lakloey Inc., Eastern Aleutian Tribes Inc., State of Alaska, TDX Adak Generating LLC, Adak General Store LLC, the Aleutian Region School District, and Adak Eagle Enterprises.

According to the 2006-10 ACS,<sup>20</sup> the estimated per capita income was \$36,947 and the estimated median household income was \$75,417, compared to \$31,747 and \$52,727 in 2000, respectively. However, after adjusting for inflation by converting 2000 values into 2010 dollars,<sup>21</sup> the real per capita income (\$41,747) and real median household income (\$69,335) indicate that individual earnings declined while household earnings increased. In that year, Adak ranked 22<sup>nd</sup> of 305 communities from which per capita income was estimated, and 33<sup>rd</sup> of 299 communities from which median household income was estimated.

It should be noted that Adak's small population size may have prevented the ACS from accurately portraying economic conditions. Another 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. According to the ALARI database, total wages based on state and private employers in 2010 was \$1.60 million.<sup>22</sup> When compared with the 2010 Census population, the per capita income equals \$4,921, indicating an extreme decrease compared to per capita income values reported by the U.S. Census in 2000.<sup>23</sup>

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<sup>15</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>16</sup> Personal correspondence.

<sup>17</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>18</sup> Bristol Bay Times. (2013). *Adak Loses Private Fish Processor*. Retrieved July 7, 2013 from: [http://www.thebristolbaytimes.com/article/1317adak\\_loses\\_private\\_fish\\_processor\\_1](http://www.thebristolbaytimes.com/article/1317adak_loses_private_fish_processor_1).

<sup>19</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>20</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>21</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>22</sup> ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.

<sup>23</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/>.

According to 2006-2010 ACS estimates, 90.9% of residents aged 16 and older were part of the civilian labor force. Between 2006 and 2010, unemployment was estimated at 2.3%, compared to an estimated 5.9% statewide. In addition, 1.7% of residents were estimated to be living below the poverty line, compared to an estimated 9.5% of Alaskan residents overall. However, ALARI estimates 22.6% unemployment.<sup>24</sup> Of those employed between 2006 and 2010, an estimated 74.4% worked in the private sector and 25.6% worked in the public sector.

By industry, Adak's economy was relatively diverse between in 2010. In that year, most (17.9%) employed residents were estimated to work in information sectors; followed by construction sectors (15.4%); education service, health care, and social assistance sectors (12.8%); and arts, entertainment, recreation, accommodations, and food service sectors (12.8%) (Figure 3). By occupation type, most (41.0%) employed residents were estimated to hold natural resources, construction, or maintenance positions; followed by management or professional positions (17.9%); production, transportation, or material moving positions (17.9%); sales or office positions (12.8%); and service positions (10.3%) (Figure 4). Overall, there was significant variation in industry sector representation between 2000 and 2010. There were notable declines in the proportion of residents employed in professional, scientific, management, administrative, waste management, and retail trade sectors. Conversely there were notable increases in construction, information, education services, health care, social assistance, arts, entertainment, recreation, accommodations, and food service sectors. While this may be attributed to shifts in economic regimes, ACS sampling methods may not have captured accurate conditions. According to 2010 ALARI estimates,<sup>25</sup> 15.0% if residents worked in construction sectors; 2.5% worked in manufacturing sectors; 25.0% worked in trade, transportation, and utilities sectors; 2.5% worked in information sectors; 2.5% worked in financial service sectors; 7.5% worked in education and health service sectors; 2.5% worked in leisure and hospitality sectors; 7.5% worked in state government; 20.0% worked in local government; and 15.0% worked in undetermined sectors.

Finally, it should be noted that no individuals characterized themselves as working in natural resource based industries, which includes fishing, in 2010. 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.

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<sup>24</sup> See footnote 19.

<sup>25</sup> Ibid.

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

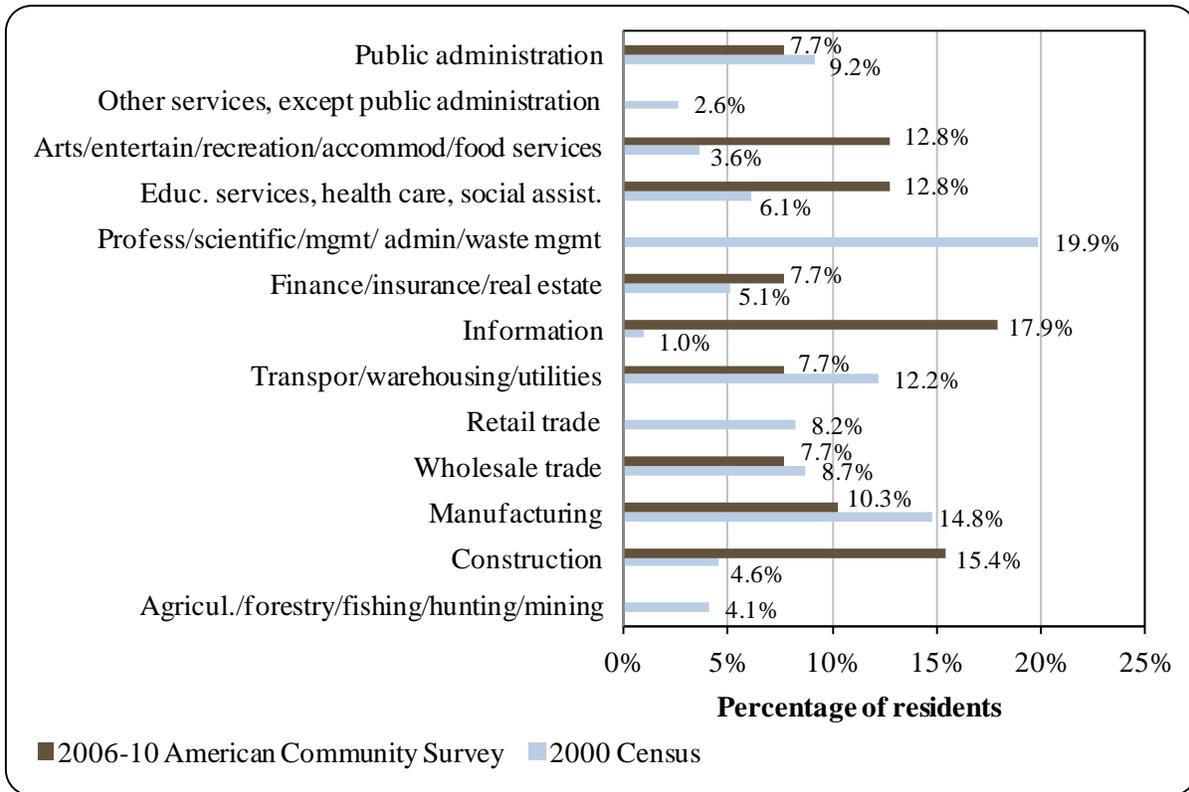
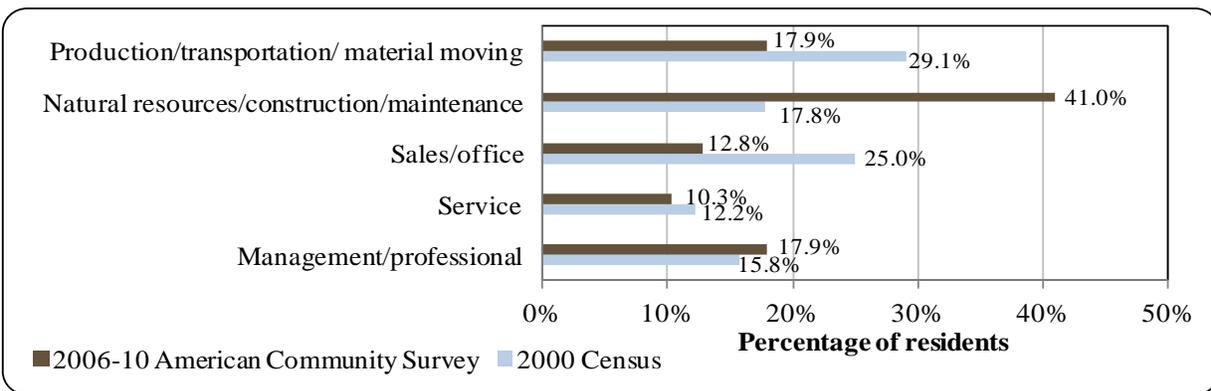


Figure 4. Local Employment by Occupation in 2000-2010, Adak (U.S. Census).



## Governance

The City of Adak has a manager form of government which includes a mayor (elected from the council), a seven-member city council, and eight municipal employees, including a City Manager. The City is not part of an organized borough.

Adak was not included in Alaska Native Claims Settlement Act (ANCSA) and is not federally recognized as a Native village. However, the Aleut Corporation has taken a very active role in the development of the city in tandem with the City government, taking over

responsibilities of almost all services to the community, the ownership of a large amount of the land, and taking action to bring new businesses to the community.

The closest Bureau of Citizenship and Immigration Services office, National Marine Fisheries Service (NMFS) office, Office of Sustainable Fisheries, and Alaska Department of Fish and Game (ADF&G) office are all located in Dutch Harbor, 350 mi east.

Adak administers a 4% sales tax, and 5% transient lodging tax. The total municipal budget in 2010 was \$877,545, compared to \$594,420 in 2002. Total municipal revenues peaked in 2004 at \$1.63 million. Sales tax accounted for 25.1% of total municipal revenues in 2010, compared to 73.6% in 2002. In addition, State allocated Community Revenue Sharing accounted for 7.4% of total municipal revenues that year, compared to 2.0% in 2003 when the State Revenue Sharing program was still active. State and federal fisheries-related grants awarded to Adak between 2000 and 2010 include \$7.1 million in harbor projects, \$5.7 million in small vessel harbor projects, and \$300,000 for port improvement projects. Information regarding municipal finances can be found in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Adak 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	\$594,420	\$571,978	n/a	\$300,000
2003	\$3,198,200	\$570,978	\$30,245	n/a
2004	\$2,511,256	\$660,000	n/a	\$2,428,530
2005	\$2,628,478	\$632,817	n/a	\$3,328,530
2006	\$2,857,315	\$660,000	n/a	\$2,000,000
2007	\$3,160,210	\$900,000	n/a	n/a
2008	\$2,784,968	\$528,697	n/a	n/a
2009	\$1,604,646	\$128,212	\$105,081	n/a
2010	\$877,545	\$411,815	\$104,275	\$1,600,000

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

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

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

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

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

## Infrastructure

### *Connectivity and Transportation*<sup>26</sup>

Adak is only accessible by air or by sea. Alaska Airlines provides twice weekly non-stop service from Anchorage. The price of a roundtrip flight between Anchorage and Adak in June, 2012 was \$1,198.00.<sup>27</sup> Along with fishing and cargo vessels, Adak also provides services to various personal craft. Peak visits of these vessels typically coincide with the tourism season. Shortened periods of sea-ice cover in the Arctic associated with climate change have increased the possibility that a seasonal northern shipping route might open in the future. Adak hopes that if trends continue, the community can grow as an international shipping hub connecting Europe and the Eastern United States with Asian markets.<sup>28</sup>

### *Facilities*

The city operates water, sewer, and landfill services. Water is derived from Lake Bonnie Rose, Lake De Marie, and Nurses Creek, stored in any of the four water tanks throughout the community, and piped to facilities and housing units. The wastewater treatment system discharges through a marine outfall line to Kuluk Bay. Husky Road landfill is class III permitted. Aleut Corporation (Adak Petroleum) owns nine fuel storage tanks with the combined capacity of 22 million gallons. Accommodations include Aleut Real Estate (D/B/A Adak Island Inn) and Little Michaels Lodges. Public safety is provided by City Public Safety, and Alaska state troopers based in King Salmon. Fire and rescue services are provided by Adak Volunteer Fire Department and supported by the State of Alaska Airport. Additional public facilities include a City Hall with gymnasium, Olympic size swimming pool, community center, weight room, and racquetball court. Communication services include local and long distance telephone, internet, cellular services, and local and cable television.<sup>29</sup>

In a survey conducted by the AFSC in 2011, community leaders reported on completed and in progress infrastructure projects. These projects included broadband internet access, warehouse facilities, cable television, and improvements to current water and sewer systems, water treatment, community center, public safety, emergency response systems, fire department, school, and telephone services. Projects planned for completion within 10 years included sewage treatment, new landfill, and airport updates (glideslope antennae). Port facilities completed or in progress included fish cleaning stations, dockside electricity and water, harbor dredging, dock structure improvements, pilings, and a barge landing area. Port facility projects planned for completion within 10 years included electrical system upgrades and replacement, hydroelectricity, new dock space, additional dock improvements, additional pilings, additional harbor dredging, dry dock space, haul-out facilities, completion of a small boat harbor, and an EPA-certified cleaning station.

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<sup>26</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>27</sup> Airfare was determined using lowest fare. (Retrieved November 7, 2011 from: [www.alaskaair.com](http://www.alaskaair.com).)

<sup>28</sup> Paulin, J. (2012). *Adak Hopes oil, trans-Arctic shipping will revitalize island*. The Dutch Harbor Fisherman. Retrieved November 13, 2012 from: [http://www.thedutchharborfisherman.com/article/1238adak\\_hopes\\_oil\\_trans-arctic\\_shipping\\_will](http://www.thedutchharborfisherman.com/article/1238adak_hopes_oil_trans-arctic_shipping_will).

<sup>29</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).

Services supporting the fisheries sector include processing plants, boat welding services, small vessel haulout facilities, commercial and recreational vessel moorage, tackle and bait sales, commercial cold storage, drydock, fish lodges, fishing related bookkeeping, fishing gear storage, and ice sales. Fisheries related businesses and services include fish processing, vessel repair (welding), small vessel (<60 ft) haulout facilities, commercial fishing vessel moorage, recreation vessel moorage, tackle sales, bait sales, commercial cold storage, drydock storage, fish lodges, vessel fuel sales, fishing gear storage, and ice sales. Additional businesses include a United Parcel Service (UPS) station, post office, housing rentals, grocery store, liquor store, vehicle rentals, bar and grill, food bank, and marine logistics. Residents typically travel to Unalaska, King Cove, Sandpoint, Anchorage, or Seattle for services not available locally.

As of 2010, Adak was capable of handling vessels of all sizes, including rescue vessels, cruise ships, ferries, fuel barges, cargo vessels, barges, and vessels containing hazardous materials. Between 2005 and 2010, community leaders noticed that there were a significant reduction in the number of visits by charter boats, commercial fishing boats, vessels between 35 and 125 ft, and vessels over 125 ft. In addition, there was an increase in the number of visits by private pleasure boats, and no change in the number of visits by vessels under 35 ft.

### *Medical Services*<sup>30</sup>

Health care is provided by the Adak Community Health Center, operated by Eastern Aleutian Tribes. Adak Community Health Center is a qualified Emergency Care Center and Primary Health Care facility. The clinic is staffed by a physician's assistant and Community Health Aide/Practitioner(s) who provide emergency care family practice and referral services. Lab, pharmacy, behavioral health, and public health services are available. Adak is an isolated town/sub-regional center located in the Southern EMS (Emergency Medical Services) Region. Emergency Services have coastal and airport access to Adak. Alternate health care is provided through the City via the Adak Volunteer Fire Department.

### *Educational Opportunities*<sup>31</sup>

The Adak Public School offers preschool through 12<sup>th</sup> grade instruction. As of 2011, there were 20 students enrolled with 2 teachers and 3 teacher aides employed.

## **Involvement in North Pacific Fisheries**

### *History and Evolution of Fisheries*<sup>32</sup>

The Aleuts of the region were the first to be involved in North Pacific fisheries through their participation in subsistence activities. Historically, salmon, cod, herring, and other fish were targeted throughout the Aleutian chain. Subsistence fish stocks were more abundant in the

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<sup>30</sup> Ibid.

<sup>31</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

<sup>32</sup> Atkinson, C.E. (n.d.). A Brief Review of the Salmon Fishery in the Aleutian Islands Region. Retrieved May 20, 2012 from: [http://www.npafc.org/new/inpfc/INPFC%20Bulletin/Bull%20No.1/Bull1%20p93-104%20\(Atkinson\).pdf](http://www.npafc.org/new/inpfc/INPFC%20Bulletin/Bull%20No.1/Bull1%20p93-104%20(Atkinson).pdf).

eastern part of the Aleutians, and became less abundant further to the west. Subsistence fishing was typically done by beach seines and hooks.

Previous to Alaska's purchase in 1867, American schooners were fishing for cod in the Aleutian Islands and Okhotsk Sea regions. By the end of the nineteenth century, salmon canneries were being established in western Alaska and on the eastern portion of the Alaska Peninsula. No large-scale commercial seafood processing operation was undertaken in the Aleutian area during those years however. In 1916, Pacific American Fisheries, Inc. established a cannery at Makushin Bay, Unalaska. In those days, adverse weather conditions typically kept the small seine fleet close to Unalaska and Umnak islands.

Following the 1924 White Act, newly protected fisheries began to proliferate throughout the Aleutian region. The implementation of a 1928 Executive Order removed Akun, Akutan, Tigalda, Umnak, and Unalaska Islands from an earlier established wildlife reserve, opening up further opportunities.

The International Packing Company fished the Aleutian area between 1924 and 1942 and operated a floating processor in the region through 1941. Pink, sockeye, and chum salmon were popular species.

Although historically not a fishing community, the cessation of military operations in Adak led to economic diversification which included an increase in commercial, recreational, and subsistence fishing participation. As of 2010, several residents held commercial fishing permits, and Adak Seafood LLC operated a seafood processing plant (see *Commercial Fishing* section below).

In a survey conducted by the AFSC in 2011, community leaders reported that community representatives participate in North Pacific Fishery Management Council as well as Federal Subsistence Board/Federal Subsistence Regional Advisory Council processes. The community is located in Federal Reporting Area 541, International Pacific Halibut Commission (IPHC) Regulatory Area 4B, and the Aleutian Islands Sablefish Regulatory District. Adak is eligible for participation in the Community Quota Entity (CQE) program and is represented by the Adak Community Development Corporation. The impetus for the CQE program followed the implementation of the halibut and sablefish Individual Fishing Quota (IFQ) program in 1995. The IFQ program restructured fixed gear halibut and sablefish fisheries into a catch share program which issued transferable quota shares that allocated and apportionment of the annual Total Allowable Catch to eligible vessels and processors. Although the IFQ program resulted in many benefits to fishermen, processors, and support businesses, an unintended consequence was that many quota holders in smaller Alaskan communities either transferred quota outside the community or moved out themselves. In addition, as quota became increasingly valuable, entry into halibut or sablefish fisheries became difficult. In many cases, it was more profitable for small-scale operators to sell or lease their quota rather than fish it due to low profit margins and high quota value. These factors lead to decreased participation in communities traditionally dependent on the halibut or sablefish fisheries. To address this issue, the North Pacific Fishery Management Council implemented the CQE program in 2005. Under the program, eligible communities could form a non-profit corporation to purchase and manage quota share on their behalf.<sup>33</sup>

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<sup>33</sup> North Pacific Fishery Management Council (2010). *Review of the Community Quota Entity (CQE) Program under the Halibut/Sablefish IFQ Program*. Retrieved October 23, 2012 from: <http://www.fakr.noaa.gov/npfmc/PDFdocuments/halibut/CQEreport210.pdf>.

### *Processing Plants*

After Adak Seafoods LLC closed in 2011, Icicle Seafoods took over on-shore seafood processing in Adak. Cod is the principal species purchased, and product is processed, frozen, and distributed globally.<sup>34</sup> In addition to cod, Icicle Seafoods processed halibut and crab during its cod season. In 2013, Icicle announced that it would cease operations in Adak due to economic uncertainty.

### *Fisheries-Related Revenue*

In 2010, Adak received fisheries-related revenue from Shared Fisheries Business Taxes, Fisheries Resource Landing Taxes, fuel transfer taxes, bulk fuel transfer fees, and harbor usage fees. In that year, revenues totaled \$314,200, compared to \$56,600 in 2002. Fisheries-related revenue peaked in 2010 at \$749,058. It should be noted that based on figures given in Table 3, 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 reported municipal budget. Information regarding fisheries-related revenue trends can be found in Table 3.

In a survey conducted by the AFSC in 2011, community leaders reported fisheries-related taxes and fees are put towards harbor maintenance, emergency response services, water and wastewater systems, and public safety services.

### *Commercial Fishing*

In a survey conducted by the AFSC in 2011, community leaders reported that commercial vessels ranging 35 to over 125 feet use Adak as a base of operation during fishing seasons (generally January through November depending on species). Gear types being used include trawl, pots, longlines, jigs, and circle hooks.

In 2010, three residents, or 1% of the population, held 10 permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, four residents held seven CFEC permits. Of the permits held in 2010, 10% were for salmon, compared to 0% in 2000; 40% were for groundfish, compared to 100% in 2000; 20% were for sablefish, compared to 0% in 2000; and 30% were for halibut, compared to 0% in 2000. In addition, two residents held Federal Fisheries Permits (FFP) and three residents held three License Limitation Program (LLP) groundfish permits. Residents held 288,494 shares of halibut quota on two accounts in 2010, compared to 0 in 2000; and 451,426 shares sablefish quota on one account, compared to 0 in 2000. No residents held crab quota between when the program began in 2005 and 2010.

Nine residents held commercial crew licenses in 2010, compared to two in 2000. In addition, residents held majority ownership of two vessels that year, compared to four in 2000. Of the CFEC permits held in 2010, 50% were actively fished, compared to 86% in 2000. This varied by fishery from 67% of halibut permits, to 50% of both sablefish and groundfish permits

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<sup>34</sup> Icicle Seafoods, Inc. (n.d.). *Adak*. Retrieved November 13, 2012 from: <http://www.icicleseafoods.com/locations/adk/>.

and 0% of salmon permits. Fisheries prosecuted by Adak residents in 2010 included: statewide longline halibut and statewide longline miscellaneous saltwater finfish.<sup>35</sup>

In 2010, 800,992 lbs of fish valued at \$583,005 ex-vessel were landed in Adak, compared to 11.16 million lbs valued at \$12.44 million landed in 2000. In that year, Adak ranked 40<sup>th</sup> of 67 communities in terms of total lbs landed and 42<sup>nd</sup> in terms of ex-vessel revenue from landings. By species type, 2010 landings are considered confidential with the exception of halibut, which totaled 100,103 lbs and was valued at \$399,256 ex-vessel. All landings reported by residents of Adak are considered confidential for 2010. Information regarding commercial fishing trends can be found in Table 4 through 10.

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<sup>35</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 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community of Adak: 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	\$70,000	n/a						
Shared Fisheries Business Tax <sup>1</sup>	n/a	n/a	n/a	\$293,220	\$429,776	\$430,442	\$367,616	\$245,313	\$228,759	\$379,277	\$116,000 <sup>2</sup>
Fisheries Resource Landing Tax <sup>1</sup>	n/a	n/a	n/a	\$108,081	\$77,584	\$155,078	\$125,016	\$179,193	\$170,205	\$259,551	\$64,000 <sup>2</sup>
Fuel transfer tax <sup>2</sup>	n/a	n/a	\$50,600	\$24,000	\$43,200	\$36,000	\$144,000	\$240,000	\$36,000	\$36,000	\$28,800
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	\$100,000
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	\$6,000	\$12,000	\$42,000	n/a	n/a	n/a	n/a	n/a	\$5,400
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<sup>4</sup></i>	<i>n/a</i>	<i>n/a</i>	<i>\$56,600</i>	<i>\$507,301</i>	<i>\$592,560</i>	<i>\$621,520</i>	<i>\$636,632</i>	<i>\$664,506</i>	<i>\$434,964</i>	<i>\$674,828</i>	<i>\$749,058*</i>
<i>Total municipal revenue<sup>5</sup></i>	<i>n/a</i>	<i>n/a</i>	<i>\$594,420</i>	<i>\$3.20 M</i>	<i>\$2.51 M</i>	<i>\$2.63 M</i>	<i>\$2.86 M</i>	<i>\$3.16 M</i>	<i>\$2.78 M</i>	<i>\$1.60 M</i>	<i>\$877,545</i>

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

\*Total fisheries-related revenue figure was amended according to profile edits provided by the community of Adak.

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

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

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

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

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

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Table 4. Permits and Permit Holders by Species, Adak: 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	1	1	1	2	3	3	3
	Active permits	0	0	0	0	0	0	0	0	2	2	2
	% of permits fished	n/a	n/a	n/a	n/a	0%	0%	0%	0%	66%	66%	66%
	Total permit holders	0	0	0	0	1	1	1	2	3	3	3
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	n/a										
	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	1	1	1	1	1	2	2
	Fished permits	0	0	0	0	1	1	1	1	1	2	2
	% of permits fished	n/a	n/a	n/a	n/a	100%	100%	100%	100%	100%	100%	100%
	Total permit holders	0	0	0	0	1	1	1	1	1	2	2
Crab (CFEC) <sup>2</sup>	Total permits	0	1	0	0	0	0	0	0	0	0	0
	Fished permits	0	1	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	100%	n/a								
	Total permit holders	0	1	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	n/a										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) <sup>2</sup>	Total permits	0	1	2	0	1	1	1	2	2	3	3
	Fished permits	0	1	1	0	1	1	1	2	2	2	2
	% of permits fished	n/a	100%	50%	n/a	100%	100%	100%	100%	100%	67%	67%
	Total permit holders	0	1	2	0	1	1	1	2	2	3	3
Herring (CFEC) <sup>2</sup>	Total permits	0	1	0	0	3	1	1	1	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	0%	n/a	n/a	0%	0%	0%	0%	n/a	n/a	n/a
	Total permit holders	0	1	0	0	3	1	1	1	0	0	0

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	Total permits	0	0	1	0	1	1	1	1	2	2	2
	Fished permits	0	0	1	0	1	1	1	1	0	1	1
	% of permits fished	n/a	n/a	100%	n/a	100%	100%	100%	100%	0%	50%	50%
	Total permit holders	0	0	1	0	1	1	1	1	2	2	2
Groundfish (CFEC) <sup>2</sup>	Total permits	7	7	5	3	5	4	6	3	3	3	4
	Fished permits	6	4	2	0	1	2	2	1	2	1	2
	% of permits fished	86%	57%	40%	0%	20%	50%	33%	33%	67%	33%	50%
	Total permit holders	4	5	3	2	3	2	5	2	2	2	2
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	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) <sup>2</sup>	Total permits	0	0	0	0	3	1	1	2	0	0	1
	Fished permits	0	0	0	0	1	0	0	1	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	33%	0%	0%	50%	n/a	n/a	0%
	Total permit holders	0	0	0	0	2	1	1	2	0	0	1
<i>Total CFEC Permits<sup>2</sup></i>	<i>Permits</i>	<i>7</i>	<i>10</i>	<i>8</i>	<i>3</i>	<i>13</i>	<i>8</i>	<i>10</i>	<i>9</i>	<i>7</i>	<i>8</i>	<i>10</i>
	<i>Fished permits</i>	<i>6</i>	<i>6</i>	<i>4</i>	<i>0</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>5</i>	<i>4</i>	<i>4</i>	<i>5</i>
	<i>% of permits fished</i>	<i>86%</i>	<i>60%</i>	<i>50%</i>	<i>0%</i>	<i>31%</i>	<i>50%</i>	<i>40%</i>	<i>56%</i>	<i>57%</i>	<i>50%</i>	<i>50%</i>
	<i>Permit holders</i>	<i>4</i>	<i>5</i>	<i>4</i>	<i>2</i>	<i>6</i>	<i>3</i>	<i>6</i>	<i>4</i>	<i>2</i>	<i>3</i>	<i>3</i>

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

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

Table 5. Characteristics of the Commercial Fishing Sector in Adak: 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 Adak <sup>2</sup>	Total Net Lbs Landed In Adak <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Adak <sup>2,5</sup>
2000	2	4	2	4	1	69	11,160,828	\$12,439,240
2001	7	6	2	5	4	74	11,415,239	\$12,583,504
2002	3	3	2	3	4	69	--	--
2003	18	3	2	3	4	72	--	--
2004	12	3	2	8	4	49	--	--
2005	21	2	1	6	4	38	--	--
2006	7	2	1	6	7	32	--	--
2007	7	1	1	4	5	52	--	--
2008	9	1	1	2	7	46	--	--
2009	6	3	2	2	6	24	--	--
2010	9	7	2	2	3	10	800,992	\$583,005

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

<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 Adak: 2000-2010.

<b>Year</b>	<b>Number of Halibut Quota Share Account Holders</b>	<b>Halibut Quota Shares Held</b>	<b>Halibut IFQ Allotment (pounds)</b>
2000	0	0	0
2001	0	0	0
2002	0	0	0
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	0	0	0
2007	2	44,154	5,478
2008	3	226,362	39,268
2009	5	332,648	54,381
2010	2	288,494	52,181

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 Adak: 2000-2010.

<b>Year</b>	<b>Number of Sablefish Quota Share Account Holders</b>	<b>Sablefish Quota Shares Held</b>	<b>Sablefish IFQ Allotment (pounds)</b>
2000	0	0	0
2001	0	0	0
2002	0	0	0
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	0	0	0
2007	0	0	0
2008	1	215,541	20,130
2009	1	215,541	18,207
2010	1	451,426	37,303

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 Adak: 2000-2010.

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

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

Table 9. Landed Pounds and Ex-vessel Revenue, by Species, in Adak: 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	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	100,103
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total<sup>2</sup></i>	--	--	--	--	--	--	--	--	--	--	<i>100,103</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	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	\$399,256
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total<sup>2</sup></i>	--	--	--	--	--	--	--	--	--	--	<i>\$399,256</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 lbs 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 Adak 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	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	296,511	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total<sup>2</sup></i>	--	<i>296,511</i>	--	--	--	--	--	--	--	--	--
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	\$81,572	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total<sup>2</sup></i>	--	<i>\$81,572</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 lbs refers to the landed weight recorded in fish tickets.

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

### *Recreational Fishing*

Recreational fishing is limited in Adak due to its remote location. Several sport fish guide businesses operated locally between 2000 and 2008; however, as of 2010 there were none registered. Also in that year, residents were sold 27 sportfishing licenses, compared to 68 in 2000. No sportfishing licenses were sold in the community between 2000 and 2010.

Adak is located within the Alaska Peninsula and Aleutian Islands ADF&G Harvest Survey Area which includes all Alaskan waters, including drainages, between Cape Douglas and the community of Naknek. In 2010, angler days fished totaled 5,297 for saltwater fisheries and 33,635 for freshwater fisheries. In that year, non-Alaska resident anglers accounted for 38.4% of saltwater and 58.4% of freshwater angler days fished, compared to 15.8% and 39.5% in 2000, respectively. According to ADF&G Harvest Survey data,<sup>36</sup> local private anglers target coho salmon, Pacific halibut, and Pacific cod. In a survey conducted by the AFSC in 2011, community leaders reported that recreational fishers target pink, Chinook, coho, and sockeye salmon, halibut, crab, sablefish, clams, mussels, Dolly Varden, and flounder. No kept/released charter information is available for Adak. Information regarding recreational fishing trends can be found in Table 11.

### *Subsistence Fishing*

Subsistence is an important part of Adak's economy. In 2007, Adak's status as a federally recognized rural place was revised, and the community became eligible to participate in the Federal Subsistence program on Federal public lands.<sup>37</sup> According to a survey conducted by the AFSC in 2011, community leaders reported salmon, halibut, crab, seal, sea lion, duck, and geese as important subsistence resources.

Information on subsistence participation is limited, and data on participation by household is unavailable. Of the species listed by ADF&G in Table 13, sockeye salmon were harvested the most often. In 2008, residents reported harvesting 369 salmon, compared to 346 in 2000. Reported salmon harvests peaked in 2001 at 479 fish. In 2009, 26 residents held Subsistence Halibut Registration Certificates, compared to six in 2003. In that year an estimated 377 lbs of halibut was harvested on four SHARC cards, compared to an estimated 687 harvested on six in 2003. Estimated halibut harvests peaked in 2008 at 3,058 lbs harvested on 12 SHARC cards. Between 2000 and 2008, an estimated seven sea otters were harvested. In addition, an estimated 11 sea lions and 22 harbor seals were harvested in those years. Information regarding subsistence trends can be found in Tables 12 through 15.

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<sup>36</sup> Alaska Department of Fish and Game. 2011. Alaska Sport Fishing Survey results, 2000 – 2010. ADF&G Division of Sport Fish, Alaska Statewide Harvest Survey project. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. <http://www.adfg.alaska.gov/sf/sportfishingsurvey/> (Accessed September 2011).

<sup>37</sup> Federal Register. (2007). *Subsistence Management Regulations for Public Lands in Alaska, Subpart C; Non-rural determinations*. Retrieved November 18, 2011 at <http://www.federalregister.gov/articles/2007/05/07/07-2205/subsistence-management-regulations-for-public-lands-in-alaska-subpart-c-nonrural-determinations>

Table 11. Sport Fishing Trends, Adak: 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 Adak <sup>2</sup>
2000	0	0	68	0
2001	0	0	51	0
2002	0	0	30	0
2003	2	2	16	0
2004	2	2	38	0
2005	0	0	41	0
2006	0	0	47	0
2007	1	0	40	0
2008	1	0	27	0
2009	0	0	13	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	1,664	8,870	17,749	27,227
2001	1,760	3,939	16,840	14,350
2002	4,126	5,210	15,865	18,417
2003	1,603	4,333	16,557	11,878
2004	1,948	12,721	18,813	19,360
2005	3,585	5,129	14,130	12,038
2006	2,809	4,392	22,323	8,830
2007	2,588	9,356	20,371	15,870
2008	3,436	4,298	21,797	10,207
2009	3,488	3,815	18,996	16,020
2010	2,036	3,261	19,643	13,992

<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).

Table 12. Subsistence Participation by Household and Species, Adak: 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 (Lbs)
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, Adak: 2000-2010.

Year	Subsistence Salmon Permits Issued <sup>1</sup>	Salmon Permits Returned <sup>1</sup>	Chinook Salmon Harvested <sup>1</sup>	Chum Salmon Harvested <sup>1</sup>	Coho Salmon Harvested <sup>1</sup>	Pink Salmon Harvested <sup>1</sup>	Sockeye Salmon Harvested <sup>1</sup>	Lbs of Marine Inverts <sup>2</sup>	Lbs of Non-Salmon Fish <sup>2</sup>
2000	12	12	n/a	n/a	4	72	270	n/a	n/a
2001	16	14	14	n/a	18	14	433	n/a	n/a
2002	4	4	n/a	n/a	n/a	n/a	230	n/a	n/a
2003	5	5	n/a	n/a	n/a	n/a	238	n/a	n/a
2004	7	5	n/a	n/a	n/a	n/a	340	n/a	n/a
2005	2	2	n/a	n/a	n/a	n/a	138	n/a	n/a
2006	1	1	n/a	n/a	n/a	1	74	n/a	n/a
2007	7	6	n/a	n/a	2	29	292	n/a	n/a
2008	7	6	n/a	n/a	n/a	14	355	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, Adak: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	6	6	687
2004	13	3	185
2005	13	1	370
2006	12	2	508
2007	30	16	1,540
2008	29	12	3,058
2009	26	4	377
2010	n/a	n/a	n/a

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

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

Table 15. Subsistence Harvests of Marine Mammal Resources, Adak: 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	5	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	1	4	n/a
2004	n/a	n/a	n/a	n/a	2	n/a	n/a
2005	n/a	1	n/a	n/a	4	12	n/a
2006	n/a	1	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	4	n/a
2008	n/a	n/a	n/a	n/a	4	2	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.

## **Additional Information**

In a survey conducted by the AFSC in 2011, community leaders reported that commercial fishing restrictions prompted by measures to protect western Steller sea lion populations, attempts to keep fisheries open, opening a new fish plant, a lack of essential services, and a lack of support businesses are challenges to Adak’s fisheries economy. Negative effects that fisheries management or policies have had on Adak include “Olympic-style” fishing, low processing capacity, a struggling business sector, declines in fish tax revenues, population declines, and unemployment. Positive effects that fisheries management or policies have had on Adak include Adak specific quota and small boat fisheries. Community leaders expressed that Steller sea lion restrictions deter potential growth and increase the cost of living and doing business in Adak.

In addition, Adak continues to face challenges regarding funding for fishery infrastructure and service projects. Community leaders noted a downward trend in vessel visitations and home-porting which has put strain on local revenues and the fishing industry.