# **Community Profiles for North Pacific Fisheries - Alaska**

Volume 2

by A. Himes-Cornell, K. Hoelting, C. Maguire, L. Munger-Little, J. Lee, J. Fisk, R. Felthoven, C. Geller, and P. Little

#### U.S. DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration National Marine Fisheries Service Alaska Fisheries Science Center

November 2013

#### NOAA Technical Memorandum NMFS

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This document should be cited as follows:

Himes-Cornell, A., K. Hoelting, C. Maguire, L. Munger-Little, J. Lee, J. Fisk, R. Felthoven, C. Geller, and P. 2013. Community profiles for North Pacific fisheries - Alaska. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-259, Volume 2, 179 p.

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November 2013

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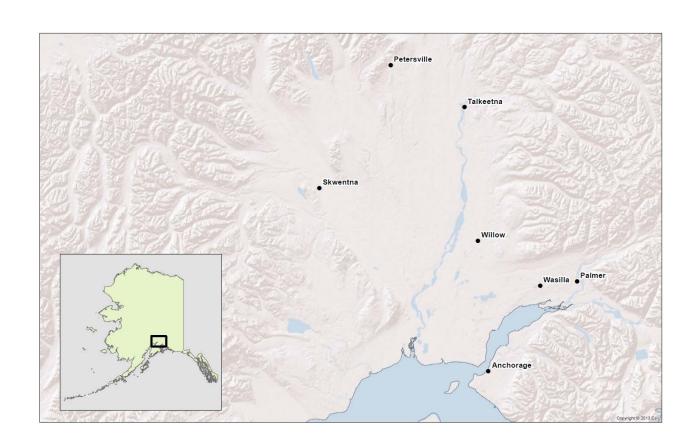
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## Regional Introduction: Anchorage/ Matanuska-Susitna

#### **Communities**

Anchorage Talkeetna
Palmer Wasilla
Petersville Willow

Skwentna



#### Community Profiles for North Pacific Fisheries - Alaska: Anchorage and Matanuska-Susitna

#### **People and Place**

#### Location

The Anchorage and Matanuska-Susitna (Mat-Su) area includes the Mat-Su Borough and Anchorage Municipality. The profiled communities in this sub-region are for the most part all located within about an hour travel by car of the City of Anchorage, which has made this one of the fastest growing regions in the state. This sub-region is situated at approximately 61° N. latitude and -149° W. longitude. The Matanuska-Susitna area is made up of thriving valley farmlands, whereas the Anchorage Municipality encompasses the largest city in Alaska which had a total of 291,826 inhabitants in the year 2010, approximately 41% of the population of entire state of Alaska. Many of the communities are located off of Cook Inlet; however, some are located more inland in the lush agricultural countryside.

#### Demographic Profile and History

The area was historically occupied by Tanaina Indians, an Athabaskan Native group; however, today the Native population is very low in comparison to other areas in Alaska. A total of 11.1% of the population identified themselves as at least part Alaska Native or American Indian in Anchorage in the year 2010 and 9.5% of the population in the Matanuska-Susitna Borough overall. Overall, the combined population of both the Anchorage Municipality and Mat-Su Borough was 380,821 in 2010.<sup>2</sup> Recent development and growth has been mainly attributed to the closeness in proximity to the state's largest city of Anchorage.<sup>3</sup> The metropolis of Anchorage accounts for about 76.6% of the population of the Anchorage/Mat-Su area<sup>4</sup> and is the center of commerce for the entire state. The population of Anchorage includes the populations for Eagle River-Chugiak as well as Girdwood as reported by the U.S. Census.

Anchorage is the region's commerce center and has a largely diversified economy. Oil and gas industries, finance and real estate, transportation, communications, and government agencies are headquartered in Anchorage. Numerous visitor and tourist facilities and services are available. Over 13,000 military personnel are stationed at Fort Richardson and Elmendorf Air Force Base. The communities of Palmer and Wasilla have strong agricultural histories and also support other industries. Both of these areas continue to experience high levels of growth as Anchorage's population expands. The economy of Willow is based heavily on tourism and

<sup>&</sup>lt;sup>1</sup> U.S. Census Bureau (2010). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2010 (Demographic Profile SF) Decennial Census. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

<sup>2</sup> Ihid

<sup>&</sup>lt;sup>3</sup> Williams, J. G. (2010). *The Movement Between Alaska's Major Native Areas and Anchorage*. Retrieved December 6, 2012 from: http://www.labor.state.ak.us/research/trends/feb10art1.pdf.

<sup>&</sup>lt;sup>4</sup> U.S. Census Bureau (2010). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2010 (Demographic Profile SF) Decennial Census. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

<sup>&</sup>lt;sup>5</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.

<sup>&</sup>lt;sup>6</sup> City of Palmer, Palmer Planning Team and Agnew:Beck Consulting. 2006. *City of Palmer Comprehensive Plan*. Retrieved March 12, 2012 from http://www.commerce.state.ak.us/dca/plans/Palmer-CP-2006.pdf.

#### Community Profiles for North Pacific Fisheries – Alaska: Anchorage and Matanuska-Susitna

sportfishing. Employment in Skwentna is for the most part available at the community store or school. All the profiled communities are tied to the commercial fishing sector, although Anchorage residents contribute the largest share to the local commercial fishing fleet and to the population of Alaska resident crew members that live in the region.

#### **Natural Resources and Environment**

The weather in the Anchorage/Mat-Su region varies quite a bit between those communities which are located near or on the water and those communities which are located farther inland. The inland communities, Palmer, Skwentna, Wasilla, and Willow have extreme temperatures during the winter months, ranging from -30 to 51 °F in January. Willow is very extreme in terms of snowfall, ranging between 48 to 150 inches per year and Skwentna has a higher average of snow as well with 70 inches per year. The other inland communities average about 50 inches per year of snow, about 16.5 inches of precipitation, and the temperatures in the summer range from about 37 to 85 °F. Coastal communities in the sub-region include Anchorage, Eagle River-Chugiak, and Girdwood and their winter temperatures range from about 8 to 21 °F, whereas their temperature in July ranges from about 51 to about 65 °F. The total average annual precipitation is approximately 15.9 inches in both Anchorage and Eagle River-Chugiak; however, Girdwood averages about 80 inches per year. The average snowfall is approximately 69 inches for all of these water-bordering communities.

Much of the Mat-Su area is built on heavily glaciated sediments and alluvium. Subsurface geology consists of sedimentary rock typically found in lowland areas west of the Chugach Mountains. Upland areas consist of harder metamorphic and igneous rock. Surface materials consist of moraines, estuarine deposits, and bog deposits. Soils are made up primarily of silty loams. <sup>10</sup>

The diverse landscape is characterized by lowland marsh and tidal mudflats, subalpine and upland tundra, alpine meadows, taiga, mesic forest, barren rock, and icefields. <sup>11</sup> Most of the region is located in a transitional zone creating a mix of coastal and boreal vegetation communities. Coniferous stands dominated by Sitka spruce and mountain hemlock populate the coastal zones, while dwarf spruce birch, aspen, alder, and willow populate the boreal areas. Disturbed, lowland, or drainage areas typically consist of conifers mixed with cottonwood, willow, and birch. Upland muskegs and bogs consist of dwarf vegetation, shrubs, and sedges. <sup>12,13</sup>

<sup>9</sup> Ibid.

<sup>&</sup>lt;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.

<sup>&</sup>lt;sup>8</sup> Ibid.

<sup>&</sup>lt;sup>10</sup> Municipality of Anchorage. (1993). *Chugiak-Eagle River Comprehensive Plan*. Retrieved June 13, 2012 from: http://www.commerce.state.ak.us/dca/plans/ChugiakEagleRiver-CP-1993.pdf.

<sup>&</sup>lt;sup>11</sup> United States Forest Service. (1992). *The Alaska Vegetation Classification*. Retrieved December 16, 2011 from: Uhttp://www.fs.fed.us/pnw/publications/pnw\_gtr286/pnw\_gtr286a.pdf.

<sup>&</sup>lt;sup>12</sup> Ager, T. A. and P. E. Carrara (n.d.). *Latest Wisconsin Deglaciation and Postglacial Vegetation Development in the Turnagain Arm Area, Upper Cook Inlet, South-Central Alaska*. Retrieved December 16, 2011 from: http://esp.cr.usgs.gov/research/alaska/turnarm.html.

<sup>&</sup>lt;sup>13</sup> U.S. Forest Service. (n.d.). What types of vegetation are present? Land cover categories South-Central Alaska *PNW-FIA*. Retrieved December 16, 2011 from: http://www.fs.fed.us/pnw/publications/pnw\_gtr652/pnw-gtr652b.pdf.

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Mineral resources in the area include the Wishbone Hill coal deposit 40 miles northeast of Anchorage, and the Willow Creek mineral area 40 miles north. Usibelli Coal Mine Inc. has been conducting exploration and feasibility studies to determine the viability of developing Wishbone Hill. <sup>14</sup> The Willow Creek mineral area, which has a history of producing several gold prospects, is also currently being assessed for further development. <sup>15</sup> Numerous small lakes, streams, wetlands, and wooded areas provide a range of ecological services and recreation resources.

Coal, timber, and gravel make up the majority of exploitable natural resources in the Willow area. Coal deposits studied in the Houston area are sub-bituminous and characterized as low to medium grade. <sup>16</sup> The Chuitna Coal Project, located to the southwest of Willow, produces 12 million tons of coal annually and is expected to have a productive lifespan of 25 years. <sup>17</sup> Oil and gas sources are known to exist in the area. There are several shallow gas leases within the Willow area and additional exploration licenses have been issued within the Susitna Valley. <sup>18</sup> There are several oil extraction project located within the Cook Inlet as well. Other coal gasification developments are focused primarily within the Beluga River area to the southwest. Gas storage was approved for the Ivan River area outside of Beluga. <sup>19</sup> Geothermal energy sources are also thought exist in the area.

#### Governance

There are two boroughs in this sub-region: the Municipality of Anchorage and the Matanuska-Susitna Borough. The communities in this sub-region have varying types of city governments ranging from Anchorage's status of Unified Home Rule Municipality to Willow which is unincorporated.

The communities in this region were not included in the Alaska Native Claims Settlement Act (ANCSA) and are also not federally recognized as Native villages. However, because Anchorage is the main commercial center of the state, many Native regional corporations, Native village corporations, non-profits, community development quota organizations, economic development organizations, regional health corporations have their headquarters or an external office located in the city.

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<sup>&</sup>lt;sup>14</sup> Usibelli Coal Mine Inc. (n.d). *Homepage*. Retrieved December 16, 2011 from http://www.usibelli.com/

<sup>&</sup>lt;sup>15</sup> U.S. Geological Survey. (n.d) *Alaska Resource Data File: Anchorage quadrangle* Retrieved December 16, 2011 from: http://ardf.wr.usgs.gov/ardf\_data/Anchorage.pdf.

<sup>&</sup>lt;sup>16</sup> City of Houston. (2003). *City of Houston Comprehensive Plan*. Retrieved April 26, 2012 from: http://www.commerce.state.ak.us/dca/plans/Houston-CP-2003.pdf.

<sup>&</sup>lt;sup>17</sup>Alaska Department of Natural Resources (n.d.) *Chuitna Coal Project.* Retrieved April 26, 2012 from: http://www.dnr.state.ak.us/mlw/mining/largemine/chuitna/.

Alaska Department of Natural Resources (n.d.). *Exploration License Areas*. Retrieved April 26, 2012 from: http://dog.dnr.alaska.gov/Programs/ExplorationLicenseAreas.htm#susitna.

<sup>&</sup>lt;sup>19</sup> Alaska Department of Natural Resources (n.d.). *Cook Inlet Maps*. Retrieved April 26, 2012 from: http://dog.dnr.alaska.gov/Publications/CookInlet.htm#cimaps.

#### **Involvement in North Pacific Fisheries**

The Anchorage/Mat-Su sub-region is intimately linked to both commercial and recreational fishing industries. Many commercial permits are issued to its residents and many sport fishing licenses are sold in its borders annually. Information on subsistence on the other hand is not readily available for the most part because almost all of these communities are considered to be urban, and thus are not legally entitled to engage in subsistence harvests on federal land.

Anchorage is one of the main centers for commercial fishing in the state, providing a large amount of support services and businesses, many processing plants, the largest fleet in the state, a large number of resident crew members, and a large amount of permit holders in various fisheries. In the Anchorage/Mat-Su region, the main fisheries in terms of number of permit holders were salmon which had the largest participation overall, halibut, groundfish, herring, and a smaller amount of crab permits and other shellfish permits. In 2010, residents of profiled Mat-Su communities held a total of 1,617 fishing permits issued by the Commercial Fisheries Entry Commission. The vast majority of these permits (1,181) were held by Anchorage residents.<sup>20</sup>

An extremely large number of sport fishing licenses were sold in profiled communities within the sub-region in the year 2010, totaling 137,647. Again, the vast majority were sold in Anchorage at 101,073. Many of these licenses, however, could have been purchased by tourists on their way to their final sport fishing destination, as most flights coming into the state pass through Anchorage and no distinction is made in records of permits sold in this regard. In addition there are many sport fishing guide businesses in operation within the communities, especially in Anchorage where there were 144 sport fish guide businesses in 2010. 22

Almost all communities profiled in the sub-region were considered urban areas and thus were not able to engage in subsistence activities on federal land, as mentioned above. In addition, little evidence of subsistence was available except for information regarding salmon subsistence permits. The amount of subsistence salmon permits are comparatively low for the area; however, frequently in urban settings subsistence can be disguised as sport fishing.<sup>23</sup>

#### **Regional Challenges**

Because of the high number of permits issued to residents of the area for salmon, it is probable that many have been adversely affected by the recent falling salmon prices attributed to

<sup>&</sup>lt;sup>20</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>&</sup>lt;sup>21</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>22</sup> Alaska Department of Fish and Game. (2011). *Alaska sport fish guide licenses and businesses*, 2000 – 2010.

<sup>&</sup>lt;sup>22</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>&</sup>lt;sup>23</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.

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the expansion of aquaculture fish industries in other nations. Federal fishery disaster declarations have been made in 1997, 1998, 2000, 2010 and although no federal salmon disaster funds were allotted to the profiled communities in this region, it is likely that those which have permits for salmon in the Anchorage/Mat-Su area have been affected.<sup>24</sup> A city such as Anchorage may not demonstrate the devastating effects of falling salmon prices seen elsewhere because it has a larger budget and a robust tax base. However, the impacts on individuals may be significant.

Population migration patterns within the Anchorage/Mat-Su region have recently become a topic of interest for local and state governments, especially concerning migration from rural areas. In 2010, it was estimated that as much as 2% of rural areas with majority Alaska Native populations migrate annually to the Anchorage area either permanently or temporarily. In addition, there has been significant migration from the "Anchorage Bowl" area, to the greater Mat-Su region. During the 2000-2008 period, 14.5% of the average annual movement out of Anchorage was absorbed by the Mat-Su Borough. Changes in demographics due to population shifts can put pressure on public infrastructure and services. For the Mat-Su Valley, rapid population growth requires expansions of existing services. For the case of rural population flight, the specific demographic which is moving to Anchorage often does so in search of employment or to reduce their living expenses, and may require public assistance while adjusting. <sup>25</sup>

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<sup>&</sup>lt;sup>24</sup> Upton, H. (2010). *Commercial Fishery Disaster Assistance*. Retrieved December 6, 2012 from: http://www.fas.org/sgp/crs/misc/RL34209.pdf.

Williams, J. G. (2010). *The Movement Between Alaska's Major Native Areas and Anchorage*. Retrieved December 6, 2012 from: http://www.labor.state.ak.us/research/trends/feb10art1.pdf.

## Anchorage (ANG-kuh-ridge)

#### **People and Place**

Location <sup>26</sup>

Anchorage, the most populated municipality in Alaska, is located in southcentral Alaska at the head of Cook Inlet, 576 mi northwest of Juneau and 1,400 mi northwest of Seattle. The area encompasses 1,697.2 sq mi of land and 263.9 sq mi of water. The city is surrounded by the rugged Chugach Mountains, Cook Inlet, and many miles of national forest land, state parks, and tidelands. Anchorage became a Unified Home Rule Municipality in 1975 and is located within its own borough.

#### Demographic Profile 27

In 2010, there were 291,826 residents, ranking Anchorage 1<sup>st</sup> of 352 Alaskan communities in terms of population size. Between 1990 and 2010, the population grew by 29.0%. Between 2000 and 2009, the population grew by 11.6% with an average annual growth rate of 0.81%, which was slightly higher than the statewide average of 0.75% and indicative of modest, steady growth.

The racial composition of Anchorage was predominately White in 2010. In that year, 66.0% of residents identified themselves as White, compared to 72.2% in 2000; 8.1% identified themselves as Asian, compared to 5.5% in 2000; 7.9% identified themselves as American Indian or Alaska Native, compared to 7.3% in 2000; 5.6% identified themselves as Black or African American, compared to 5.8% in 2000; 2.0% identified themselves as Native Hawaiian or Other Pacific Islander, compared to 0.9% in 2000; 8.1% identified themselves as two or more races, compared to 6.0% in 2000; and 2.3% identified themselves as some other race, compared to 2.2% in 2000. In addition, 7.6% of residents identified themselves as Hispanic or Latino, compared to 5.7% in 2000.

In 2010, the average household size in Anchorage was 1.60, compared to 2.60 in 1990 and 2.67 in 2000. In that year, there were a total of 113,032 housing units, compared to 94,153 in 1990 and 100,368 in 2000. Housing characteristics in 2010 were virtually the same as in 2000. In both years 57% of households were owner-occupied, 38% were renter-occupied, 4% were vacant, and 1% was occupied seasonally. In addition, 8,450 residents were reported to be living in group quarters in 2010, compared to 3,384 in 1990 and 7,014 in 2000.

<sup>&</sup>lt;sup>26</sup> 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.

<sup>&</sup>lt;sup>27</sup> U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

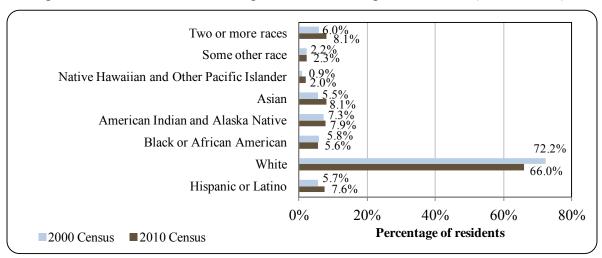
Table 1. Population in Anchorage from 1990 to 2010 by Source.

Year	U.S. Decennial Census <sup>1</sup>	Alaska Department of Labor Estimate of Permanent Residents <sup>2</sup>
1990	226,338	-
2000	260,283	-
2001	-	264,886
2002	-	267,860
2003	-	273,069
2004	-	277,880
2005	-	278,407
2006	-	283,348
2007	-	282,968
2008	=	283,912
2009	-	290,588
2010	291,826	-

<sup>&</sup>lt;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, Anchorage: 2000-2010 (U.S. Census).



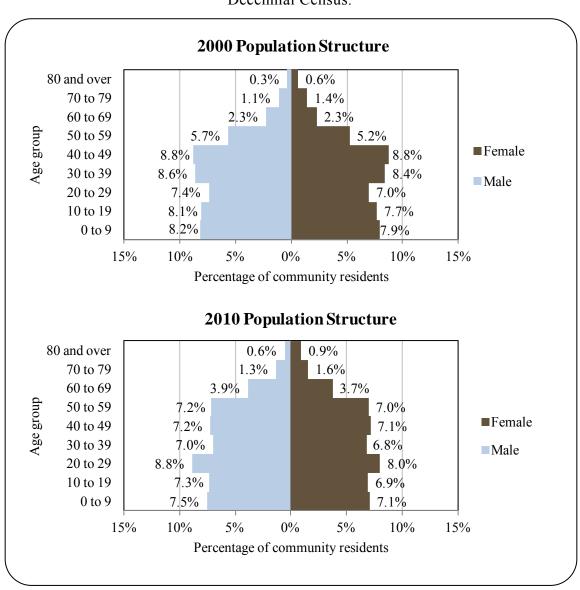
The gender distribution was relatively equal in 2010 at 50.8% male and 49.2% female. This was more even to the distribution statewide (52.0% male, 48.0% female), and similar to the distribution in 2000 (50.6% male, 49.4% female). The median age that year was 32.9 years, which was very similar to both the Alaska median of 33.8 years, and 2000 median of 32.4 years.

The population structure was stationary in both 2000 and 2010, although there was some overall aging within the total population in 2010, relative to 2000. In that year, 28.8% of

residents were under the age of 20, compared to 31.9% in 2000; 12.0% were over the age of 59, compared to 8.0% in 2000; 42.3% were between the ages of 30 and 59, compared to 45.5% in 2000; and 16.8% were between the ages of 20 and 29, compared to 14.4% in 2000.

Gender distribution by age cohort was slightly less even in 2010, with slight male biases occurring among most age ranges. In that year, the greatest absolute gender difference occurred in the 20 to 29 range (8.8% male, 8.0% female), followed by the 0 to 9 (7.5% male, 7.1% female) and 80 and over (0.9% female, 0.6% male) ranges. Of those three, the greatest relative gender difference occurred in the 80 and over range. Information regarding trends in Anchorage's population structure can be found in Figure 2.

Figure 2. Population Age Structure in Anchorage 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) estimated that 91.9% of residents aged 25 and older held a high school diploma or higher degree, compared to an estimated 90.7% of Alaska residents overall. Also in that year, an estimated 3.0% had less than a ninth-grade education, compared an estimated 3.5% if Alaska residents overall; an estimated 5.1% had a ninth to twelfth grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 27.8% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 8.3% held an Associate's degree, compared to an estimated 8.0% of Alaska residents overall; an estimated 21.4% held a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall; and an estimated 11.6% held a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture 28,29

Dena'ina Athabascans inhabited the area when Captain James Cook first explored Cook Inlet in 1778. Located near the northern end of the Municipality, the village of Eklutna was one of eight winter settlements and is the last occupied Dena'ina village in the Anchorage area. During the summer, villagers moved down the Knik Arm to Ship Creek and Fire Island to fish. In the fall, they returned to Eklutna to hunt and trap.

Russian fur traders and missionaries were the first Europeans to occupy the Anchorage area. The discovery of gold in the 1880s and in Interior Alaska in 1922 sparked development in the area. Initially, most prospectors and traders just passed through on their way to other gold fields. Some stayed to prospect the area, resulting in a few mining camps and small settlements along Turnagain Arm, mostly around present day Girdwood.

Construction began in 1914 on a federal railroad from the port of Seward, 126 mi south of Anchorage, through the coalfields of Interior Alaska, to the gold claims near Fairbanks (358 mi north). The midpoint construction headquarters was Anchorage, and by July of 1915, thousands of job seekers and opportunists had poured into the area; living in a tent city on the banks of Ship Creek near the edge of the present downtown. That July produced the "Great Anchorage Lot Sale;" a land auction that shaped the future of the city. Some 655 lots were sold for \$148,000 total, and an average of \$225 each. A month later, the town voted to call itself Alaska City, but the federal government refused to change its name from Anchorage. The City of Anchorage was incorporated on November 23, 1920.

From 1939 to 1957, major military and government construction of roads, airports, and harbors throughout Alaska contributed to the growth of Anchorage. During World War II, Anchorage's strategic location made it well positioned for the construction of defense support facilities serving the North Pacific. In 1940, Fort Richardson and Elmendorf Air Force Base were constructed. During the same period, the construction of the Glenn and Alaska Highways gave Anchorage an overland link through Canada to the rest of the contiguous United States. The port was completed by the early 1960s. The Greater Anchorage Area Borough was formed on January 1, 1964.

<sup>28</sup> 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.

<sup>29</sup> Municipality of Anchorage. (2001). *Anchorage Bowl Comprehensive Plan*. Retrieved June 13, 2012 from: http://www.commerce.state.ak.us/dca/plans/Anchorage1-CP-2001.pdf.

The Good Friday earthquake of 1964 destroyed a large part of the city. During the 1970s, the development of the Prudhoe Bay oilfields and the Trans-Alaska Pipeline brought rapid growth to Anchorage. Population, office space, and housing tripled within a 10-year period. On September15, 1975, the city and borough governments were unified, along with the cities of Girdwood and Glen Alps.

#### **Natural Resources and Environment**

The average temperatures in January range from 8 to 21 °F (-13 to -6 °C). In July, average temperatures range from 51 to 65 °F (11 to 18 °C). Average annual precipitation is 15.9 inches, and average annual snowfall is 69 inches.  $^{30}$ 

Anchorage and its surrounding communities are located in close proximity to the Chugach National Park, Chugach National Forest, and Anchorage Coastal Wildlife Refuge. Terrestrial wildlife in the area includes wolves, otters, marmots, lynx, Dall sheep, bears, moose, muskrat, weasels, mink, hares, voles, shrews, and ground squirrels. Aquatic mammals include beluga, orca, gray, and humpback whale, porpoise, sea otters, Steller sea lions, and seals. Fish and shellfish include all five species of Pacific salmon, cod, sablefish, Dungeness, king, and Tanner crab, clams, trout, arctic grayling, char, sculpins, stickleback, halibut, and northern pike. <sup>31</sup>

Much of the Anchorage area is built on heavily glaciated sediments and alluvium. Subsurface geology consists of sedimentary rock typically found in lowland areas west of the Chugach Mountains. Upland areas consist of harder metamorphic and igneous rock. Surface materials consist of moraines, estuarine deposits, and bog deposits. Soils are made up primarily of silty loams.<sup>32</sup>

The diverse landscape surrounding Anchorage is characterized by lowland marsh and tidal mudflats, subalpine and upland tundra, alpine meadows, taiga, mesic forest, barren rock, and icefields. <sup>33</sup> Anchorage is located in a transitional zone creating a mix of coastal and boreal vegetation communities. Coniferous stands dominated by Sitka spruce and mountain hemlock populate the coastal zones, while dwarf spruce birch, aspen, alder, and willow populate the boreal areas. Disturbed, lowland, or drainage areas typically consist of conifers mixed with cottonwood, willow, and birch. Upland muskegs and bogs consist of dwarf vegetation, shrubs, and sedges. <sup>34,35</sup>

<sup>&</sup>lt;sup>30</sup> Ibid

<sup>&</sup>lt;sup>31</sup> Alaska Department of Fish and Game. (n.d.). *Anchorage Coastal – Wildlife Refuge: Fish and Wildlife*. Retrieved December 16, 2011 from:

http://www.adfg.alaska.gov/index.cfm?ADFG=anchoragecoastal.species.

<sup>&</sup>lt;sup>32</sup> Municipality of Anchorage. (1993). *Chugiak-Eagle River Comprehensive Plan*. Retrieved June 13, 2012 from: http://www.commerce.state.ak.us/dca/plans/ChugiakEagleRiver-CP-1993.pdf.

<sup>&</sup>lt;sup>33</sup> United States Forest Service. (1992). *The Alaska Vegetation Classification*. Retrieved December 16, 2011 from: Uhttp://www.fs.fed.us/pnw/publications/pnw\_gtr286/pnw\_gtr286a.pdf.

<sup>&</sup>lt;sup>34</sup> Ager, Thomas A. and Paul E. Carrara (n.d.). *Latest Wisconsin Deglaciation and Postglacial Vegetation Development in the Turnagain Arm Area, Upper Cook Inlet, South-Central Alaska*. Retrieved December 16, 2011 from: http://esp.cr.usgs.gov/research/alaska/turnarm.html.

<sup>&</sup>lt;sup>35</sup> U.S. Forest Service. (n.d.). What types of vegetation are present? Land cover categories South-Central Alaska *PNW-FIA*. Retrieved December 16, 2011 from: http://www.fs.fed.us/pnw/publications/pnw\_gtr652/pnw-gtr652b.pdf.

Mineral resources in the area include Wishbone Hill coal deposit 40 mi northeast of Anchorage, and Willow Creek mineral area 40 mi north. Usibelli Coal Mine Inc. has been conducting exploration and feasibility studies determining the viability of developing Wishbone Hill.<sup>36</sup> The Willow Creek mineral area, which has a history of producing several gold prospects, is also currently being assessed for further development.<sup>37</sup> There are several thousand acres of municipal greenbelts and parkland that link settled areas with surrounding natural open space. Numerous small lakes, streams, wetlands, and wooded areas provide a range of ecological services and recreation resources.<sup>38</sup>

According to the U.S. Environmental Protection Agency (EPA) there are several Superfund sites in Anchorage currently under remediation. These include white phosphorus, volatile organic compound, heavy metals, and polychlorinated biphenyl contaminants affecting soils, groundwater, and surface water within Fort Richardson Army Base; and petroleum and heavy metals threatening community aguifers within Elmendorf Air Force Base.<sup>39</sup>

According to the Municipality of Anchorage Hazard Mitigation Plan, natural hazards that have the potential to impact Anchorage include earthquakes, coastal erosion, avalanches, ground failure, volcanic ash fallout, coastal and river flooding, wildfire, extreme rain and cold events, and windstorms. Unconsolidated bluffs and shorelines around the Knik Arm are susceptible to coastal erosion. 40

## **Current Economy**<sup>41,42</sup>

Anchorage went through a period of rapid growth in the 1980s. During that time, the city saw \$2.8 billion in new construction, including more than 21,000 new homes, over 2 million sq ft of new office space, and nearly four million sq ft of new retail space. Between 1982 and 1985, 19,000 jobs and 44,000 residents were added to the municipality. Top employers in 2010<sup>43</sup> included Anchorage School District 9011, State of Alaska, Providence Hospital, Municipality of Anchorage, University of Alaska, Safeway Inc., Alaska Native Tribal Health Consortium, Fred Meyer Stores, Inc., Wal-Mart Associates Inc., and the Southcentral Foundation.

When oil prices dropped in 1986, state revenues and expenditures shrank, and Anchorage's economy stalled. Many unemployed residents walked away from mortgages and rental vacancies jumped from 3% in 1982 to 25%. In that year, residential and commercial property values declined by almost half. However, in 1989 the economy rebounded, thanks in

<sup>39</sup> U.S. Environmental Protection Agency. (n.d.). Alaska Cleanup Sites. Retrieved December 16, 2011 from: http://vosemite.epa.gov/r10/cleanup.nsf/webpage/Alaska+Cleanup+Sites

<sup>&</sup>lt;sup>36</sup> Usibelli Coal Mine Inc. (n.d). *Homepage*. Retrieved December 16, 2011 from http://www.usibelli.com/

<sup>&</sup>lt;sup>37</sup> U.S. Geological Survey. (n.d) Alaska Resource Data File: Anchorage quadrangle Retrieved December 16, 2011 from: http://ardf.wr.usgs.gov/ardf\_data/Anchorage.pdf.

<sup>38</sup> See footnote 29.

<sup>&</sup>lt;sup>40</sup> HDR Alaska. (2011). All Hazards Mitigation Plan Update. Retrieved December 16, 2011 from: http://www.muni.org/Departments/works/project\_management/Documents/Public%20Review%20Draft%20March %202011%20Haz%20Mit.pdf.

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

<sup>&</sup>lt;sup>42</sup> See footnote 29.

<sup>&</sup>lt;sup>43</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/.

part to the *Exxon Valdez* oil spill. Anchorage's economy continued to grow throughout the 1990s.

Today, Anchorage is a commerce center with a diversified economy. Oil and gas industries, finance and real estate, transportation, communications, and government agencies are headquartered in Anchorage. Numerous visitor and tourist facilities and services are available. Over 13,000 military personnel are stationed at Fort Richardson and Elmendorf Air Force Base. <sup>44</sup> Economic assets include efficient air and marine transportation services, strategic location, modern communication infrastructure, low cost utilities, low taxes, and good quality of life

Construction is a large economic contributor. In the 1980s, about \$3.9 billion in construction value was added to the municipality and another \$3.2 billion in the 1990s. Anchorage's development as Alaska's center of commerce continues to contribute to its sizable construction sector. Revenues from the petroleum industry make up a very sizable portion of the Alaska state budget. The industry is also an important employer and purchaser of local goods and services. As prices for oil and gas products rise globally, it is expected that the petroleum industry will continue to be large economic force within Anchorage.

Anchorage is also closely tied to national and global economies. Alaska exports many of its resources, and much of Alaska's export economy is based in Anchorage. In addition, Alaska imports a larger share of consumables than any other state. Anchorage's prosperity is tied to national and international oil, gas, minerals, timber, and seafood markets. Likewise, the flow of tourists and cargo, which are the backbone of Anchorage's transportation economy, are also dependant on national and international economies. Ted Stevens International Airport is boasted as one of the busiest air cargo ports in the United States. In the late 1980s, 1.7 million travelers passed through the airport and jet service is provided throughout the United States, Europe, and Asia. In 2010, the number of passengers served rose to over five million. 45

In 2009, an estimated 1.58 million tourists visited Alaska; directly or indirectly contributing \$1.75 billion to southcentral Alaska, and creating 17,600 jobs in the area. <sup>46</sup> In addition to southcentral Alaska, Anchorage acts as a starting off point for many tourists seeking other destinations throughout the state. The Alaska Railroad provides transportation to cruise ship embark/debark points in Seward and Whittier, and visitors can link to interior destinations through Fairbanks. Bus tours provide excursions to Denali, interior Alaska, and Prudhoe Bay.

In 2010,<sup>47</sup> the estimated per capita income was \$34,678 and the estimated median household income was \$73,004, compared to \$25,287 and \$55,546 in 2000, respectively. After adjusting for inflation by converting 2000 values into 2010 dollars,<sup>48</sup> the real per capita income (\$33,252) and real median household income (\$73,042) indicate that both individual and

<sup>&</sup>lt;sup>44</sup> 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.

<sup>&</sup>lt;sup>45</sup> Alaska Department of Transportation and Public Facilities. (n.d.). *Ted Stevens Anchorage International Airport*. Retrieved June 14, 2012 from: http://dot.alaska.gov/anc/.

<sup>&</sup>lt;sup>46</sup> McDowell Group. (2011). *Cruise Ship Outlook 2012*. Retrieved June 13, 2012 from: http://www.anchoragechamber.org/userfiles/files/CruiseShipOutlook2012.pdf.

<sup>&</sup>lt;sup>47</sup> 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.

<sup>&</sup>lt;sup>48</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.gove/research/cpi/inflationcalc.htm).

household incomes stayed relatively stagnant between 2000 and 2010. In that year, Anchorage ranked 31<sup>st</sup> of 305 communities from which per capita income was estimated, and 38<sup>th</sup> of 299 communities from which median household income was estimated.

According to 2006-2010 ACS estimates, 70.7% of residents aged 16 and over were part of the civilian labor force in 2010. In that year, unemployment was estimated at 5.2%, compared to 5 an estimated 5.9% statewide; and an estimated 7.9% of residents lived below the poverty line, compared to an estimated 9.5% of Alaska residents overall. Of those employed, an estimated 71.6% worked in the private sector, an estimated 21.7% worked in the public sector, an estimated 6.4% was self-employed, and an estimated 0.2% was unpaid family workers.

By industry sector, most (21.4%) employed residents were estimated to work in education service, health care, and social assistance sectors in 2010; followed by retail trade (10.9%) and professional, scientific, management, administrative, and waste management (10.9%) sectors. Agriculture, forestry, fishing, hunting, and mining sectors made up 3.4% of sector employment that year, compared to 3.1% in 2000 (Figure 3). By occupation type, most (39.0%) employed residents were estimated to hold management or professional positions in 2010; followed by sales or office positions (25.5%); service positions (17.4%); natural resources, construction, or maintenance positions (9.1%); and production, transportation, or material moving positions (9.0%) (Figure 4). There was very little proportional change in sector employment or occupation types between 2000 and 2010, which was reflective of the large, stable economy.

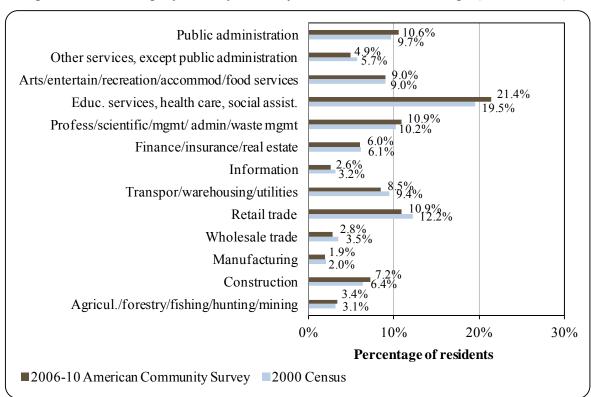


Figure 3. Local Employment by Industry in 2000-2010, Anchorage (U.S. Census).

Production/transportation/ material moving 9.1% Natural resources/construction/maintenance Sales/office 28.5% Service 39.0% Management/professional 36.8% 0% 10% 20% 30% 40% 50% Percentage of residents ■2006-10 American Community Survey ■2000 Census

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

According to 2010 ALARI estimates, <sup>49</sup> most (22.3%) employed residents were estimated to work in trade, transportation, and utilities sectors; followed by education and health service sectors (14.5%); professional and business service sectors (11.5%); and leisure and hospitality sectors (11.3%). In addition, 4.1% of employed residents were estimated to work in natural resources and mining sectors.

#### Governance

Anchorage is a home rule municipality located within its own borough. Anchorage was not included in the Alaska Native Claims Settlement Act (ANCSA), and does not have its own federally recognized Tribal government or corporation. However, the City of Anchorage houses headquarters for offices of many regional institutions related to rural development. Native Alaska issues, commerce, communication, environment, infrastructure, fishing, education, and housing. 50 The Alaska Department of Fish and Game (ADF&G), National Marine Fisheries Service (NMFS), and U.S. Bureau of Citizenship and Immigration Services all have offices in Anchorage.

As of 2010, the city administered a 12% accommodations tax, 8% car rental tax, tobacco tax, and property tax (median rate: 15.72 mills). 51 Total revenue in 2010 was \$421.4 million, compared to \$259.2 million in 2000; an increase of 25.7% after adjusting for inflation. 52 State allocated Community Revenue Sharing accounted for 3.6% of total municipal revenues in 2010, compared to 1.4% in 2000 from State Revenue Sharing. State and federal fisheries-related grants awarded to Anchorage between 2000 and 2010 included: \$110.0 million for port expansion projects, \$198,000 for Lower Yukon salmon marketing, \$144,939 for 10<sup>th</sup> & M Seafoods processing and packaging equipment, \$25,000 for salmon marketing, \$6.3 million for harbor

<sup>&</sup>lt;sup>49</sup> See footnote 43.

<sup>&</sup>lt;sup>50</sup> Sepez, J. A., B. D. Tilt, C. L. Package, H. M. Lazrus, and I. Vaccaro, 2005. Community Profiles for North Pacific Fisheries – Alaska. U. S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-160, 552 p.

<sup>&</sup>lt;sup>51</sup> 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. <sup>52</sup> Inflation calculated using Anchorage CPI from Alaska DOL: http://labor.alaska.gov/research/cpi/cpi.htm

dredging, \$93,000 for seafood quality control, and \$6.0 million for dock improvements. Information regarding municipal finances can be found in Table 2.

#### Infrastructure

Connectivity and Transportation

Controlled airports include the state-owned Ted Stevens Anchorage International Airport and Lake Hood Float Plane Base, the municipality's Merrill Field, and U.S. Army and Air Force facilities. The Port of Anchorage handles 85% of the general cargo for the Alaska Railbelt area. There are five terminal berths, with 3,488 linear ft available. Several barge and trucking companies are available. The Alaska Railroad connects Anchorage to Seward, Whittier, and Fairbanks. 53 Highway networks connect Anchorage with the statewide highway system as well as the rest of the United States and Canada. Roundtrip airfare between Anchorage and Seattle in June 2012 was estimated at \$460.54

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Anchorage 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	\$259,231,060	n/a	\$3,746,210	n/a
2001	\$258,381,150	n/a	\$3,176,186	\$1,000,000
2002	\$270,481,160	n/a	\$3,140,790	n/a
2003	\$283,497,130	n/a	\$3,043,987	\$2,793,000
2004	\$309,317,690	n/a	-	\$367,939
2005	\$332,772,920	n/a	-	n/a
2006	\$367,207,176	n/a	-	\$10,000,000
2007	\$399,396,750	n/a	-	\$10,000,000
2008	\$431,377,965	n/a	-	n/a
2009	\$422,421,304	n/a	\$15,018,748	\$15,000,000
2010	\$421,425,248	n/a	\$15,053,452	\$20,000,000

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

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

<sup>&</sup>lt;sup>2</sup>Alaska Department of Community and Economic Development (n.d.). Alaska Taxable (2000-2010). Retrieved at http://www.commerce.state.ak.us/dca/osa/osa summary.cfm. Data retrieved

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

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

<sup>&</sup>lt;sup>5</sup>Alaska Department of Community and Rural Affairs. (n.d.). Community Funding Database. Retrieved at http://www.commerce.state.ak.us/dca/commdb/CF Grants.htm. Data retrieved April 15, 2011.

<sup>&</sup>lt;sup>53</sup> 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.

54 Airfare was estimated from travel websites, including http://www.travelocity.com (retrieved November, 2011)

#### **Facilities**

Water is diverted from three primary sources. Lake Eklutna supplies 35 million gal per day; Ship Creek Reservoir supplies 24 million gal per day; and deep wells supply another 20 million gal per day. Water is treated and piped throughout the municipality -- the Anchorage Water & Wastewater Utility maintains 670 mi of transmission and distribution mains. Most homes are served by the piped wastewater system. The John M. Asplund Wastewater Treatment Facility, built in 1972, provides primary treatment of 35 million gal of wastewater each day. Effluent is discharged into Cook Inlet. Approximately 15,000 homes use individual wells and septic systems. Eagle River and Girdwood are served by tertiary treatment facilities. Piped natural gas is available from ENSTAR Natural Gas Company and is the most prevalent and costeffective home heating method. Electricity is provided to the core area by Anchorage Municipal Light & Power and the privately-owned Chugach Electric Association. Matanuska Electric Association serves the Eagle River and Chugiak area of Anchorage, as well as the Matanuska-Susitna Valley. In October 1997, these three utilities purchased the Eklutna Hydroelectric Facility. Anchorage Municipal Light & Power also owns 8 electrical generating facilities. Chugach Electric owns power generating facilities from the Kenai Peninsula to the Eklutna River. The municipality and privately-owned companies collect refuse for deposit into the Anchorage Regional Landfill on Hiland Road. The municipality collects hazardous wastes and waste oil. The privately-owned Anchorage Recycling Center collects cans, metal, paper, and newspaper. 55 Communications services include telephone and cable television infrastructure. Long distance fiber optic capacity for voice, video, and data transmission is available, as are transmission and receiving facilities for wireless communications. Civic facilities include the Anchorage Museum of History and Art, the Municipal Library System, Alaska Center for the Performing Arts, William A. Egan Civic and Convention Center, George M. Sullivan Arena, municipal offices, community recreation centers, public parking, Anchorage Senior Center, indoor ice rinks, and a number of parks and green spaces. Public safety services include a police headquarters, 11 substations, and a regional training center. Fire and rescue services include 10 fire stations.<sup>56</sup>

Anchorage possesses a substantial amount of fisheries-related infrastructure, businesses, and services. The Port of Anchorage occupies 122 acres of tidelands. Facilities include three general cargo terminals providing 2,109 ft of dock face; two petroleum product terminals providing 600 ft of dock space each; loose cement offloading capability and storage; and intermodal deep-water connections via rail, road, and air. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that there are ongoing fisheries-related infrastructure improvements including improvements to barge landing areas, dock space and structure, dockside utilities, transportation and connectivity, pilings, and harbor dredging. Harbor facilities are capable for handing regulated vessels, including rescue vessels, cruise ships, fuel barges, container ships, dry bulk carriers, and military vessels. Over the

<sup>&</sup>lt;sup>55</sup> 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.

<sup>&</sup>lt;sup>56</sup> Municipality of Anchorage. (2001). *Anchorage Bowl Comprehensive Plan*. Retrieved June 13, 2012 from: http://www.commerce.state.ak.us/dca/plans/Anchorage1-CP-2001.pdf.

<sup>&</sup>lt;sup>57</sup> Port of Anchorage. (n.d.). *Facilities*. Retrieved June 14, 2012 from: http://www.portofalaska.com/operations/facilities.html.

last 3 years, the city has seen an increase in the frequency and number of cruise ships and petroleum tankers; a trend they believe will continue. The Port of Anchorage does not have any public dock space for moorage of permanent or transient vessels, although numerous privately run moorage facilities are available.

Medical Services<sup>58</sup>

Medical services include Alaska Regional Hospital, Providence Alaska Medical Center, Alaska Native Medical Center, Elmendorf AFB 3<sup>rd</sup> Medical Group, U.S. Army Medical Clinic/Fort Richardson, Air National Guard Medical Squadron/Kulis, and numerous others. Many facilities are acute, long term care facilities. In addition, a wide range of specialized care facilities are available locally.

#### Educational Opportunities<sup>59</sup>

As of 2011, the Anchorage school district had 96 schools, 49,206 students enrolled, and 3,071 teachers employed. In addition, Anchorage is home to the University of Alaska's Anchorage campus and Alaska Pacific University. Numerous private schools and universities are also located in Anchorage.

#### **Involvement in North Pacific Fisheries**

History and Evolution of Fisheries

Originally, the Kachemak tradition and Dena'ina Athabascans occupied the Cook Inlet region. Kachemak people were the first to arrive approximately 3,000 years ago followed by Dena'ina Athabaskans. These groups utilized both marine and riverine ecosystems, relying on marine mammals and fish using drift nets, weirs, and dip nets, and basket traps. In general all five species of Pacific salmon and Dolly Varden char were utilized throughout the Cook Inlet.<sup>60</sup>

The first commercial fish packing operation in the southcentral Alaska region started in 1878 by the Alaska Commercial Company at its Kenai River trading station. Large commercial salmon fisheries in the Cook Inlet did not begin until the 1880s, when a cannery was established at Kasilof. Once the fur trade collapsed in the 1890s, fur traders switched to salmon to make a living. Fish traps operated by canneries were established in the mouths of the Kenai and Kasilof rivers. <sup>61</sup>

An influx of Euro-Americans during the late 1880s gold rush brought increased competition for resources, and many Dena'ina were forced to take jobs in canneries. Instead of

<sup>&</sup>lt;sup>58</sup> See footnote 55.

<sup>&</sup>lt;sup>59</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.

<sup>&</sup>lt;sup>60</sup> Workman, W. B., and K. W. Workman. 2010. The end of the Kachemak tradition on the Kenai Peninsula, southcentral Alaska. *Arctic Anthropology*, 47(2), pp. 90-96.

<sup>&</sup>lt;sup>61</sup> Fall, J. A., R. T. Stanek, B. Davis, L. Williams, R. Walker. (2004). *Cook Inlet Customary and Traditional Subsistence Fisheries Assessment*. Retrieved June 14, 2012 from: http://alaska.fws.gov/asm/pdf/fisheries/reports/03-045final.pdf

relying on traditional subsistence cycles, many Dena'ina took up a pattern of commercial fishing in the inlet and at the mouth of the Kenai River during spring and summer, and going up-river in the fall to harvest coho, hunt moose, fish for freshwater species, and trap. <sup>62</sup>

During the early twentieth century, many Dena'ina and Alutiiq began using salmon resources for commercial sale. In 1904, transportation infrastructure was proliferating setting the stage for the first sport fishery on the Kenai Peninsula. Cooper Creek and Kenai Lake became destination rainbow trout fishing grounds. At that time, commercial traps at the mouth of the Kenai River, and nets upriver were beginning to severely impact salmon runs. By 1923, salmon runs on the Kenai River were severely depleted, with one dip netter recalling that only 160 fish were taken during that season when usually there would be thousands.<sup>63</sup>

Homesteaders arrived on the Kenai Peninsula in the 1930s and 1940s, and commercial and subsistence fishing became important aspects of economic life. Back then, fill nets and seines were used in the Kenai, Skilak, and Tustumena Lakes to harvest northern pike, lake trout, grayling, whitefish, and char. Commercial catches were sold in Anchorage, Kenai, and Kasilof.<sup>64</sup>

Commercial fishing for Chinook salmon in the Cook Inlet began to increase substantially during the 1940s. Before 1940, commercial fishermen harvested approximately 60,000 Chinook annually, however, over the next decade harvests would more than double. Average harvests of Chinook were about 13,000 fish during the 1960s, 12,000 fish during the 1970s, 25,000 fish during the 1980s, and 17,000 fish during the 1990s. Sockeye salmon harvests did not exceed 3 million fish in any year until 1982. Prior to that, the peak decadal average occurred in the 1940s at 1.6 million fish. Commercial harvests of sockeye averaged 4.5 million fish in the 1980s and 4.1 million fish in the 1990s. Coho salmon harvests averaged less than 400,000 annually until the 1980s when the annual commercial harvest averaged about 540,000 fish. During the 1990s average annual harvest dropped to 360,000 fish. The largest commercial harvest of pink salmon in the Cook Inlet occurred in 1952 when almost 5 million were caught. Commercial harvests of chum salmon peaked in the 1980s at an average annual catch of around 906,000 fish.

A commercial herring fishery began in the Lower Cook Inlet in 1914. A total of eight salteries were operating during the fisheries peak and over 7,900 tons were averaged between 1924 and 1926. In 1939, a fishery was started in and around Resurrection Bay and Day Harbor within the Eastern District. Again, peak years occurred from 1944 to 1946 where the average harvest was 16,250 tons. The fishery died out during the late 1950s due to overharvesting. A Lower Cook Inlet herring sac roe fishery began in 1969; however, it went into decline after 1973 until limits were established in 1974. However, quotas were never followed and Outer and Eastern districts were eventually closed until 1984 for stock recovery. 66

Today, the Cook Inlet is managed according to two distinct management areas: Upper and Lower Cook Inlet. The city of Anchorage plays a complex role in the Alaskan fishing industry. Historically, Anchorage was built around mining, and later petroleum. Fishing was never a central component of the city's economy in its early years. However, as fisheries

<sup>62</sup> Ibid.

<sup>63</sup> Ibid.

<sup>&</sup>lt;sup>64</sup> Ibid.

<sup>&</sup>lt;sup>65</sup> Clark, J. H., A. McGregor, R. D. Mecum, P. Krasnowki, and A. M. Carroll. (2006). *The Commercial Salmon Fishery in Alaska*. Retrieved June 14, 2012 from: http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1.pdf.

<sup>&</sup>lt;sup>66</sup> Schroeder, T. R. (1989). A Summary of Historical Data for the Lower Cook Inlet, Alaska, Pacific Herring Sac Roe Fishery. Retrieved June 14, 2012 from: http://www.sf.adfg.state.ak.us/FedAidPDFs/FRB.1989.04.pdf

developed in the Cook Inlet and around the Kenai Peninsula, Anchorage found itself playing an increasingly important role in the support of those fisheries.

Anchorage is located in Federal Reporting Area 630, International Pacific Halibut Commission (IPHC) regulatory area 3A, and the Central Gulf of Alaska sablefish regulatory district. The community is not eligible for participation in the Community Quota Entity (CQE) program for sablefish and halibut quota.

#### **Processing Plants**

Originally founded in 1943 as a freezing facility for mink hunters, the two facilities of 10<sup>th</sup> and M Seafoods (also known as Alaska Sea Pack Inc.) in Anchorage process fresh and frozen crab, shrimp, halibut and salmon. In addition to buying fish and shellfish from various commercial fishermen from around the state, 10<sup>th</sup> and M Seafoods custom processes seafood for sport fishermen.<sup>67</sup>

Alaska Wild Kenai Salmon owns and operates a processing facility and online seafood store in Anchorage. The facility processes fresh and frozen halibut and salmon. The salmon comes to the facility via their buying station in Ninilchik and their halibut is caught in Prince William Sound.<sup>68</sup>

AquaTech is a family owned and operated seafood exporter with a processing facility in Anchorage. Aquatech specializes in live, fresh, and frozen King Crab. They also process and sell halibut and salmon. The Norton Sound red King Crab fishery is the only small boat, summer King Crab fishery in Alaska, taking place in July and August. Meanwhile the Bristol Bay Red King crab fishery takes place from October to December. The halibut season lasts from February through November, and collectively all five species of salmon are caught from May through the winter months. <sup>69</sup>

Copper River Fine Seafoods is one of the three original fish companies that came together in 1996 to form Copper River Seafoods. Copper River Seafoods has a processing facility in Anchorage as well as a larger seafood processing plant in Cordova. Both its Anchorage and Cordova facilities, Copper River Seafoods collectively employs 150 fish processors (including foreign students with J-1 visas) and processes salmon (king, sockeye, coho), halibut, Pacific cod, rockfish, rock sole, red king crab and spot prawns. The processing season at its Anchorage facility begins in March and lasts until October. The plant relies on public water services, power/electricity, gas, and waste management services. The plant receives fish that are already headed and gutted, and reports that it will be undergoing changes in 2012 that will change the overall character and processing capacity of the plant.

Favco, Inc. has operated a seafood processing facility in Anchorage since 1974, processing black cod, clam, crab (Dungeness, king, snow), halibut, mussels, oysters, rockfish-

<sup>69</sup> AquaTech Seafood Exporter. (n.d.). *Homepage*. Retrieved from: http://www.crabfactory.com/index.html.

<sup>&</sup>lt;sup>67</sup> 10<sup>th</sup> and M Seafoods. (n.d.). *About us.* Retrieved from: http://www.10thandmseafoods.com/aboutus.asp.

<sup>&</sup>lt;sup>68</sup> Alaska Wild Kenai Salmon. (n.d.). *Homepage*. Retrieved from:

http://www.alaskawildkenaisalmon.com/default.htm.

<sup>&</sup>lt;sup>70</sup> Copper River Seafoods. (n.d.). *Our story*. Retrieved from:

http://www.copperriverseafood.com/Content.aspx?page=OurStory.

This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

snapper, salmon (Chinook, chum, coho, sockeye), scallop, shrimp and prawns.<sup>72</sup> The plant operates year-round and has maximum of 35 employees, and relies on public water services, power/electricity, gas, and waste management services.

Established in 1977, Great Pacific Seafoods operates a seafood processing facility in Anchorage from January through March and from May through September, specializing in salmon and Pacific cod. During these periods Great Pacific employs as many as 100 people.<sup>73</sup>

According to ADF&G's 2010 Intent to Operate list, there are two shore-based processors that go by the local name of Homer Fish Processing. Processor Code F8488 is owned by Wild Kenai Salmon and Naknek Family Fisheries, although its official port location code is Anchorage. According to the company website, this plant also goes by the name of "A Fisherman's Resort." Homer Fish Processing/A Fishermen's Resort has been family owned and operated for 5 years, and processes and smokes sockeye salmon and processes king crab. <sup>74</sup>

Mat Valley Meats is a "full service, old-fashioned meat market" that custom processes sport game and fish and also smokes sport fish. It is actually located outside of Anchorage on the East Wasilla-Palmer Highway between Wasilla and Palmer.<sup>75</sup>

For over 30 years Sagaya Corporation has operated a seafood retail and wholesale facility in Anchorage. <sup>76</sup> Sagaya's products include black cod, clam, Pacific cod, crab (Dungeness, king), halibut, lingcod, mussels, oysters, rockfish-snapper, and salmon (Chinook, chum, coho, sockeve). <sup>77</sup>

The company Triple Threat Bait Company operates a seafood processing facility in Anchorage called Triple Threat Salmon Eggs. The facility specializes in processing salmon roe (coho and king) for bait, and prides itself in processing roe that is blood-free, fresh and hand-cured. 78

Togiak Seafoods LLC is also known to operate a seafood processing plant in Anchorage; however, little is known about its operations.

#### Fisheries-Related Revenue

Overall in 2010, Anchorage received \$185,120 in fisheries-revenues compared to \$80,281 in 2000. These revenues were collected from a Shared Fisheries Business tax and Fisheries Resource Landing tax. Between 2000 and 2010, fisheries-related revenue collected by the City of Anchorage was relatively insignificant, indicating that Anchorage's diverse economy isn't directly dependent on fisheries. However, the indirect importance of the fishing industry can be seen in the number of businesses and services in Anchorage which are tied to the local and statewide fishing industry. These entities, combined with the peripheral assets created by the businesses serving them, attest to Anchorage's complex relationship with Alaska's fishing communities. Information regarding fisheries-related revenue trends can be found in Table 3.

<sup>&</sup>lt;sup>72</sup> Alaska Seafood. (n.d.). *Supplier directory*. Retrieved from: http://alaskaseafood.org/.

Great Pacific Seafoods Inc. (n.d.). *Homepage*. Retrieved from: http://greatpacificseafoods.com/
 Homer Alaska Fish Processing. (n.d.). *Homepage*. Retrieved from: http://www.myalaskafish.com/.

Mat Valley Meats. (n.d.). *Homepage*. Retrieved from: http://mvmeat.com/.

<sup>&</sup>lt;sup>76</sup> New Sagays's Markets. (n.d.). *Homepage*. Retrieved from: http://www.newsagaya.com/.

<sup>&</sup>lt;sup>77</sup>Alaska Seafood. (n.d.) *Suppliers directory*. Retrieved from: http://alaskaseafood.org.

<sup>&</sup>lt;sup>78</sup> Triple Threat Salmon Eggs. (n.d.). *Homepage*. Retrieved from: http://triplethreatsalmoneggs.com/.

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 2010, 1,009 residents, or less than 1% of the population, held a total of 1,181 permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 1,073 residents held 1,416 CFEC permits. Of the CFEC permits held in 2010, 74% were for salmon, compared to 62% in 2000; 9% were for herring, compared to 11% in 2000; 6% were for halibut, compared to 10% in 2000; 5% were for "other" shellfish, compared to 1% in 2000; 2% were for groundfish, compared to 10% in 2000; 2% were for crab, compared to 3% in 2000; 2% were for sablefish, compared to 3% in 2000; and less than one-percent were for "other" finfish, compared to less-than 1% in 2000. In addition, 36 residents held 41 Federal Fisheries Permits (FFP), 72 residents held 95 License Limitation Program (LLP) groundfish permits, and 24 residents held 35 LLP crab permits. Finally, residents held 11.28 million shares of halibut quota on 124 accounts in 2010, compared to 9.86 million shares on 211 accounts in 2000; 7.66 million shares of halibut quota was held on 20 accounts, compared to 2.25 million shares on 31 accounts in 2000; and 213.05 million shares of crab quota was held on 16 accounts, compared to 49.49 million shares held on 18 accounts in 2005.

Residents held 1,318 commercial crew licenses in 2010, compared to 1,378 in 2000. In addition, residents held majority ownership of 438 vessels that year, compared to 1.181 in 2000. Of the CFEC permits held in 2010, 54% were actively fished, compared to 61% in 2000. This varied by fishery from 87% of halibut permits, to 83% of sablefish, 50% of crab, 38% of groundfish, 27% of "other" shellfish, 9% of herring, and 0% of "other" finfish. In addition, 44% of FFPs, 31% of LLP crab, and 31% of LLP groundfish permits were actively fished. Fisheries prosecuted in 2010 by Anchorage residents included: Bering Sea pot king and Tanner crab; Bristol Bay pot king crab; Alaska Peninsula pot Tanner crab; statewide longline halibut; Southeast Alaska purse seine herring roe; Kodiak purse seine herring roe; Bristol Bay purse seine herring roe: Norton Sound gillnet herring roe and food/bait: statewide longline miscellaneous saltwater finfish; Gulf of Alaska pot, longline, and otter trawl miscellaneous saltwater finfish; statewide pot, otter trawl, and mechanical jig miscellaneous saltwater finfish; Prince William Sound pot shrimp; Southeast Alaska pot shrimp; statewide longline and mechanical jig sablefish; Prince William Sound fixed gear sablefish; Northern Southeast Alaska longline sablefish; Prince William Sound purse seine, set and drift gillnet salmon; Kodiak purse seine and set gillnet salmon; Chignik purse seine salmon; Alaska Peninsula purse seine, set and drift gillnet salmon; Southeast Alaska drift gillnet salmon; Cook Inlet drift and set gillnet salmon; Bristol Bay drift and set gillnet salmon; Yakutat set gillnet salmon; Kuskokwim gillnet salmon; Kotzebue gillnet salmon; Lower Yukon gillnet salmon; and statewide hand and power troll salmon.<sup>79</sup>

In 2010, Anchorage ranked 31st of 67 communities reporting landings for that year and 31st of 67 communities in terms of ex-vessel revenue acquired from landings. In that year, 2.81 million lbs of fish were landed in Anchorage valued at \$4.13 million ex-vessel, compared to

<sup>&</sup>lt;sup>79</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.]

283,910 lbs valued at \$105,797 ex-vessel in 2001. Landings and ex-vessel revenues in 2010 were significantly higher than any other year going back to 2000. By fishery, salmon was the only species landed in Anchorage between 2001 and 2010. In 2010, 2.39 million lbs of salmon valued at \$3.69 million ex-vessel was landed, compared to 283,910 lbs valued at \$105,797 ex-vessel; an increased of \$1.01 per pound landed after adjusting for inflation, 80 and without considering the species composition of landings. In terms of landings made by Anchorage residents, salmon was most lucrative in 2010, followed by crab and Pacific cod. In that year, residents landed 37.35 million lbs of salmon valued at \$22.49 ex-vessel, compared to 25.30 million lbs valued at \$11.16 million ex-vessel in 2000; a decrease of \$0.01 per pound landed after adjusting for inflation, 81 and without considering the species composition of landings. Revenues from salmon landings peaked in 2010. Crab landings that year totaled 8.55 million lbs valued at \$21.88 million exvessel, compared to 1.14 million lbs valued at \$3.03 million in 2000; a decrease of \$1.10 per pound landed after adjusting for inflation, 82 and without considering the species composition of landings. Revenues from crab landings peaked in 2008 at \$30.71 million. Pacific cod landings totaled 9.59 million lbs valued at \$3.84 million ex-vessel, compared to 2.68 million lbs valued at \$932,672 in 2000; a decrease of \$0.08 per pound landed after adjusting for inflation. 83 Revenues from Pacific cod landings peaked in 2010. Halibut landings totaled 703,909 lbs valued at \$3.19 million ex-vessel, compared to 739,055 lbs valued at \$1.86 million in 2000; an increase of \$1.07 per pound landed after adjusting for inflation. 84 Revenues from crab landings peaked in 2008 at \$3.47 million. Sablefish landings totaled 462,738 lbs valued at \$1.58 million ex-vessel, compared to 176,365 lbs valued at \$567,867 in 2000; a decrease of \$1.01 after adjusting for inflation. 85 Revenues from sablefish landings peaked in 2010. Pollock landings totaled 4.05 million lbs valued at \$531,107 ex-vessel, compared to 5.73 million valued at \$652,283; a decrease of \$0.03 per lb landed after adjusting for inflation. 86 Revenues from pollock landings peaked in 2005 at \$1.30 million. Herring landings totaled 3.26 million lbs valued at \$264,233 exvessel, compared to 3.0 million lbs valued at \$346,404 in 2000; a decrease of \$0.08 per pound landed after adjusting for inflation. Revenues from herring landings peaked in 2002 at \$387,819. "Other" shellfish landings totaled 33,816 lbs valued at \$102,320, compared to 23,383 valued at \$76,729 in 2000. Revenues from "other" shellfish landings peaked in 2010. Finally, "other" groundfish landings totaled 392,172 lbs valued at \$40,854 in 2000. Revenues from "other" groundfish landings peaked in 2000. Information regarding commercial fishing trends can be found in Tables 4 through 10.

<sup>&</sup>lt;sup>80</sup> Inflation calculated using Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, http://www.bls.gov/ppi/#data

<sup>81</sup> Ibid.

<sup>82</sup> Ibid.

<sup>83</sup> Ibid.

<sup>84</sup> Ibid.

<sup>85</sup> Ibid.

<sup>86</sup> Ibid.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	n/a										
Shared Fisheries Business Tax <sup>1</sup>	\$80,281	\$82,750	\$41,575	\$37,946	\$51,526	\$68,777	\$53,888	\$85,247	\$60,210	\$99,112	\$184,339
Fisheries Resource Landing Tax <sup>1</sup>	n/a	\$1,591	\$3,045	\$2,359	\$354	\$826	\$793	\$599	\$908	\$432	\$780
Fuel transfer tax <sup>2</sup>	n/a										
Extraterritorial fish tax <sup>2</sup>	n/a										
Bulk fuel transfers <sup>1</sup>	n/a										
Boat hauls <sup>2</sup>	n/a										
Harbor usage <sup>2</sup>	n/a										
Port/dock usage <sup>2</sup>	n/a										
Fishing gear storage on public land <sup>3</sup>	n/a										
Marine fuel sales tax <sup>3</sup>	n/a										
Total fisheries-related revenue <sup>4</sup>	\$80,281	\$84,341	\$44,619	\$40,305	\$51,880	\$69,603	\$54,681	\$85,846	\$61,118	\$99,544	\$185,120
Total municipal revenue <sup>5</sup>	\$259.2M	\$258.4M	\$270.5M	\$283.5M	\$309.3M	\$332.8M	\$367.2M	\$399.4M	\$431.4M	\$422.4M	\$421.4M

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

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;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>&</sup>lt;sup>5</sup> 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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) 1	Total permits	73	79	83	83	82	82	84	86	97	91	95
	Active permits	22	25	26	27	27	23	19	24	26	21	30
	% of permits fished	30%	31%	31%	32%	32%	28%	22%	27%	26%	23%	31%
	Total permit holders	65	71	74	75	73	72	71	74	75	71	72
Crab (LLP) 1	Total permits	22	22	23	24	25	24	26	27	34	33	35
	Active permits	6	7	9	10	12	12	9	10	11	9	11
	% of permits fished	27%	31%	39%	41%	48%	50%	34%	37%	32%	27%	31%
	Total permit holders	19	19	19	20	20	20	20	22	24	23	24
Federal Fisheries	Total permits	68	70	74	47	49	52	29	32	34	40	41
Permits <sup>1</sup>	Fished permits	1	2	1	22	16	17	15	17	17	18	18
	% of permits fished	1%	3%	1%	47%	33%	33%	52%	53%	50%	45%	44%
	Total permit holders	62	63	67	47	49	49	28	31	32	35	36
Crab (CFEC) <sup>2</sup>	Total permits	39	41	47	49	40	38	28	22	22	26	24
	Fished permits	29	30	37	32	30	28	17	11	9	13	12
	% of permits fished	74%	73%	79%	65%	75%	74%	61%	50%	41%	50%	50%
	Total permit holders	21	26	28	28	23	29	19	18	18	20	22
Other shellfish (CFEC) <sup>2</sup>	Total permits	20	23	19	12	16	15	14	13	14	14	59
	Fished permits	6	5	5	2	3	5	2	2	1	1	16
	% of permits fished	30%	21%	26%	16%	18%	33%	14%	15%	7%	7%	27%
	Total permit holders	18	22	18	13	14	14	13	12	13	13	57
Halibut (CFEC) <sup>2</sup>	Total permits	142	139	129	125	110	100	87	85	79	77	67
	Fished permits	82	77	80	88	72	70	67	64	71	62	58
	% of permits fished	58%	55%	62%	70%	65%	70%	77%	75%	90%	81%	87%
	Total permit holders	137	134	124	121	105	98	86	84	78	77	67
Herring (CFEC) <sup>2</sup>	Total permits	152	133	113	120	108	110	106	102	104	106	107
	Fished permits	38	19	19	19	9	16	10	4	5	7	10
	% of permits fished	25%	14%	17%	16%	8%	15%	9%	4%	5%	7%	9%
	Total permit holders	109	99	84	89	82	84	84	82	87	83	84

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	Total permits	41	39	35	37	33	29	27	25	25	24	23
	Fished permits	32	28	28	32	25	24	20	19	21	20	19
	% of permits fished	78%	72%	80%	86%	76%	83%	74%	76%	84%	83%	83%
	Total permit holders	34	34	31	35	32	28	27	24	24	23	21
Groundfish (CFEC) <sup>2</sup>	Total permits	141	131	99	98	91	64	51	43	50	41	29
	Fished permits	49	32	23	33	29	18	15	22	20	12	11
	% of permits fished	35%	24%	23%	34%	32%	28%	29%	51%	40%	29%	38%
	Total permit holders	100	100	74	71	64	49	44	39	42	35	25
Other Finfish (CFEC) <sup>2</sup>	Total permits	1	1	0	0	1	1	1	1	2	1	2
	Fished permits	0	1	0	0	1	0	0	0	1	0	0
	% of permits fished	0%	100%	n/a	n/a	100%	0%	0%	0%	50%	0%	0%
	Total permit holders	1	1	0	0	1	1	1	1	2	1	2
Salmon (CFEC) <sup>2</sup>	Total permits	880	878	853	877	888	923	889	887	888	885	870
	Fished permits	631	542	451	490	505	556	511	514	504	513	511
	% of permits fished	72%	62%	53%	56%	57%	60%	57%	58%	57%	58%	59%
	Total permit holders	888	879	845	872	890	918	891	879	867	880	857
Total CFEC Permits <sup>2</sup>	Permits	1,416	1,385	1,295	1,318	1,287	1,280	1,203	1,178	1,184	1,174	1,181
	Fished permits	867	734	643	696	674	717	642	636	632	628	637
	% of permits fished	61%	53%	50%	53%	52%	56%	53%	54%	53%	53%	54%
	Permit holders	1,073	1,069	1,011	1,037	1,043	1,058	1,029	1,018	1,006	1,015	1,009

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

<sup>&</sup>lt;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 Anchorage: 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 Anchorage <sup>2</sup>	Total Net Pounds Landed In Anchorage <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Anchorage <sup>2,5</sup>
2000	1,378	8	17	1,181	390	2		
2001	1,185	13	16	1,128	379	6	283,910	\$105,797
2002	972	28	16	1,056	362	12	280,150	\$117,750
2003	1,112	6	13	982	317	12	688,840	\$235,079
2004	1,018	20	16	961	308	27	71,986	\$55,011
2005	1,103	7	15	435	170	10	154,964	\$61,104
2006	1,105	4	14	417	147	10	76,355	\$79,624
2007	1,131	3	15	413	139	5		
2008	1,261	29	17	413	128	18	263,848	\$341,418
2009	1,174	17	11	393	125	36	173,400	\$169,340
2010	1,318	11	13	438	132	200	2,814,278	\$4,128,378

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

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

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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.]

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

Year	Number Of Halibut	Halibut	Halibut IFQ
	Quota Share	Quota	Allotment (Lbs)
	Account Holders	Shares Held	
2000	211	9,858,411	1,305,305
2001	211	10,293,078	1,615,748
2002	210	10,122,764	1,669,019
2003	209	10,653,955	1,720,876
2004	188	10,291,088	1,726,005
2005	175	9,644,945	1,581,485
2006	173	9,641,776	1,491,819
2007	155	9,769,094	1,482,889
2008	139	10,187,876	1,534,919
2009	136	10,613,100	1,455,170
2010	124	11,277,243	1,414,021

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 Anchorage: 2000-2010.

Year	Number of Sablefish	Sablefish Quota	Sablefish IFQ
	Quota Share Account	Shares Held	Allotment (pounds)
	Holders		
2000	31	2,254,088	205,507
2001	27	6,526,899	590,362
2002	31	7,159,972	648,906
2003	27	5,523,624	605,791
2004	24	5,733,754	707,720
2005	23	5,101,950	585,989
2006	24	5,549,606	632,671
2007	21	5,216,090	554,311
2008	21	7,406,255	788,455
2009	21	7,397,266	779,757
2010	20	7,656,130	752,348

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 Anchorage: 2000-2010.

Year	Number of Crab Quota	Crab Quota Shares	Crab IFQ
	Share Account Holders	Held	Allotment (pounds)
2005	18	49,486,504	1,832,134
2006	18	108,321,961	3,172,778
2007	18	145,295,967	7,040,995
2008	18	172,729,655	7,802,512
2009	18	167,712,109	5,504,516
2010	16	213,051,176	8,043,956

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 Anchorage: 2000-2010.

				Total N	Net Pounds <sup>1</sup>						
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish											
Halibut											
Herring											
Other Groundfish											
Other Shellfish											
Pacific Cod											
Pollock											
Sablefish											
Salmon		283,910	277,882	687,534	71,986	154,964	76,355		263,848	173,400	2,390,051
Total <sup>2</sup>		283,910	277,882	687,534	71,986	154,964	76,355		263,848	173,400	2,390,051
			Ex-ve	essel Value (	nominal U.	S. dollars)					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Finfish											
Halibut											
Herring											
Other Groundfish											
Other Shellfish											
Pacific Cod											
Pollock											
Sablefish											
Salmon		\$105,797	\$108,102	\$230,524	\$55,011	\$61,104	\$79,624		\$341,418	\$169,340	\$3,691,676
Total <sup>2</sup>		\$105,797	\$108,102	\$230,524	\$55,011	\$61,104	\$79,624		\$341,418	\$169,340	\$3,691,676

*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.]

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

Totals only represent non-confidential data.

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

					Total Net	Pounds					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	1,139,849	1,456,434	1,838,119	1,683,501	638,252	1,288,695	3,197,309	8,837,818	12,260,390	10,290,408	8,545,836
Finfish											
Halibut	739,055	1,131,736	1,530,571	944,748	918,318	931,005	824,596	783,409	804,034	774,674	703,909
Herring	3,001,299	1,729,257	3,176,863	3,635,437	2,192,311	3,452,879	2,534,519				3,256,199
Other Groundfish	3,494,026	2,881,464	2,645,126	2,721,406	1,661,552	1,829,664	74,364	53,268	94,347	79,894	392,172
Other Shellfish	23,383	40,029	25,088		33,971	86,700	18,375	19,227	14,841	19,587	33,816
Pacific Cod	2,684,599	6,590,379	5,588,725	4,705,250	2,238,158	3,429,448	1,892,093	2,108,014	3,000,155	1,300,065	9,589,051
Pollock	5,725,299	9,736,018	7,707,131		8,345,330	10,601,818	674,225	82,888	881,414	1,126,468	4,047,146
Sablefish	176,365	128,202	431,950	178,798	175,423	177,056	120,704	120,632	102,204	287,102	462,738
Salmon	25,301,658	20,663,916	18,225,515	22,518,015	18,727,774	38,613,718	21,967,003	34,328,541	29,846,812	26,140,568	37,354,398
Total <sup>2</sup>	42,285,533	44,357,436	41,169,088	36,387,155	34,931,089	60,410,983	31,303,188	46,333,797	47,004,197	40,018,766	64,385,265
					ssel Value (no		· · · · · · · · · · · · · · · · · · ·				
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
		2001	2002								
Crab	\$3,030,446	\$3,564,094	\$4,742,912	\$4,405,881	\$1,982,598	\$3,961,138	\$6,152,759	\$22,695,386	\$30,714,734	\$20,613,628	\$21,875,085
Finfish	\$3,030,446	\$3,564,094	\$4,742,912 	\$4,405,881 	\$1,982,598 	\$3,961,138 	\$6,152,759 	\$22,695,386 	\$30,714,734 	\$20,613,628	\$21,875,085 
Finfish Halibut	\$3,030,446  \$1,862,759	\$3,564,094  \$2,205,565	\$4,742,912  \$3,400,568	\$4,405,881  \$2,674,758	\$1,982,598  \$2,705,470	\$3,961,138  \$2,744,688	\$6,152,759  \$2,985,234	\$22,695,386	\$30,714,734	\$20,613,628	\$21,875,085  \$3,192,574
Finfish Halibut Herring	\$3,030,446	\$3,564,094	\$4,742,912 	\$4,405,881 	\$1,982,598 	\$3,961,138 	\$6,152,759 	\$22,695,386 	\$30,714,734 	\$20,613,628	\$21,875,085 
Finfish Halibut Herring Other Groundfish	\$3,030,446  \$1,862,759	\$3,564,094  \$2,205,565	\$4,742,912  \$3,400,568	\$4,405,881  \$2,674,758	\$1,982,598  \$2,705,470	\$3,961,138  \$2,744,688	\$6,152,759  \$2,985,234	\$22,695,386  \$3,362,554	\$30,714,734  \$3,469,089	\$20,613,628  \$2,294,938	\$21,875,085  \$3,192,574
Finfish Halibut Herring Other Groundfish Other Shellfish	\$3,030,446  \$1,862,759 \$346,404	\$3,564,094  \$2,205,565 \$142,630	\$4,742,912  \$3,400,568 \$387,819	\$4,405,881  \$2,674,758 \$296,297	\$1,982,598  \$2,705,470 \$161,697	\$3,961,138  \$2,744,688 \$304,191	\$6,152,759  \$2,985,234 \$182,361	\$22,695,386  \$3,362,554 	\$30,714,734  \$3,469,089 	\$20,613,628  \$2,294,938 	\$21,875,085  \$3,192,574 \$264,233
Finfish Halibut Herring Other Groundfish Other	\$3,030,446  \$1,862,759 \$346,404 \$402,976	\$3,564,094  \$2,205,565 \$142,630 \$382,234	\$4,742,912  \$3,400,568 \$387,819 \$233,880	\$4,405,881  \$2,674,758 \$296,297 \$245,340	\$1,982,598  \$2,705,470 \$161,697 \$140,135	\$3,961,138  \$2,744,688 \$304,191 \$210,301	\$6,152,759  \$2,985,234 \$182,361 \$23,443	\$22,695,386  \$3,362,554  \$22,335	\$30,714,734  \$3,469,089  \$30,192	\$20,613,628  \$2,294,938  \$17,862	\$21,875,085  \$3,192,574 \$264,233 \$40,854
Finfish Halibut Herring Other Groundfish Other Shellfish Pacific	\$3,030,446  \$1,862,759 \$346,404 \$402,976 \$76,729	\$3,564,094  \$2,205,565 \$142,630 \$382,234 \$100,635	\$4,742,912  \$3,400,568 \$387,819 \$233,880 \$62,164	\$4,405,881  \$2,674,758 \$296,297 \$245,340 	\$1,982,598  \$2,705,470 \$161,697 \$140,135 \$47,078	\$3,961,138  \$2,744,688 \$304,191 \$210,301 \$90,592	\$6,152,759  \$2,985,234 \$182,361 \$23,443 \$87,947	\$22,695,386  \$3,362,554  \$22,335 \$87,813	\$30,714,734  \$3,469,089  \$30,192 \$22,009	\$20,613,628  \$2,294,938  \$17,862 \$42,167	\$21,875,085  \$3,192,574 \$264,233 \$40,854 \$102,320
Finfish Halibut Herring Other Groundfish Other Shellfish Pacific Cod	\$3,030,446  \$1,862,759 \$346,404 \$402,976 \$76,729 \$932,672	\$3,564,094  \$2,205,565 \$142,630 \$382,234 \$100,635 \$2,151,111	\$4,742,912  \$3,400,568 \$387,819 \$233,880 \$62,164 \$1,597,678	\$4,405,881  \$2,674,758 \$296,297 \$245,340  \$1,320,946	\$1,982,598  \$2,705,470 \$161,697 \$140,135 \$47,078 \$575,517	\$3,961,138  \$2,744,688 \$304,191 \$210,301 \$90,592 \$930,783	\$6,152,759  \$2,985,234 \$182,361 \$23,443 \$87,947 \$710,473	\$22,695,386  \$3,362,554  \$22,335 \$87,813 \$1,003,236	\$30,714,734  \$3,469,089  \$30,192 \$22,009 \$1,726,350	\$20,613,628  \$2,294,938  \$17,862 \$42,167 \$377,816	\$21,875,085  \$3,192,574 \$264,233 \$40,854 \$102,320 \$3,835,238
Finfish Halibut Herring Other Groundfish Other Shellfish Pacific Cod Pollock	\$3,030,446  \$1,862,759 \$346,404 \$402,976 \$76,729 \$932,672 \$652,283	\$3,564,094  \$2,205,565 \$142,630 \$382,234 \$100,635 \$2,151,111 \$1,128,586	\$4,742,912 	\$4,405,881  \$2,674,758 \$296,297 \$245,340  \$1,320,946 	\$1,982,598  \$2,705,470 \$161,697 \$140,135 \$47,078 \$575,517 \$855,585	\$3,961,138  \$2,744,688 \$304,191 \$210,301 \$90,592 \$930,783 \$1,297,047	\$6,152,759  \$2,985,234 \$182,361 \$23,443 \$87,947 \$710,473 \$87,465	\$22,695,386  \$3,362,554  \$22,335 \$87,813 \$1,003,236 \$9,955	\$30,714,734  \$3,469,089  \$30,192 \$22,009 \$1,726,350 \$181,822	\$20,613,628  \$2,294,938  \$17,862 \$42,167 \$377,816 \$212,755	\$21,875,085  \$3,192,574 \$264,233 \$40,854 \$102,320 \$3,835,238 \$531,107

*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.]

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

Totals only represent non-confidential data.

## Recreational Fishing

Anchorage's position as a point of entry for many of Alaska's visitors has encouraged many regional tourism related businesses to locate themselves within the city. However, the Anchorage area itself is not as popular a destination for sportfishing when compared to the Kenai Peninsula, Lower Cook Inlet, Prince William Sound, and Gulf of Alaska. For local anglers, popular streams and rivers include the Eklutna and Eagle rivers; and Thunderbird, Ship, and Bird creeks. However, there are many other drainages and lakes within the municipality which offer sportfishing opportunities. <sup>87</sup> Many local outfitters serve the greater southcentral Alaska area, and are not limited to Knik and Turnagain arms.

In 2010, there were a total of 48 sportfish guide businesses active in Anchorage, compared to 99 in 2000. The number of active sportfish guide businesses declined steadily between 2000 and 2010, from its peak in 2000 and 2001, to its lowest in 2000. Also in 2010, residents held 299 sportfish guide licenses, compared to 651 in 2000. The number of sportfish guide licenses held in Anchorage peaked in 2004 before declining significantly. Also in that year, there were a total of 101,073 sportfishing licenses sold locally, compared to 75,997 in 2000. The number of locally sold sportfish licenses peaked in 2005 at 114,509. Finally, residents were sold 79,066 sportfishing licenses in 2010, compared to 77,142 in 2000. Sportfishing licenses sold to residents peaked in 2004 at 80,571.

Anchorage is located within the Anchorage ADF&G Harvest Survey Area which includes all waters bounded by the Eklutna River to the north; Knik Arm to the west; Turnagain Arm, to Ingram Creek in the South; and the Chugach Mountains to the east. In 2010, there were a total of 1,675 saltwater and 60,029 freshwater angler days fished, compared to 2,197 and 165,302 in 2000, respectively. In that year, non-Alaska residents accounted for 5% of freshwater angler days fished, compared to 6% in 2000. In addition, non-Alaska residents accounted for 11% of freshwater angler days fished that year, compared to 9% in 2000. According to ADF&G Harvest Survey data, 88 local private anglers target all five species of Pacific salmon, landlocked salmon, rainbow trout, Dolly Varden char, cutthroat trout, whitefish, Arctic grayling, northern pike, sheefish, Pacific halibut, lingcod, Pacific cod, shark, smelt, steelhead trout, sablefish, Dungeness crab, Tanner crab, razor clams, hardshell clams, shrimp, and other finfish and shellfish. Information regarding recreational fishing trends can be found in Table 11.

<sup>&</sup>lt;sup>87</sup> Alaska Outfitting. (n.d.). *Fishing the Anchorage Area*. Retrieved June 18, 2012 from: http://www.alaskanoutfitting.com/fishing/Anchorage/anchorage.shtml.

<sup>&</sup>lt;sup>88</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 11. Sport Fishing Trends, Anchorage: 2000-2010.

Year	Active Sportfish guide businesses <sup>1</sup>	Sportfish guide licenses <sup>1</sup>	Sportfishing licenses sold to residents <sup>2</sup>	Sportfishing licenses sold in Anchorage <sup>2</sup>
2000	99	651	77,142	75,997
2001	99	689	78,196	77,475
2002	80	719	76,404	74,227
2003	76	717	79,010	102,271
2004	81	729	80,571	113,036
2005	81	361	80,290	114,509
2006	73	352	76,771	108,472
2007	76	350	75,505	105,002
2008	66	350	75,153	102,045
2009	60	306	79,701	97,649
2010	48	299	79,066	101,073

	Saltw	ater	Fresh	water
Year	Angler days fished – non- Alaska residents <sup>3</sup>	Angler days fished – Alaska residents <sup>3</sup>	Angler days fished – non- Alaska residents <sup>3</sup>	Angler days fished – Alaska residents <sup>3</sup>
2000	128	2,069	14,294	151,008
2001	333	1,944	17,755	115,480
2002	378	3,115	13,805	94,502
2003	502	2,741	12,024	88,737
2004	221	1,030	10,128	90,564
2005	471	2,199	15,429	82,942
2006	208	1,332	13,292	88,968
2007	1,056	4,486	9,625	76,714
2008	135	2,842	11,224	96,920
2009	585	2,031	8,755	68,372
2010	85	1,590	6,790	53,239

<sup>&</sup>lt;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.]

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

## Subsistence Fishing

Subsistence activities do not hold the same importance in Anchorage as they do in more rural locations; however, residents still take advantage of subsistence and personal use fisheries. A significant number of Anchorage residents travel to the Kenai Peninsula to take advantage of personal-use fisheries in the area.

Of the species listed by ADF&G in Table 13, sockeye salmon were harvested most, followed by Chinook, coho, pink, and chum salmon. In 2008, residents reported harvesting 39,595 salmon, compared to 58,064 in 2000. Sockeye accounted for 92% of salmon harvests in both years. In addition, harvests reported by Anchorage residents accounted for 3.8% of total subsistence salmon harvests reported statewide for 2010. Reported salmon harvests peaked in 2001 at 74,529 fish. In 2010, residents held 232 Subsistence Halibut Registration Certificates (SHARC), compared to 176 in 2003. In that year, 15,344 lbs was harvested on 52 SHARC cards, compared to 11,584 lbs harvested on 38 SHARC in 2003. Between 2010 and 2000, an estimated 573 sea otters were harvested. Estimated sea otter harvests peaked in 2006 at 105. Between 2000 and 2007, an estimated seven walrus were harvested. Estimated walrus harvests peaked in 2002 at three. Between 2000 and 2008, an estimated 1 Steller sea lion and 337 harbor seals were harvested. Estimated harbor seal harvests peaked in 2003 at 55. Finally, an estimated 6 polar bears were harvested between 2003 and 2005. Information regarding subsistence trends can be found in Tables 12 through 15.

Table 12. Subsistence Participation by Household and Species, Anchorage: 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, Anchorage: 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	3,322	3,115	2,823	276	1,592	32	53,341	n/a	n/a
2001	3,801	3,510	2,572	61	1,352	8	70,536	n/a	n/a
2002	2,547	2,336	2,159	30	958	37	44,807	n/a	n/a
2003	2,394	2,179	1,691	122	964	390	41,901	n/a	n/a
2004	3,148	2,657	2,420	106	1,356	414	52,315	n/a	n/a
2005	2,860	2,353	1,632	158	673	169	57,101	n/a	n/a
2006	2,791	2,258	1,714	131	616	91	53,216	n/a	n/a
2007	2,881	2,453	2,076	167	492	86	56,996	n/a	n/a
2008	3,017	2,598	1,651	167	1,035	320	36,422	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.* 

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

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	176	38	11,584
2004	226	47	34,552
2005	240	40	23,871
2006	253	54	20,269
2007	314	67	16,415
2008	215	48	7,692
2009	227	52	12,991
2010	232	30	15.344

*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.

<sup>&</sup>lt;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>&</sup>lt;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 15. Subsistence Harvests of Marine Mammal Resources, Anchorage: 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	25	1	n/a	n/a	44	n/a
2001	n/a	22	2	n/a	1	45	n/a
2002	n/a	33	3	n/a	n/a	40	n/a
2003	n/a	60	n/a	1	n/a	55	n/a
2004	n/a	58	n/a	4	n/a	47	n/a
2005	n/a	63	n/a	1	n/a	25	n/a
2006	n/a	105	n/a	n/a	n/a	25	n/a
2007	n/a	68	1	n/a	n/a	27	n/a
2008	n/a	66	n/a	n/a	n/a	29	n/a
2009	n/a	26	n/a	n/a	n/a	n/a	n/a
2010	n/a	47	n/a	n/a	n/a	n/a	n/a

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

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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.

# Palmer (PALL-mur)

# **People and Place**

Location



Palmer is located in the center of the lush farmlands of the Matanuska Valley, between the Talkeetna and Chugach mountains. The City is situated on the west bank of the Matanuska River, just north of its junction with the Knik River. Palmer is 42 miles northeast of Anchorage on the Glenn Highway. It is located in the Palmer Recording District and the Matanuska-Susitna (Mat-Su) Borough Census Area. The City encompasses 3.8 square miles of land and 0 square miles of water. <sup>89,90</sup>

# Demographic Profile 91

In 2010, there were 5,937 residents in Palmer, ranking it as the 18<sup>th</sup> largest of 352 communities in Alaska with recorded populations that year. Overall between 1990 and 2010, the population of Palmer more than doubled. According to Alaska Department of Labor estimates, between 2000 and 2009, the population of permanent residents increased by 22%. The average annual growth rate during this period was 0.67%, reflecting a consistent upward trend with small declines in some years. According to a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders indicated that seasonal workers or transients are present in Palmer between May and September, and the population of the community typically peaks between June and August. They also reported that population fluctuations are only slightly driven by employment in fisheries sectors.

In 2010, the majority of the population of Palmer identified themselves as White (79.1%), along with 9.2% who identified as American Indian or Alaska Native, 1.8% as Black or African American, 1.1% as Asian, 0.4% as Native Hawaiian and Other Pacific Islander, 0.8% as 'some other race', and 7.6% who identified with two or more races. In addition, 4.6% of Palmer's population identified themselves as Hispanic in 2010. The percentage of the population made up of White residents decreased from 88.6% in 1990 to 80.9% in 2000, and 79.1% by 2010. At the same time the percentage of the population made up by American Indians and Alaska Natives increased from 7.7% in 1990 to 8.2% in 2000, and 9.2% by 2010. The change in population from 1990 to 2010 is provided in Table 1, and changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

<sup>&</sup>lt;sup>89</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.

<sup>&</sup>lt;sup>90</sup> City of Palmer, Palmer Planning Team and Agnew:Beck Consulting. 2006. *City of Palmer Comprehensive Plan*. Retrieved March 12, 2012 from http://www.commerce.state.ak.us/dca/plans/Palmer-CP-2006.pdf.

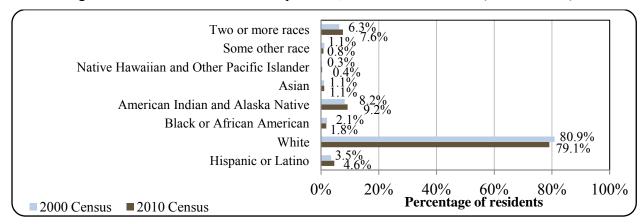
<sup>91</sup> U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

Table 1. Population in Palmer 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	2,866	-
2000	4,533	<del>-</del>
2001	-	4,581
2002	=	4,837
2003	-	5,261
2004	-	5,221
2005	-	5,308
2006	-	5,444
2007	-	5,417
2008	-	5,395
2009	-	5,532
2010	5,937	-

<sup>&</sup>lt;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.

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



Based on the U.S. Census, the average household size in Palmer remained relatively stable between 1990 and 2010, increasing from 2.7 to 2.81 between 1990 and 2000, and decreasing again to 2.7 in 2010. The number of households in Palmer increased over time, from 998 households in 1990 and 1,472 in 2000, to 2,113 in 2010. Of the 2,281 housing units surveyed for the 2010 U.S. Census, 54.5% were owner-occupied, 38.1% were rented, and 7.4% were vacant or used only seasonally. In 2010, 423 Palmer residents were living in group quarters.

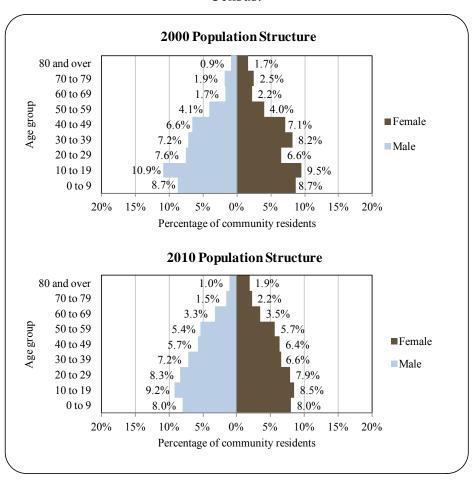
In 2010, there were more women than men in Palmer (population 49.5% male and 50.5% female). In comparison, the state population had more men than women overall (52% male, 48% female). The median age of Palmer residents was 38.8 years, lower than the national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, there was a relatively even

<sup>&</sup>lt;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.

distribution of males and females across age groups. That year, 13.4% of Palmer's population was 60 or older. The population structure of Palmer in 2000 and 2010 is shown in Figure 2.

In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS), 92 89.4% of Palmer residents aged 25 and over were estimated to hold a high school diploma or higher degree in 2010, compared to 90.7% of Alaska residents overall. Also in 2010, 3.8% of the population was estimated to have less than a 9<sup>th</sup> grade education, compared to 3.5% of Alaska residents overall; 6.8% were estimated to have a 9<sup>th</sup> to 12<sup>th</sup> grade education but no diploma, compared to 5.8% of Alaska residents overall; 30.6% were estimated to have some college but no degree, compared to 28.3% of Alaska residents overall; 7.7% were estimated to have an Associate's degree, compared to 8% of Alaska residents overall; 13.8% were estimated to have a Bachelor's degree, compared to 17.4% of Alaska residents overall; and 6.4% were estimated to have a graduate or professional degree, compared to 9.6% of Alaska residents overall.

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



<sup>&</sup>lt;sup>92</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.

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History, Traditional Knowledge, and Culture

Starting around 1000 A.D., the Matanuska Valley was the home of two groups of Athabascan Indians, the Ahtna and Dena'ina. The Athabascan people migrated seasonally, traveling in small groups to fish, hunt, and trap. They traditionally lived in small groups of 20 to 40 people that moved systematically through their resource territories. Annual summer fish camps for the entire family and winter villages served as base camps. Historical accounts and oral traditions suggest that at least two villages were located at the head of Knik Arm, near the mouth of the Knik and Matanuska Rivers, and another village was once located near Palmer.

During the time of Russian fur trading, the Ahtna traveled along the Matanuska River, transporting furs from the Dena'ina to Copper Fort near Chitina. George Palmer is said to have arrived in 1875. He was a trader in Knik and established a trading post on the Matanuska River around 1890. A railway siding was constructed in Palmer in 1916. In 1935, Palmer became the site of one of the most unusual experiments in American history: the Matanuska Valley Colony. The Federal Emergency Relief Administration, one of the many New Deal relief agencies created by President Roosevelt, planned an agricultural colony in Alaska. Two hundred and three families, mostly from Michigan, Wisconsin, and Minnesota, were invited to join the colony. They arrived in Palmer in the early summer of 1935. Although the failure rate was high, many of their descendants still live in the Valley today. The City of Palmer was formed in 1951. Construction of the statewide road system and the rapid development of Anchorage have fueled growth in the area. Today, the Valley is renowned for the annual Alaska State Fair.

### **Natural Resources and Environment**

Palmer is influenced by both continental and maritime climate patterns. Temperatures in January range from -36 to 51 °F and from 37 to 85 °F in July. Annual precipitation averages 16.5 inches, with 50 inches of snowfall. <sup>98</sup> The landscape around Palmer is primarily bottomland spruce-poplar forest, typical of floodplains and low river terraces. <sup>99</sup> As of 2008, the State of Alaska owned approximately 1.8 million acres of timber lands in the Matanuska and Susitna Valleys. Timber harvest for use as lumber has decreased in recent decades. <sup>100</sup> Relatively level, deep and easily tilled soils in the area allowed the development of a thriving agricultural industry in the Matanuska Valley historically. <sup>101</sup> The Matanuska Valley continues to produce vegetables

<sup>97</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.

<sup>&</sup>lt;sup>93</sup> City of Palmer, Palmer Planning Team and Agnew:Beck Consulting. 2006. *City of Palmer Comprehensive Plan*. Retrieved March 12, 2012 from http://www.commerce.state.ak.us/dca/plans/Palmer-CP-2006.pdf.

<sup>&</sup>lt;sup>94</sup> Alaska Native Heritage Center. 2008 *Athabascans - Who We Are*. Retrieved January 9, 2012 from http://www.alaskanative.net/en/main\_nav/education/culture\_alaska/athabascan/.

<sup>&</sup>lt;sup>95</sup> See footnote 93.

<sup>96</sup> Ibid.

<sup>&</sup>lt;sup>99</sup> See footnote 93.

<sup>&</sup>lt;sup>100</sup> Metiva, M., and D. Hanson. 2008. *Mat-Su Comprehensive Economic Development Strategy: December 2008 Update*. Mat-Su Resource Conservation & Development Center and Mat-Su Borough. Retrieved March 13, 2012 from http://www.matsugov.us/.

<sup>&</sup>lt;sup>101</sup> See footnote 93.

and potatoes, and as of 2008 had four operating dairy farms. However, the role of agriculture has declined as a percentage of the modern economy, and increased housing development has placed pressure on the best agricultural lands. <sup>102</sup>

Popular recreation sites near Palmer include Hatcher Pass Public Use Area, Crevasse-Moraine Trails, Kepler Lake, Bonnie Lake, Finger Lake, and Long Lake. <sup>103</sup> Hatcher Pass Public Use Area is located 15 miles north of Palmer on the Little Susitna River. This area provides for a variety of recreational activities, including recreational gold panning. It has also been identified as important habitat for spawning, rearing, and migration of anadromous fish. Permits are required to ensure that recreational mining activities do not conflict with habitat considerations. <sup>104</sup> The 130,000-acre Matanuska Valley Moose Range is also located north of Palmer. Created in 1984, the Range is managed for wildlife habitat, coal, and timber production, and public recreation, with grazing as a secondary land use. <sup>105</sup> Northeast of Palmer, the Nelchina Public Use Area (NPUA) encompasses approximately 2.5 million acres of the Talkeetna Mountains. The NPUA was established in 1985 for the protection of fish and wildlife habitat, including caribou calving areas, trumpeter swan nesting areas, and habitat for moose, Dall sheep, and brown bear, as well as to perpetuate and enhance public uses including wildlife hunting and viewing, and recreation. Recreational mining activities are also allowed within area boundaries, with restrictions during caribou calving season. <sup>106</sup>

In 2010, the most important commercial mineral export from the Matanuska Valley was sand and gravel. <sup>107</sup> Additional mining activity in Southcentral Alaska included continued exploration by Full Metal Minerals Ltd. and Harmony Gold Corp. at the Lucky Shot gold property, located just northwest of Palmer. To the northeast of the City, Usibelli Coal Mine Inc. continued to develop coal deposits at the Wishbone Hill coal property near Sutton. The Mat-Su Borough granted Usibelli a 25-year lease to 60 acres of land. Usibelli estimated that approximately one-half million tons of bituminous coal is buried near the surface in the western portion of the coal lease area. <sup>108</sup> Some oil and natural gas exploration and production activity is also taking place within the Borough. Several coal bed methane leases have been granted, including a pilot project on 840 acres of farmland near Palmer that is being developed by Fowler Oil and Gas Corporation. <sup>109</sup>

Natural hazards that have been identified in Palmer include earthquakes, and flood and erosion hazards. Three types of earthquakes have the potential to occur in the Mat-Su Borough, including those caused by subduction of the Pacific Plate under the North American Plate, transform earthquakes caused by plates sliding past each other, and intraplate earthquakes that occur within a tectonic plate, sometimes at great distance from the edge of a plate.

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<sup>&</sup>lt;sup>102</sup> See footnote 100.

<sup>&</sup>lt;sup>103</sup> See footnote 97.

Alaska Dept. of Natural Resources. 2012. *Fact Sheet: Hatcher Pass Public Use Area*. Retrieved March 13, 2012 from http://dnr.alaska.gov/mlw/factsht/mine\_fs/hatcherp.pdf.

Alaska Dept. of Natural Resources. (n.d.). *Matanuska Valley Moose Range Management Plan*. Retrieved March 13, 2012 from http://dnr.alaska.gov/mlw/planning/mgtplans/mat\_valley/pdf/Summary\_Brochure.pdf.

<sup>&</sup>lt;sup>106</sup> Alaska Dept. of Natural Resources. 2000. *Fact Sheet: Nelchina Public Use Area*. Retrieved March 13, 2012 from http://dnr.alaska.gov/mlw/factsht/nelchina\_pua.pdf.

<sup>107</sup> See footnote 100

<sup>&</sup>lt;sup>108</sup> Szumigala, D.J., L.A. Harbo, and J.N. Adleman. *Alaska's Mineral Industry 2010*. Alaska Dept. of Natural Resources and Alaska Dept. of Commerce, Community and Economic Development, Special Report 65. <sup>109</sup> See footnote 100.

See footnote 93.

Approximately 11% of the world's earthquakes take place in Alaska, at a rate of about one earthquake per year. 111 Although 99% of the City of Palmer is located outside of the range of flooding from the Matanuska River, river erosion threatens homes located close to its banks, as well portions of an old railroad line that runs north out of Palmer. 112 Additional high risk natural hazards in the Mat-Su Borough include wildfire and severe weather. 113

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Palmer as of July 2012. 114

# **Current Economy**<sup>115</sup>

According to a survey conducted by the AFSC in 2011, community leaders reported that natural resource-based industries are not a primary component of the local economy. The surrounding Matanuska Valley has a history of agricultural production, although population growth in the region has led to conversion of much of this land to subdivisions, and Palmer has evolved from rural, to bedroom community, to an independent commercial and employment center. 116 In the 2011 AFSC survey, community leaders indicated that although Palmer is not a port city, fishing vessels are owned by residents. In 2010, 39 Palmer residents were the primary owner of a fishing vessel, and 92 residents held commercial fishing permits (see Commercial Fishing section of this profile).

In 2010, top employers in Palmer included the State of Alaska, the Mat Su Borough School District, retail and other services, the City and the Borough. 117 Many Palmer residents also commute to Anchorage for employment. Some light manufacturing occurs locally. In addition, Palmer is also home to 200 musk oxen whose underwool (giviut) is knitted into garments by Alaska Native women from several rural villages. Between 2,500 and 3,500 garments are created each year by these women and sold by an Anchorage cooperative. The 75acre musk ox farm is a tourist attraction. The university has an Agricultural and Forestry Experiment Station Office and a district Cooperative Extension Service office in Palmer. The University's Matanuska Research Farm is also located in Palmer. 118

Based on household surveys conducted for the 2006-2010 ACS, <sup>119</sup> in 2010, the per capita income in Palmer was estimated to be \$22,709 and the median household income was estimated

http://www.commerce.state.ak.us/dca/planning/nfip/Hazard Mitigation Plans/Mat Su Boro HMP.pdf.

<sup>&</sup>lt;sup>111</sup> Adler, B. 2008. Mat-Su Borough All-Hazards Mitigation Plan: Phase One – Natural Hazards. Mat-Su Borough Department of Emergency Services. Retrieved March 13, 2012 from

<sup>112</sup> City of Palmer, Palmer Planning Team and Agnew: Beck Consulting. 2006. City of Palmer Comprehensive Plan. Retrieved March 12, 2012 from http://www.commerce.state.ak.us/dca/plans/Palmer-CP-2006.pdf. <sup>113</sup> See footnote 111.

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

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

<sup>&</sup>lt;sup>116</sup> See footnote 112.

<sup>&</sup>lt;sup>117</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>&</sup>lt;sup>118</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.

<sup>&</sup>lt;sup>119</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)

to be \$54,706. This represents an increase from the per capita and median household incomes reported in the year 2000 (\$17,203 and \$45,571, respectively). However, if inflation is taken into account by converting the 2000 values to 2010 dollars, <sup>120</sup> the per capita income is shown to have remained stable (real per capita income was \$22,622 in 2000), and median household income is shown to have decreased (real median household income was \$59,925 in 2000). In 2010, Palmer ranked 129<sup>th</sup> of 305 Alaskan communities with per capita income data that year, and 103<sup>rd</sup> in median household income, out of 299 Alaskan communities with household income data.

However, Palmer's small population size may have prevented the ACS from accurately portraying economic conditions. <sup>121</sup> An alternative estimate of per capita income is provided by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Palmer in 2010 is \$13,301. 122 This estimate is lower than the 2000 per capita income reported in by the U.S. Census, suggesting that caution is warranted when citing an increase in per capita income in Palmer between 2000 and 2010. Palmer was not recognized as "distressed" by the Denali Commission in 2010. 123 It is important to note that both ACS and DOLWD data are based on wage earnings, and do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a lower percentage of Palmer residents were estimated to be in the civilian labor force (54.2%) than were estimated to be in the civilian labor force statewide (68.8%). In the same year, 18.1% of local residents were estimated to be living below the poverty line, compared to 9.5% of Alaska residents overall, and the unemployment rate was estimated to be 7.7%, compared to a statewide unemployment rate of 5.9%. In contrast, an unemployment estimate based on the ALARI database indicates that the unemployment rate in 2010 was 13.2%, slightly higher than the statewide unemployment rate estimate of 11.5% derived from that source. 124

Also based on the 2006-2010 ACS, a majority of Palmer's workforce was estimated to be employed in the private sector (69.5%), along with 25.1% in the public sector, and 5.4% estimated to be self-employed. Of the 2,308 people aged 16 and over that were estimated to be employed in the civilian labor force, the greatest number of workers were estimated to be employed in educational services, health care, and social assistance (25.2%), arts, entertainment, recreation, and accommodation and food services (11.8%), and retail trade (10.9%). That year, 4.2% of the employed civilian labor force in Palmer was estimated to work in agriculture, forestry, fishing and hunting, and mining. However, the number of individuals employed in

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.

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<sup>&</sup>lt;sup>120</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).

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>122</sup> See footnotes 117 and 119.

<sup>&</sup>lt;sup>123</sup> Denali Commission. 2011. Distressed Community Criteria 2011 Update. Retrieved April 16, 2012 from www.denali.gov.

124 See footnote 117.

farming, fishing, and forestry industries is likely underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly. This information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

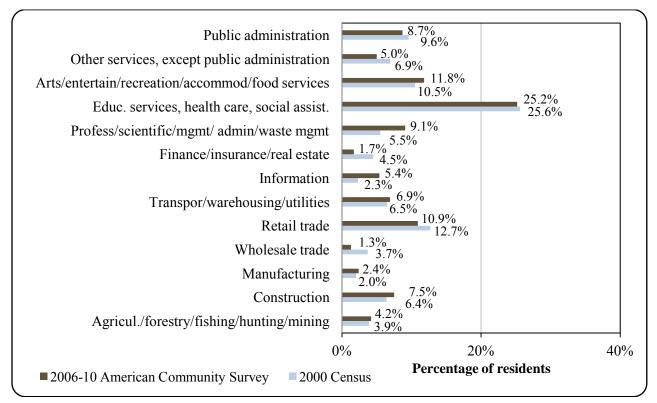
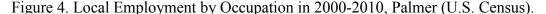
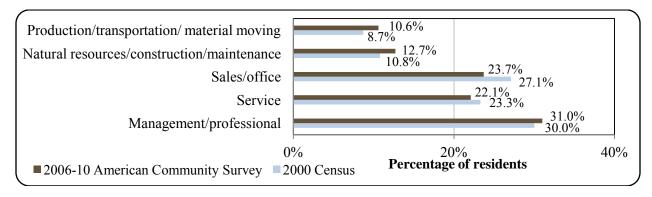


Figure 3. Local Employment by Industry in 2000-2010, Palmer (U.S. Census).





An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 2,423 employed residents in Palmer in 2010, of which 21% were employed in trade, transportation, and utilities, 15.4% in education and health services, 12.8% in leisure and hospitality, 10.2% in local government, 9% in construction, 8.8%

in professional and business services, 6.9% in state government, 4.5% in natural resources and mining, 3.5% in information, 3.3% in financial activities, 0.9% in manufacturing, 0.2% in unknown industries, and 3.5% in other industries. As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

# Governance

Palmer is a Home Rule City in the Mat-Su Borough. The City was incorporated in 1951 and has a Strong Mayor form of government, with a seven-person city council including the Mayor, a seven-person advisory school board, a seven-person planning and zoning commission, and a number of municipal employees. The City administers a 3% sales tax, and the Borough administers a 5% Bed Tax and 5.74% Tobacco and Cigarette Tax. Together, the City and Borough require a 12.961 mills property tax. <sup>126</sup> In addition to local tax revenues, other locallygenerated income sources in Palmer between 2000 and 2010 included license and permit fees and charges for services including fire protection and police dispatch, equipment and building rentals, community center and library fees, planning and zoning, and public safety. Outside revenue sources included state maintenance contracts, state and federal grants, and various sources of shared revenue. The City received State Revenue Sharing contributions of between \$110,000 and \$134,000 each year from 2000 to 2003, and Community Revenue Sharing contributions of approximately \$375,000 per year in 2009 and 2010. Other sources of shared revenue included state electric and telephone co-op tax refund and state fish tax refunds in some years (see the *Fisheries-Related Revenue* section). No information was reported regarding fisheries-related grants received by Palmer between 2000 and 2010. Information about selected aspects of Palmer's municipal revenue is presented in Table 2.

Palmer was not included under the Alaska Native Claims Settlement Act (ANCSA), and is not federally recognized as a Native village. <sup>127</sup> Offices of the Alaska Department of Fish and Game (ADF&G) and the Alaska Department of Natural Resources are located in Palmer. The nearest offices of the National Marine Fisheries Service (NMFS), Alaska Department of Commerce, Community, and Economic Development and the U.S. Bureau of Citizenship and Immigration Services are located in Anchorage.

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<sup>&</sup>lt;sup>125</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/.

Alaska Dept. of Comm. and Rural Affairs. (n.d.). Community Database Online. Retrieved October 17, 2011 from <a href="http://www.commerce.state.ak.us/dca/commdb/CF\_BLOCK.htm">http://www.commerce.state.ak.us/dca/commdb/CF\_BLOCK.htm</a>.
 Ibid.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Palmer 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	\$6,641,064	\$2,464,268	\$134,124	n/a
2001	\$6,103,523	\$2,760,798	\$112,231	n/a
2002	\$6,225,911	\$2,914,417	\$110,887	n/a
2003	\$6,616,419	\$3,066,089	\$116,537	n/a
2004	\$7,107,856	\$3,640,723	n/a	n/a
2005	\$8,117,491	\$3,829,234	n/a	n/a
2006	\$8,498,171	\$3,980,530	n/a	n/a
2007	\$10,611,832	\$4,416,002	n/a	n/a
2008	\$11,590,345	\$4,818,801	n/a	n/a
2009	\$12,122,507	\$4,946,081	\$379,588	n/a
2010	\$11,443,914	\$5,207,143	\$373,439	n/a

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.

### **Infrastructure**

### Connectivity and Transportation

Palmer lies 42 miles northeast Anchorage on the Glenn Highway. Commercial airlines serve the Ted Stevens Anchorage International Airport in Anchorage, but the Palmer Municipal Airport supports private and chartered services with two paved airstrips, one at 6,009 ft long by 100 ft wide and the other at 3,617 ft long by 75 ft wide. The Alaska State Division of Forestry bases its wildland firefighting operations out of the Palmer Municipal Airport. There are also several privately-owned airstrips in the vicinity. Float planes may land at nearby Finger Lake and Wolf Lake. The Alaska Railroad connects Palmer to Whittier, Seward, and Anchorage for ocean freight delivery. The Alaska Railroad connects Palmer to Whittier, Seward, and Anchorage for ocean freight delivery.

130 See footnote 126.

<sup>&</sup>lt;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.

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

<sup>&</sup>lt;sup>5</sup>Alaska Dept. of Comm. and Rural Affairs. (n.d.). Community Funding Database. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dca/commdb/CF Grants.htm.

<sup>128</sup> Ibid

<sup>&</sup>lt;sup>129</sup> Adler, B. 2008. *Mat-Su Borough All-Hazards Mitigation Plan: Phase One – Natural Hazards*. Mat-Su Borough Department of Emergency Services. Retrieved March 13, 2012 from

 $<sup>\</sup>label{limit:http://www.commerce.state.ak.us/dca/planning/nfip/Hazard\_Mitigation\_Plans/Mat\_Su\_Boro\_HMP.pdf. \\$ 

#### **Facilities**

Water in Palmer is derived from three deep wells, treated, and stored in a million-gallon reservoir. Individual wells are also in use. All homes are completely plumbed, and the City operates a piped water and sewer system. Sewage is collected and treated in a sewage lagoon. Some individual septic tanks are also in use. The Borough operates a landfill outside the City, and a sludge disposal site is also available. Solid waste collection services are provided by the City. The Matanuska Electric Association Inc. (MEA) provides electric utility service to the entire City of Palmer, generating 85% by gas turbine and 15% hydroelectric. MEA purchases virtually all of the electricity it distributes from Chugach Electric Association Inc., pursuant to a contract expiring January 1, 2015. Piped natural gas, provided by Enstar, is used to heat homes. San Chugach Electric Association Inc.

Public safety services are provided by the City of Palmer Police Department and a state troopers post in Palmer. Palmer is also the seat of the State Superior Court District Court Magistrate. Palmer has a city jail, a correctional center, and a pre-trial facility. The Borough Public Safety Building is also located in Palmer. Rescue and fire fighting services are provided by the Victory and Wolverine volunteer fire departments, and the Palmer and Borough ambulance services. 134

Additional community facilities include the Palmer Community Center, a senior citizen's center, a Pioneer's Home, the Borough swimming pool, an Elks Lodge, Moose Lodge, two museums, and a variety of libraries. Telephone, internet, cable services are available in Palmer. According to a survey conducted by the AFSC in 2011, community leaders reported that Palmer also has a food bank, publicly subsidized housing, and job placement services, and that plans are under way to build a new community center within the next 10 years. Community leaders also indicated that no fisheries-related facilities are present in Palmer, given it is not a port city, and that local residents typically travel to Anchorage, Seward or Homer to access fisheries-related businesses and services not available in Palmer.

# **Medical Services**

Medical services are provided at the Mat-Su Regional Medical Center in Palmer, located between Wasilla and Palmer, approximately 7 miles from downtown Palmer. The hospital is a privately owned qualified Acute Care facility. Long term care is provided in Palmer at the Veterans' Home and Palmer Pioneers' Home. Emergency services have highway, air, floatplane, and helicopter access. Emergency service is provided by 911 Telephone Service and volunteers. 136

<sup>131</sup> Ibid

<sup>&</sup>lt;sup>132</sup> City of Palmer, Palmer Planning Team and Agnew:Beck Consulting. 2006. *City of Palmer Comprehensive Plan*. Retrieved March 12, 2012 from http://www.commerce.state.ak.us/dca/plans/Palmer-CP-2006.pdf.

<sup>133</sup> See footnote 126. 134 Ibid.

<sup>135</sup> Ibid.

<sup>136</sup> Ibid.

# **Educational Opportunities**

Six active school facilities are present in Palmer, including one primary school, one intermediate school, one middle school, two high schools, and one K-12 school. Swanson Elementary School serves grades preschool through 2, and as of 2011 had 465 students and 28 teachers; Sherrod Elementary School serves grades 3 through 5, and as of 2011 had 460 students and 26 teachers; Palmer Middle School serves grades 6 through 8, and as of 2011 had 575 students and 37 teachers; Palmer High School serves grades 9 through 12, and as of 2011 had 774 students and 45 teachers; Valley Pathways serves grades 9 through 12, and as of 2011 had 199 students and 11 teachers; and Academy Charter School serves grades Kindergarten through 12, and as of 2011 had 231 students and 19 teachers.

In addition to these six active schools, Mat-Su Secondary School is located in Palmer. It is a secure detention unit school, which offers students a way to continue earning high school credits while they transition back into the Palmer School District or into/out of treatment programs. However, as of 2011, Mat-Su Secondary School was reported to not have any enrolled students or current teaching staff. 139

### **Involvement in North Pacific Fisheries**

History and Evolution of Fisheries

Historically, Athabascan Indians moved seasonally through the Palmer region to pursue subsistence fishing, hunting, and trapping activities. <sup>140</sup> Today, Palmer residents are most engaged in fisheries for salmon and halibut. In addition to local Cook Inlet fisheries, Palmer fishermen participate in fisheries around the state. For example, in 2010, 25% of Palmer salmon permits were held in Cook Inlet gillnet fisheries, while 41% were held in Bristol Bay gillnet fisheries, and the remaining permits were held in other salmon fisheries ranging from Southeast Alaska to Norton Sound. In addition to salmon and halibut, Palmer residents were most highly engaged in fisheries for herring and groundfish during the 2000-2010 period (see *Commercial Fishing* section).

Commercial salmon and herring fisheries began to develop shortly after the purchase of Alaska by the U.S. in 1867. The earliest herring harvest was for human consumption, while harvest of herring for bait began around 1900, and herring sac roe fisheries developed in the late 1970s. <sup>141,142</sup> Commercial exploitation of halibut and groundfish first extended into the Gulf of

<sup>&</sup>lt;sup>137</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.

<sup>&</sup>lt;sup>138</sup> Mat-Su Secondary School. 2008. *Homepage*. Retrieved March 12, 2012 from http://www.matsuk12.us/myf/site/default.asp/.

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.

Alaska Native Heritage Center. 2008 *Athabascans - Who We Are*. Retrieved January 9, 2012 from http://www.alaskanative.net/en/main\_nav/education/culture\_alaska/athabascan/.

<sup>&</sup>lt;sup>141</sup> Clark, McGregor, Mecum, Krasnowski and Carroll. 2006. *The Commercial Salmon Fishery in Alaska*. Alaska Dept. of Fish and Game, Pgs. 105-146. Retrieved December 28, 2011 from http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1 p4.pdf.

Alaska (GOA) in the 1920s after development of diesel engines, which allowed fishing vessels to undertake longer trips. <sup>143</sup>

Cook Inlet is the closest marine area to Palmer. ADF&G manages the Cook Inlet salmon and herring fisheries. <sup>144</sup> The marine waters bordering Cook Inlet are encompassed by Federal Reporting Area 630, Pacific Halibut Fishery Regulatory Area 3A, and the Central Gulf of Alaska Sablefish Regulatory Area. Pacific halibut fisheries are managed under the International Pacific Halibut Commission. Groundfish fisheries that occur within 3 nautical miles (nmi) of the coast or in inland waters are under the jurisdiction of the State of Alaska, and fisheries that take place beyond 3 nm in the U.S. Exclusive Economic Zone (EEZ) are under federal jurisdiction.

Palmer is not eligible to participate in either the Community Development Quota (CDQ) program or the Community Quota Entity (CQE) program. According to a survey conducted by the AFSC in 2011, community leaders reported that Palmer does not participate in fisheries management processes in Alaska.

# **Processing Plants**

ADF&G's 2010 Intent to Operate list does not list a registered processing plant in Palmer. However, numerous processing facilities are located in nearby Anchorage.

### Fisheries-Related Revenue

Between 2000 and 2010, revenue was reported in Palmer in two different years from the Shared Fisheries Business Tax. In 2003, \$15 of revenue was reported, and in 2010, \$3,128 of revenue was reported. No other information was reported regarding fisheries-related revenue in Palmer between 2000 and 2010 (Table 3). 145

# Commercial Fishing

Although Palmer is not a port city, local residents are involved in the commercial fishing industry as crew license holders, quota share account and permit holders, and vessel owners. In 2010, 88 Palmer residents held commercial fishing crew permits and 39 fishing vessels were primarily owned by residents. These numbers represent decreases since the year 2000, when 107 Palmer residents held crew licenses, and 74 fishing vessels were primarily owned by residents. The number of vessels reported as homeported in Palmer has also decreased over the period, from 26 in 2000 to 7 as of 2010 (Table 5).

In 2010, 92 Palmer residents held a total of 117 state-issued Commercial Fisheries Entry Commission (CFEC) permits. Of these, 75 were held in salmon fisheries, 15 in halibut fisheries,

<sup>&</sup>lt;sup>142</sup> Woodby, Doug, Dave Carlile, Shareef Siddeek, Fritz Funk, John H. Clark, and Lee Hulbert. 2005. *Commercial Fisheries of Alaska*. Alaska Dept. of Fish and Game, Special Publication No. 05-09. Retrieved December 29, 2011 from http://www.adfg.alaska.gov/FedAidPDFs/sp05-09.pdf.

<sup>&</sup>lt;sup>143</sup> Thompson, William F. and Norman L. Freeman. 1930. *History of the Pacific Halibut Fishery*. Report of the International Fisheries Commission. Number 5. Retrieved June 1, 2012 from http://www.iphc.int/publications/scirep/Report0005.pdf.

Alaska Dept. of Fish and Game. 2012. *Commercial Fisheries Overview*. Retrieved June 27, 2012 from http://www.adfg.alaska.gov/index.cfm?ADFG=fishingcommercialbyarea.main.

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.

9 in crab fisheries, and the rest in fisheries for 'other shellfish' (4), herring (3), sablefish (5), and groundfish (6). In the same year, the greatest number of salmon CFEC permits were held in the Bristol Bay drift gillnet fishery (20 permits), Cook Inlet set gillnet fishery (15), Bristol Bay set gillnet fishery (11), Prince William Sound drift gillnet fishery (5), Cook Inlet drift gillnet fishery (4), and Kodiak purse seine fishery (3). One or two CFEC permits were also held in 12 additional salmon fisheries around the State, in areas including Chignik, Peninsula-Aleutians, Yakutat, Lower Yukon, Upper Yukon, Kuskokwim, Kotzebue, and Norton Sound, using fishing gear including set and drift gillnet, purse seine, hand troll, and fishwheel. Salmon permit numbers remained relatively stable between 2000 and 2010, although the percentage of permits that were actively fished decreased from 82% in 2000 to 67% in 2010.

Of the 15 halibut CFEC permits held by Palmer residents, 12 were held in the statewide longline fishery using vessels under 60 ft, 2 were held in the statewide longline fishery using vessels over 60 ft, and 1 was held in the statewide mechanical jig fishery. Of these, 10 were actively fished that year, including 9 in the statewide longline fishery using vessels under 60 ft and 1 using vessels over 60 ft. The number of halibut permits held stayed relatively stable between 2000 and 2010, although the percentage of active permits decreased from 92% in 2000 to 67% in 2010.

Crab CFEC permits held in Palmer in 2010 were for Dungeness crab (one of three permits actively fished in the Cook Inlet pot gear fishery, one of one permit active in the Southeast 150 pots fishery), king crab (one of one permit actively fished in the Bering Sea pot gear, vessels 60 ft or over fishery, and zero of one permit active in the Bristol Bay pot gear, vessels 60 ft or over fishery in 2010), and Tanner crab (one of one permit active in the Peninsula-Aleutians pot gear, vessel under 60 ft fishery, one of one permit active in the Bering Sea pot gear, vessels 60 ft or over fishery, and zero of one permit active in the Kodiak pot gear, vessel under 60 ft fishery).

The number of groundfish and herring CFEC permits held by Palmer residents decreased markedly between 2000 and 2010. In the case of groundfish, 18 permits were held in 2000, decreasing to 6 by 2010. The percentage of groundfish permits actively fished also decreased over the period, from 50% in 2000 to 17% by 2010. In 2010, groundfish permits were held in statewide groundfish fisheries targeted miscellaneous saltwater finfish, using longline, pot gear, or mechanical jig, along with one Gulf of Alaska permit for pot gear. In the case of herring, 3 of 13 CFEC permits were actively fished in 2000 (23%), decreasing to 0 of 3 total herring permits actively fished in 2010 (0%). In 2010, herring permits were held in roe herring gillnet fisheries in Prince William Sound and Goodnews Bay. Earlier, in 2000, herring permits had also been held in roe herring gillnet fisheries in Bristol Bay and Security Cove, the herring gillnet fishery in Norton Sound, and the Prince William Sound herring spawn on kelp fishery. CFEC permit information is presented in Table 4.

In addition to CFEC permits, three Palmer residents held License Limitation Program permits (LLP) in federal groundfish fisheries, of which one was actively fished in 2010. One Palmer resident held an inactive LLP in a federal crab fishery in 2010, and three Palmer residents held Federal Fisheries Permits (FFP) in 2010, of which one was actively fished that year. Between 2000 and 2010, the number of quota share account holders in the federal halibut catch share fishery in Palmer decreased from 17 to 15. The number of halibut quota shares held initially decreased from 911,606 to 578,308, and then increased to over 1 million shares between 2008 and 2010. Also between 2000 and 2010, the number of Palmer residents holding quota share accounts in the federal sablefish catch share fishery varied between 2 and 4, and the

amount of quota shares held increased from 473,306 in 2000 to 665,340 in 2010. With respect to both halibut and sablefish catch share fisheries, annual individual fishing quota (IFQ) allotments remained relatively stable between 2000 and 2010. No quota shares were held in federal crab catch share fisheries by Palmer residents during the 2000-2010 period. Information about LLP and FFP permits is presented in Table 4, while information about federal catch share participation is presented in Tables 6 through 8.

Given that no fish buyers or shore-side processors were present in Palmer between 2000 and 2010 (Table 5), no landings or ex-vessel revenue were generated in the community (Table 9). Rather, Palmer vessel owners delivered landings in other locations. Information was available for all years between 2000 and 2010 regarding salmon harvest by Palmer vessel owners, and for some years during the period for harvest of halibut, Pacific cod, sablefish, and 'other groundfish.' Information about harvest in other years and for other species is considered confidential due to the small number of participants. On average between 2000 and 2010, 3,056,909 net lbs of salmon were harvested by Palmer vessel owners, valued at an average of \$1,537,949 in ex-vessel revenue. For those years in which information can be reported regarding halibut, landings averaged 65,262 net lbs valued at an average of \$175,418 in ex-vessel revenue. For those years in which information can be reported regarding Pacific cod harvest, landings averaged 421,454 net lbs valued at an average of \$116,702. Finally, for those years in which 'other groundfish' information can be reported, Palmer vessel owners harvested an average of 18,922 net lbs valued at an average of \$10,650. Sablefish landings and revenue information can be reported for one year between 2000 and 2010. That year (2004), Palmer vessel owners landed a total of 56,692 net lbs of sablefish, valued at \$154,028 in ex-vessel revenue. Landings and exvessel revenue earned by Palmer vessel owners are presented in Table 10.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	n/a	n/a	n/a	n/a							
Shared Fisheries Business Tax <sup>1</sup>	n/a	n/a	n/a	\$15	n/a	n/a	n/a	n/a	n/a	n/a	\$3,128
Fisheries Resource Landing Tax <sup>1</sup>	n/a	n/a	n/a	n/a							
Fuel transfer tax <sup>2</sup>	n/a	n/a	n/a	n/a							
Extraterritorial fish tax <sup>2</sup>	n/a	n/a	n/a	n/a							
Bulk fuel transfers <sup>1</sup>	n/a	n/a	n/a	n/a							
Boat hauls <sup>2</sup>	n/a	n/a	n/a	n/a							
Harbor usage <sup>2</sup>	n/a	n/a	n/a	n/a							
Port/dock usage <sup>2</sup>	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							
Marine fuel sales tax <sup>3</sup>	n/a	n/a	n/a	n/a							
Total fisheries-related revenue <sup>4</sup>	n/a	n/a	n/a	\$15	n/a	n/a	n/a	n/a	n/a	n/a	\$3,128
Total municipal revenue <sup>5</sup>	\$6.6 M	\$6.1 M	\$6.2 M	\$6.6 M	\$7.1 M	\$8.1 M	\$8.4 M	\$10.6 M	\$11.6 M	\$12.1 M	\$11.4 M

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

<sup>&</sup>lt;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.

<sup>&</sup>lt;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.

<sup>&</sup>lt;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>&</sup>lt;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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) 1	Total permits	4	4	4	4	4	4	4	4	4	3	3
	Active permits	3	3	3	3	3	3	3	2	2	1	1
	% of permits fished	75%	75%	75%	75%	75%	75%	75%	50%	50%	33%	33%
	Total permit holders	3	3	3	3	3	3	3	3	4	3	3
Crab (LLP) 1	Total permits	1	1	1	1	1	1	1	1	1	1	1
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	1	1	1	1	1	1	1	1	1	1	1
Federal Fisheries	Total permits	5	6	6	6	7	7	4	4	4	3	3
Permits <sup>1</sup>	Fished permits	0	0	0	3	2	2	2	2	1	2	1
	% of permits fished	0%	0%	0%	50%	29%	29%	50%	50%	25%	67%	33%
	Total permit holders	5	6	6	5	6	6	4	4	4	3	3
Crab (CFEC) <sup>2</sup>	Total permits	3	5	2	3	3	3	5	5	7	6	9
	Fished permits	0	3	0	0	0	0	0	0	0	0	3
	% of permits fished	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	33%
	Total permit holders	3	5	2	3	3	3	5	5	7	6	7
Other shellfish (CFEC) <sup>2</sup>	Total permits	1	3	1	3	2	2	2	1	1	1	4
	Fished permits	0	1	0	1	0	1	1	0	0	0	0
	% of permits fished	0%	33%	0%	33%	0%	50%	50%	0%	0%	0%	0%
	Total permit holders	1	2	1	3	2	2	2	1	1	1	4
Halibut (CFEC) <sup>2</sup>	Total permits	12	12	11	11	16	17	16	13	12	14	15
	Fished permits	11	9	9	11	13	14	12	11	10	11	10
	% of permits fished	92%	75%	82%	100%	81%	82%	75%	85%	83%	79%	67%
	Total permit holders	12	12	11	11	16	17	16	13	12	14	14
Herring (CFEC) <sup>2</sup>	Total permits	13	10	11	11	6	7	6	4	4	3	3
	Fished permits	3	5	3	2	0	2	1	1	0	0	0
	% of permits fished	23%	50%	27%	18%	0%	29%	17%	25%	0%	0%	0%
	Total permit holders	8	7	8	8	5	6	5	4	5	3	3

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	Total permits	3	2	2	4	7	5	3	4	4	4	5
	Fished permits	3	2	2	4	7	5	3	4	4	3	3
	% of permits fished	100%	100%	100%	100%	100%	100%	100%	100%	100%	75%	60%
	Total permit holders	2	1	1	3	6	4	2	3	4	4	5
Groundfish (CFEC) <sup>2</sup>	Total permits	18	15	14	13	7	7	5	5	4	5	6
	Fished permits	9	5	1	1	1	1	2	2	3	1	1
	% of permits fished	50%	33%	7%	8%	14%	14%	40%	40%	75%	20%	17%
	Total permit holders	10	9	9	9	6	6	4	4	4	5	5
Other Finfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) <sup>2</sup>	Total permits	72	70	71	65	66	67	68	64	71	74	75
	Fished permits	59	51	44	44	40	42	44	43	51	52	50
	% of permits fished	82%	73%	62%	68%	61%	63%	65%	67%	72%	70%	67%
	Total permit holders	70	64	67	63	64	68	69	63	71	72	76
Total CFEC Permits <sup>2</sup>	Permits	122	117	112	110	107	108	105	96	103	107	117
	Fished permits	85	76	59	63	61	65	63	61	68	67	67
	% of permits fished	70%	65%	53%	57%	57%	60%	60%	64%	66%	63%	57%
	Permit holders	84	78	78	75	76	80	85	76	84	86	92

<sup>&</sup>lt;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>&</sup>lt;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 Palmer: 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 Palmer <sup>2</sup>	Total Net Pounds Landed in Palmer <sup>2,5</sup>	Total Ex- Vessel Value of Landings in Palmer <sup>2,5</sup>
2000	107	0	0	74	26	0	0	\$0
2001	76	0	0	72	28	0	0	\$0
2002	51	0	0	65	27	0	0	\$0
2003	74	0	0	65	25	0	0	\$0
2004	83	0	0	64	23	0	0	\$0
2005	86	0	0	42	6	0	0	\$0
2006	77	0	0	34	6	0	0	\$0
2007	95	0	0	33	7	0	0	\$0
2008	98	0	0	32	6	0	0	\$0
2009	85	0	0	34	6	0	0	\$0
2010	88	0	0	39	7	0	0	\$0

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>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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 Palmer: 2000-2010.

Year	Number of Halibut Ouota Share	Halibut Ouota	Halibut IFQ Allotment (Pounds)
	Account Holders	Shares Held	rmounem (1 ounus)
2000	17	911,606	126,517
2001	17	874,836	140,775
2002	16	804,350	127,205
2003	16	795,005	117,916
2004	17	743,778	117,431
2005	16	578,308	93,060
2006	16	687,880	109,576
2007	15	996,425	146,289
2008	15	1,306,655	182,096
2009	15	1,353,518	174,276
2010	15	1,068,187	135,083

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 Palmer: 2000-2010.

Year	Number of Sablefish	Sablefish Quota	Sablefish IFQ
	Quota Share Account	Shares Held	Allotment (Pounds)
	Holders		
2000	3	473,306	50,974
2001	2	431,948	44,612
2002	2	431,948	43,070
2003	2	431,948	48,599
2004	3	455,829	55,398
2005	3	455,829	53,197
2006	4	455,829	50,846
2007	3	455,829	48,925
2008	2	522,041	45,115
2009	2	522,041	40,818
2010	3	665,340	47,843

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 Palmer: 2000-2010.

Year	Number of Crab Quota	Crab Quota Shares	Crab IFQ
	Share Account Holders	Held	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 Palmer: 2000-2010.

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

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.]

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

 $Total^2$ 

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

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

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

				7	Total Net Pou	ınds <sup>1</sup>					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	88,863	65,806	89,865	66,224	87,514	64,030	28,979	-	-	30,818	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	20,476	80,632	4,757	5,293	9,064	6,529	5,705	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	499,250	360,145	-	-	-	404,968	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	56,692	-	-	-	-	-	-
Salmon	2,674,051	2,624,960	2,067,885	2,426,783	3,508,582	3,553,695	3,690,623	4,382,922	3,150,151	3,241,081	2,305,268
Total <sup>2</sup>	3,282,640	3,131,543	2,162,507	2,498,300	3,661,852	4,029,222	3,725,307	4,382,922	3,150,151	3,271,899	2,305,268
				Ex-vessel V	alue (nomin	al U.S. dollar	rs)				
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	-	-	-	-	-	-	-	-	-	-	-
Finfish	-	-	-	-	-	-	-	-	-	-	-
Halibut	\$229,250	\$134,157	\$202,564	\$192,743	\$261,996	\$192,554	\$106,352	-	-	\$83,726	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Other Groundfish	\$14,079	\$37,477	\$3,969	\$4,004	\$6,418	\$4,535	\$4,071	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	\$158,152	\$85,790	-	-	-	\$106,163	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	\$154,028	-	-	-	-	-	-
Salmon	\$1,288,742	\$893,497	\$762,541	\$902,529	\$1,394,776	\$1,608,120	\$1,690,601	\$2,208,236	\$1,902,734	\$2,201,206	\$2,064,461
Total <sup>2</sup>	\$1,690,223	\$1,150,921	\$969,074	\$1,099,276	\$1,817,218	\$1,911,373	\$1,801,024	\$2,208,236	\$1,902,734	\$2,284,932	\$2,064,461

*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>&</sup>lt;sup>1</sup> Net pounds refers to the landed weight recorded in fish tickets.
<sup>2</sup> Totals only represent non-confidential data.

## Recreational Fishing

According to ADF&G, the number of active sport fish guides registered in Palmer remained relatively stable over the 2000-2010 period, varying between four and eight active businesses per year. In contrast, the number of licensed sport fish guides present in the community declined substantially over the decade, from 63 in 2000 to 29 in 2010. Despite this decline, these numbers represent a significant sport fishing infrastructure in Palmer. The presence of this infrastructure suggests that sport fishing is a tourism draw to the area. However, according to a survey conducted by the AFSC in 2011, community leaders indicated that a majority of sport fishing activity in the Palmer area is done by local residents using their private boats.

Between 2000 and 2010, the number of Palmer residents that purchased sport fishing licenses (irrespective of point of sale) varied between 6,825 and 8,724, generally increasing over the period. The number of fishing licenses sold in Palmer was slightly smaller, varying between 4,831 and 6,340 between 2000 and 2010. These numbers suggest that local residents may travel to nearby communities such as Anchorage or Wasilla to purchase licenses and fishing gear. Information about sport fishing activity in Palmer is presented in Table 11.

According to the 2011 AFSC survey, community leaders indicated that salmon and halibut are the most commonly targeted sport species in Palmer. The Alaska Statewide Harvest Survey, <sup>146</sup> conducted by ADF&G between 2000 and 2010, noted additional species known to be targeted by private anglers in Palmer. In freshwater, additional species included landlocked salmon, rainbow trout, Dolly Varden, whitefish, burbot, Arctic grayling, northern pike, and smelt. In saltwater, additional species targeted by sport fishing included Dolly Varden, rockfish, lingcod, Pacific cod, sablefish, shark, and smelt. The survey also noted sport harvest of razor clams, hardshell clams, shrimp, and 'other shellfish' by anglers in Palmer. <sup>147</sup> No kept/release log book data were reported for fishing charters out of Palmer between 2000 and 2010. <sup>148</sup>

Palmer is located within Alaska Sport Fishing Survey Area K – Knik Arm. Between 2000 and 2010, freshwater sport fishing activity was more important than saltwater sport fishing at this regional level, and Alaska residents consistently fished a greater number of angler days than non-Alaska residents. In 2010, Alaska residents logged 95,285 freshwater and 124 saltwater angler days, while non-Alaska resident logged 10,872 freshwater days and no saltwater angler days. This information about regional sport fishing activity in Palmer is presented in Table 11.

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<sup>&</sup>lt;sup>146</sup> Alaska Department of Fish and Game. 2011. *Alaska Sport Fishing Survey results*, 2000 – 2010. ADF&GADF&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>&</sup>lt;sup>147\*</sup>The Alaska Statewide Harvest Survey includes separate categories for Dungeness crab, Tanner crab, razor clams, hardshell clams and shrimp. Remaining species fall into the 'other shellfish' category.

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

Table 11. Sport Fishing Trends, Palmer: 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 Palmer <sup>2</sup>
2000	4	63	6,825	4,979
2001	4	64	7,082	4,831
2002	4	53	7,194	5,067
2003	6	60	7,547	5,162
2004	7	56	7,721	6,148
2005	7	28	8,003	6,351
2006	8	31	8,158	5,935
2007	5	30	8,217	6,340
2008	6	27	8,504	5,896
2009	5	22	8,724	5,729
2010	6	29	8,688	5,412

	Saltw	ater	Fresh	water
Year	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	130	317	13,308	106,880
2001	345	277	14,933	94,862
2002	464	754	17,367	106,163
2003	49	386	15,626	87,000
2004	33	151	11,681	101,663
2005	378	424	14,284	100,677
2006	89	234	12,239	107,233
2007	117	473	13,524	106,567
2008	17	308	14,080	122,167
2009	37	122	10,678	111,462
2010	0	124	10,872	95,285

<sup>&</sup>lt;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.]

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

## Subsistence Fishing

Palmer is located in the traditional territory of two groups of Athabascan Indians, the Ahtna and Dena'ina people. <sup>149</sup> Historically, Athabascans migrated seasonally, traveling in small groups to pursue subsistence fishing, hunting, and trapping activities. <sup>150</sup> Today, the economy of Palmer is based primarily on government services, retail, and manufacturing, <sup>151</sup> but some local residents continue to participate in subsistence activities. According to a survey conducted by the AFSC in 2011, community leaders reported that the most important subsistence resources for Palmer residents include herring and littleneck clams harvested in Cook Inlet, and salmon harvested in the Matanuska River and its tributary streams.

No information was reported by ADF&G regarding per capita subsistence harvest or the percentage of households in Palmer utilizing various marine resources for subsistence purposes between 2000 and 2010 (Table 12). However, information is available during the 2000-2010 period regarding total subsistence harvest of salmon and halibut. Between 2000 and 2008, the number of subsistence salmon permits issued to Palmer households varied between 371 and 608. Sockeye salmon were the most heavily harvested species during this period, averaging 10,796 sockeye harvested for subsistence per year. Several hundred Chinook and coho salmon were also harvested on average each year between 2000 and 2008, along with a small number of chum salmon each year and pink salmon in some years during the period. This information about subsistence salmon harvest is presented in Table 13. Between 2003 and 2010, the number of Subsistence Halibut Registration Certificates (SHARC) issued to Palmer residents increased from 3 to 12 in 2009. In 2010, 10 cards were issued, 1 was returned, and a total of 24 lbs of halibut were reported harvested for subsistence purposes by Palmer residents. This information about subsistence harvest of halibut is presented in Table 14.

No information was reported by management agencies regarding subsistence harvest of marine invertebrates, non-salmon fish (not including halibut), or marine mammals between 2000 and 2010 (Tables 13 and 15).

### **Additional Information**

The Matanuska Valley is famous statewide and nationally for the extremely large vegetables produced by local farmers. These vegetables frequently win prizes as the Alaska State Fair, which is held in Palmer every fall. More than 250,000 people attend the 12-day event, which generates more than \$2 million for the local economy. <sup>152</sup>

<sup>&</sup>lt;sup>149</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.

Alaska Native Heritage Center. 2008 *Athabascans - Who We Are*. Retrieved January 9, 2012 from http://www.alaskanative.net/en/main\_nav/education/culture\_alaska/athabascan/. <sup>151</sup> See footnote 149.

<sup>&</sup>lt;sup>152</sup> Metiva, M., and D. Hanson. 2008. *Mat-Su Comprehensive Economic Development Strategy: December 2008 Update*. Mat-Su Resource Conservation & Development Center and Mat-Su Borough. Retrieved March 13, 2012 from http://www.matsugov.us/.

Table 12. Subsistence Participation by Household and Species, Palmer: 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, Palmer: 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	567	537	389	16	260	13	9,409	n/a	n/a
2001	608	572	327	5	306	n/a	12,198	n/a	n/a
2002	437	408	379	50	165	4	8,936	n/a	n/a
2003	371	344	284	20	174	3	8,123	n/a	n/a
2004	574	515	532	29	224	10	11,793	n/a	n/a
2005	538	476	266	25	221	9	12,298	n/a	n/a
2006	549	464	338	48	159	n/a	11,827	n/a	n/a
2007	569	508	601	31	81	n/a	14,616	n/a	n/a
2008	543	494	332	9	148	3	7,961	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>&</sup>lt;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>&</sup>lt;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, Palmer: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	3	n/a	n/a
2004	3	n/a	n/a
2005	4	n/a	n/a
2006	5	3	n/a
2007	6	3	118
2008	5	2	158
2009	12	2	91
2010	10	1	24

*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, Palmer: 2000-2010.

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

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

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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.

# **Petersville**

# **People and Place**

Location 153



Petersville is located on Petersville Road, at mile 114.9 of the George Parks Highway, west of Trapper Creek. Petersville Road is 17 miles north of the junction to Talkeetna Spur Road. Peters Creek and the Deshka River flow through the community. Petersville is located in the Talkeetna Recording District and the Matanuska-Susitna Borough Census Area.

Demographic Profile 154

According to the 2010 Decennial Census, there were four inhabitants in Petersville, making it the 348<sup>th</sup> largest of 352 total Alaskan communities with populations recorded that year. However, the Alaska Department of Labor and Workforce Development (DOLWD) recorded 12 residents age 16 and over living in the community in 2010. Petersville first appeared in U.S. Census records in 2000, with 27 individuals (Table 1). Although no population was recorded in Petersville by the U.S. Census in 1990, an estimate was provided regarding a sparsely populated U.S. Census block including Petersville. In this area, which included some areas of little or no population beyond the community council boundaries of Petersville, the 1990 population estimate was 84, with 37 households. Between 2000 and 2009, Alaska Department of Labor estimates indicate that the population of permanent residents in Petersville decreased by 77.8%, with an average annual growth rate of -5.72%.

In 2010, a majority of Petersville residents identified themselves as White (75%), while 25% identified with two or more races (Figure 1). That year, no Petersville residents identified themselves as Hispanic. Several racial and ethnic groups appeared to have been present in the year 2000 but were not represented in 2010, such as American Indians and Alaska Natives and Native Hawaiian and Other Pacific Islanders. Some of these individuals may have moved away, and some may be represented among those who identified with two or more races in 2010.

<sup>&</sup>lt;sup>153</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.

<sup>&</sup>lt;sup>154</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.

Alaska Department of Labor and Workforce Dev. 2011. *Alaska Local and Regional Information Database*. Retrieved May 30, 2012 from http://live.laborstats.alaska.gov/alari.

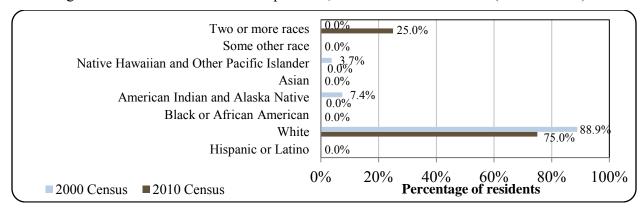
<sup>&</sup>lt;sup>156</sup> Petersville Road Corridor Management Plan. 1998. Retrieved May 23, 2012 from http://www.southdenali.alaska.gov/includes/pvcorridormp.pdf.

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

Year	U.S. Decennial Census <sup>1</sup>	Alaska Dept. of Labor Estimate of Permanent Residents <sup>3</sup>
1990	$0^2$	-
2000	27	<del>-</del>
2001	-	25
2002	-	19
2003	-	14
2004	-	15
2005	-	16
2006	-	21
2007	-	12
2008	-	9
2009	-	6
2010	4	124

<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.

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



In 2010, there were four occupied housing units in Petersville, with an average of one person living in each of these households. This represents a decrease from the year 2000, when there were 17 total households in Petersville, with an average of 1.59 persons per household. Of the 179 total housing units surveyed for the 2010 U.S. Decennial Census, three (1.7%) were owner-occupied, one (0.6%) was rented, and the remaining 175 housing units were vacant. A

<sup>&</sup>lt;sup>2</sup> The U.S. Census Bureau recorded a population of zero for Petersville in 1990, a population estimate of 84 was generated for the U.S. Census Block that includes Petersville and surrounding areas. Source: *Petersville Road Corridor Management Plan*. 1998. Retrieved May 23, 2012 from http://www.southdenali.alaska.gov/includes/pvcorridormp.pdf.

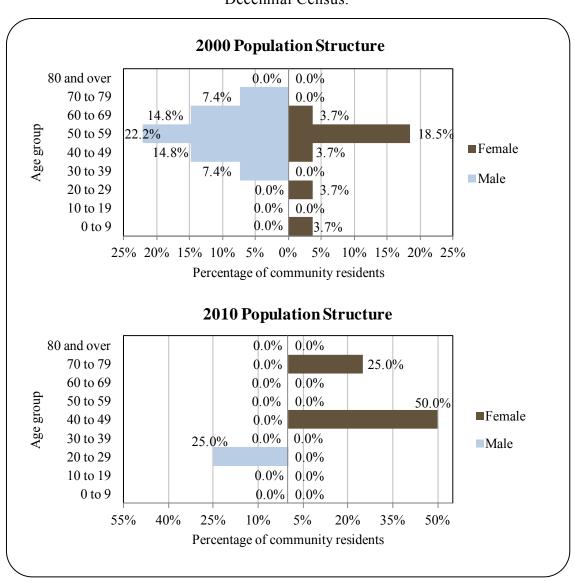
<sup>&</sup>lt;sup>3</sup> Alaska Department of Labor. 2011. Current population estimates for Alaskan Communities. Retrieved April 15, 2011, from http://labor.alaska.gov/research/pop/popest.htm.

<sup>&</sup>lt;sup>4</sup> This estimate refers only to the population of residents age 16 and over. Source: Alaska Department of Labor and Workforce Dev. 2011. Alaska Local and Regional Information Database. Retrieved May 30, 2012 from http://live.laborstats.alaska.gov/alari.

majority of these (174) were vacant at the time of the survey due to their seasonal use. From 2000 to 2010, no residents of Petersville were recorded as living in group quarters.

In 2010, the gender makeup of Petersville's population (25% male and 75% female) was much more weighted toward females than the population of the state as a whole, which had more men than women overall (52% male and 48% female). In 2010, the median age of Petersville residents was 46.5 years, older than the national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, one Petersville resident (25% of the population) was over the age of 60. It is important to keep in mind that these numbers reflect a population of only four individuals. With such a small population, the difference of several individuals can affect percentages, averages, and median scores greatly. The overall population structure of Petersville in 2000 and 2010 is shown in Figure 2.

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



It is also useful to examine the population structure of Petersville in 2000, when the population was somewhat higher. In 2000, the gender ratio in the Petersville (52.8% male and 47.2% female) was slightly more weighted toward males than the state population as a whole, which was 51.7% male and 48.3% female. The age groups particularly skewed toward males included 10-19 and 70-79 years, while there were more females than males in the age groups 20-29 and 40 to 69 years. The median age in 2000, 14 years, was much younger than the 2000 national average of 36.5 years and the 2000 Alaska median age of 32.4 years. In 2000, 61.6% of the population was under the age of 20, and 5.4% of the population was age 60 or older. The population structure of Petersville in 2000 and 2010 is shown in Figure 2.

The 2006-2010 American Community Survey (ACS) did not provide any information regarding educational attainment in Petersville in 2010. Although the U.S. Decennial Census recorded four individuals as permanent residents in Petersville in 2010, the ACS estimated a population of zero. Size Given the small population of Petersville in 2010, it is useful to look back at education statistics in the year 2000 as well, when the population was slightly higher (27 residents). That year, 12 Petersville residents were aged 25 or older, all of whom held high school diplomas, as well as Bachelor's degrees (100%), compared to 27.9% of the population that held high school diplomas and 16.1% that held Bachelor's degrees in 2000. No Petersville residents held graduate or professional degrees in 2000, compared to 8.6% of Alaskans overall.

## History, Traditional Knowledge, and Culture

Dena'ina Athabascans historically inhabited the Petersville area, and used the region for subsistence hunting and fishing. <sup>160</sup> In 1905, gold was discovered on Cache Creek and upper Peters Creek. In 1917, a freighting trail was built by the Alaska Road Commission from Talkeetna. The crossing of the Susitna River was by ferry during summer and over ice in the winter. Petersville became home to a district post office as a result of the road construction. By 1921, there were 24 mining operations in the Yentna Mining District, most with large-scale hydraulic plants. World War II caused a shutdown of nearly all mining operations. Federal homesteading began here in 1948 and continued through the 1960s. In the late 1970s, many of the previously idle mining sites were brought back into production. <sup>161</sup> There is no community

 <sup>&</sup>lt;sup>157</sup> 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.
 <sup>158</sup> While American Community Survey (ACS) estimates can provide a good snapshot estimate for larger

<sup>&</sup>lt;sup>158</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>&</sup>lt;sup>159</sup> U.S. Census Buruea (n.d.). *Profile of Selected Social Characteristics of all places within Alaska: 2000*. Retrieved December 31, 2012 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

<sup>&</sup>lt;sup>160</sup> Fall, James and Dan Foster. 1987. *Fish and Game Harvest and Use in the Middle Susitna Basin*. Retrieved May 23, 2012 from http://www.subsistence.adfg.state.ak.us/TechPap/tp143.pdf.

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.

center in Petersville. Residents are dispersed throughout the area. <sup>162</sup> Today, most residences in Petersville are seasonal homes. <sup>163</sup> Year-round residents are typically involved in caretaking the historic Petersville mining camp. <sup>164</sup>

#### **Natural Resources and Environment**

Petersville is located in a transitional climatic zone, influenced both by marine and continental climate patterns. January temperatures range from -30 to 33 °F, and temperatures in July can vary from 42 to 83 °F. Annual rainfall ranges from 16 to 27 inches, along with 48 to 150 inches of snowfall. <sup>165</sup>

There is currently relatively little mining activity in the Petersville area, although large gold reserves exist within the upper base of the Peters Creek area. <sup>166</sup> Several mining claims are located in the area immediately south and west of Petersville. Each year, three or four small mines are under operation, with approximately half a dozen miners actively working between mid-May and mid-October. <sup>167</sup> In addition, in 2010, Diamond Gold Corporation reported development activity in the Yentna (Petersville) mining district, including construction of five miles of pioneer road for its Sable–Kahiltna Mine. <sup>168</sup> This area is being developed as "a new world-class gem field," with known gemstones including opal, sapphire, ruby, garnet, and diamond, and stones including emerald, agate, jade, red and green jasper, and opalized wood. <sup>169</sup>

Land in the Petersville area is owned by the Matanuska-Susitna Borough, the State of Alaska, the University of Alaska, as well as some private ownership. Two public use areas have been designated in the vicinity of Petersville, including one for recreational mining and one for general public recreation. The Petersville Recreational Mining Area allows for gold panning, mineral prospecting, or mining using portable, non-electric field equipment. No new mining claims may be granted within the area. The Trapper Creek – Petersville Winter Trails system offers 12.5 miles of trail for snowmobiling, dog mushing, cross-country skiing and skijoring.

Natural hazards that have been identified as highly likely to occur in the Matanuska-Susitna Borough include floods, wildfire, earthquake and volcanic activity. Avalanche and

Personal communication, Matanuska-Susitna Borough Cultural Resources Division, May 24, 2012.See footnote 161.

<sup>&</sup>lt;sup>162</sup> National Park Service. 2006. *Denali National Park and Preserve: Final South Denali Implementation Plan and Environmental Impact Statement*. Retrieved May 23, 2012 from http://www.matsugov.us/denali/documents/proof book 000.pdf.

<sup>&</sup>lt;sup>163</sup> See footnote 161.

<sup>&</sup>lt;sup>166</sup> *Petersville Road Corridor Management Plan*. 1998. Retrieved May 23, 2012 from http://www.southdenali.alaska.gov/includes/pvcorridormp.pdf. <sup>167</sup> See footnote 162.

Szumigala, D.J., L.A. Harbo, and J.N. Adleman. *Alaska's Mineral Industry 2010*. Alaska Dept. of Natural Resources and Alaska Dept. of Commerce, Community and Economic Development, Special Report 65.
 Ellis, Ed and Ellis, Ann.2010. *Alaska's Yentna Country: Gemstone Deposits; 'The Making of a World-Class Gem Field*.' Retrieved May 24, 2012 from http://diamondgoldcorp.com/uploads/DGC\_Yentna\_gemfields\_revision\_1.pdf.
 See footnote 166.

<sup>&</sup>lt;sup>171</sup> Alaska Dept. of Natural Resources. 2012. *Fact Sheet: Petersville Recreation Mining Area*. Retrieved May 24, 2012 from http://dnr.alaska.gov/mlw/factsht/mine\_fs/petersvi.pdf.

<sup>&</sup>lt;sup>172</sup> Matanuska-Susitna Borough Community Development Department. *Trapper Creek – Petersville Winter Trails*. Retrieved May 24, 2012 from http://www.alaskavisit.com/includes/media/docs/TrapperCrk\_PetersvilleTrl\_000.pdf.

severe weather were rated a moderately likely to occur, and drought was rated at a low probability of occurrence. 173

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Petersville as of July 2012. 174

# **Current Economy**<sup>175</sup>

Subsistence and sporting activities are an integral part of the lifestyle of local residents, many of whom are retired and reside in Petersville on a seasonal basis. Those who are employed work in industries including education, transportation, and construction. <sup>176</sup> Small scale farming and logging are still economically important in the area. <sup>177</sup> Tourism is also increasing in importance in Petersville. The area draws visitors to engage in recreational activities, such as hunting, dog mushing, snowmobiling, and cross-country skiing. This activity has led to development of some retail and service businesses in the region. <sup>178</sup> A lodge and several bed and breakfast businesses are located in the area. <sup>179</sup> Historically, mining was an important local industry. Today, although some small operations are under development, mining is no longer a significant employer in the Petersville area. 180 No additional information was available from the Alaska Department of Labor and Workforce Development regarding top employers in Petersville. 181

Although the U.S. Decennial Census reported four residents age 16 or over in Petersville in 2010, household surveys conducted for the 2006-2010 ACS did not collect data from local residents. 182 Given this, the civilian labor force was thus estimated to be zero and no earnings were reported in Petersville through the 2006-2010 ACS. In 2000, the per capita income in Petersville was \$43,200 and the median household income was \$43,750. Taking inflation into account by converting the 2000 values to 2010 dollars, <sup>183</sup> the real per capita income in 2000 is shown to have been \$56,807, and the real median household income in 2000 was \$57,531. In the

<sup>&</sup>lt;sup>173</sup> Matanuska-Susitna Borough Dept. of Emergency Services. 2008. All-Hazards Mitigation Plan, Phase One: Natural Hazards. Retrieved May 24, 2012 from http://ww1.matsugov.us/.

<sup>&</sup>lt;sup>174</sup> Alaska Dept. of Environmental Conservation (n.d.). List of Contaminated Sites by Region. Retrieved April 17, 2012 from http://dec.alaska.gov/spar/csp/list.htm.

<sup>&</sup>lt;sup>175</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>&</sup>lt;sup>176</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. See footnote 166.

<sup>&</sup>lt;sup>178</sup> National Park Service. 2006. Denali National Park and Preserve: Final South Denali Implementation Plan and Environmental Impact Statement. Retrieved May 23, 2012 from http://www.matsugov.us/denali/documents/proof book 000.pdf.

<sup>&</sup>lt;sup>179</sup> See footnote 176.

<sup>&</sup>lt;sup>180</sup> National Park Service. 2006. Denali National Park and Preserve: Final South Denali Implementation Plan and Environmental Impact Statement. Retrieved May 23, 2012 from http://www.matsugov.us/denali/documents/proof book 000.pdf.

<sup>&</sup>lt;sup>181</sup> Alaska Dept. of Labor and Workforce Development (n.d.). Alaska Local and Regional Information. Retrieved May 22, 2012 from: http://live.laborstats.alaska.gov/alari/.

<sup>&</sup>lt;sup>182</sup> 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.

Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gov/research/cpi/inflationcalc.htm).

year 2000, Petersville ranked 6<sup>th</sup> of 344 Alaskan communities with per capita income data that year, and 121<sup>st</sup> in median household income, out of 341 Alaskan communities with household income data. In 2000, no Petersville residents were below the poverty level, compared to 9.4% of Alaskan residents overall.

An alternative estimate of 2010 per capita income can be generated using economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the DOLWD. The ALARI database estimated that there were 12 residents age 16 and over in the civilian labor force in 2010. Of these, six residents were estimated to be employed that year. <sup>184</sup> If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Petersville in 2010 is \$43,745. <sup>185</sup> This estimate is lower than the real per capita income reported in the year 2000, providing evidence that per capita income may have decreased in Petersville between 2000 and 2010. However, given the different data sources used to generate the 2000 and 2010 statistics, caution should be used when considering this information.

The possible decrease in per capita income is reflected in the fact that Petersville met the Denali Commission's criteria as a "distressed community" in 2010, <sup>186</sup> indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010. It should be noted that both U.S. Census and DOLWD data are based on wage earnings, and these income figures do not take into account the value of subsistence within the local economy.

Given Petersville's small population size, the 2006-2010 ACS did not estimate employment statistics for 2010. <sup>187</sup> Income and employment information was reported in the 2000 decennial census, when 27 individuals resided in the community. Of 12 Petersville residents aged 16 or older in 2000, all (100%) were in the civilian labor force that year, compared to 67.6% that were in the civilian labor force statewide. Of these 12, 6 were employed and 6 were unemployed, for an unemployment rate of 50%, compared to a statewide unemployment rate of 6.1% in 2000. That year, all six employed individuals in Petersville worked in the public sector, in management/professional occupations in educational, health, and social services industries. This information from the 2000 Census about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were six employed residents in 2010, of which two were employed in leisure and hospitality, one in manufacturing, one in trade, transportation, and utilities, one in professional and business services, and one in local government. As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

<sup>185</sup> See footnotes 181 and 182.

<sup>&</sup>lt;sup>184</sup> See footnote 181.

<sup>&</sup>lt;sup>186</sup> Denali Commission. 2011. *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.

<sup>&</sup>lt;sup>187</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>188</sup> See footnote 181.

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

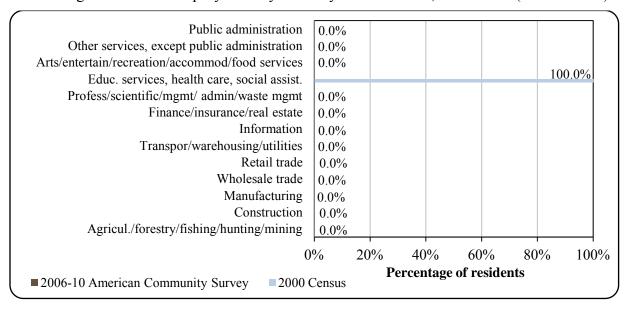
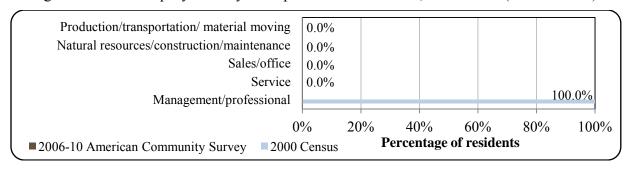


Figure 4. Local Employment by Occupation in 2000-2010, Petersville (U.S. Census).



#### Governance

Petersville is an unincorporated community located in the Matanuska-Susitna Borough. <sup>189</sup> No sales tax is administered in Petersville, although the Borough does collect a 10.35 mills property tax, a 5% Bed Tax, and a 5.29% Tobacco Excise Tax. <sup>190</sup> The community is represented by the Petersville Community Council, an advisory body established by the Borough, <sup>191</sup> which provides citizens with the opportunity for maximum community

<sup>&</sup>lt;sup>189</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.

<sup>&</sup>lt;sup>190</sup> Alaska Dept. of Comm. And Rural Affairs. (n.d.). *Community Information Summaries*. Retrieved December 27, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF\_CIS.htm.

National Park Service. 2006. *Denali National Park and Preserve: Final South Denali Implementation Plan and Environmental Impact Statement*. Retrieved May 23, 2012 from http://www.matsugov.us/denali/documents/proof book 000.pdf.

involvement.<sup>192</sup> No municipal revenue was reported between 2000 and 2010. In addition, no information was reported regarding State and Community Revenue Sharing contributions or fisheries-related grants received by the Petersville between 2000 and 2010 (Table 2).

Petersville was not included under the Alaska Native Claims Settlement Act (ANCSA), and is not federally recognized as a Native village. <sup>193</sup> The nearest office of the Alaska Department of Fish and Game (ADF&G) is located in Palmer, and the nearest office of the Alaska Department of Natural Resources is located in Wasilla. Offices of these agencies are also located in Anchorage, along with the closest offices of the Alaska Department of Commerce, Community, and Economic Development, the National Marine Fisheries Service (NMFS), and the U.S. Bureau of Citizenship and Immigration Services.

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

Year	Total Municipal Revenue <sup>1</sup>	Sales Tax Revenue <sup>2</sup>	State/Community Revenue Sharing <sup>3,4</sup>	Fisheries- Related Grants (State and Federal) <sup>5</sup>
2000	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a

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

#### **Infrastructure**

Connectivity and Transportation

Petersville is located approximately 30 miles out the state-maintained Petersville Road, which leaves the George Parks Highway at Trapper Creek. A four-wheel drive or high-clearance

<sup>193</sup>See footnote 189.

<sup>&</sup>lt;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.

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

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

<sup>&</sup>lt;sup>192</sup> Petersville Road Corridor Management Plan. 1998. Retrieved May 23, 2012 from http://www.southdenali.alaska.gov/includes/pvcorridormp.pdf.

vehicle is recommended for travel on this road, as the second half of the trip is primitive roadway. 194,195 The closest non-commercial airstrip is located in Talkeetna, 196 while a variety of transportation means are available in Wasilla and Palmer. 197

#### **Facilities**

The majority of year-round residents have individual wells, septic tanks, and complete plumbing. Residents of seasonal homes haul water and use outhouses. There is no central electric system in Petersville, and residents use private generators. A borough refuse transfer facility is available in Trapper Creek. Police services are provided by state troopers stationed approximately 50 miles away in Talkeetna. The nearest fire and rescue services are available from Fire Station 112, approximately 100 miles away in Wasilla. Local and long-distance telephone service is available, but no internet or cable providers offer service locally. 198 Except for ambulance and rescue service, no other public services are provided locally. 199

#### **Medical Services**

The nearest medical services are provided at the Sunshine Community Health Center in Talkeetna (approximately 50 road miles away) or the Valley Hospital in Palmer (approximately 115 road miles). Anchorage-area hospitals are also accessible to Petersville residents by road. Alternate health care is provided by Trapper Creek Ambulance Service. 200

# **Educational Opportunities**

No schools are located in Petersville, although the community is part of the Mat-Su Borough School District. <sup>201</sup> The nearest elementary school is located in Trapper Creek (30 miles away by road), while the closest combined middle/high school is the Su-Valley High School located near Talkeetna along the George Parks Highway (60 miles away). Some students may also be homeschooled through correspondence programs such as Mat-Su Central School, or other state, federal, or church correspondence programs. 202

<sup>195</sup> Alaska Dept. of Natural Resources. 2012. Fact Sheet: Petersville Recreation Mining Area. Retrieved May 24, 2012 from http://dnr.alaska.gov/mlw/factsht/mine fs/petersvi.pdf.

<sup>199</sup> National Park Service. 2006. Denali National Park and Preserve: Final South Denali Implementation Plan and Environmental Impact Statement. Retrieved May 23, 2012 from http://www.matsugov.us/denali/documents/proof book 000.pdf.

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.

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

202 Personal communication, Mat-Su Borough School District administrator. July 13, 2012.

<sup>&</sup>lt;sup>194</sup> See footnote 191.

<sup>&</sup>lt;sup>196</sup> Airport information retrieved November 21, 2011 from www.airnav.com.

<sup>&</sup>lt;sup>197</sup> See footnote 189.

<sup>198</sup> Ibid.

# **Involvement in North Pacific Fisheries**

History and Evolution of Fisheries

Historically, Dena'ina Athabascan people had permanent village sites near Petersville, in the Susitna River drainage. In the spring, the Dena'ina established fish camps near their village sites, and during summer months they harvested and processed large quantities of Chinook, sockeye, and coho salmon. The salmon was dried and stored at permanent village sites. <sup>203</sup>

Today, residents of Petersville and the surrounding region continue to utilize salmon resources, as well as additional freshwater species, for subsistence and recreational fishing purposes. No commercial fisheries take place in the immediate vicinity of Petersville. Cook Inlet provides the nearest access to the ocean. A commercial salmon fishery takes place in Cook Inlet. <sup>204</sup> Gulf of Alaska (GOA) waters beyond Cook Inlet are encompassed by Federal Statistical and Reporting Area 630, Pacific Halibut Fishery Regulatory Area 3A, and the Central GOA Sablefish Regulatory Area.

# **Processing Plants**

The 2010 ADF&G Intent to Operate list did not list any registered processing plants in Petersville. The list did indicate that over 10 facilities were in operation in Anchorage that year, along with two in Wasilla.

#### Fisheries-Related Revenue

No information was reported between 2000 and 2010 regarding fisheries-related revenue earned in the community of Petersville (Table 3).

# Commercial Fishing

Between 2000 and 2010, no Petersville residents were involved in commercial fisheries in Alaska. No permits were held in federal or state fisheries (Table 4), and no residents held quota share accounts or quota shares in federal catch share fisheries for halibut, sablefish, or crab (Tables 6 through 8). No residents held commercial crew licenses or were the primary owner of a fishing vessel during the 2000-2010 period. Further, no vessels were homeported in Petersville (Table 5). Given the lack of fish-buyers or processing facilities in the community between 2000 and 2010 (Table 5), no landings and ex-vessel revenue were generated in Petersville (Table 9). In addition, the lack of vessel owners in Petersville (Table 5) led to a lack of landings and ex-vessel revenue generated by local residents (Table 10).

<sup>&</sup>lt;sup>203</sup> Fall, James and Dan Foster. 1987. *Fish and Game Harvest and Use in the Middle Susitna Basin*. Retrieved May 23, 2012 from http://www.subsistence.adfg.state.ak.us/TechPap/tp143.pdf.

<sup>&</sup>lt;sup>204</sup> Clark, McGregor, Mecum, Krasnowski and Carroll. 2006. The Commercial Salmon Fishery in Alaska. *Alaska Fisheries Research Bulletin* 12(1):1-146. Alaska Dept. of Fish and Game. Retrieved January 4, 2012 from http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1.pdf.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	n/a										
Shared Fisheries Business Tax <sup>1</sup>	n/a										
Fisheries Resource Landing Tax <sup>1</sup>	n/a										
Fuel transfer tax <sup>2</sup>	n/a										
Extraterritorial fish tax <sup>2</sup>	n/a										
Bulk fuel transfers <sup>1</sup>	n/a										
Boat hauls <sup>2</sup>	n/a										
Harbor usage <sup>2</sup>	n/a										
Port/dock usage <sup>2</sup>	n/a										
Fishing gear storage on public land <sup>3</sup>	n/a										
Marine fuel sales tax <sup>3</sup>	n/a										
Total fisheries-related revenue <sup>4</sup>	n/a										
Total municipal revenue <sup>5</sup>	n/a										

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

<sup>&</sup>lt;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.

<sup>&</sup>lt;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.

<sup>&</sup>lt;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>&</sup>lt;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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) 1	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) 1	Total permits	0	0	0	0	0	0	0	0	0	0	0
` ,	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries	Total permits	0	0	0	0	0	0	0	0	0	0	0
Permits <sup>1</sup>	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Herring (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other Finfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Total CFEC Permits <sup>2</sup>	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	-	-	-	-	-	-	-	-	-	-	-
lar day in the	Permit holders	0	0	0	0	0	0	0	0	0	0	0

<sup>&</sup>lt;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>&</sup>lt;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 Petersville: 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 Petersville <sup>2</sup>	Total Net Lbs Landed In Petersville <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Petersville <sup>2,5</sup>
2000	0	0	0	0	0	0	0	\$0
2001	0	0	0	0	0	0	0	\$0
2002	0	0	0	0	0	0	0	\$0
2003	0	0	0	0	0	0	0	\$0
2004	0	0	0	0	0	0	0	\$0
2005	0	0	0	0	0	0	0	\$0
2006	0	0	0	0	0	0	0	\$0
2007	0	0	0	0	0	0	0	\$0
2008	0	0	0	0	0	0	0	\$0
2009	0	0	0	0	0	0	0	\$0
2010	0	0	0	0	0	0	0	\$0

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

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

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

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (lbs)
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 Petersville: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (lbs)
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 Lbs and Ex-vessel Revenue, by Species, in Petersville: 2000-2010.

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

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.]

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

\$0

\$0

\$0

\$0

\$0

\$0

\$0

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\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

Pollock

Salmon

 $Total^2$ 

Sablefish

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

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

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

Total Net Pounds <sup>1</sup>											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	0	0	0	0	0	0	0	0	0	0	0
Halibut	0	0	0	0	0	0	0	0	0	0	0
Herring	0	0	0	0	0	0	0	0	0	0	0
Other Groundfish	0	0	0	0	0	0	0	0	0	0	0
Other Shellfish	0	0	0	0	0	0	0	0	0	0	0
Pacific Cod	0	0	0	0	0	0	0	0	0	0	0
Pollock	0	0	0	0	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0	0	0	0	0
Salmon	0	0	0	0	0	0	0	0	0	0	0
$Total^2$	0	0	0	0	0	0	0	0	0	0	0

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

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.]

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

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

## Recreational Fishing

Between 2000 and 2010, no active sport fish guide businesses or licensed sport fish guides were registered in the community of Petersville. Further, no residents purchased sportfishing licenses during this period, and no sportfishing licenses were sold in the community. However, these numbers do not reflect the activity of the large number of individuals who reside in Petersville on a seasonal basis, and for whom sport hunting and fishing are an important part of the local lifestyle. <sup>205</sup>

It is important to note that recreational fishing is a popular activity in the region generally. Petersville is located within Alaska Sport Fishing Survey Area M – Susitna River drainage. Information is available about freshwater sport fishing only at this regional level. Between 2000 and 2010, non-Alaska resident anglers fished an average of 57,330 days per year, while Alaska resident anglers fished an average of 118,222 days per year. This information about sport fishing trends in Petersville and the Susitna River drainage is presented in Table 11.

Table 11. Sportfishing trends, Petersville: 2000-2010
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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 Petersville <sup>2</sup>	Freshwater Angler Days Fished – Non- residents <sup>3</sup>	Freshwater Angler Days Fished – Alaska Residents <sup>3</sup>
2000	0	0	0	0	64,141	177,316
2001	0	0	0	0	71,249	128,658
2002	0	0	0	0	59,863	126,516
2003	0	0	0	0	56,844	131,687
2004	0	0	0	0	56,934	130,366
2005	0	0	0	0	68,753	100,803
2006	0	0	0	0	63,255	109,462
2007	0	0	0	0	58,471	115,578
2008	0	0	0	0	49,911	98,827
2009	0	0	0	0	40,797	99,404
2010	0	0	0	0	40,414	81,821

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.]

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<sup>&</sup>lt;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).

<sup>&</sup>lt;sup>205</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.

The Alaska Statewide Harvest Survey, <sup>206</sup> conducted by ADF&G between 2000 and 2010, did not report on species targeted by private anglers in Petersville. However, the survey noted the following species targeted by sport fisheries downstream in the community of Willow during the 2000-2010 period. In freshwater, anglers caught all five species of salmon, rainbow trout, Dolly Varden, Arctic grayling, northern pike, burbot, and smelt. Anglers from Willow also traveled to saltwater to fish for Pacific halibut, rockfish, lingcod, and Pacific cod. The survey also noted sport harvest of razor clams, hardshell clams, and shrimp by Willow sport fishers.

Given the lack of sportfish businesses, no kept/release log book data were reported for fishing charters out of Petersville between 2000 and 2010. 207

# Subsistence Fishing

Subsistence activities are an important part of the local lifestyle in Petersville. <sup>208</sup> Very little information was reported by ADF&G regarding subsistence harvest activities in Petersville between 2000 and 2010. The low population of permanent residents in the community may affect statistics reported here, as the subsistence harvest activities of seasonal residents may be reported for the community in which they make their primary residence.

In 2008, one subsistence salmon permit was issued to a Petersville household. The permit was returned that year, and the household reported harvesting 14 sockeye salmon. This information is presented in Table 13. No information was reported by management agencies regarding per capita subsistence harvest, the percentage of Petersville households participating in subsistence activities between 2000 and 2010 (Table 12), subsistence harvest of halibut (Table 14) or marine mammals (Table 15) during the 2000-2010 period.

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<sup>&</sup>lt;sup>206</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).

September 2011).

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

208 See footnote 205.

Table 12. Subsistence Participation by Household and Species, Petersville: 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, Petersville: 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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	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	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	1	1	n/a	n/a	n/a	n/a	14	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>&</sup>lt;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>&</sup>lt;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, Petersville: 2003-2010.

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

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

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

Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

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

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

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

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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.

# Skwentna (SKWENT-nuh)

# **People and Place**

Location <sup>209</sup>



Skwentna lies in the Yentna River Valley, on the south bank of the Skwentna River at its junction with Eight Mile Creek. The community is located 70 air miles northwest of Anchorage in the Matanuska-Susitna (Mat-Su) Borough. Skwentna is in the Anchorage Recording District and the Matanuska-Susitna Census Area.

Demographic Profile 210

In 2010, there were 37 inhabitants in Skwentna, making it the 310<sup>th</sup> largest of 352 total Alaskan communities with recorded populations that year. Overall the population has decreased since 1990, though the population rose in 2000 and then declined again according to the U.S. Decennial Census. The U.S. Decennial Census shows a much steeper rate of decline than Alaska Department of Labor estimate of permanent residents. The change in population from 1990 to 2010 is shown in Table 1. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders estimated that approximately 200 individuals come to Skwentna each year as seasonal workers or transients in addition to the population of permanent residents, and the population reaches its annual peak during the summer months.

In the 2010 U.S. Decennial Census, 100% of Skwentna residents identified themselves as White. The percentage of residents identifying themselves as White increased by 7.2% between 2000 and 2010, with corresponding decreases in the percentage of the population identifying themselves as American Indian and Alaska Native and two or more races. Changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

In 2010, the average household size in Skwentna was 1.85, a decrease from 2.7 persons per household in 1990 and 2.22 in 2000. The total number of households decreased overall, from 31 in 1990 to 50 in 2000 to 20 in 2010. Of the 353 total housing units surveyed for the 2010 U.S. Decennial Census, 18 were owner-occupied, two were renter occupied, and 333 were vacant, though 325 of the units reported as vacant are used seasonally. Throughout this period, no residents of Skwentna were reported to be living in group quarters.

<sup>&</sup>lt;sup>209</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.

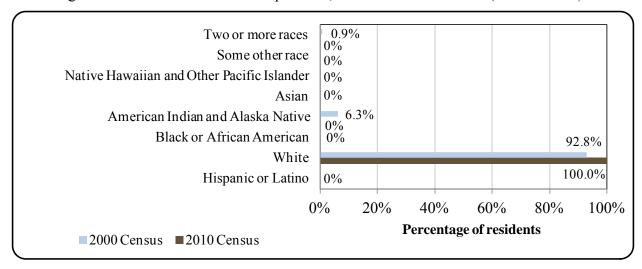
<sup>&</sup>lt;sup>210</sup> U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

Table 1. Population in Skwentna 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	85	-
2000	111	<del>-</del>
2001	-	95
2002	=	88
2003	=	95
2004	-	82
2005	=	75
2006	-	73
2007	=	84
2008	=	79
2009	-	73
2010	37	-

<sup>&</sup>lt;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.

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



The gender makeup in Skwentna in 2010 was 59.5% male and 40.5% female, more skewed than the state as a whole (52% male, 48% female). The median age was estimated to be 52.8 years, higher than both the U.S. national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010 the largest percentage of residents fell within the age category 50 to 59 years old, while the next largest percentage fell within the age category 40 to 40 years old. There were no Skwentna residents under age nine or over age 80 in 2010. By comparision, in

<sup>&</sup>lt;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.

2000 a greater percentage of the population was made up of residents under the age of 20 (24.3% in 2000 compared to 11.7% in 2010), and a lower percentage of the population was made up of individuals aged 60 or older (5% in 2000 compared to 24.3% in 2010). This shift could be related to the closure of the Skwentna school in 2000 (see the *Educational Opportunities* section). The overall population structure of Skwentna in 2000 and 2010 is shown in Figure 2.

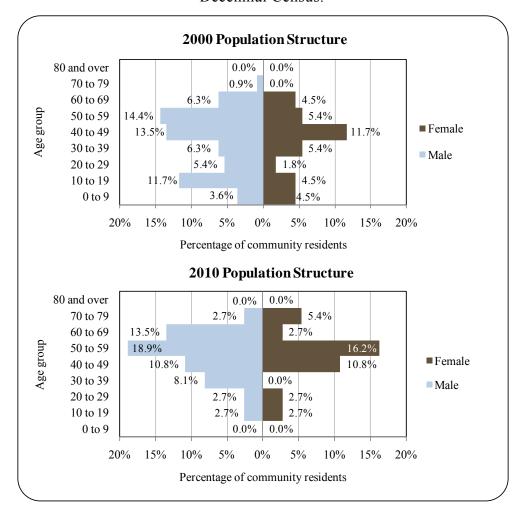


Figure 2. Population Age Structure in Skwentna Based on the 2000 and 2010 U.S. Decennial Census.

The 2006-2010 American Community Survey (ACS) did not provide any information regarding educational attainment in Skwentna in 2010. Although the U.S. Decennial Census recorded 37 individuals as permanent residents in Skwentna in 2010, the ACS estimated a population of zero. <sup>211,212</sup> Given the small population of Skwentna in 2010, it is useful to look

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<sup>&</sup>lt;sup>211</sup> 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.

back at education statistics in the year 2000 as well, when the population was slightly higher (111 residents). Based on the 2000 U.S. Census, <sup>213</sup> 95% of Skwentna residents aged 25 and older held a high school diploma or higher degree, compared to 88.3% of Alaskan residents overall that year. Also based on the 2000 Census, 5% of Skwentna residents aged 25 and older had less than a ninth grade education, compared to 4.1% of Alaskan residents overall; 28.8% had a high school diploma or equivalent, compared to 27.9% of Alaskan residents overall; 7.5% had some college but no degree, compared to 28.6% of Alaskan residents overall; 22.5% had an Associate's degree, compared to 7.2% of Alaskan residents overall; and 36.3% of Skwentna residents had a Bachelor's degree, compared to 16.1% of Alaskan residents overall. No Skwentna residents held graduate or professional degrees in 2000, compared to 8.6% of Alaskans overall.

## History, Traditional Knowledge, and Culture

Dena'ina Athabascans have fished and hunted along the Skwentna and Yentna Rivers for centuries. Dena'ina villages were occupied in the Yentna River Valley until the 1800s, and continued to be used as seasonal fishing and hunting camps by the Susitna Station and Kroto Creek Dena'ina until around 1930.<sup>214</sup> The gold rush of the late 1800s brought hundreds of prospectors to the Susitna River basin.<sup>215</sup> An extensive network of trails and wagon roads was established by early explorers, mining companies, and the Alaska Road Commission. Old Skwentna is located along the route of the Iditarod Trail.<sup>216</sup> Many roadhouses were constructed along the trail to the Innoko Mining District, including the Old Skwentna Roadhouse. Prospectors, trappers, and Natives often used sled dogs to transport goods over the trail. Max and Belle Shellabarger homesteaded and started a guide service in 1923 and later a flying service and weather station. A post office was opened in 1937. After World War II, Morrison-Knudson built an airstrip, and in 1950 the U.S. Army established a radar station at Skwentna and a recreation camp at Shell Lake, 15 air miles from Skwentna. In the 1960s, state land disposals increased settlement. Skwentna residents are scattered over a large area of land. The community has a number of seasonal-use homes. There is a small local store, and area residents use snowmobiles or aircraft to travel to the post office.<sup>217</sup>

<sup>&</sup>lt;sup>212</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>&</sup>lt;sup>213</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). Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

Fall, J. and D. Foster. 1987. Fish and Game Harvest and Use in the Middle Susitna Basin. Retrieved May 23, 2012 from http://www.subsistence.adfg.state.ak.us/TechPap/tp143.pdf.

National Park Service, U.S. Dept. of the Interior. (2006). *Denali National Park and Preserve: Final South Denali Implementation Plan And Environmental Impact Statement*. Retrieved December 27, 2012 from http://www.matsugov.us/denali/documents/proof book 000.pdf.

<sup>&</sup>lt;sup>216</sup> Stanek, R.T. 1987. *Historical and Contemporary Trapping in the Western Susitna Basin*. Alaska Department of Fish and Game, Technical Paper No. 134. Retrieved December 21, 2012 from http://www.arlis.org/docs/vol1/A/20704265.pdf.

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.

# **Natural Resources and Environment**

January temperatures in Skwentna range from -30 to 33 °F (-34.4 to 0.6 °C), and July temperatures can vary from 42 to 83 °F (5.6 to 28.3 °C). Annual precipitation averages 28 inches, with 70 inches of snowfall. <sup>218</sup> In a survey conducted by the AFSC in 2011, community leaders reported that Skwentna's economy is reliant upon the following natural resource-based industries: mining, logging, fishing, ecotourism, and sport hunting/fishing.

Skwentna is located near Denali National Park and Preserve. The following information about Denali National Park and Preserve (National Park) is from the U.S. National Park Service. Denali, the "High One," is the name Athabascan native people gave the massive peak that crowns the 600-mile-long Alaska Range. Denali is also the name of an immense national park and preserve created from the former Mount McKinley National Park. In 1917, Mount McKinley National Park was established as a game refuge. The park, including North America's highest peak, were named for former senator - later President - William McKinley. In 1980, the Alaska National Interest Lands Conservation Act (ANILCA) enlarged the boundary of the park by 4 million acres and redesignated it as Denali National Park and Preserve. The National Park exemplifies interior Alaska's character as one of the world's last great frontiers; its wilderness is largely unspoiled. 219

More than 650 species of flowering plants as well as many species of mosses, lichens, fungi, algae, and others grace the slopes and valleys of the National Park. Only plants adapted to long, cold winters and short growing seasons can survive in this subarctic wilderness. Permafrost ground underlies many areas of the park, where only a thin layer of topsoil is available to support life. After the continental glaciers retreated from most of the park 10,000 to 14,000 years ago, hundreds of years were required to begin building new soils and revegetation. The dynamic glaciated landscape provides large rivers, countless lakes and ponds, and unique landforms which form the foundation of the ecosystems that thrive in the National Park. 220

The National Park is well-known for its diversity of wildlife. There are 39 species of mammals, 169 species of birds, 14 species of fish, and one species of amphibian known to occur in the area. There are no reptiles recorded in the National Park. Animal life and activity is dictated by the seasons. Winter is the longest season and the animals that are year-round residents are well-adapted to life in the subarctic. The brief spring season brings the return of 80% of the National Park's bird life, the waking of hibernating bears, and an increase in activity levels of wildlife. Summer is a time for raising young and preparing for migration, hibernation, or survival during the winter. Summer also brings hordes of insects, including mosquitoes. In late summer, king and chum salmon run in the multitude of streams and rivers. In autumn, migrating birds fill the skies and bull moose gather their harems of cows for the mating season. <sup>221</sup>

<sup>218</sup> Ibid

<sup>&</sup>lt;sup>219</sup> U.S. National Park Service. 2012. *Denali National Park and Preserve: Nature and Science*. Retrieved from http://www.nps.gov/dena/naturescience/index.htm on March 29, 2012.
<sup>220</sup> Ibid

<sup>&</sup>lt;sup>221</sup> Ibid.

Natural hazards that have been identified as highly likely to occur in the Mat-Su Borough include floods, wildfire, earthquake and volcanic activity. Avalanche and severe weather were rated a moderately likely to occur, and drought was rated at a low probability of occurrence. <sup>222</sup>

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in the Skwentna area as of December 2012. 223

# **Current Economy**<sup>224</sup>

Historically, commercial trapping and personal use harvest of fish and wildlife have played important roles in the economy of western Susitna basin communities like Skwentna, and employment patterns have been seasonal. <sup>225,226</sup> Today, wage employment in Skwentna is also provided by local lodges, the post office, and the airstrip. <sup>227</sup>

Although the 2010 Decennial Census reported 37 residents age 16 or over in Skwentna in 2010, household surveys conducted for the 2006-2010 ACS did not provide similar coverage of local residents. <sup>228,229</sup> Given this, the civilian labor force figure provided by the 2006-2010 ACS was estimated to be zero, and no earnings were reported in Skwentna. Due to the lack of 2010 data, only 2000 income estimates are discussed here.

Based on the 2000 Decennial Census, in 2000, the per capita income in Skwentna was \$23,994 and the median household income was \$16,250. Taking inflation into account by converting the 2000 values to 2010 dollars, <sup>230</sup> the real per capita income in 2000 is shown to have been \$31,552, and the real median household income in 2000 was \$21,369. In the year 2000, Skwentna ranked 42<sup>nd</sup> of 344 Alaskan communities with per capita income data that year, and 322<sup>nd</sup> in median household income, out of 341 Alaskan communities with household income data. That year, 5.8% of Skwentna residents were below the poverty level, compared to 9.4% of Alaskan residents overall.

An estimate of 2010 per capita income can be generated using economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska

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<sup>&</sup>lt;sup>222</sup> Matanuska-Susitna Borough Dept. of Emergency Services. 2008. *All-Hazards Mitigation Plan, Phase One: Natural Hazards*. Retrieved May 24, 2012 from http://ww1.matsugov.us/.

<sup>&</sup>lt;sup>223</sup> Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites by Region*. Retrieved April 17, 2012 from http://dec.alaska.gov/spar/csp/list.htm.

<sup>&</sup>lt;sup>224</sup> Unless otherwise noted, all monetary data are reported in nominal values.

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.

Stanek, Ronald T. 1987. *Historical and Contemporary Trapping in the Western Susitna Basin*. Alaska Dept. of Fish and Game, Division of Subsistence, Technical Paper No. 134. Retrieved December 31, 2012 from http://www.arlis.org/docs/vol1/A/20704265.pdf.

<sup>&</sup>lt;sup>227</sup>See footnote 225.

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>&</sup>lt;sup>229</sup> U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

<sup>&</sup>lt;sup>230</sup>Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gov/research/cpi/inflationcalc.htm).

Department of Labor and Workforce Development (DOLWD). The ALARI database estimated that there were 65 residents age 16 and over in the civilian labor force in 2010. Of these, 16 residents were estimated to be employed that year. <sup>231</sup> If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Skwentna in 2010 is \$11,756. <sup>232</sup> In addition, an estimate based on the ALARI database indicates that the unemployment rate in 2010 was 7.7%, lower than the ALARI statewide unemployment rate estimate of 11.5%. <sup>233</sup>

The per capita estimate based on the ALARI database is lower than the real per capita income reported by the 2000 Census, providing evidence that per capita income may have decreased in Skwentna between 2000 and 2010. The possible decrease in per capita income is reflected in the fact that Skwentna met the Denali Commission's criteria as a "distressed community" in 2010, 234 indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010. However, given the different data sources used to generate the 2000 and 2010 statistics, caution should be used when considering this information. It should also be noted that both U.S. Census and DOLWD data are based on wage earnings, and these income figures do not take into account the value of subsistence within the local economy.

Also due to Skwentna's small population size, the 2006-2010 ACS did not estimate employment statistics for 2010. 235 Due to the lack of information for 2010, Figure 3 presents employment by industry in the year 2000, and employment is broken down by occupation for the year 2000 in Figure 4. Of 80 Skwentna residents aged 16 or older in 2000, 59 (73.8%) were reported to be the civilian labor force that year, compared to 67.6% that were in the civilian labor force statewide. No Skwentna residents were reported to be unemployed, compared to a statewide unemployment rate of 6.1% in 2000. That year, all 59 employed individuals in Skwentna worked in the private sector. The majority of residents (67.8%) in 2000 worked in tourism related industries (e.g., food services, recreation, etc.) and service occupations (45.8%). An estimated 10.2% of residents worked in natural resource based industries, which includes fishing. However, the number of individuals employed in farming, fishing, and forestry industries may be underestimated in census statistics as fishermen may hold another job and may characterize their employment accordingly.

An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 16 employed residents in 2010, of which 5 were employed in leisure and hospitality industries, 4 in trade, transportation, and utilities, 3 in professional and business services, 2 in construction, 1 in natural resources and mining, and 1 in information. As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

Alaska Dept. of Labor and Workforce Development (n.d.). *Alaska Local and Regional Information*. Retrieved May 22, 2012 from: http://live.laborstats.alaska.gov/alari/.

<sup>&</sup>lt;sup>232</sup> See footnotes 228 and 231.

<sup>&</sup>lt;sup>233</sup> See footnote 231.

<sup>&</sup>lt;sup>234</sup> Denali Commission. 2011. *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.

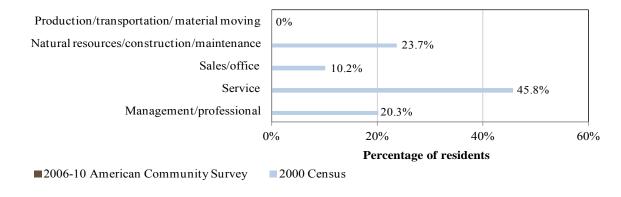
<sup>&</sup>lt;sup>235</sup> See footnote 228.

<sup>&</sup>lt;sup>236</sup> See footnote 231.

Public administration 0% Other services, except public administration 11.9% Arts/entertain/recreation/accommod/food services 67.8% Educ. services, health care, social assist. 0% Profess/scientific/mgmt/admin/waste mgmt 10.2% Finance/insurance/real estate 0% Information 0% Transpor/warehousing/utilities 0% Retail trade 0% Wholesale trade 0% Manufacturing 0% Construction 0% Agricul./forestry/fishing/hunting/mining 10.2% 40% 60% 0% 20% 80% Percentage of residents ■2006-10 American Community Survey 2000 Census

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

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



#### Governance

Skwentna is an unincorporated community located in the Mat-Su Borough. <sup>237</sup> The community is represented by the Skwentna Community Council, but this body has been inactive in recent years. Since it is unincorporated, Skwentna does not maintain a municipal budget with community revenue and expenditures. Between 2000 and 2010, Skwentna did not receive State or Community Revenue Sharing contributions or any state or federal fisheries-related grants (Table 2). A federally-recognized tribe is not present in Skwentna.

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<sup>&</sup>lt;sup>237</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.

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

Year	Total Municipal Revenue <sup>1</sup>	Sales Tax Revenue <sup>2</sup>	State/Community Revenue Sharing <sup>3,4</sup>	Fisheries-Related Grants (State and Federal) <sup>5</sup>
2000	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a

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

The nearest offices of the Alaska Department of Fish and Game (ADF&G) and Department of Natural Resources are located in Palmer. The nearest offices of the National Marine Fisheries Service (NMFS), Alaska Department of Commerce, Community, and Economic Development, Bureau of Citizenship and Immigration Services, and U.S. Immigration and Customs Enforcement are located in Anchorage.

#### **Infrastructure**

Connectivity and Transportation

There is no road access between Skwentna and the nearest state highway system, the George Parks Highway corridor, located approximately 40 miles east of the community. Residents are dependent upon air travel and snowmobiles. In a survey conducted by the AFSC in 2011, community leaders also indicated that water taxi service is available in the area. A state-owned 3,400 ft long by 75 ft wide gravel airstrip is available. There is also a private airstrip and float plane access, located at Alexander Lake, 15 miles to the southeast. Regularly scheduled commercial air service is not available to the Skwentna airport. Residents must reach Anchorage via private or charter aircraft. 239

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<sup>&</sup>lt;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.

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

<sup>&</sup>lt;sup>5</sup>Alaska Dept. of Comm. and Rural Affairs. (n.d.). Community Funding Database. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dca/commdb/CF Grants.htm.

<sup>238</sup> Ibid.

<sup>&</sup>lt;sup>239</sup> Ibid.

#### **Facilities**

A number of homes in Skwentna have individual water wells and septic systems, but very few homes are fully plumbed. Outhouses are the primary means of sewage disposal. There is no central electric system, and residents provide power via individual generator sets. A community refuse incinerator is available at an unpermitted dump site near the airport, operated by the borough. The site is currently being used by several families, but most residents burn and bury their own refuse. Law enforcement services are provided by state troopers in Talkeetna and fire and rescue services are provided by the Lake Creek/Skwentna First Responders. <sup>240</sup>

In a survey conducted by the AFSC in 2011, community leaders reported that, in the last ten years, Skwentna has completed a new landfill/solid waste site and a new post office. With regard to fisheries-related infrastructure, community leaders indicated that, although no dock space is available for permanent or transient vessels to moor, there is shore moorage available in the river for vessels up to 100 ft long, and Skwentna is equipped to handle fuel barges, landing craft, and water taxis. They noted that vessels basing in Skwentna are typically under 60 ft in length, and local boat traffic is primarily comprised of charter boats, private pleasure boats, barges, and landing craft. Fisheries-related services available in Skwentna include sale of boat fuel and fishing gear and tackle, boat repair (electrical, welding, and mechanical services), dry dock storage, and fishing lodges. For fisheries-related businesses and services not available in Skwentna, community leaders indicated that residents travel to Willow, Wasilla, or Anchorage.

# Medical Services<sup>241</sup>

Medical care is available at the Valley Hospital located in Palmer (approximately 80 miles from Skwentna). Alternate health care is provided by the Lake Creek/Skwentna First Responders. Emergency services have highway and river access and are provided by the 911 telephone service and volunteers.

# **Educational Opportunities**

Through the 1999-2000 school year, the Mat-Su Borough administered a small school in Skwentna that offered grades kindergarten through high school, but since the school has been closed since the fall of 2000 due to lack of sufficient enrollment. 242,243 As of 2012, the nearest elementary schools are Trapper Creek Elementary and Talkeetna Elementary, and the nearest Junior/Senior high school is Su-Valley High School, located near Talkeetna along the George Parks Highway. Some students may also be homeschooled through correspondence programs such as Mat-Su Central School, or other state, federal, or church correspondence programs. 244

<sup>241</sup> Ibid.

<sup>&</sup>lt;sup>240</sup> Ibid.

<sup>&</sup>lt;sup>242</sup> Stanek, Ronald T. 1987. Historical and Contemporary Trapping in the Western Susitna Basin. Alaska Department of Fish and Game, Technical Paper No. 134. Retrieved December 21, 2012 from http://www.arlis.org/docs/vol1/A/20704265.pdf.

<sup>&</sup>lt;sup>243</sup> Alaska Dept. of Education and Early Development. (2012). Statistics and Reports. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/. <sup>244</sup> Personal communication, Mat-Su Borough School District administrator. July 13, 2012.

# **Involvement in North Pacific Fisheries**

History and Evolution of Fisheries

Historically, residents of Skwentna have mainly participated in recreational and subsistence fishing and have had limited participation in commercial fishing. 245,246 The area drained by the Skwentna and Yentna rivers has many lakes and small streams that support all five species of salmon in Alaska. A number of fly-in fishing lodges are present in the area to taking advantage of the fine fishing opportunities. Most are located on the Talachulitna River, Lake Creek, and Fish Creek. Guests target Chinook salmon from June to mid-July, pink and sockeye salmon in July and early August, and coho salmon from August to early September. Rainbow trout, grayling, Dolly Varden, and northern pike are also important sport species. Local residents also participate in a state-managed subsistence fish wheel fishery for salmon, which has taken place in main stem of the Yentna River since 1998. Season limits of 25 salmon per head of household plus 10 salmon for each dependent are in place for the fishery, as well as a 2,500 total season limit. All Chinook salmon and rainbow/steelhead trout must be returned alive to the water. For more information about the fish wheel fishery, see the *Subsistence Fishing* section below.

No commercial fisheries take place in the immediate vicinity of Skwentna. The community is located approximately 50 miles inland, north of Cook Inlet, the nearest marine area. A number of state-managed commercial fisheries take place in Cook Inlet, including fisheries for salmon, Pacific halibut, and scallops, as well as commercial harvest of razor clams along the shoreline. <sup>250,251</sup> Gulf of Alaska (GOA) waters beyond Cook Inlet are encompassed by Federal Statistical and Reporting Area 630, Pacific Halibut Fishery Regulatory Area 3A, and the Central GOA Sablefish Regulatory Area.

In a survey conducted by the AFSC in 2011, community leaders indicated that Skwentna actively participates in fisheries management processes in Alaska. The community participates through sending a representative to the North Pacific Fisheries Management Council committees or advisory groups and Board of Fisheries meetings, a representative that sits on regional fisheries advisory and/or working groups run by the ADF&G, and through a representative that participates in the Federal Subsistence Board or Federal Subsistence Regional Advisory Council

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<sup>&</sup>lt;sup>245</sup> See footnote 242.

 <sup>&</sup>lt;sup>246</sup> Fall, James and Dan Foster. 1987. Fish and Game Harvest and Use in the Middle Susitna Basin. Retrieved May
 23, 2012 from http://www.subsistence.adfg.state.ak.us/TechPap/tp143.pdf.
 <sup>247</sup> Official State of Alaska Vacation and Travel Information. 2012. Southcentral: Skwentna Overview. Retrieved on

<sup>&</sup>lt;sup>247</sup> Official State of Alaska Vacation and Travel Information. 2012. *Southcentral: Skwentna Overview*. Retrieved on May 9, 2012 from http://www.travelalaska.com/Destinations/Communities/Skwentna.aspx.

Alaska Dept. of Fish and Game. 2009. *Alaska Subsistence Salmon Fisheries*, 2007 Annual Report. Retrieved July 10, 2012 from http://www.subsistence.adfg.state.ak.us/techpap/TP346.pdf.

<sup>&</sup>lt;sup>249</sup> Holen, David and James Fall. 2011. *Overview of Subsistence Salmon Fisheries in the Tyonek Subdistrict and Yentna River, Cook Inlet, Alaska*. Alaska Dept. of Fishand Game, Division of Subsistence, Special Publication No. BOF 2011-01. Retrieved December 31, 2012 from http://www.adfg.alaska.gov/specialpubs/SP2\_SP2011-001.pdf. <sup>250</sup> Clark, McGregor, Mecum, Krasnowski and Carroll. 2006. "The Commercial Salmon Fishery in Alaska." *Alaska Fisheries Research Bulletin* 12(1):1-146. Alaska Dept. of Fish and Game. Retrieved January 4, 2012 from http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1.pdf.

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

process. Skwentna is also the meeting location of the Mt. Yenlo Fish and Game Advisory Committee. Advisory committees are formed by local community members as forums to discuss fish and wildlife issues and provide recommendations to the Alaska Board of Fisheries and Board of Game. <sup>252</sup>

When asked to describe challenges facing Swentna's fishing economy, community leaders reported in the 2011 AFSC survey that declines in Chinook and sockeye salmon populations in the Swentna and Yentna Rivers are a serious concern, and have led to restrictions in both sport and subsistence salmon harvests in the area. They expressed the opinion that restoration of sockeye, chum, coho, and Chinook salmon runs in the Skwentna area will require reduced interception of salmon by commercial net fisheries in Cook Inlet. They also expressed the belief that salmon by-catch in the offshore pollock fishery is detrimental to Chinook salmon runs bound for the Skwentna River. Community leaders also observed positive results from management efforts to control northern pike populations, which they felt allowed salmon stocks to rebound.

# **Processing Plants**

According to the ADF&G's 2010 Intent to Operate list, Skwentna does not have a registered shore-based processing plant. The nearest processing plant is located in Anchorage.

#### Fisheries-Related Revenue

According to the 2011 AFSC survey, community leaders reported that no revenues were received from fisheries-related taxes or fees in Skwentna in 2010. Likewise, Alaska state agencies reported no fisheries-related revenue in Skwentna between 2000 and 2010 (Table 3).

# Commercial Fishing

Between 2000 and 2010, no Skwentna residents held Federal Fisheries Permits, federal License Limitation Program permits, or state-issued Commercial Fisheries Entry Commission (CFEC) permits (Table 4). In addition, there were no crew license holders, fish buyers, shore-side processing facilities, or vessels landing catch in Skwentna between 2000 and 2010. From 2000 to 2004, the number of vessels primarily owned by Skwentna residents varied between 28 and 32, and the number of vessels registered as homeported in the community ranged from 43 to 51. However, between 2005 and 2010, zero vessels were primarily owned by Skwentna residents or homeported there. Information about the characteristics of the commercial fishing sector in Skwentna is presented in Table 5. There were no Skwentna residents holding halibut (Table 6) or sablefish (Table 7) quota share accounts or quota shares in federal catch share fisheries between 2000 and 2010. There were also no Skwentna residents holding crab share accounts or quota shares between 2005 and 2010 (Table 8). There were no landings or associated ex-vessel revenue reported in Skwentna between 2000 and 2010 (Table 9), nor were there any landings or associated ex-vessel revenue reported by Skwentna residents during this period (Table 10).

<sup>&</sup>lt;sup>252</sup> Alaska Dept. of Fish and Game. 2012. *Advisory Committees*. Retrieved December 20, 2012 from http://www.adfg.alaska.gov/index.cfm?adfg=process.advisory.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	n/a										
Shared Fisheries Business Tax <sup>1</sup>	n/a										
Fisheries Resource Landing Tax <sup>1</sup>	n/a										
Fuel transfer tax <sup>2</sup>	n/a										
Extraterritorial fish tax <sup>2</sup>	n/a										
Bulk fuel transfers <sup>1</sup>	n/a										
Boat hauls <sup>2</sup>	n/a										
Harbor usage <sup>2</sup>	n/a										
Port/dock usage <sup>2</sup>	n/a										
Fishing gear storage on public land <sup>3</sup>	n/a										
Marine fuel sales tax <sup>3</sup>	n/a										
Total fisheries-related revenue <sup>4</sup>	n/a										
Total municipal revenue <sup>5</sup>	n/a										

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

<sup>&</sup>lt;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.

<sup>&</sup>lt;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.

<sup>&</sup>lt;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>&</sup>lt;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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) 1	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) 1	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries	Total permits	0	0	0	0	0	0	0	0	0	0	0
Permits <sup>1</sup>	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	=	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Herring (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	_	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other Finfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	_	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Total CFEC Permits <sup>2</sup>	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	-	-	-	-	-	-	-	-	-	-	-
	Permit holders	0	0	0	0	0	0	0	0	0	0	0

<sup>&</sup>lt;sup>T</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>&</sup>lt;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 Skwentna: 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 Skwentna <sup>2</sup>	Total Net Lbs Landed in Skwentna <sup>2,5</sup>	Total Ex- Vessel Value of Landings in Skwentna <sup>2,5</sup>
2000	0	0	0	29	51	0	0	\$0
2001	0	0	0	32	50	0	0	\$0
2002	0	0	0	31	44	0	0	\$0
2003	0	0	0	28	43	0	0	\$0
2004	0	0	0	31	46	0	0	\$0
2005	0	0	0	0	0	0	0	\$0
2006	0	0	0	0	0	0	0	\$0
2007	0	0	0	0	0	0	0	\$0
2008	0	0	0	0	0	0	0	\$0
2009	0	0	0	0	0	0	0	\$0
2010	0	0	0	0	0	0	0	\$0

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

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

Year	Number of Halibut Quota Share	Halibut Quota	Halibut IFQ Allotment (Pounds)
	Account Holders	Shares Held	
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 Skwentna: 2000-2010.

Year	Number of Sablefish Quota Share Account	Sablefish Quota Shares Held	Sablefish IFQ Allotment (Pounds)		
	Holders				
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 Skwentna: 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 Skwentna: 2000-2010.

				Total	Net Lbs	I					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	0	0	0	0	0	0	0	0	0	0	0
Halibut	0	0	0	0	0	0	0	0	0	0	0
Herring	0	0	0	0	0	0	0	0	0	0	0
Other Groundfish	0	0	0	0	0	0	0	0	0	0	0
Other Shellfish	0	0	0	0	0	0	0	0	0	0	0
Pacific Cod	0	0	0	0	0	0	0	0	0	0	0
Pollock	0	0	0	0	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0	0	0	0	0
Salmon	0	0	0	0	0	0	0	0	0	0	0
$Total^2$	0	0	0	0	0	0	0	0	0	0	0
		j	Ex-vessel	Value (1	nominal	U.S. doll	lars)				
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Finfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Halibut	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Herring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Groundfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Shellfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pacific Cod	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pollock	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sablefish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Salmon	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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.]

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

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

 $Total^2$ 

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

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

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

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.]

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

\$0

## Recreational Fishing

Salmon

 $Total^2$ 

Although between 4 and 13 active sport fish guide businesses were registered in Skwentna between 2000 and 2010, none were active during this period. The number of licensed sport fish guide present varied between 7 and 26 per year. In 2010, 52 sportfishing licenses were sold to Skwentna residents (irrespective of the point of sale), a decline from 71 licenses sold to community residents in 2010. The number of sportfishing licenses sold in Skwentna also declined over the period, from 315 in 2000 to 70 in 2010. The fact that a greater number of licenses were sold locally than the number of residents that purchased licenses suggests that sportfishing activities attract visitors to the Skwentna area.

Recreational fishing is a popular activity in the region generally. Skwentna is located within Alaska Sport Fishing Survey Area M – Susitna River drainage. Information is available about freshwater sportfishing only at this regional level. Between 2000 and 2010, non-Alaska resident anglers fished an average of 57,330 days per year, while Alaska resident anglers fished an average of 118,222 days per year. This information about sportfishing trends in Skwentna and the Susitna River drainage is presented in Table 11.

<sup>&</sup>lt;sup>1</sup> Net lbs refers to the landed weight recorded in fish tickets.

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

Table 11. Sport Fishing Trends, Skwentna: 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 Skwentna <sup>2</sup>	Freshwater Angler Days Fished – Non- Residents <sup>3</sup>	Freshwater Angler Days Fished – Alaska Residents <sup>3</sup>
2000	0	23	71	315	64,141	177,316
2001	0	22	54	288	71,249	128,658
2002	0	20	62	220	59,863	126,516
2003	0	17	53	234	56,844	131,687
2004	0	16	54	279	56,934	130,366
2005	0	11	42	163	68,753	100,803
2006	0	7	43	128	63,255	109,462
2007	0	18	48	115	58,471	115,578
2008	0	26	44	114	49,911	98,827
2009	0	24	49	92	40,797	99,404
2010	0	19	52	70	40,414	81,821

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.]

The Alaska Statewide Harvest Survey, conducted by ADF&G between 2000 and 2010, noted the following species targeted by private anglers in Skwentna: Chinook salmon, coho salmon, sockeye salmon, rainbow trout, burbot, and northern pike. No kept/release log book data were reported for fishing charters out of Skwentna between 2000 and 2010. 254

In a survey conducted by the AFSC in 2011, community leaders noted that recreational fishing in Skwentna takes place from charter boats or party boats, private boats owned by local residents, private boats owned by non-residents, shore-based or dock fishing by local residents, and shore-based or dock fishing by non-residents. Community leaders also reported that the following species are targeted by recreational fishermen that use boats based in Skwentna: all five species of salmon, Dolly Varden char, and smelt.

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

<sup>&</sup>lt;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>&</sup>lt;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).

<sup>&</sup>lt;sup>253</sup> Alaska Department of Fish and Game. 2011. *Alaska Sport Fishing Survey results*, 2000-2010. ADF&G Division of Sport Fish, Alaska Statewide Harvest Survey project. Data compiled by Alaska Fisheries Information network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sf/sportfishingsurvey/ (Accessed September 2011).

# Subsistence Fishing

Subsistence harvest activities play an important role for Skwentna-area residents. According to research by ADF&G in past decades, subsistence harvests are generally higher in remote areas of the Mat-Su Borough such as Skwentna compared to communities located along road networks. <sup>255</sup> In the 2011 AFSC survey, community leaders indicated that subsistence fishing resources utilized most heavily by Skwentna residents include salmon, northern pike, whitefish, trout, and burbot. They also noted the importance of beaver and mink as local subsistence resources.

Between 2000 and 2010, no information was reported by management agencies regarding per capita subsistence harvest in Skwentna or the percentage of households utilizing various marine resources for subsistence purposes (Table 12). Likewise, no information was reported during this period regarding halibut (Table 14) or marine mammal harvests (Table 15). However, some information was reported between 2000 and 2008 regarding subsistence salmon permits issued to Skwentna households.

A personal use fish wheel fishery began in 1996 in the Upper Yentna and Skwentna Rivers. In 1998, the fishery transitioned to a subsistence designation, following a lawsuit that required the Alaska Board of Fisheries to revisit Skwentna residents' subsistence fishery proposal, and to consider new evidence of customary and traditional use of subsistence resources by residents of the Skwentna area. <sup>256</sup> In 2008, the most recent year for which data were available, seven subsistence salmon permits were issued to Skwentna households, an overall decline from 12 subsistence salmon permits issued in 2000. All seven of the permits issued in 2008 were reported to have been fished. While the amount of each species of salmon harvested under subsistence permits was variable from year to year during the 2000-2008 period, sockeye salmon were consistently harvested in greater numbers than other species. Data were not available regarding harvest of marine invertebrates and non-salmon fish between 2000 and 2010. This information regarding salmon, marine invertebrates, and non-salmon fish is presented in Table 13.

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<sup>&</sup>lt;sup>255</sup> Fall, James and Dan Foster. 1987. *Fish and Game Harvest and Use in the Middle Susitna Basin*. Retrieved May 23, 2012 from http://www.subsistence.adfg.state.ak.us/TechPap/tp143.pdf.

<sup>&</sup>lt;sup>256</sup> Holen, David and James Fall. 2011. *Overview of Subsistence Salmon Fisheries in the Tyonek Subdistrict and Yentna River, Cook Inlet, Alaska*. Alaska Dept. of Fish and Game, Division of Subsistence, Special Publication No. BOF 2011-01. Retrieved December 31, 2012 from http://www.adfg.alaska.gov/specialpubs/SP2 SP2011-001.pdf.

Table 12. Subsistence Participation by Household and Species, Skwentna: 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, Skwentna: 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	3	61	4	227	n/a	n/a
2001	10	9	n/a	1	28	7	309	n/a	n/a
2002	10	9	n/a	13	46	3	242	n/a	n/a
2003	11	9	n/a	6	64	n/a	331	n/a	n/a
2004	20	16	n/a	6	116	46	430	n/a	n/a
2005	11	11	n/a	25	34	24	155	n/a	n/a
2006	11	11	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	9	9	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	7	7	n/a	2	43	15	125	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>&</sup>lt;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>&</sup>lt;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, Skwentna: 2003-2010.

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

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

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

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

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

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

<sup>&</sup>lt;sup>1</sup> Frost, K.J., and Suydam, R.S. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. Journal of Cetacean Research and Management 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

<sup>&</sup>lt;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>&</sup>lt;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

# Talkeetna (towl-KEET-nuh)

# **People and Place**

Location <sup>257</sup>



Located at the junction of the Talkeetna and Susitna Rivers, Talkeetna lies 115 mi north of Anchorage at mi 226.7 of the Alaska Railroad. The paved Talkeetna Spur Road runs 14 mi east from the George Parks Highway at milepost 98.7. Talkeetna is located in the Talkeetna Recording District, the Matanuska-Susitna (Mat-Su) Census Area, and the Mat-Su Borough.

Demographic Profile <sup>258</sup>

In 2010, there were 876 inhabitants in Talkeetna, making it the 74<sup>th</sup> largest of 352 total Alaskan communities with recorded populations that year. Overall since 1990, the population of Talkeetna has increased substantially. The change in population from 1990 to 2010 is provided in Table 1. According to a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that an estimated 300 people come to Talkeetna each year as seasonal workers or transients between May and September.

A majority of Talkeetna residents identified themselves as White in 2010 (91.4%). Other ethnic groups present in Talkeetna that year included American Indian and Alaska Native (3.7%), two or more races (3.4%), some other race (0.2%), Native Hawaiian and Other Pacific Islander (0.5%), Asian (0.5%), Black or African American (0.3%), and Hispanic or Latino (1.8%). The percentage of residents identifying themselves as White, Hispanic or Latino, Asian, Native Hawaiian and Other Pacific Islander, and Black or African American increased between 2000 and 2010, with corresponding decreases in the percentage of the population identifying themselves as two or more races, some other race, and American Indian and Alaska Native. Changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

The average household size in Talkeetna in 2010 was 1.95, a decrease from 2.1 persons per household in 1990 and 2.16 in 2000. The total number of households in Talkeetna increased from 114 in 1990 to 358 in 2000 to 449 in 2010. Of the 744 total housing units surveyed for the 2010 Decennial Census, 318 were owner-occupied, 131 were renter-occupied, and 295 were vacant or used only seasonally. Throughout this period no residents of Talkeetna were reported to be living in group quarters.

In 2010, the gender distribution in Talkeetna was 51.7% male and 48.3% female, very similar to the state as a whole (52% male, 48% female). The median age was estimated to be 45.4 years, higher than both the U.S. national average of 36.8 years and the median age for

<sup>&</sup>lt;sup>257</sup> 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.

<sup>&</sup>lt;sup>258</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.

Alaska, 33.8 years. In 2010, the largest percentage of residents fell within the age group 50 to 59 years old, with the next largest percentage falling within the age group 40 to 49 years old. Relatively few residents fell within the age group 20 to 29 years old or the 70 years old and older age group. The overall population structure of Talkeetna in 2000 and 2010 is shown in Figure 2.

Table 1. P	Population	in 7	Γalkeetna	from	1990 to	2010 by	Source.

Year	U.S. Decennial Census <sup>1</sup>	Alaska Department of Labor Estimate of Permanent Residents <sup>2</sup>
1990	250	-
2000	772	-
2001	-	796
2002	-	867
2003	-	855
2004	-	846
2005	-	859
2006	-	834
2007	-	833
2008	-	857
2009	-	894
2010	876	<del>-</del>

<sup>&</sup>lt;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>&</sup>lt;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.

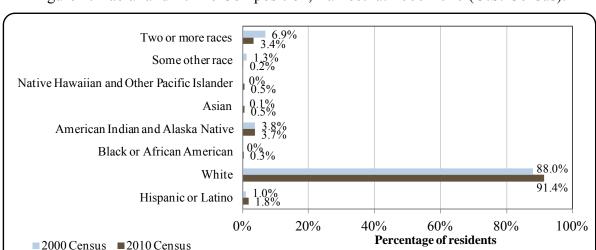
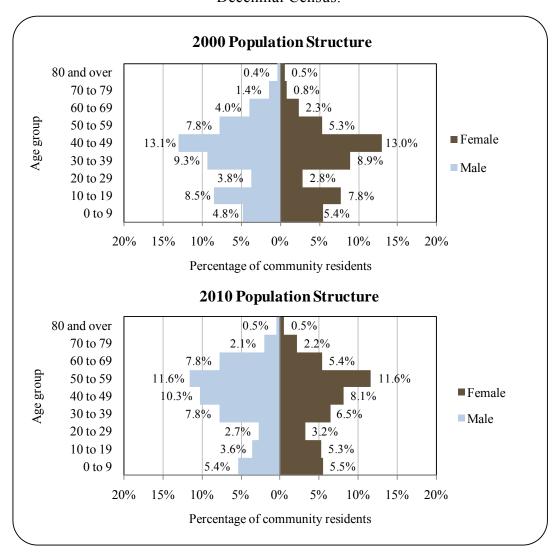


Figure 1. Racial and Ethnic Composition, Talkeetna: 2000-2010 (U.S. Census).

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



According to the 2006-10 American Community Survey (ACS),<sup>259</sup> in terms of educational attainment, 91.3% of Talkeetna residents aged 25 and over were estimated to hold a high school diploma or higher degree in 2010, compared to 90.7% of Alaska residents overall. Also in 2010, there were no residents of Talkeetna aged 25 and older that were estimated to have less than a ninth grade education, compared to 3.5% of Alaska residents overall; 8.8% were estimated to have a ninth to 12<sup>th</sup> grade education but no diploma, compared to 5.8% of Alaska residents overall; 33.3% were estimated to hold a high school diploma or equivalent, compared to 27.4% of Alaska residents overall; 31.8% were estimated to have some college but no degree,

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<sup>&</sup>lt;sup>259</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.

compared to 28.3% of Alaska residents overall; 3% were estimated to hold an Associate's degree, compared to 8% of Alaska residents overall; and 23.3% were estimated to hold a Bachelor's degree, compared to 17.4% of Alaska residents overall. No Talkeetna residents aged 25 and over were estimated to hold a graduate or professional degree in 2010, compared to 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture<sup>260</sup>

The Talkeetna and Chulitna Rivers join the Susitna River at Talkeetna, a Dena'ina (Tanaina) word meaning "river of plenty." Talkeetna was settled as a mining town and Alaska Commercial Company trading post in 1896. A gold rush to the Susitna River brought prospectors to the area, and by 1910 Talkeetna was a riverboat steamer station, supplying miners and trappers in the Cache Creek, Iron Creek, and Broad Creek districts. In 1915, Talkeetna was chosen as the headquarters for the Alaska Engineering Commission, who built the Alaska Railroad, and the community population peaked near 1,000. World War I and completion of the railroad in 1919 dramatically decreased the population. Talkeetna has since developed as an aviation and supply base for expeditions to Mt. McKinley and Denali National Park. Several of its old log buildings are now historical landmarks, and Talkeetna was placed on the National Register of Historic Places in April 1993. State land disposals and homestead programs helped the community grow. Talkeetna is popular for its recreational fishing, hunting, boating, flightseeing, skiing, and dog mushing. Local businesses provide services to climbers visiting the National Park.

## **Natural Resources and Environment**

January temperatures range from -33 to 33 °F (-36.1 to 0.6 °C); July can range from 42 to 83 °F (5.6 to 28.3 °C). Annual precipitation averages 28 inches, with 70 inches of snowfall. <sup>261</sup> Talkeetna is the gateway to Denali National Park for people who wish to climb Mt. McKinley. The following information about Denali National Park and Preserve (National Park) is from the U.S. National Park Service. <sup>262</sup>

Denali, the "High One," is the name Athabascan native people gave the massive peak that crowns the 600-mi-long Alaska Range. Denali is also the name of an immense national park and preserve created from the former Mount McKinley National Park. In 1917, Mount McKinley National Park was established as a game refuge. The park, including North America's highest peak, were named for former senator - later President - William McKinley. In 1980, the Alaska National Interest Lands Conservation Act (ANILCA) enlarged the boundary of the park by 4 million acres and redesignated it as Denali National Park and Preserve. The National Park exemplifies interior Alaska's character as one of the world's last great frontiers; its wilderness is largely unspoiled.

<sup>262</sup> U.S. National Park Service. 2012. *Denali National Park and Preserve: Nature and Science*. Retrieved from http://www.nps.gov/dena/naturescience/index.htm on March 29, 2012.

<sup>&</sup>lt;sup>260</sup> 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.

More than 650 species of flowering plants as well as many species of mosses, lichens, fungi, algae, and others grace the slopes and valleys of the National Park. Only plants adapted to long, cold winters and short growing seasons can survive in this subarctic wilderness. Permafrost ground underlies many areas of the park, where only a thin layer of topsoil is available to support life. After the continental glaciers retreated from most of the park 10,000 to 14,000 years ago, hundreds of years were required to begin building new soils and revegetation. The dynamic glaciated landscape provides large rivers, countless lakes and ponds, and unique landforms which form the foundation of the ecosystems that thrive in the National Park.

The National Park is well-known for its diversity of wildlife. There are 39 species of mammals, 169 species of birds, 14 species of fish, and 1 species of amphibian known to occur in the area. There are no reptiles recorded in the National Park. Animal life and activity is dictated by the seasons. Winter is the longest season and the animals that are year-round residents are well-adapted to life in the subarctic. The brief spring season brings the return of 80% of the National Park's bird life, the waking of hibernating bears, and an increase in activity levels of wildlife. Summer is a time for raising young and preparing for migration, hibernation, or survival during the winter. Summer also brings hordes of insects, including mosquitoes. In late summer, king and chum salmon run in the multitude of streams and rivers. In autumn, migrating birds fill the skies and bull moose gather their harems of cows for the mating season.

In a survey conducted by the AFSC in 2011, community leaders reported that Talkeetna's economy relies upon the following natural resource-based industries: logging, fishing, ecotourism, and sport hunting.

# **Current Economy**<sup>263</sup>

As the take-off point for fishing and flightseeing trips and a staging area for Denali climbing expeditions, Talkeetna provides air taxis, helicopters, outfitters, and related services. Numerous air taxis provide transport to Kahiltna Glacier Base Camp. All climbers must register for Mount McKinley and Mount Foraker. In 2010, nine area residents held commercial fishing permits. Top employers in 2010<sup>265</sup> included Mat-Su Borough Schools, Ciri Alaska Tourism Corp., Sunshine Community Health CTR, Latitude 62 LLC, Alaska Railroad Corp., Talkeetna Air Taxi Inc., Nagley Store, K2 Aviation, Old Talkeetna Roadhouse LLC, and State of Alaska.

According to the 2006-10 ACS, in 2010, the per capita income in Talkeetna was estimated to be \$19,187 and the median household income was estimated to be \$31,087, compared to \$23,695 and \$38,289 in 2000, respectively. Taking inflation into account by converting the 2000 values to 2010 dollars, <sup>266</sup> the real per capita income in 2000 is shown to have been \$31,159 and the real 2000 median household income was \$50,350. This shows that both per capita income and household income decreased between 2000 and 2010. In 2010, Talkeetna ranked 160<sup>th</sup> of 305 Alaskan communities with per capita income that year, and 240<sup>th</sup>

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.

<sup>&</sup>lt;sup>263</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>&</sup>lt;sup>265</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>&</sup>lt;sup>266</sup> Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved October 18, 2011 from the Alaska Department of Labor, http://labor.alaska.gov/research/cpi/inflationcalc.htm).

out of 299 Alaskan communities with household income data. However, Talkeetna's small population size may have prevented the ACS from accurately portraying economic conditions. A potentially more accurate understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development. According to the ALARI database, the per capita income in Talkeetna in 2010 was \$15,362, which indicates an even further decrease compared to the real per capita income values reported by the U.S. Census in 2000. <sup>268</sup>

Based on the 2006-2010 ACS, 64.9% of the population age 16 and older was estimated to be in the civilian labor force, compared to the statewide rate of 68.8%. The local unemployment rate was 14.4%, compared to the statewide unemployment rate of 5.9%. Approximately 16.1% of local residents were living below the poverty line, compared to 9.6% of Alaskans overall. It should be noted that income and poverty statistics are based on wage income and other money sources; figures reported for Talkeetna are not reflective of the value of subsistence to the local economy. In addition, these unemployment and poverty statistics are likely inaccurate given the small population of Talkeetna. A more accurate estimate is based on the ALARI database, which indicates that the unemployment rate in 2010 was 19.7%.

Based on household surveys conducted for the 2006-2010 ACS, the greatest number of workers was employed in the private sector (64.2%), while 30.6% were self-employed and 5.2% were employed in the public sector. Out of 268 people aged 16 and over that were estimated to be employed in the civilian labor force in 2010, the greatest percentage worked in retail trade (39.2%), construction (16.9%), and professional, scientific, management, administration, and waste management (11.8%). Smaller percentages of the population were estimated to be employed in other services, except public administration (2.5%), arts, entertainment, recreation, accommodation, and food services (4.9%), educational services, health care, and social assistance (7.4%), finance, insurance, and real estate (4.7%), information (2.5%), transportation, warehousing, and utilities (2.5%), and agriculture, forestry, fishing, hunting, and mining (7.8%). However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in farming, fishing, and forestry industries may be underestimated in census statistics as fishermen may hold another job and characterize their employment accordingly. Information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

<sup>&</sup>lt;sup>267</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>&</sup>lt;sup>268</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/.

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

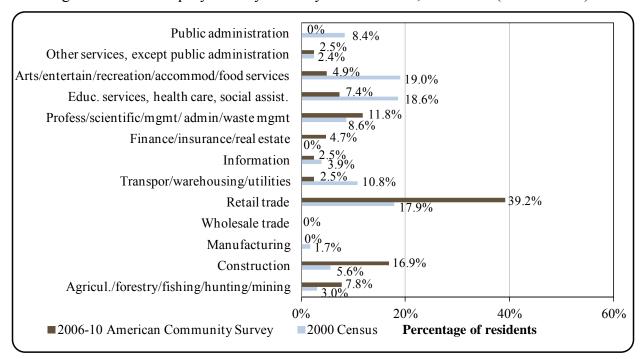
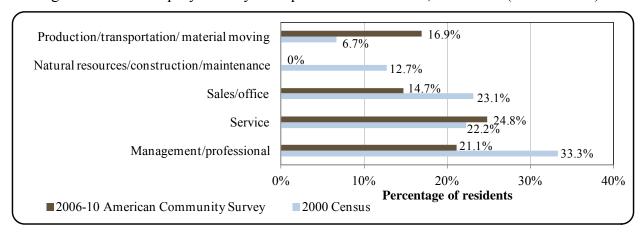


Figure 4. Local Employment by Occupation in 2000-2010, Talkeetna (U.S. Census).



# Governance

Talkeetna is an unincorporated town located in the Mat-Su Borough. Because of Talkeetna's unincorporated status, no municipal taxes were administered between 2000 and 2010. Talkeetna did not receive any Community Revenue Sharing contributions or fisheries-related grants between 2000 and 2010. Information about selected aspects of Talkeetna's community revenue is presented in Table 2.

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

Year	Total Municipal Revenue <sup>1</sup>	Sales Tax Revenue <sup>2</sup>	State/Community Revenue Sharing <sup>3,4</sup>	Fisheries-Related Grants (State and Federal) <sup>5</sup>
2000	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a

<sup>&</sup>lt;sup>1</sup> Alaska Department of Community and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dcra/commfin/CF\_FinRec.cfm.

Talkeetna was not included in the Alaska Native Claims Settlement Act (ANCSA) and is not federally recognized as a Native village. Talkeetna is a member of Cook Inlet Region, Incorporated (CIRI), a regional Native corporation. CIRI is one of 12 Alaska-based regional corporations established ANCSA to benefit Alaska Natives who had ties to the Cook Inlet region. The Company is owned by more than 7,300 Alaska Native shareholders of Athabascan and Southeast Indian, Inupiat, Yupik, Alutiiq (Sugpiaq) and Aleut (Unangax) descent. It is based in Anchorage and has interests across Alaska, the lower 49 and abroad. CIRI's well-diversified portfolio of business operations and investments includes: traditional and alternative energy and resource development, oilfield and construction services, environmental services, real estate investment and management, tourism and hospitality, telecommunications, aerospace defense, private equity and venture capital investments. CIRI also created a family of nonprofit service organizations that provide needed health care, housing, employment, education and other social and cultural enrichment services for Alaska Natives and others.

The nearest offices of the Alaska Department of Fish and Game (ADF&G) is located in Palmer. The nearest offices of the Alaska Department of Natural Resources (DNR), Department of Commerce, Community, and Economic Development (DCCED), National Marine Fisheries Service, Bureau of Citizenship and Immigration Services (BCIS), and U.S. Immigration and Customs Enforcement (US ICE) are all located in Anchorage.

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<sup>&</sup>lt;sup>2</sup>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.

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

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

<sup>&</sup>lt;sup>5</sup>Alaska Department of Community and Rural Affairs. (n.d.). Community Funding Database. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dca/commdb/CF Grants.htm.

<sup>&</sup>lt;sup>269</sup> Cook Inlet Region, Incorporated. 2012. *CIRI Company Overview*. Retrieved on May 10, 2012 from http://www.ciri.com/content/company/business.aspx .

# **Infrastructure**

Connectivity and Transportation<sup>270</sup>

Talkeetna is accessible by road, air, and train. The Talkeetna Spur Road connects to the George Parks Highway, which connects to Fairbanks and Anchorage. There are two state-owned runways. One is a paved asphalt runway and is 3,500 ft long by 75 ft wide; the other is a 480 ft long by 85 ft wide gravel strip. There are several additional airstrips in the vicinity, including one owned by the U.S. Bureau of Land Management. There is an Alaska Railroad depot located in Talkeetna. While Talkeetna is accessible to charter and private aircraft, there is no regularly scheduled service between Talkeetna and Anchorage, which can be reached by road.

Facilities<sup>271</sup>

The majority of residents have individual wells, septic tanks, and complete plumbing. A piped water and sewer system is maintained by the Mat-Su Borough. The high school operates its own water system. A borough-operated refuse transfer station is located at mi 11.5 on the Talkeetna Spur Road. A sludge disposal site is available locally. Law enforcement services are provided by a state troopers post that is located at mi 97.8 on the George Parks Highway. Fire and rescue services are provided by the Borough, with the station located at mi 14 on the Talkeetna Spur Road, and by Talkeetna Ambulance Service. The following visitor attractions are located in Talkeetna: Denali/Talkeetna Visitor Center, Talkeetna Ranger Station, Talkeetna Historical Society Museum, Museum of Northern Adventure, riverboat services guides, McKinley flight tours, and fishing charters. Talkeetna has a number of accommodations for visitors, as well as two school libraries and one public library.

Medical Services<sup>272</sup>

Medical services are provided by the Sunshine Community Health Center and the Mat-Su Regional Hospital which is located between Palmer and Wasilla on the George Parks Highway. The community health center is privately owned and operated. Alternate health care is provided by the Talkeetna Ambulance Service and by Valley Hospital in Palmer. The community health center is a qualified Emergency Care Center. Emergency services have highway, air, and helicopter access and are provided by a 911 telephone service and volunteers.

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<sup>&</sup>lt;sup>272</sup> Ibid.

# Educational Opportunities<sup>273</sup>

Talkeetna Elementary School provides instruction to students from pre-school through sixth grade. In 2011, the school had 96 students and 9 teachers. Middle and high school students are bused to Sustina North, at milepost 98, in the Susitna Valley.

# **Involvement in North Pacific Fisheries**

# History and Evolution of Fisheries

Talkeetna's participation in North Pacific fisheries is rooted in its recent development as a tourist destination. Susitna River drainages produce large coho runs in the late summer which attract many Alaskan and non-Alaska resident anglers to the area. <sup>274</sup> Clear Creek is a popular spot for landing Chinook salmon starting in July. <sup>275</sup> Recreational fisheries in the area are managed by ADF&G Division of Sportfish in Palmer.

Talkeetna is located at the intersection of the Talkeetna and Susitna Rivers. Due to its inland location, Talkeetna is not located within a Federal Statistical and Reporting Area, a Pacific Halibut Fishery Regulatory Area, or a Sablefish Regulatory Area. However, the nearest Federal Statistical and Reporting Area is Area 630, the nearest Pacific Halibut Fishery Regulatory Area is Area 3A, and the nearest Sablefish Regulatory Area is the Central Gulf of Alaska.

# **Processing Plants**

According to ADF&G's 2010 Intent to Operate list, Talkeetna does not have a registered processing plant. The nearest processing plant is located in Anchorage.

## Fisheries-Related Revenue

No fisheries-related revenue was reported for Talkeetna between 2000 and 2010 (Table 3).

# Commercial Fishing

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In 2010, there were 10 Talkeetna residents holding a total of 10 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC) for herring, sablefish, and salmon. While the number of herring and sablefish CFEC permits and permit holders remained relatively stable during this period, none of those permits were reported as fished (with the exception of sablefish permits in 2000 and 2001). The sablefish CFEC permit issued in 2010

<sup>&</sup>lt;sup>273</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.

<sup>&</sup>lt;sup>274</sup> Alaska Department of Fish and Game (n.d.). *Matanuska-Susitna Valley & West Cook Inlet Silver Salmon*. Retrieved July 10, 2012 from: http://www.adfg.alaska.gov/static-sf/Region2/pdfpubs/mat-su\_silvers.pdf. <sup>275</sup> Alaska Department of Fish and Game. (n.d.). *Matanuska-Susitna Valley & West Cook Inlet King Salmon*. Retrieved July 10, 2012 from: http://www.adfg.alaska.gov/static-sf/Region2/pdfpubs/MatSuKingSalmon.pdf.

was for the fixed gear fishery using vessels under 35 ft in Prince William Sound, while the herring CFEC permits were issued for the gill net fishery in Norton Sound. The number of salmon CFEC permits and permit holders increased before decreasing again between 2000 and 2010, while the number of those permits reported as fished decreased before increasing again during the same period. The majority of the salmon CFEC permits issued in 2010 were for the set gill net fishery in Cook Inlet, with the remainder issued for the drift gill net fishery in Bristol Bay, the gill net fishery in Kotzebue, and the statewide hand troll fishery. Information on permits and permit holders by species between 2000 and 2010 is presented in Table 4.

Between 2000 and 2010, the number of commercial crew license holders in Talkeetna varied considerably, from 13 in 2000 to one in 2006. In 2010, there were eight crew license holders in Talkeetna. Between 2000 and 2010, there were no fish buyers or shore-side processing facilities located in Talkeetna. The number of vessels owned primarily by Talkeetna residents and the number of vessels homeported in Talkeetna both decreased substantially between 2000 and 2010. There were no commercial vessels landing catch in the community between 2000 and 2010. Information about the characteristics of the commercial fishing sector in Talkeetna is provided in Table 5.

There were no individuals in Talkeetna holding quota share accounts or quota shares for federal halibut (Table 6), sablefish (Table 7), or crab (Table 8) fisheries between 2000 and 2010. As previously stated, there were no vessels landing catch in Talkeetna between 2000 and 2010, and therefore there are no landings or associated ex-vessel revenue to report between 2000 and 2010 (Table 9). Landings of all species by Talkeetna residents between 2000 and 2010 are considered confidential due to the small number of participants (Table 10).

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	n/a										
Shared Fisheries Business Tax <sup>1</sup>	n/a										
Fisheries Resource Landing Tax <sup>1</sup>	n/a										
Fuel transfer tax <sup>2</sup>	n/a										
Extraterritorial fish tax <sup>2</sup>	n/a										
Bulk fuel transfers <sup>1</sup>	n/a										
Boat hauls <sup>2</sup>	n/a										
Harbor usage <sup>2</sup>	n/a										
Port/dock usage <sup>2</sup>	n/a										
Fishing gear storage on public land <sup>3</sup>	n/a										
Marine fuel sales tax <sup>3</sup>	n/a										
Total fisheries-related revenue <sup>4</sup>	n/a										
Total municipal revenue <sup>5</sup>	n/a										

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

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> 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.

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

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

<sup>&</sup>lt;sup>5</sup> 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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) 1	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) 1	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries	Total permits	0	1	1	0	0	0	0	0	0	0	0
Permits <sup>1</sup>	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	1	1	0	0	0	0	0	0	0	0
Crab (CFEC) <sup>2</sup>	Total permits	0	1	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	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	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) <sup>2</sup>	Total permits	1	1	1	1	1	1	1	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	=
	Total permit holders	1	1	1	1	1	1	1	0	0	0	0
Herring (CFEC) <sup>2</sup>	Total permits	2	2	2	2	1	1	2	2	2	2	2
	Fished permits	1	1	0	0	0	0	0	0	0	0	0
	% of permits fished	50%	50%	-	-	-	-	-	-	-	-	-
	Total permit holders	2	2	2	2	1	1	2	2	2	2	2

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	Total permits	1	1	1	1	1	1	1	1	1	1	1
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	1	1	1	1	1	1	1	1	1	1	1
Groundfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other Finfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) <sup>2</sup>	Total permits	8	10	10	10	10	9	8	7	7	7	7
	Fished permits	7	4	3	4	6	5	5	5	5	5	5
	% of permits fished	88%	40%	30%	40%	60%	56%	63%	71%	71%	71%	71%
	Total permit holders	9	10	10	10	10	9	9	8	7	7	7
Total CFEC Permits <sup>2</sup>	Permits	12	15	14	14	13	12	12	10	10	10	10
	Fished permits	8	5	3	4	6	5	5	5	5	5	5
	% of permits fished	67%	33%	21%	29%	46%	42%	42%	50%	50%	50%	50%
	Permit holders	11	12	12	12	12	11	11	10	10	10	10

<sup>&</sup>lt;sup>T</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>&</sup>lt;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 Talkeetna: 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 Talkeetna <sup>2</sup>	Total Net Pounds Landed In Talkeetna <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Talkeetna <sup>2,5</sup>
2000	13	0	0	24	21	0	0	\$0
2001	7	0	0	28	27	0	0	\$0
2002	8	0	0	27	23	0	0	\$0
2003	4	0	0	30	21	0	0	\$0
2004	3	0	0	27	19	0	0	\$0
2005	5	0	0	8	2	0	0	\$0
2006	1	0	0	8	2	0	0	\$0
2007	7	0	0	6	1	0	0	\$0
2008	11	0	0	6	1	0	0	\$0
2009	8	0	0	7	1	0	0	\$0
2010	8	0	0	6	1	0	0	\$0

Alaska Department of Fish and Game. 2011. Alaska sportfish 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>5</sup> Totals only represent non-confidential data.

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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.]

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

Year	Number of Halibut	Halibut	Halibut IFQ
	Quota Share Account Holders	Quota Shares Held	Allotment (lb)
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 Talkeetna: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (lb)
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 Talkeetna: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (lb)
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 Talkeetna: 2000-2010.

						-					
			Te	otal Net	$Lb^{I}$						
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	0	0	0	0	0	0	0	0	0	0	0
Halibut	0	0	0	0	0	0	0	0	0	0	0
Herring	0	0	0	0	0	0	0	0	0	0	0
Other Groundfish	0	0	0	0	0	0	0	0	0	0	0
Other Shellfish	0	0	0	0	0	0	0	0	0	0	0
Pacific Cod	0	0	0	0	0	0	0	0	0	0	0
Pollock	0	0	0	0	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0	0	0	0	0
Salmon	0	0	0	0	0	0	0	0	0	0	0
Total <sup>2</sup>	0	0	0	0	0	0	0	0	0	0	0
		Ex-ves	sel Valu	e (nomi	nal U.S.	dollars	)				
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Finfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Halibut	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Herring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Groundfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Shellfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pacific Cod	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pollock	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sablefish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Salmon	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total <sup>2</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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.]

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

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

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

				Total	l Net Lb <sup>1</sup>						
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab											
Finfish											
Halibut											
Herring											
Other Groundfish											
Other Shellfish											
Pacific Cod											
Pollock											
Sablefish											
Salmon											
Total <sup>2</sup>											
		j	Ex-vessel				lars)				
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab											
Finfish											
Halibut											
Herring											
Other Groundfish											
Other Shellfish											
Pacific Cod											
Pollock											
Sablefish											
Salmon											

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.]

## Recreational Fishing

 $Total^2$ 

Between 2000 and 2010, the number of sport fish guide business varied, from 10 in 2000, to 9 in 2010. However, no registered sport fish guide businesses were active during those years. During the same period, the number of sport fish guide licenses in Talkeetna decreased substantially from 35 in 2000, to 19 in 2010. The number of sportfishing licenses sold to Talkeetna residents (irrespective of the location of the point of sale) varied only slightly between 2000 (596) and 2010 (678). The number of sportfishing licenses sold in Talkeetna, in contrast, varied widely and was higher than the number of licenses sold in the community in each year during this period. This indicates the potential that visitors to Talkeetna were pursuing recreational fishing during this period. Overall, the number of freshwater days fished in the Susitna River Drainage region has declined by roughly half, from a total of 241,457 in 2000 to 122,235 in 2010. During this period, the proportion of angler days fished by non-Alaska residents in the region increased only slightly, from 26.6% in 2000 to 33.1% in 2010. Information on sportfishing trends in Talkeetna between 2000 and 2010 is presented in Table 11.

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

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

The Alaska Statewide Harvest Survey, <sup>276</sup> conducted by ADF&G between 2000 and 2010, noted the following species targeted by private anglers in Talkeetna: all five species of Pacific salmon, landlocked salmon, rainbow trout, Dolly Varden, whitefish, burbot, Arctic grayling, northern pike, Pacific halibut, rockfish, Pacific cod, razor clam, hardshell clam, and shrimp. No kept/released log book data were reported for fishing charters out of Talkeetna between 2000 and 2010. <sup>277</sup>

In a survey conducted by the AFSC in 2011, community leaders reported that recreational fishing in Talkeetna takes place from charter boats or party boats, private boats owned by local residents, and private boats owned by non-residents. In the same survey, community leaders noted that all five Pacific salmon species are targeted by recreational fishermen that use boats based in Talkeetna.

		-	_			
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 Talkeetna <sup>2</sup>	Freshwater Angler Days Fished – Non- residents <sup>3</sup>	Freshwater Angler Days Fished – Alaska Residents <sup>3</sup>
2000	0	35	596	1,533	64,141	177,316
2001	0	37	618	2,765	71,249	128,658
2002	0	35	670	2,495	59,863	126,516
2003	0	31	594	2,369	56,844	131,687
2004	0	36	676	3,523	56,934	130,366
2005	0	30	633	2,975	68,753	100,803
2006	0	41	646	3,217	63,255	109,462
2007	0	39	660	3,609	58,471	115,578
2008	0	33	663	2,596	49,911	98,827
2009	0	34	680	3,032	40,797	99,404

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

<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.]

Alaska Department of Fish and Game. 2011. Alaska sport fish charter logbook database, 2000-2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

<sup>2010 0 19 678 1,764 40,414 81,821</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>&</sup>lt;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).

<sup>&</sup>lt;sup>276</sup> Alaska Department of Fish and Game. 2011. Alaska Sport Fishing Survey Results, 2000-2010. ADF&G Division of Sport Fish, Alaska Statewide Harvest Survey project. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sf/sportfishingsurvey/ (Accessed September 2011).

# Subsistence Fishing

Data were not reported between 2000 and 2010 for subsistence participation by household and species (Table 12), subsistence halibut fishing participation (Table 14), and subsistence harvest of various marine mammal resources (Table 15). In years for which data were reported between 2000 and 2010, an average of 19 subsistence salmon fishing permits were issued to Talkeetna residents, with an average of 18.5 of those permits reported as fished during the same period. Although limited harvest of salmon occurred overall, sockeye salmon were the primary species harvested under subsistence permits, along with smaller numbers of Chinook salmon, chum salmon, coho salmon, and pink salmon. Information about subsistence harvest of salmon, marine invertebrates, and non-salmon fish (not including halibut) is presented in Table 13.

The ADF&G Division of Subsistence reported that the following species of marine invertebrates were used for subsistence in Talkeetna during this period: abalone, Dungeness crab, king crab, mussels, razor clams, shrimp, Tanner crab, and unknown clams. Marine mammals reported as harvested for subsistence use included bowhead and harbor seal. Non-salmon fish reported as harvested for subsistence use included: burbot, cod, cutthroat trout, Dolly Varden, eulachon (hooligan candlefish), flounder, grayling, herring, lake trout, pike, rainbow trout, red rockfish, sheefish, unknown char, and whitefish. <sup>278</sup>

Table 12. Subsistence Participation by Household and Species, Talkeetna: 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).

<sup>&</sup>lt;sup>278</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 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Talkeetna: 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>	Lb of Non- Salmon Fish <sup>2</sup>
2000	19	18	36	7	0	1	413	n/a	n/a
2001	28	28	16	2	33	1	687	n/a	n/a
2002	15	18	7	2	6	2	253	n/a	n/a
2003	15	16	3	1	n/a	n/a	298	n/a	n/a
2004	15	14	2	n/a	n/a	n/a	248	n/a	n/a
2005	23	22	5	n/a	10	n/a	520	n/a	n/a
2006	25	20	11	n/a	4	2	324	n/a	n/a
2007	18	17	3	n/a	n/a	n/a	253	n/a	n/a
2008	17	14	1	n/a	n/a	n/a	116	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.* 

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

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

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

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

<sup>&</sup>lt;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>&</sup>lt;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 15. Subsistence Harvests of Marine Mammal Resources, Talkeetna: 2000-2010.

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

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

# **Additional Information**

Talkeetna is home to a number of annual festivals, including Miner's Day, a Fourth of July Celebration, a Moose Dropping Festival, the Talkeetna Bluegrass Festival, Talkeetna Winterfest, and a Bachelor's Auction/Society Ball/Wilderness Women's Contest. 279

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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.

<sup>&</sup>lt;sup>279</sup> 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.

# Wasilla (WAH-sill-ah)

# **People and Place**

Location <sup>280</sup>



Wasilla is located midway between the Matanuska and Susitna Valleys, on the George Parks Highway. It lies between Wasilla and Lucille Lakes, 43 miles north of Anchorage. The area encompasses 13 sq mi of land and 0.7 sq mi of water. Residents of the community enjoy a rural lifestyle while in close proximity to the urban amenities of Anchorage. Wasilla was incorporated in 1974 as a Second-class city, and became a First-class city in 1984.

Demographic Profile 281

Wasilla first appeared in the 1930 Census with a population of 51 and grew steadily in size over the next 40 years, reaching 300 residents in 1970. Over the next several decades, the community experienced rapid growth as a commuter suburb of Anchorage, with its population reaching 5,469 in 2000. From 2000 to 2010, the population grew by 43.19%, and the City's average annual growth rate from 2000 to 2009 was 1.46%. In 2010, Wasilla's population was 7,831, making the city the 12<sup>th</sup> largest community in Alaska out of 352 total communities. Information regarding trends in Wasilla's population size can be found in Table 1.

The racial and ethnic composition of Wasilla remained relatively unchanged between 2000 and 2010, as shown in Figure 1. In 2010, 83.4% of residents identified themselves as White, compared to 85.5% in 2000. Also in that year, 5.2% identified themselves as American Indian or Alaska Native, compared to 5.2% in 2000; 2.1% identified themselves as Asian, compared to 1.3% in 2000; 1.4% identified themselves as Black or African American, compared to 0.6% in 2000; 0.2% identified themselves as Native Hawaiian or Other Pacific Islander, compared to 0.1% in 2000; 6.5% identified themselves as two or more races, compared to 5.9% in 2000; and 1.2% identified themselves as some "other" race, compared to 1.3% in 2000.

In 2010, the average household size in Wasilla was 2.61, representing a notable decrease from the 3.27 in 2000 and 2.80 in 1990. In that year, there were a total of 3,277 housing units, compared to 2,119 in 2000 and 1,723 in 1990. Of the households surveyed in 2010, 48% were owner-occupied, compared to 52% in 2000; 43% were renter-occupied, compared to 41% in 2000; 8% were vacant, compared to 5% in 2000; and 1% were occupied seasonally, compared to 2% in 2000. In addition, 95 residents were living in group quarters, compared to 5 in 2000.

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<sup>&</sup>lt;sup>280</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.

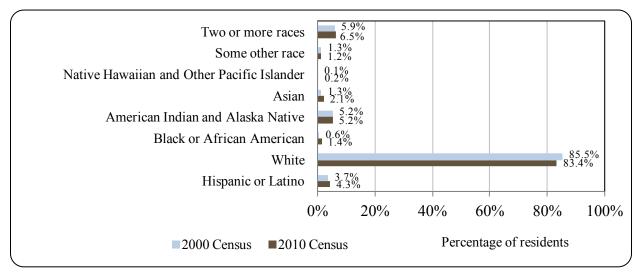
<sup>&</sup>lt;sup>281</sup>U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

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

Year	U.S. Decennial Census <sup>1</sup>	Alaska Dept. of Labor Estimates of Permanent Residents <sup>2</sup>
1990	4,028	-
2000	5,469	-
2001	- -	5,516
2002	<del>-</del>	5,949
2003	-	6,381
2004	-	6,146
2005	-	6,372
2006	-	6,486
2007	-	6,927
2008	-	6,932
2009	-	7,245
2010	7,831	-

<sup>&</sup>lt;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/isf/pages/index.xhtml.

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



Wasilla experienced population aging between 2000 and 2010 as the percentage of residents aged 50 and over increased from 17.8% to 27.1% of the population. The median age of Wasilla residents during this same period increased from 29.7 to 32.2 years, though the community's 2010 median age was still lower than both the U.S. national median age of 36.5 years and Alaska's state median age of 33.8 years. Wasilla's gender composition in 2000 and 2010 was roughly equal, with females slightly outnumbering males in both years (50.1% to

<sup>&</sup>lt;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.

49.9%). In 2010, gender distribution within the 20-29, 30-39, and 40-49 age groups were roughly equal, while the population aged 50 and over was skewed toward females and the population aged 19 and under, toward males. Females aged 50 and over made up 14.9% of Wasilla's population, compared to the 12.2% represented by males in this age category. Males aged 19 and younger made up 17.3% of Wasilla's population, compared to the 15.0% represented by females in this age category. Figure 2 shows the population and gender structure of Wasilla in 2000 and 2010.

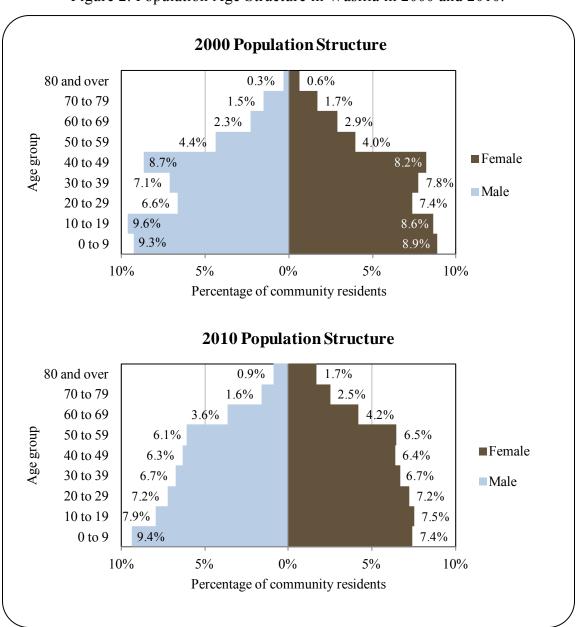


Figure 2. Population Age Structure in Wasilla in 2000 and 2010.

In terms of educational attainment, the 2006-2010 American Community Survey (ACS)<sup>282</sup> estimated that 91.8% of Wasilla residents aged 25 had earned 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 2.6% had less than a 9<sup>th</sup> grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 5.6% had a 9<sup>th</sup> to 12<sup>th</sup> grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 30.5% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 7.6% held an Associate's degree, compared to an estimated 8.0% of Alaska residents overall; an estimated 16.0% held a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall; and an estimated 5.9% held a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall.

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Wasilla is named after Chief Wasilla, a respected local Dena'ina Indian. In the Athabascan Indian dialect, "Wasilla" is said to mean "breath of air." However, other sources claim that, given the Russian trading post influences in the Lower Cook Inlet during the 18<sup>th</sup> and 19<sup>th</sup> centuries, Chief Wasilla may have actually derived his name from the Russian name "Vassily."

Prior to the founding of the Wasilla township, the Dena'ina Athabascan Indians who inhabited the area called it "Benteh," meaning "among the lakes." Ample fishing was available in nearby freshwater lakes and streams, and the area became a popular wintering ground for semi-permanent Native villages. These villages were connected by various trails to hunting grounds in the Susitna Valley and Talkeetna Mountains and to the Ahtna Indians residing east of the Matanuska Valley.

The founding and initial development of Wasilla owes much to the early twentieth Alaskan gold rush and mining boom. The town site was established in 1917 at the intersection of the Carle Wagon Road, now Wasilla-Fishhook Road, which linked the coastal community of Knik with the Willow Creek mining district, and the newly-constructed Alaska Railroad. Given its advantageous location, Wasilla quickly replaced the older settlement of Knik as the most important distribution point for mining activities in the Valley. Until the latter part of World War II, which brought the gold mining boom to a halt, Wasilla prospered as the self-proclaimed "Gateway to the Willow Creek Mining District."

Agriculture also helped to shape Wasilla's role in the region. The founding of the Matanuska Colony in 1935 under President Roosevelt's New Deal created the nearby town of Palmer and brought over 200 families from the Midwest to the region as colony homesteaders.

<sup>283</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.

<sup>&</sup>lt;sup>282</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>&</sup>lt;sup>284</sup>City of Wasilla. (2011). *Comprehensive Plan.* Retrieved November 28, 2011 from http://www.cityofwasilla.com. <sup>285</sup>City of Wasilla. (2011). *Wasilla History*. Retrieved November 28, 2011 from http://www.cityofwasilla.com.

Though several farms were located near Wasilla, Palmer emerged as the regional commercial center and remained so until the 1960s.

Construction of the George Parks Highway through Wasilla in the early 1970s shifted population growth and development from the Palmer area to Wasilla and its surrounding area. The Parks Highway enabled workers to reside in Wasilla and commute to Anchorage for employment, thus bringing the first wave of the community's "suburbanite" settlement. The Alaska oil boom and pipeline construction in the 1970s and 80s brought an influx of oil workers and additional growth of the community. Since the mid-1980s, Wasilla has served as the retail and commercial hub of the central Matanuska-Susitna ("Mat-Su") Valley, the fastest growing region in Alaska. Wasilla was incorporated in 1974 as a second class city and became a first class city in 1984.

#### **Natural Resources and Environment**

Located at a latitude of 61.58 °N, Wasilla has a climate that is transitional between the extreme weather of Interior Alaska and the wet maritime conditions of the coastal areas. The city is sheltered from extreme conditions by the Alaska Range and the Chugach and Talkeenta Mountains, although high winds in excess of 60 mph are a frequent occurrence in the region during the fall and winter months. The average annual precipitation is 17 inches, with 50 inches of snowfall, with temperatures ranging from -33 °F to 33 °F in January and from 42 °F to 83 °F in July. On average, Wasilla is frost-free in spring and summer for 115 days, with first frost usually arriving by September 1<sup>st</sup>. <sup>286</sup>

Wasilla's topography consists of undulating ridges of glacial till and flat benches of sand gravel, features left by glacial advances and retreats during the last ice age. Elevation varies from 300 ft to 500 ft above sea level within the city boundaries. Prominent water features in the community are Wasilla Lake and Lake Lucille; Cottonwood Creek, Lucille Creek, and several small streams traverse the city. Most vegetation communities are consistent with interior taiga. Lowland vegetation consists of mixed stands of willow, birch, cottonwood, and aspen. <sup>288</sup>

Terrestrial wildlife in the area include moose, small rodents, fox, rabbit, brown bear, black bear, coyote, mink, weasel, muskrat, and beaver. Wasilla's numerous water bodies provide habitat for all five species of Pacific salmon, as well as steelhead, Dolly Varden, and cutthroat trout. <sup>289</sup>

Gold mining in the Willow Creek mining district contributed to the growth of Wasilla from its founding in 1917 through the latter part of World War II. Independence Mine was actively mined from 1938 to 1943 and in its peak year employed over 200 workers and had gold production worth over \$17 million in 2010 dollars. Though the mine closed permanently in 1951 when gold mining became unprofitable, a state historical park was established at the site in the

<sup>&</sup>lt;sup>286</sup> Wasilla Planning Commission. (n.d.). *City of Wasilla Hazard Mitigation Plan*. Retrieved November 26, 2011 from http://www.cityofwasilla.com.

<sup>&</sup>lt;sup>287</sup> Ibid.

<sup>&</sup>lt;sup>288</sup> See footnote 284.

<sup>&</sup>lt;sup>289</sup> Ibid.

1970s.<sup>290</sup> As of 2010, mining activities in the region included sand and gravel mining and exploratory drilling at the historic Lucky Shot gold mine property.<sup>291</sup>

Natural hazards which have the potential to threaten Wasilla include earthquakes, high winds, severe weather, wildfire, volcanism, erosion, and flooding. Major fault zones in close proximity include the Castle Mountain fault to the north, the Bruin Bay fault to the northwest, and the Border Ranges fault along the south. Most fault structures in the area are of sufficient size to produce earthquakes of magnitude 6.0 and above. Wind events can produce localized gusts up to 100 mph. These events are associated with severe weather events, and are often associated with extreme cold (-40 to -60 °F). Winter storms can cause freezing fog and icing which carries the potential to damage property and public infrastructure. As with many areas influenced by interior Alaska's continental weather, frostbite and hypothermia pose public health risks. Wasilla is located within an area designated as Critical Protection Level, which carries a high level of suppression action in terms of wildland fires. Large wildland fire complexes occurred within the vicinity of Wasilla in 1979, 1980, and 1996. The most likely source of hazards related to volcanism come from Hays, Redoubt, and Mount Spurr. Heavy ashfall can produce thick layers of acidic silt which pose threat to property, infrastructure, and transportation systems. Impacts to local wildlife and vegetation can also be devastating. Active volcanoes are at a sufficient distance that impacts from debris flows and lateral blasts are unlikely. Most erosion in Wasilla is wind-driven, as exposed topsoils are removed by high winds. In addition, fugitive dust particles can reduce visibility and impact residents with sensitive reparatory systems. No major river systems lie within City boundaries, so potential flooding events are limited to rainfall runoff, rapid snowmelt, and groundwater saturation. <sup>292</sup>

According to the Alaska Department of Environmental Conservation, no significant environmental remediation projects were active within Wasilla as of 2010. 293

# **Current Economy**<sup>294</sup>

Wasilla serves as the retail and commercial hub of the central Matanuska-Susitna Valley. In addition to a growing service and retail sector, the community's economy also supports such industrial activities as steel fabrication, agriculture, and manufacture of concrete and wood products. A significant percentage of Wasilla's labor force works outside the community: approximately 30% of the workforce of the Matanuska-Susitna Borough commutes to Anchorage; and in 2008, 8% of the Borough's residents worked on the North Slope and another 5% held jobs in other distant locations around the state. <sup>295</sup> Mean travel time to work in 2009 for Wasilla's labor force was estimated at almost 30 minutes. <sup>296</sup>

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<sup>&</sup>lt;sup>290</sup> Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation. (2010). *Independence Mine State Historical Park*. Retrieved November 28, 2011, from http://dnr.alaska.gov/parks/units/indmine.htm.

Alaska Department of Natural Resources, Division of Geological & Geophysical Surveys. (2011). *Alaska's Mineral Industry 2010*. Retrieved November 28, 2011 from http://www.dggs.dnr.state.ak.us/pubs/id/22822. <sup>292</sup> See footnote 286.

<sup>&</sup>lt;sup>293</sup> Alaska Dept. of Environmental Conservation (n.d.). *Contaminated Sites Program*. Retrieved March 5, 2013 from: http://www.dec.state.ak.us/spar/csp/list.htm.

<sup>&</sup>lt;sup>294</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>&</sup>lt;sup>295</sup> See footnote 284.

<sup>&</sup>lt;sup>296</sup> Ibid.

In 2010,<sup>297</sup> the estimated per capita income was \$28,449 and the estimated median household income was \$52,014; compared to \$21,127 and \$48,226 in 2000, respectively. After adjusting for inflation by converting 2000 values to 2010 dollars,<sup>298</sup> the real per capita income (\$27,782) and real median household income (\$63,417) indicate that while individual earnings changed little, household earnings dropped somewhat. In 2010, Wasilla ranked 74<sup>th</sup> of 305 communities from which per capita income was estimated, and 117<sup>th</sup> of 299 communities from which median household income was estimated.

It should be noted that Wasilla'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 \$129 million. When compared with the 2010 Census population, the per capita income equals \$16,483, indicating an extreme decrease compared to the real per capita income values reported by the U.S. Census in 2000. However, Wasilla was not determined to be "distressed" by the Denali Commission.

Based on 2006-2010 ACS estimates, 8.0% of the civilian labor force was unemployed, which represents a decrease from the 2000 unemployment rate of 11.2%. Additionally, an estimated 13.9% of individuals were below the poverty line, compared to an estimate 9.6% statewide. In 2010, an estimated 67.5% of residents aged 16 years and older were part of the civilian labor force. Of those employed in the civilian labor force, an estimated 71.8% were employed in the private sector, an estimated 20.8% were employed in the public sector, an estimated 7.0% were self-employed, and the remaining 0.4% were estimated to be unpaid family workers. Major industries in terms of employment were educational services, healthcare, and social assistance (an estimated 22.0% of workers); construction (an estimated 14.5%); retail trade (an estimated 14.1%); and public administration (an estimated 10.6%). The 2010 ALARI estimates provide similar estimates for educational and health services (16.8%) and construction (11.5%), but also indicate a high percentage of people employed in trade, transportation and utilities industries (22%).

<sup>&</sup>lt;sup>297</sup> 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.

<sup>&</sup>lt;sup>298</sup> Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved October 18, 2011 from the Alaska Department of Labor, http://labor.alaska.gov/research/cpi/inflationcalc.htm).

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>&</sup>lt;sup>300</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>&</sup>lt;sup>301</sup> ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include selfemployed or federally employed residents.

<sup>&</sup>lt;sup>302</sup> U.S. Census Bureau (n.d.). Profile of selected social, economic and housing characteristics of all places within Alaska. Datasets utilized include 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml. Denali Commission. 2011. Distressed Community Criteria 2011 Update. Retrieved April 16, 2012 from: www.denali.gov.

Top employers in 2010 were the Mat-Su Borough Schools; the State of Alaska; Wal-Mart; and Arctic Slope Regional Corporation Energy Services, an oil and gas service company headquartered in Anchorage. Occupations in farming and natural resource extraction (fishing and hunting, forestry, and mining) accounted for 5.2% of employment in Wasilla. However, the number of individuals employed in the fishing industry is probably underestimated in Census statistics given the seasonality of commercial fishing activities; individuals often combine other employment with fishing. Figures 3 and 4 below show additional statistics on employment by industry and by occupation.

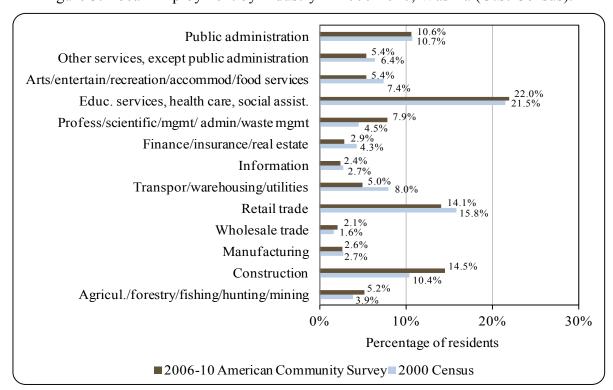
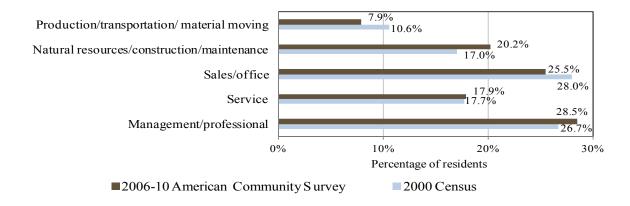


Figure 3. Local Employment by Industry in 2000-2010, Wasilla (U.S. Census).

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

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<sup>&</sup>lt;sup>304</sup> See footnote 302.



#### Governance

Wasilla is a First-class city located in the Matanuska-Susitna Borough. The City was not included in the Alaska Native Claims Settlement Act (ANCSA) of 1971, and is not represented by a Native Traditional Council or ANCSA chartered village corporation. The nearest Alaska Department of Fish and Game (ADF&G) offices are located in Anchorage and Palmer, while the regional NOAA Fisheries (NMFS), Bureau of Citizenship and Immigration Services (BCIS), and Department of Natural Resources (DNR) offices are located in Anchorage. Wasilla residents can access some institutions that have offices in neighboring Palmer, including headquarters for the Matanuska-Susitna (Mat-Su) Borough and a USDA Rural Development office.

The City of Wasilla Police Department was established in 1993 and currently employs 24 commissioned officers. 305 The local detachment of Alaska State Troopers is headquartered in Anchorage.

As of 2010, the city administered a 2.5% sales tax, while the Borough administered a 5.5% tobacco excise tax and a 5% bed tax. Property taxes included a 1.42 mill (0.14%) fire service area tax administered by the City of Wasilla and a 9.65 mill (0.96%) tax administered by the Borough. 306 Municipal revenue figures were taken from financial audits. 307 Total revenues increased at a steady rate between 2000 and 2010. When adjusted for inflation, <sup>308</sup> total municipal revenues increased by 45.4% from \$9.19 million in 2000, to \$17.28 million in 2010. In 2010, most (74.9%) general fund revenues were collected from local taxes; followed by intergovernmental revenues (11.9%) and service charges (9.6%). In total, general fund revenues accounted for 87.3% of total municipal revenues for Wasilla. Other sources included capital project funds (2.9%) and non-major funds (9.9%). In that year, sales taxes accounted for 5.8% of total municipal revenues, compared to 5.8% in 2000. In addition, state allocated Community Revenue Sharing and State Revenue Sharing accounted for less than one-percent of total revenues in both 2010 and 2000, respectively. Information regarding municipal finances can be found in Table 2.

Fisheries-related grants received by Wasilla between 2000 and 2010 are also shown in Table 2. In 2003, Wasilla was awarded \$50,000 to restore juvenile fish passage and habitat in Swiftwater Creek. 309 In 2010, the Wasilla Soil & Conservation District was awarded approximately \$26,000 for urban salmon habitat restoration projects undertaken as part of the Mat-Su Basin Salmon Habitat Partnership. 310

<sup>&</sup>lt;sup>305</sup> City of Wasilla. (2011). *Police*. Retrieved November 28, 2011 from http://www.cityofwasilla.com.

<sup>&</sup>lt;sup>306</sup> Alaska Dept. of Comm. And Econ. Dev. (2011). Alaska Taxable 2010.

<sup>&</sup>lt;sup>307</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.. 308 Inflation calculated using Anchorage CPI from Alaska DOL: http://labor.alaska.gov/research/cpi/cpi.htm.

Alaska Dept. of Comm. and Rural Affairs. (n.d.). Community Funding Database. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dca/commdb/CF Grants.htm.

Wasilla Soil & Water Conservation District. (2011). Annual Report. Retrieved December 2011 from http://www.wasillaswcd.org/linked/2011%20annual%20report.pdf.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Wasilla Municipal Government 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	\$9,190,997	\$529,535	\$74,738	n/a
2001	\$8,974,430	\$557,810	\$65,962	n/a
2002	\$9,231,543	\$573,876	\$66,679	n/a
2003	\$9,745,658	\$688,496	\$65,426	\$50,000
2004	\$12,487,572	\$754,994		n/a
2005	\$14,722,717	\$827,909		n/a
2006	\$14,212,673	\$893,218		n/a
2007	\$14,254,770	\$912,455		n/a
2008	\$15,704,300	\$952,296		n/a
2009	\$15,937,928	\$981,573	\$103,009	n/a
2010	\$17,284,820	\$998,206	\$103,040	\$25,954

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

#### Infrastructure

#### Connectivity and Transportation

As with most of the communities located at the end of the Knik Arm, Wasilla is well connected by road to surrounding communities. The George Parks Highway and Glenn Highway connect Wasilla to Anchorage, Fairbanks, Denali National Park, and Palmer, as well as a number of smaller communities. The Alaska Railroad serves Wasilla on the Anchorage to Fairbanks route, while Mat-Su Valley Public Transportation provides bus service between Wasilla, Palmer, and Anchorage.

Commercial air service is available at Anchorage International Airport, located 45 miles away. Wasilla's municipal airport, which has a paved 3,700 ft long by 75 ft wide runway, provides scheduled commuter and air taxi services. Numerous additional private airstrips also operate in the vicinity. Float planes land at Wasilla Lake, Jacobsen Lake, and Lake Lucille.

# **Facilities**

The majority of homes in Wasilla use individual water wells and septic systems, although the city operates a piped water and sewer system. Water is provided by a well at Spruce Avenue and two wells at Iditarod School; there is a 2.3 million gal storage capacity. Refuse collection is provided by a private company for disposal in the borough landfill. Residents also drop refuse at

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

<sup>&</sup>lt;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.

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

<sup>&</sup>lt;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.

the borough landfill in Palmer. Matanuska Electric Association is part owner of the Alaska Electric Generation & Transmission Cooperative, Inc., which purchases electricity from Chugach Electric and the Bradley Lake Hydroelectric Project. Piped natural gas, provided by Enstar, is used to heat homes. Wasilla provides an array of visitor accommodations and visitor attractions. Local public safety services are provided by the Wasilla Police Department. Fire and rescue services are provided by borough fire department, Wasilla Lake Fire and Emergency Medical Services, and Wasilla Ambulance Service. Additional public facilities include local youth center, community hall, senior services, swimming pool, local arena, movie theater, three museums, and 15 libraries. Communication services include local and long distance telephone, broadband internet, local and cable television, and local radio. 311

#### **Medical Services**

A variety of medical care services are available at the Mat-Su Regional Medical Center (MSRMC), a privately-owned, qualified Acute Care facility located between Palmer and Wasilla. Opened in 2006 to replace the aging Valley Hospital, MSRMC contains 50 medical/surgical beds and eight each of intensive, care, progressive, and obstetric beds. Urgent care services are also available at a MSRMC outpatient clinic in Wasilla.

# **Educational Opportunities**

Wasilla is served by the Mat-Su borough School District. As of 2011, there are 21 schools located within the community, including 8 elementary schools, 4 high schools, and 3 each of K-12, middle, and mixed-grade schools. There are a total of 10,106 students and 550 teachers in Wasilla schools.

Matanuska-Susitna College, located between Palmer and Wasilla, is part of the University of Alaska Anchorage system and offers two-year associate degree programs. Total enrollment is approximately 1,650 students. Wasilla also hosts a campus of Charter College, an independently-accredited private college offering both associate and bachelor degree programs.

# **Involvement in North Pacific Fisheries**

History and Evolution of Fisheries

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Extensive populations of freshwater fish, as well as of all five salmon species, are supported in the waters of the Mat-Su basin, which include the Matanuska, Knik, and Little Susitna Rivers, as well as the Nancy Lake Recreational Area and numerous river drainages and smaller lakes. Historically, the abundance of fish locally made the area a popular wintering ground for Dena'ina Athabascan Indians. Today, the area around Wasilla provides diverse opportunities for recreational freshwater fishing. The Susitna River, a popular salmon sportfishing location, supports the fourth largest run of Chinook salmon in the state. 312

<sup>&</sup>lt;sup>311</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.

Mat-Su Basin Salmon Habitat Partnership. (2008). *Conserving Salmon Habitat in the Mat-Su Basin*. Retrieved November 28, 2011 from http://conserveonline.org/workspaces/MatSuSalmon.

Additionally, the Alaska Department of Fish and Game (ADF&G) oversees an aggressive lake stocking program in the Northern Cook Inlet Sport Fishing Management Area, with over 90 area lakes stocked with rainbow trout, Arctic grayling, arctic char, landlocked coho, and Chinook salmon.<sup>313</sup>

Rapid growth and development in the last two decades have stressed the region's fish habitats, especially those in urban waters. In 2010, Lake Lucille and Cottonwood Creek in Wasilla were classified as "impaired" by the Alaska Department of Environmental Conservation. 314 The Wasilla Soil & Water Conservation District represents the community within the Matanuska-Susitna Basin Salmon Habitat Partnership, which formed in 2005 to address increasing impacts of salmon from human use and development in the Mat-Su basin. With respect to federal fisheries regulatory areas, Wasilla is located nearest to Federal Reporting Area 630 (Central Gulf of Alaska), Pacific Halibut Fishery Regulatory Area 3A, and the Central Gulf of Alaska Sablefish Regulatory Area. With respect to State of Alaska fisheries management, the community is located nearest to the ADF&G Upper Cook Inlet commercial fisheries management area and within the Northern Cook Inlet sport and subsistence fisheries management area. Wasilla is not eligible to participate in either the Community Development Quota or the Community Quota Entity Program.

#### **Processing Plants**

As of 2011, at least two businesses in Wasilla were involved in fish processing activities. Smoked Alaska Seafoods, a family-owned business that has been in operation over 30 years, produces smoked sockeye, coho, and Chinook salmon products. <sup>315</sup>, <sup>316</sup> Mat Valley Meats is located on the East Palmer-Wasilla highway and began operations in 2008, specializing in custom processing for game hunters and sport fishermen. 317

#### Fisheries-Related Revenue

Wasilla earned little to no revenue from fisheries-related sources between 2000 and 2010. As shown in Table 3, a negligible amount of the community's revenue was derived from the Shared Fisheries Business Tax from 2006 to 2009.

# Commercial Fishing

As Wasilla is an inland community, its involvement in North Pacific commercial fisheries stems primarily from the numerous residents who own, operate, and crew on vessels in the North Pacific fishery fleet, in addition to those holding quota in federal individual fishing quota (IFQ) fisheries.

<sup>&</sup>lt;sup>313</sup> Alaska Department of Fish & Game. (2011). Northern Cook Inlet Management Area. Retrieved December 2, 2011 from http://www.adfg.alaska.gov/index.cfm?ADFG=ByAreaSouthcentralNorthCookInlet.main.

<sup>&</sup>lt;sup>314</sup> Alaska Dept. of Environmental Conservation. (2010). *Alaska's impaired waters* – 2010. Retrieved November 28, 2011 from http://www.dec.state.ak.us/.

<sup>315</sup> Smoked Alaska Seafoods (n.d.). *Homepage*. Retrieved from: http://www.smokedalaska.com/about.htm.

<sup>&</sup>lt;sup>316</sup> Alaska Seafood Marketing Institute. 2011. Directory of Alaska Seafood Suppliers. Retrieved December 12, 2011 from http://www.alaskaseafood.org/industry/suppliers/index.cfm. <sup>317</sup> AFSC Processing Plant Survey 2011.

From 2000 to 2010, the number of crew license holders indicating Wasilla as their community of residence increased from 199 to 265. During the same time period, there was a decrease in the number of vessels owned primarily by Wasilla residents and the number of vessels homeported in the community, with a sharp decline between 2004 and 2005. Table 5 presents 2000 to 2010 data on crew and fleet statistics.

In 2010, 219 residents of Wasilla held a total of 279 permits issued by the Commercial Fisheries Entry Commission (CFEC). This represents an increase from the 141 residents holding 185 permits in 2000. Salmon permits made up the majority of CFEC permits issued to Wasilla residents from 2000 to 2010—from 65% in 2000 to 71% in 2007 and 2009. Most salmon permits held by Wasilla residents are for Bristol Bay-area fisheries; permits for Prince William Sound and Cook Inlet salmon fisheries are held in smaller amounts. A small number of residents also participate in federal groundfish and crab limited license permit (LLP) program fisheries. Table 4 shows CFEC and federal fishing permits issued to Wasilla residents from 2000 to 2010. Holdings by Wasilla residents in the three catch share fisheries (sablefish, halibut, and crab) have increased significantly from 2000 to 2010. In 2010, 24 Wasilla residents held halibut quota shares amounting to an allocation of 235,998 lbs. Sablefish and crab quota share holdings by Wasilla residents in the same year amounted to approximately 40,000 and 30,000 lbs, respectively. Tables 6 to 8 present quota holdings by Wasilla residents in the three catch share programs over the 2000 to 2010 period.

In spite of a decline from 2000 to 2010 in the number of commercial vessels owned primarily by Wasilla residents, the volume and real ex-vessel value of landings by residents' vessels has more than doubled during this period. In 2010, commercial fishery landings by Wasilla vessels totaled 12.5 million lbs and had an ex-vessel value of \$11.0 million; in 2010 dollars, ex-vessel value in 2000 was \$3.6 million. Salmon accounts for the largest volume of landings out of all species landed by Wasilla vessels. This species group is also the most lucrative for Wasilla vessels, accounting for 68% of total ex-vessel value from 2000 to 2010. Other species landed by Wasilla's fleet between 2000 and 2010 were sablefish, pollock, Pacific cod, crab, herring, halibut, and other shellfish. Table 10 presents 2000-2010 commercial fishery landing statistics for vessels owned by community residents.

http://www.cfec.state.ak.us/fishery statistics/earnings.htm.

Inflation was adjusted using the Bureau of Labor Statistics Producer Price Index for processed unprocessed and packaged fish, retrieved December 1, 2011 from http://www.bls.gov/ppi/#data.

<sup>&</sup>lt;sup>318</sup> Alaska Commercial Fishery Entry Commission. (2011). Fishery Statistics – Participation & Earnings. Permit & Fishing Activity by Year, State, Census Area or Alaskan City. Retrieved January 24, 2012 from

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Shared Fisheries Business Tax <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	\$5	\$103	\$128	\$29	n/a
Fisheries											
Resource Landing Tax <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fuel transfer tax <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Extraterritorial fish tax <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulk fuel transfers <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Port/dock usage <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fishing gear storage on public land <sup>3</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marine fuel sales tax <sup>3</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total fisheries-related revenue <sup>4</sup>	n/a	n/a	n/a	n/a	n/a	n/a	\$5	\$103	\$128	\$29	n/a
Total municipal revenue (in millions											
of dollars) <sup>5</sup>	\$9.19 M	\$8.97 M	\$9.23 M	\$9.75 M	\$12.49 M	\$14.72 M	\$14.21 M	\$14.25 M	\$15.70 M	\$15.94 M	\$17.28 M

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

<sup>&</sup>lt;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.

<sup>&</sup>lt;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.

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

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

<sup>&</sup>lt;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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) 1	Total permits	7	7	8	11	12	13	13	14	13	14	12
	Active permits	2	2	2	2	3	3	2	1	1	3	3
	% of permits fished	28%	28%	25%	18%	25%	23%	15%	7%	7%	21%	25%
	Total permit holders	7	7	7	9	10	11	11	12	11	12	10
Crab (LLP) 1	Total permits	0	0	0	0	0	1	1	1	1	1	1
	Active permits	0	0	0	0	0	0	0	1	0	0	1
	% of permits fished						0%	0%	100%	0%	0%	100%
	Total permit holders	0	0	0	0	0	1	1	1	1	1	1
Federal Fisheries	Total permits	7	8	9	8	9	10	10	10	11	9	9
Permits <sup>1</sup>	Fished permits	0	0	0	2	3	2	6	5	6	5	5
	% of permits fished	0%	0%	0%	25%	33%	20%	60%	50%	55%	56%	56%
	Total permit holders	6	7	8	6	7	8	9	9	10	8	8
Crab (CFEC) <sup>2</sup>	Total permits	3	1	2	3	4	11	9	8	7	8	10
	Fished permits	1	0	1	2	3	5	2	4	4	2	4
	% of permits fished	33%	0%	50%	67%	75%	45%	22%	50%	57%	25%	40%
	Total permit holders	3	1	2	3	3	7	8	7	6	7	9
Other shellfish (CFEC)	Total permits	2	1	2	2	4	4	6	5	5	5	12
	Fished permits	1	1	1	1	2	1	3	1	2	2	4
	% of permits fished	50%	100%	50%	50%	50%	25%	50%	20%	40%	40%	33%
	Total permit holders	2	1	2	2	4	4	5	4	4	4	11
Halibut (CFEC) <sup>2</sup>	Total permits	16	17	20	19	17	19	19	22	19	18	20
	Fished permits	13	14	18	19	15	17	19	22	18	17	20
	% of permits fished	81%	82%	90%	100%	88%	89%	100%	100%	95%	94%	100%
	Total permit holders	16	17	20	19	15	18	18	21	18	17	20
Herring (CFEC) <sup>2</sup>	Total permits	11	9	9	6	6	7	7	9	9	10	11
	Fished permits	4	3	3	1	0	3	1	1	1	1	1
	% of permits fished	36%	33%	33%	17%	0%	43%	14%	11%	11%	10%	9%
	Total permit holders	7	5	5	4	6	5	6	8	8	9	10

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	Total permits	8	11	6	9	11	9	10	12	12	10	14
	Fished permits	4	7	5	8	10	4	10	11	11	10	14
	% of permits fished	50%	64%	83%	89%	91%	44%	100%	92%	92%	100%	100%
	Total permit holders	7	8	6	7	9	8	9	11	10	8	11
Groundfish (CFEC) <sup>2</sup>	Total permits	25	18	13	17	17	16	11	12	17	14	16
	Fished permits	10	4	3	8	5	5	5	5	8	8	11
	% of permits fished	40%	22%	23%	47%	29%	31%	45%	42%	47%	57%	69%
	Total permit holders	15	14	12	12	12	12	9	10	15	13	15
Other Finfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	1	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished									0%		
	Total permit holders	0	0	0	0	0	0	0	0	1	0	0
Salmon (CFEC) <sup>2</sup>	Total permits	120	126	122	123	135	136	148	165	163	158	196
	Fished permits	94	88	64	74	84	92	101	116	111	100	130
	% of permits fished	78%	70%	52%	60%	62%	68%	68%	70%	68%	63%	66%
	Total permit holders	125	126	125	128	136	141	153	172	169	161	191
Total CFEC Permits <sup>2</sup>	Permits	185	183	174	179	194	202	210	233	233	223	279
	Fished permits	127	117	95	113	119	127	141	160	155	140	184
	% of permits fished	69%	64%	55%	63%	61%	63%	67%	69%	67%	63%	66%
	Permit holders	141	145	146	152	159	163	177	199	196	184	219

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

<sup>&</sup>lt;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 the AFSC, Seattle. [URL not publicly available as some information is confidential.]

Table 5. Characteristics of the Commercial Fishing Sector in Wasilla: 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 Wasilla <sup>2</sup>	Total Net Lbs Landed In Wasilla <sup>2,5</sup>	Total Ex- Vessel Value Of Landings In Wasilla <sup>2,5</sup>
2000	199	0	1	180	54	0	0	\$0
2001	172	0	0	178	60	0	0	\$0
2002	129	0	1	171	62	0	0	\$0
2003	158	0	0	150	55	0	0	\$0
2004	181	1	0	135	52			
2005	177	0	0	64	16	0	0	\$0
2006	203	0	2	82	15	0	0	\$0
2007	245	0	1	97	15	0	0	\$0
2008	263	0	1	94	13	0	0	\$0
2009	267	0	1	89	15	0	0	\$0
2010	265	0	1	106	18	0	0	\$0

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

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

<sup>&</sup>lt;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 the AFSC, Seattle. [URL not publicly available as some information is confidential.]

<sup>&</sup>lt;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 the AFSC, Seattle. [URL not publicly available as some information is confidential.]

<sup>&</sup>lt;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 the AFSC, Seattle. [URL not publicly available as some information is confidential.]

<sup>&</sup>lt;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 the AFSC, Seattle. [URL not publicly available as some information is confidential.]

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

Year	Number of Halibut Ouota Share	Halibut Quota Shares Held	Halibut IFQ Allotment (lbs)
	Account Holders		` '
2000	30	1,546,948	175,580
2001	30	1,452,584	194,766
2002	31	1,240,373	163,687
2003	28	1,607,141	220,084
2004	25	1,648,660	247,317
2005	29	1,812,022	269,389
2006	28	1,921,575	275,691
2007	26	2,583,338	379,924
2008	25	2,200,949	339,989
2009	25	2,066,982	262,189
2010	24	2,066,232	235,998

Note: n/a indicates that no data were reported for that year. 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 AFSC, Seattle. [URL not publicly available as some information is confidential.]

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

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (lbs)
2000	3	11,214	892
2001	4	12,471	1,045
2002	2	7,115	733
2003	4	40,881	4,292
2004	4	40,881	4,819
2005	4	37,709	4,362
2006	5	51,979	5,248
2007	6	631,682	68,292
2008	4	35,857	3,354
2009	4	494,095	43,169
2010	4	494,095	40,111

*Note: n/a indicates that no data were reported for that year.* 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 AFSC, 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 Wasilla: 2000-2010.

	Year	Number of Crab Quota	Crab Quota Shares	Crab IFQ
		Share Account Holders	Held	Allotment (lbs)
2005		1	105,222	2,514
2006		1	139,200	2,365
2007		1	139,200	3,365
2008		1	139,200	3,163
2009		2	1,282,241	30,399
2010		2	1,282,241	30,283

Note: n/a indicates that no data were reported for that year. 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 AFSC, Seattle. [URL not publicly available as some information is confidential.]

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

			To	tal Net	Pounds	1					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	0	0	0	0		0	0	0	0	0	0
Finfish	0	0	0	0		0	0	0	0	0	0
Halibut	0	0	0	0		0	0	0	0	0	0
Herring	0	0	0	0		0	0	0	0	0	0
Other Groundfish	0	0	0	0		0	0	0	0	0	0
Other Shellfish	0	0	0	0		0	0	0	0	0	0
Pacific Cod	0	0	0	0		0	0	0	0	0	0
Pollock	0	0	0	0		0	0	0	0	0	0
Sablefish	0	0	0	0		0	0	0	0	0	0
Salmon	0	0	0	0		0	0	0	0	0	0
Total <sup>2</sup>	0	0	0	0		0	0	0	0	0	0
		Ex-ve	ssel Va	lue (no	minal U	S. doll	ars)				
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
Finfish	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
Halibut	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
Herring	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
Other Groundfish	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
Other Shellfish	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
Pacific Cod	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
Pollock	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
Sablefish	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0
Salmon	\$0	\$0	\$0	\$0		\$0	\$0	\$0	\$0	\$0	\$0

\$0 *Note: Cells showing – indicate that the data are considered confidential.* 

\$0

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 the AFSC, Seattle. [URL not publicly available as some information is confidential.]

\$0

\$0

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\$0

\$0

\$0

Total<sup>2</sup>

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

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

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

					Total Net	t Pounds <sup>1</sup>					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab											
Finfish											
Halibut	114,488	116,617	126,932	123,397	42,105	54,825	169,627	276,407	290,157	606,399	641,435
Herring											
Other	1 205	5,019	5 252	10,016	1 065	1 525	2 217	10 275	24.045	25 660	156 451
Groundfish	4,385	3,019	5,353	10,010	1,865	1,535	3,317	19,275	34,945	25,668	156,451
Other							53,162				51,400
Shellfish	<del></del>	<del></del>		<b></b>	<del></del>		33,102				31,400
Pacific Cod	251,455	202,575	388,318	19,355	25,735		721,474	847,222	1,114,459	1,916,415	4,629,569
Pollock											7,546
Sablefish		11,874					35,091	142,512	194,718	168,322	225,912
Salmon	5,437,045	5,354,672	3,495,257	2,659,008	3,529,949	3,956,577	5,252,055	7,787,589	7,282,150	7,685,767	6,755,456
Total <sup>2</sup>	5,807,373	5,690,757	4,015,860	2,811,776	3,599,654	4,012,937	6,234,726	9,073,005	8,916,429	10,402,571	12,467,769
				Ex-ve	ssel Value (no	minal U.S. do	ollars)				
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab											
Finfish											
Halibut	\$284,876	\$233,468	\$277,663	\$351,632	\$127,008	\$167,935	\$638,398	\$1,216,284	\$1,243,906	\$1,614,590	\$2,936,226
Herring											
Other	\$2,222	\$2,088	\$2,856	\$5,785	\$1,353	\$999	\$1,305	\$9,466	\$17,730	\$13,690	\$60,111
Groundfish	\$2,222	\$2,000	\$2,630	\$3,763	\$1,333	ゆフフフ	\$1,505	\$9,400	\$17,730	\$13,090	\$00,111
Other							\$295,710				\$193,797
Shellfish	<del></del>	<del></del>			<del></del>		\$293,710			<del></del>	\$193,797
Pacific Cod	\$77,230	\$51,217	\$81,853	\$5,065	\$6,759		\$264,200	\$403,571	\$637,739	\$525,597	\$1,288,405
Pollock											\$661
Sablefish		\$37,676					\$91,929	\$391,037	\$605,218	\$583,649	\$954,293
Salmon	\$2,259,535	\$1,705,063	\$1,239,186	\$1,153,289	\$1,840,523	\$2,296,569	\$3,051,943	\$4,360,923	\$4,731,505	\$4,563,103	\$5,539,095
Total <sup>2</sup>	\$2,623,863	\$2,029,511	\$1,601,558	\$1,515,771	\$1,975,643	\$2,465,503	\$4,343,485	\$6,381,281	\$7,236,097	\$7,300,628	10,972,589

Note: Not Reported indicates that no data were reported for that year. 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 the AFSC, Seattle. [URL not publicly available as some information is confidential.]

<sup>&</sup>lt;sup>1</sup> Net lbs refers to the landed weight recorded in fish tickets.

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

# Recreational Fishing

Wasilla residents actively participate in Alaska recreational fisheries as anglers and guides. As shown in Table 11, there were a total of 6 registered sport fish guide businesses active in 2010, compared to 8 in 2000. Overall, the number of active sport fish guide businesses remained steady between 2000 and 2010, peaking in 2001 at 9, and bottoming out in 2006 at 4. The number of sport fish guide licensees held within the community declined between 2000 and 2010, from 106 to 66. The number of sport fish guide licenses held peaked in 2003 at 126 and was at its lowest in 2005 at 56. Though the numbers of sport fish guide businesses and licenses in the community have generally declined since 2000, the number of Wasilla residents purchasing licenses (irrespective of location of purchase) steadily increased from 12,417 in 2000 to 18,789 in 2010. Sportfishing licenses sold in Wasilla also increased significantly from 13,216 in 2000 to 28,511 in 2010.

With respect to recreational fishing in the surrounding Knik Arm region, survey data on private anglers indicate that fished species include Chinook, coho, pink, and sockeye salmon, as well as smelt and Dolly Varden. <sup>320</sup> As shown in Table 11, in 2009 an estimated 33,865 private anglers fished in the region for a total of 122,299 estimated fishing days; freshwater recreational fishing accounted for nearly all of the activity reported (122,140 estimated days). <sup>321</sup> Resident anglers in 2009 accounted for 76% of estimated saltwater fishing days and 91% of estimated freshwater fishing days. No kept/released log book data was reported for fishing charters out of Wasilla between 2000 and 2010<sup>322</sup>, although a number of guides in the community offer charter fishing opportunities in the surrounding Mat-Su Valley region.

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<sup>&</sup>lt;sup>320</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).

Alaska Department of Fish and Game. 2011. Alaska Sport Fishing Survey results database. ADF&G Division of Sport Fish, Alaska Statewide Harvest Survey project. Retrieved November 28, 2011 from http://www.adfg.alaska.gov/sf/sportfishingsurvey/.

<sup>&</sup>lt;sup>322</sup> Alaska Department of Fish and Game. 2011. Alaska sport fish charter logbook database, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

# Table 11. Sport Fishing Trends, Wasilla: 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 Wasilla <sup>2</sup>
2000	8	106	12,417	13,216
2001	9	110	12,723	13,113
2002	6	122	13,224	13,615
2003	4	126	14,063	18,512
2004	7	113	14,874	19,163
2005	6	56	15,777	19,689
2006	4	61	16,340	19,648
2007	7	67	17,211	19,231
2008	8	66	17,473	24,028
2009	7	63	18,840	25,730
2010	6	66	18,789	28,511

	Saltv	vater	Fresl	nwater
Year	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	130	317	13,308	106,880
2001	345	277	14,933	94,862
2002	464	754	17,367	106,163
2003	49	386	15,626	87,000
2004	33	151	11,681	101,663
2005	378	424	14,284	100,677
2006	89	234	12,239	107,233
2007	117	473	13,524	106,567
2008	17	308	14,080	122,167
2009	37	122	10,678	111,462
2010	n/a	124	10,872	95,285

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

<sup>&</sup>lt;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 the AFSC, Seattle. [URL not publicly available as some information is confidential.]

<sup>&</sup>lt;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 the AFSC, Seattle. [URL not publicly available as some information is confidential.]

<sup>&</sup>lt;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 the AFSC, Seattle. http://www.adfg.alaska.gov/sf/sportfishingsurvey/ (Accessed September 2011).

## Subsistence Fishing

Wasilla is legally designated a non-subsistence area for the purpose of state and federal subsistence fisheries management. Residents, however, may participate in state subsistence fisheries located outside the community; and residents who are members of certain Alaska Native Tribes are eligible to harvest halibut for subsistence purposes.

Of the marine species documented by the ADF&G Division of Subsistence, sockeye salmon is estimated to account for a significant majority of subsistence harvest by Wasilla's residents; Chinook and coho salmon are estimated to be harvested in smaller amounts. In 2008, the most recent year for which data is available, Wasilla residents harvested an estimated 16,180 sockeye salmon, down from the estimated high of 22,799 fish in 2005 as well as from the 2000-2007 estimated average of 18,000 fish. Average estimated harvests of Chinook and coho salmon from 2000 to 2008 were 650 and 325 fish, respectively.

For the small number of Wasilla residents who hold a Subsistence Halibut Registration Certificate (SHARC), estimated harvest of subsistence halibut from 2003 to 2009 averaged 2,093 lbs annually. However, reported halibut harvests declined significantly in 2010 to 80 pounds on two SHARC; a relatively small number of active permits compared to total SHARC held. Residents of Wasilla have not been documented as harvesting any marine mammal species for subsistence purposes. Tables 12 through 15 show additional statistics on participation by Wasilla residents in subsistence fishing activities.

Table 12. Subsistence Participation by Household and Species, Wasilla: 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, Wasilla: 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	854	822	689	7	411	n/a	15,722	n/a	n/a
2001	913	833	625	n/a	319	1	18,350	n/a	n/a
2002	654	582	722	7	285	15	13,890	n/a	n/a
2003	611	541	517	n/a	136	2	12,318	n/a	n/a
2004	829	709	765	10	472	7	17,316	n/a	n/a
2005	886	761	412	n/a	246	n/a	22,799	n/a	n/a
2006	930	794	685	14	432	24	21,719	n/a	n/a
2007	957	832	1,204	43	311	n/a	26,616	n/a	n/a
2008	971	836	728	33	174	58	16,180	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.

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

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	18	4	761
2004	26	11	3,428
2005	28	3	1,069
2006	24	6	3,988
2007	37	7	2,225
2008	37	6	1,016
2009	33	6	2,169
2010	43	2	80

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, 2010. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 357, Anchorage. Data compiled by Alaska Fisheries Information Network for the AFSC, Seattle.

<sup>&</sup>lt;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>&</sup>lt;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).

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

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

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

# **Additional Information**

Wasilla is home to the annual 1,000-mile Iditarod Trail Sled Dog Race from Anchorage to Nome. The community served as the official starting location of the race until 2008, when urban growth and lack of snow forced officials to permanently move the start location north to Willow. 323

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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.

White, Rindi. 2008. Iditarod home more than just restart point. *Alaska Daily News*. Retrieved December 2, 2011 from http://www.adn.com/2008/01/28/296206/iditarod-home-more-than-just-restart.html.

# Willow (WILL-oh)

# **People and Place**

Location <sup>324</sup>



Willow is located in the Mat-Su Borough, between mile 60.0 and 80.7 of the George Parks Highway, 37 mi north of Anchorage. Its western boundary is the Susitna River. The area encompasses 684.8 sq mi of land and 8.0 sq mi of water. Willow is not incorporated into a municipality and is under the jurisdiction of Matanuska-Susitna (Mat-Su) Borough.

Demographic Profile 325

In 2010, there were 2,102 residents living in Willow, ranking it 45<sup>th</sup> of 352 communities in terms of population size. Between 1990 and 2010, the population grew by 637.5%. Between 2000 and 2009, the population grew by 33.8% with an average annual growth rate of 2.1%, which was much higher than the statewide average of 0.75% and indicative of steady growth. 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 there are seasonal workers living in Willow year-round for lodging, fishing, and dog mushing. The population typically reaches its annual peak in June, and is thought to be driven mostly by employment in fisheries sectors.

The racial and ethnic composition of Willow is predominately White. In 2010, 90.8% of residents identified themselves as White, compared to 92.4% in 2000; 5.2% identified themselves as American Indian or Alaska Native, compared to 3.1% in 2000; and 2.9% identified themselves as two or more races, compared to 3.9% in 2000. In addition, 1.3% of residents identified themselves as Hispanic or Latino in both 2000 and 2010. All other races each represented less than 1% of the population in both 2000 and 2010 (Figure 1).

In 2010, the average household size was 2.34, compared to 2.90 in 1990 and 2.54 in 2000. In that year, there were 1,912 total housing units, compared to 244 in 1990 and 1,530 in 2000. Of the households surveyed in 2010, 40% were owner-occupied, compared to 37% in 2000; 7% were renter-occupied, compared to 5% in 2000; 5% were vacant, compared to 4% in 2000; and 48% were occupied seasonally, compared to 53% in 2000. There were 11 residents living in group quarters in 2010, compared to 0 in both 1990 and 2000.

The gender distribution in 2010 was somewhat skewed at 53.4% male and 46.6% female. This was slightly less even than the statewide distribution (52% male, 48% female), and similar to the distribution in 2000 (53.3% male, 46.7% female). The median age in 2010 was 46.4 years,

<sup>&</sup>lt;sup>324</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.

<sup>325</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.

which was significantly higher than the statewide median of 33.8 years and moderately higher than the 2000 median of 40.1 years.

When compared with 2000, the population structure in 2010 was less expansive. In addition, age cohorts above 39 showed characteristics consistent with a stable population, meaning that cohorts aged while still mostly retaining their structural character. However, age cohorts 30 and under did not retain their structure, possibly indicating low youth retention. In 2010, 23.4% of residents were under the age of 20, compared to 29.8% in 2000; 22.5% were over the age of 59, compared to 13.7% in 2000; 46.4% were between the ages of 30 and 59, compared to 50.1% in 2000; and 7.7% were between the ages of 20 and 29, compared to 6.5% in 2000.

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Year	U.S. Decennial Census <sup>1</sup>	Alaska Dept. of Labor Estimate of Permanent Residents <sup>2</sup>
1990	285	-
2000	1,658	-
2001	-	1,667
2002	-	1,719
2003	-	1,814
2004	-	1,863
2005	-	1,898
2006	-	1,964
2007	-	2,046
2008	-	2,136
2009	-	2,218
2010	2,102	-

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

<sup>&</sup>lt;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.

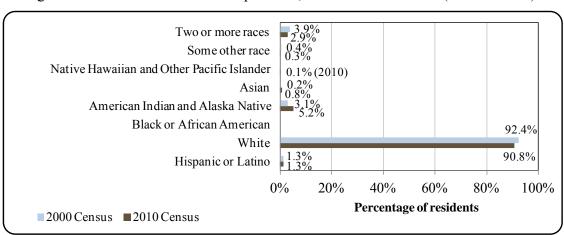
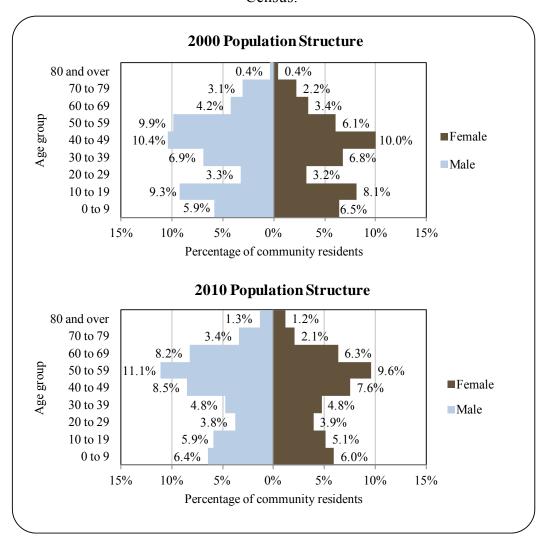


Figure 1. Racial and Ethnic Composition, Willow: 2000-2010 (U.S. Census).

<sup>&</sup>lt;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/isf/pages/index.xhtml.

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



Gender distribution by age cohort was slightly more even in 2010 than in 2000 with slight male biases along most age ranges. In that year, the greatest absolute gender difference occurred in the 60 to 69 range (8.2% male, 6.3% female), followed by the 50 to 59 (11.1% male, 9.6% female) and 70 to 79 (3.4% male, 2.1%) ranges. Of those three, the greatest relative difference occurred in the 70 to 79 range. Information regarding Willow's population structure can be found in Figure 2.

In terms of education attainment, the U.S. Census' 2006-2010 American Community Survey (ACS) <sup>326</sup> estimated that 89.3% of residents aged 25 years and older held a high school

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<sup>&</sup>lt;sup>326</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.

diploma or higher degree, compared to an estimated 90.7% of Alaska residents overall. Also in that year, an estimated 2.7% of residents had less than a ninth grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 8% had a ninth to twelfth grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 33.9% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 9.9% held an Associate's degree, compared to an estimated 8% of Alaska residents overall; an estimated 18% held a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall; an estimated 5.4% held a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture<sup>327</sup>

Historically, Dena'ina Athabascan Indians occupied the area; living in semi-permanent villages. The community got its start when gold was discovered on Willow Creek in 1897. Supplies and equipment were brought in by boat to Knik. From there, a 26 mi summer trail went northwest, up Cottonwood Creek, and across Bald Mountain to Willow Creek. The winter sled trail went north, crossing the present line of the Alaska Railroad at Houston, Alaska, and up the west end of Bald Mountain for 30 mi. This trail, dubbed the "Double Ender Sled Trail," is still being used by skiers, hunters, backpackers, and snowmobile enthusiasts. The sleds then followed a trail, now Hatcher Pass Road, along Willow Creek in an easterly direction. The Talkeetna Trail also passed through Willow and was used by dog teams and pack horses. Cabins to accommodate freighters and mail carriers were located at Nancy Lake, Willow, and other points north. This route was the forerunner of the Parks Highway. During construction of the Alaska Railroad, surveyors, construction crews, homesteaders, and other settlers came to Willow. A railroad station house was constructed in 1920. During World War II, a radar warning station and airfield were built. The Trail's End Lodge was built in 1947; it subsequently became a post office in 1948. By 1954, Willow Creek was Alaska's largest gold mining district, with total production approaching \$18 million. Land disposals, homestead subdivisions, and completion of the George Parks Highway in 1972 fueled growth in the area. In 1976, Alaskans selected Willow for their new state capital site. However, funding to enable the capital move was defeated in the November 1982 election.

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<sup>&</sup>lt;sup>327</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.

# **Natural Resources and Environment**

January temperatures range from -33 to 33 °F (-36 to 56 °C); July can range from 42 to 83 °F (6 to 28 °C). Annual rainfall varies from 16 to 27 inches, with 48 to 150 inches of snowfall. 328

The topography surrounding Willow was shaped by glaciers which retreated in a north and northeastern direction approximately 9,000 years ago. As they retreated, a series of low hills and ridges were left behind. Numerous lakes occupy areas between the ridges. Underlying geology in the area consists of coal-bearing bedrock. As the glaciers retreated, thick deposits of sandy and gravelly moraine remained, which were later covered by silt loess. Topsoil is generally well-drained, with the exception of pockets of poorly drained peat. Vegetation is consistent with most of southcentral Alaska. Woody vegetation consists of mixed paper birch and white spruce stands. Black spruce is common on north facing slopes, poorly drained soils, and areas where permafrost may exist below the surface. Low-lying alluvial plains support cottonwood and quaking aspen populate some well-drained areas. Understory vegetation consists generally of low shrubs, devils club and high grasses. Poorly drained areas consist of alder and willow thickets. Muskeg areas are covered with sphagnum mosses. Other plants include Labrador-tea, cotton grass, bog birch, dwarf willow, bog blueberry, cloudberry, and low and high bush cranberry. Aquatic wildlife in the area includes coho, sockeye, and Chinook salmon, rainbow trout, Dolly Varden, whitefish, northern pike, burbot, long nose suckers, and threespined stickleback. The nearby Nancy Lake State Recreation Area (NLSRA) has stocked rainbow trout and landlocked coho salmon. Terrestrial mammals include moose, black bear, beaver, otter, mink, muskrat, lynx, wolverine, martin, rabbits, and fox. Birds include ravens, loons, magpies, ducks, owls, eagles, and spruce hens. 329

Coal, timber, and gravel make up the majority of exploitable natural resources in the Willow area. Coal deposits studied in the Houston area are sub-bituminous and characterized as low to medium grade. The Coal Project, located to the southwest of Willow, produces 12 million tons of coal annually and is expected to have a productive lifespan of 25 years. The NLSRA and Susitna Flats State Game Refuge provide scenic and recreational resources, as well as environmental services which support wildlife and quality of life. Oil and gas sources are known to exist in the area. There are several shallow gas leases within the Willow area and additional exploration licenses have been issued within the Susitna Valley. Other coal gasification developments are focused primarily within the Beluga River area to the southwest. Gas storage was approved for the Ivan River area outside of Beluga.

Alaska Department of Natural Resources (1983). *Nancy Lake State Recreation Area*. Retrieved April 26, 2012 from: http://www.dnr.alaska.gov/parks/plans/nancylake/nancylake/nancylakesramasplan.pdf.

330 City of Houston (2003). City of Houston Comprehensive Plan. Retrieved April 26, 2012 from:

http://www.commerce.state.ak.us/dca/plans/Houston-CP-2003.pdf.

<sup>328</sup> Ihid

<sup>&</sup>lt;sup>331</sup>Alaska Department of Natural Resources (n.d.) *Chuitna Coal Project*. Retrieved April 26, 2012 from: http://www.dnr.state.ak.us/mlw/mining/largemine/chuitna/.
<sup>332</sup> See footnote 329.

<sup>&</sup>lt;sup>333</sup> Alaska Department of Natural Resources (n.d.). *Exploration License Areas*. Retrieved April 26, 2012 from: http://dog.dnr.alaska.gov/Programs/ExplorationLicenseAreas.htm#susitna.

Alaska Department of Natural Resources (n.d.). *Cook Inlet Maps*. Retrieved April 26, 2012 from: http://dog.dnr.alaska.gov/Publications/CookInlet.htm#cimaps.

sources are also thought exist in the area. <sup>335</sup> The State of Alaska owns most of the 1.8 million acres of identified timber lands in the Mat-Su Valley. <sup>336</sup>

Borough-wide natural hazards include flooding, earthquakes, avalanches, wildfire, severe weather, and extreme cold. Wildfires throughout the Mat-Su Borough typically present little risk to people and property because they often occur in sparsely populated areas. However, fire risk has been increasing in recent years due to urban development and spruce bark beetle infestations. The Mat-Su Borough is subject to seismic hazards which can trigger earthquakes, landslides, avalanches, ground uplift or subsidence, infrastructure failures, and soil liquefaction. Severe weather hazards can bring extreme cold, heavy snow, high winds, ice, flooding, landslides, and erosion. Overall, the Susitna Valley is most susceptible to wildfire, river flooding, erosion, and earthquakes.

According the Alaska Department of Environmental Conservation, there were no notable environmental remediation sites active in Willow as of 2010. 338

# **Current Economy**<sup>339</sup>

Many Willow residents are self-employed in a variety of businesses, including lodging, guiding and charter services, and retail stores. There are two saw mills and one prefabricated wood-building manufacturer. Some residents are employed in Palmer, Wasilla, or Anchorage. Capitol Speedway attracts stockcar racing enthusiasts from the entire state. <sup>340</sup> In a survey conducted by the AFSC in 2011, community leaders reported that Willow's economy is reliant on mining, fishing, sportfishing, hunting, and dog mushing. Top employers <sup>341</sup> in 2010 included: Mat-Su Borough Schools, State of Alaska, Mat-Su Borough, ASRC Energy Services O&M Inc., Newman's Hilltop Service, Palmer-Wasilla Health System LLC, Job Ready Inc., Fishhook/Halfrack/Townsite, BP Exploration Alaska Inc.; and VECO Alaska Inc.

In 2010,<sup>342</sup> the estimated per capita income was \$27,981 and the estimated median household income was \$58,438, compared to \$22,323 and \$38,906 in 2000, respectively. However, after accounting for inflation by converting 2000 values into 2010 dollars,<sup>343</sup> the real per capita income (\$29,354) and real median household income (\$51,161) indicate a decline in both individual and household earnings. In that year, Willow ranked 79<sup>th</sup> of 305 communities from which per capita income was estimated and 83<sup>rd</sup> of 299 communities from which median household income was estimated.

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<sup>335</sup> See footnote 329.

<sup>&</sup>lt;sup>336</sup> Metiva, M. and D. Hanson. (2008). *Mat-Su Comprehensive Economic Development Strategy*. Retrieved April 26, 2012 from: http://www.commerce.state.ak.us/dca/plans/Matanuska-Susitna%20Borough-EDP-2008.pdf.

<sup>&</sup>lt;sup>337</sup> Adler, B. (2008). *All-Hazards Mitigation Plan*. Retrieved April 26. 2012 from: http://www.matsugov.us. <sup>338</sup> Alaska Department of Environmental Conservation (n.d.). *Contaminated Sites Program*. Retrieved April 26,

<sup>&</sup>lt;sup>338</sup> Alaska Department of Environmental Conservation (n.d.). *Contaminated Sites Program*. Retrieved April 26, 2012 from: http://dec.alaska.gov/spar/csp/list.htm.

<sup>339</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>&</sup>lt;sup>340</sup> See footnote 327.

<sup>&</sup>lt;sup>341</sup> Alaska Department of Labor (n.d.). *Alaska Local and Regional Information Network*. Retrieved April 23, 2012 from: http://live.laborstats.alaska.gov/alari/.

<sup>&</sup>lt;sup>342</sup> 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.

Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gove/research/cpi/inflationcalc.htm).

It should be noted that ACS survey methods sample a relatively small percentage of the population, and as such, may not capture accurate economic conditions within communities with small populations. Data compiled in the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (ADOLWD) reported \$29.49 million in total wages earned by private sector and state employees, indicating a per capita income of \$14,030 when compared to 2010 U.S. Census population figures.<sup>344</sup> In addition, the Denali Commission identified Willow as a "distressed" community in 2011, meaning that over 70% of residents were estimated to have incomes of less than \$16,120 in 2010. Overall, ALARI estimates indicate significantly lower incomes than what was reported by the Census Bureau in both 2000 and 2010.

According to 2006-2010 ACS estimates, <sup>345</sup> 53.5% of residents aged 16 and over were part of the civilian labor force and an estimated 0.8% were part of the armed forces in 2010. In that year, unemployment was estimated at 1.2%, compared to an estimated 5.9% statewide; and an estimated 6.1% of residents were living below the poverty line, compared to an estimated 9.5% of Alaska residents overall. It should be noted that these estimates seem to conflict with Willow's designation as a "distressed community." ALARI estimates in 2010 estimated that unemployment was approximately 12.9% based on unemployment insurance claimants. Of those employed in 2010, an estimated 64.2% worked in the private sector, an estimated 16.2% worked in the public sector, an estimated 17.9% were self-employed, and an estimated 1.7% were unpaid family workers.

By industry, most employed residents were estimated to work in construction sectors (28.3%) in 2010; <sup>346</sup> followed by education, health care, and social assistance (15.2%) and retail trade (13.8%) sectors. Employment by industry was relatively diverse in both 2000 and 2010; however, it should be noted that many Willow residents commute to Wasilla, Palmer, and Anchorage for work. Because of this, employment figures may not necessarily be reflective of Willow's local economy. Residents estimated to be employed in agriculture, forestry, fishing, hunting, and mining sectors declined from 6.1% in 2000 to 3.2% in 2010. Since agriculture, forestry, and mining are dominate industries in the Mat-Su Valley, it is difficult to determine the level at which fisheries sectors contributed to these figures. It should also be noted that much of Willow's fisheries employment is related to recreational fishing sectors, which may not be captured in agriculture, forestry, fishing, hunting, and mining sector estimates. According to 2010 ALARI estimates, <sup>347</sup> most (23.0%) employed residents worked trade, transportation, and utilities sectors; followed by education and health (13.2%); local government (12.2%); and construction (11.7%) sectors.

By occupation type, most employed residents were estimated to hold management or professional positions in 2010 (38.3%); <sup>348</sup> followed by natural resources, construction, or maintenance positions (19.5%); production, transportation, or material moving positions

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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/.
 While American Community Survey (ACS) estimates can provide a good snapshot estimate for larger

<sup>&</sup>lt;sup>345</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>&</sup>lt;sup>346</sup> See footnote 342.

<sup>&</sup>lt;sup>347</sup> See footnote 344.

<sup>348</sup> Ibid.

(18.0%); sales or office positions (17.1%); and service positions (7.1%). Overall, there were significant changes in both employment by industry, and employment by occupation type between 2000 and 2010. Most notably, there was a significant increase in construction sector employment. Other notable increases occurred in education services, health care, social assistance, professional, scientific, management, administrative, and waste management sectors. In terms of occupation type, there were notable increases in the amount of management and professional positions, while there were notable declines in sales and office positions.

Overall, while variation in employment between 2000 and 2010 may be attributed to economic changes, although it is also possible that ACS survey methods were unable to capture accurate employment conditions due to a relatively small sample size. Information regarding employment trends can be found in Figures 3 and 4.

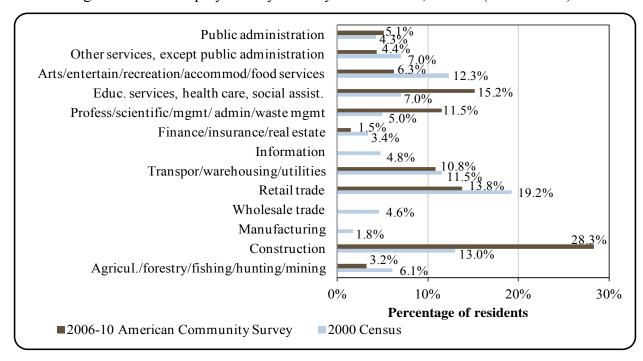
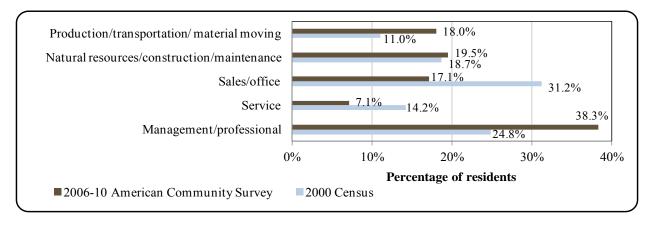


Figure 3. Local Employment by Industry in 2000-2010, Willow (U.S. Census).





#### Governance

Willow is considered a Census Designated Place and is not incorporated into a municipality. Instead it is under the jurisdiction of the Mat-Su Borough, which is seated in Palmer. The community was not included in the Alaska Native Claims Settlement Act (ANCSA) of 1971 and is not represented by a Native Traditional Council. The closest Alaska Department of Fish and Game (ADF&G) office is located in Palmer, 34 mi southeast. The closest National Marine Fisheries Service (NMFS) and U.S. Bureau of Citizenship and Immigration Services offices are located in Anchorage, 37 mi south.

Since Willow is not an incorporated municipality, it is unable to collected revenue through municipal taxes or fees (Table 2). All finances are handled on a borough level. The Borough administers a 9.956 mill base property tax, 5% accommodations tax, and 5.5% tobacco excise tax.

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

Year	Total Municipal Revenue <sup>1</sup>	Sales Tax Revenue <sup>2</sup>	State/Community Revenue Sharing <sup>3,4</sup>	Fisheries- Related Grants (State and Federal) <sup>5</sup>
2000	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a

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.

<sup>&</sup>lt;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.

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

<sup>&</sup>lt;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.

#### Infrastructure

Connectivity and Transportation<sup>349</sup>

From the George Parks Highway, the area has access to the statewide highway system and the transportation facilities of Wasilla, Palmer, and Anchorage. There are two public airstrips: one is a state-owned 4,400 ft long by 75 ft wide gravel airstrip at mile 69.7 Parks Highway and the other is at Deshka Landing and owned by the Alaska Department of Natural Resources. There are five additional private strips and a seaplane base at Kashwitna Lake.

Facilities<sup>350</sup>

Nearly all of the occupied homes in Willow are fully plumbed and use individual water wells and septic tanks. The school operates its own water system. Seasonal-use homes haul water and use outhouses. A borough-operated refuse transfer site is available on Willow-Fishhook Road, about 2 mi off the Parks Highway. Electricity is provided by hydroelectric generator. Visitor accommodations include Willow Trading Post Lodge, Ruth Lake Pioneer Lodge, Willow Island Resort, Sheep Creek Lodge, Chandalar RV Park, Cline's Lake Bed & Breakfast, Camp Caswell, Susitna Landing & Campground, Alaska Host Bed & Breakfast, Gigglewood Inn, Nancy Lake Bed & Breakfast, and Willow Park Bed & Breakfast. Public safety services are provided by state troopers based in Talkeetna. Fire and rescue services are provided by Mat-Su Borough and Willow Ambulance Service. Additional public facilities include a community center and library. Communications services include local and long distance telephone, local television, and local radio.

In a survey conducted by the AFSC in 2011, community leaders reported that local public infrastructure includes a fish cleaning station, a barge landing area/marina at Deshka Landing on the Susitna River. There are no permanent public mooring facilities located in Willow. Vessels which can use facilities in Willow include jet boats, small vessels, fuel barges, and vessels containing hazardous materials. Fisheries-related businesses and services available in Willow include fishing gear sales, boat repair (electrical, mechanical, machining), tackle sales, bait sales, commercial cold storage, fish lodges, fishing related bookkeeping, boat fuel sales, fishing gear repair, fishing gear storage, ice sales, water taxi, seaplane services, and air taxi. Additional public services include a food bank and publically subsidized housing. Residents typically travel to Anchorage, Palmer, or Wasilla for businesses and services not available in Willow.

Medical Services<sup>351</sup>

There are no medical services located in Willow. Sunshine Community Health Center in Talkeetna provides basic health care. Valley Hospital in Palmer provides acute, specialized, and long-term care. Willow Ambulance Service provides alternative care.

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<sup>&</sup>lt;sup>349</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.
<sup>350</sup> Ibid.

<sup>351</sup> Ibid.

Educational Opportunities<sup>352</sup>

Beryozova School offers Kindergarten through 12<sup>th</sup> grade instruction. In 2011, there were 22 students enrolled and one teacher employed. Willow Elementary School offers preschool through 6<sup>th</sup> grade instruction. In 2011, there were 130 students enrolled and 12 teachers employed.

#### **Involvement in North Pacific Fisheries**

History and Evolution of Fisheries

Soon after glaciers receded some 9,000 years ago, Tanaina Athabascans, and possibly Yup'ik Eskimos move into the Susitna River Valley. Two archaeological sites found within the NLSRA have been confirmed, and evidence shows that inhabitants of those sites relied on subsistence fishing, hunting, and trapping. The Alaska Railroad brought homesteaders into the Willow area around 1917, who built a life around mining, logging, and farming. Since then, Willow's participation in North Pacific fisheries has been tied primarily to recreational fishing. The lower Susitna River, Little Susitna River, and various lakes in the region are popular among local anglers, as well as anglers from throughout the state. Willow has become a popular area with residents from the greater Mat-Su region and Anchorage, and the community has grown as a bedroom community centered on sportfishing and hunting. Although commercial fishing is not a central component of Willow's fisheries participation, several residents have commercial fishing permits.

In a survey conducted by the AFSC in 2011, community leaders reported that Willow participates in the fisheries management process in Alaska through a representative who sites on regional fisheries advisory and/or working groups run by ADF&G. Willow is not eligible for participation in either the Community Development Quota (CDQ) or Community Quota Entity (CQE) programs.

# **Processing Plants**

According to ADF&G's 2010 Intent to Operate list, Willow did not have a registered processing plant operating in 2010. The closest seafood processor is located in Wasilla.

#### Fisheries-Related Revenue

Willow did not receive any fisheries-related revenue from taxes or fees between 2000 and 2010 (Table 3).

<sup>&</sup>lt;sup>352</sup> Alaska Department of Education and Early Development (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.

Alaska Department of Natural Resources (n.d.). *Nancy Lake State Recreation Area*. Retrieved April 27, 2012 from: http://dnr.alaska.gov/parks/units/nancylk/nancylk.htm.

#### Commercial Fishing

In 2010, 18 residents, or less than one-percent of the population, held 30 permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 19 residents held 44 CFEC permits. Of the CFEC permits held in 2010, 50% were for salmon, compared to 36% in 2000; 20% were for groundfish, compared to 32% in 2000; 7% were for sablefish, compared to 11% in 2000; 3% were for herring, compared to 7% in 2000; and 20% were for halibut, compared to 14% in 2000. Of the CFEC permits held in 2010, 73% were actively fished, compared to 73% in 2000. This varied by fishery from 100% of halibut permits, to 80% of salmon, 67% of groundfish, and 0% of herring and sablefish permits. Fisheries prosecuted by Willow residents in 2010 included: statewide longline halibut, statewide longline and mechanical jig miscellaneous saltwater finfish, Prince William Sound drift gillnet salmon, Cook Inlet drift and set gillnet salmon, Alaska Peninsula drift gillnet salmon, and Bristol Bay drift and set gillnet salmon. 354

In addition, 7 residents held 8 License Limitation Program (LLP) groundfish permits, one resident held one LLP crab permit, and 3 residents held 3 Federal Fisheries Permits (FFP) that year. Approximately 50% of groundfish LLP, 0% of crab LLP, and 100% of FFP were actively fished in 2010. Finally, 470,466 shares of halibut quota were held through 7 accounts in 2010, compared to 155,692 shares held through 3 accounts in 2000. No residents held sablefish quota in 2010, although 143,794 shares were held on one account in 2006. No residents held crab quota between 2010 and when the program began.

Residents held 23 commercial crew licenses in 2010, compared to 16 in 2000. In that year, residents held majority ownership of 11 vessels, compared to 32 in 2000. Given that no shore-based processing plants are located in Willow, no commercial landings were reported in Willow between 2000 and 2010. However, residents of Willow did participate in the state's commercial fisheries by making landings in other communities. However, landings reported by Willow residents at other locations are considered confidential in 2010 with the exception of salmon. In that year, 695,046 lbs of salmon valued at \$668,183 were landed, compared to 387,574 lbs valued at \$296,558 in 2000; a decrease of \$0.09 per lb after adjusting for inflation 355 and without considering the species composition of landings. Halibut landings in 2008 totaled 58,355 lbs valued at \$260,112, compared to 51,523 lbs valued at \$104,800 in 2001; an increase of \$1.73 after adjusting for inflation. 356 Other groundfish landings totaled 32,413 lbs valued at \$12,478 in 2007, compared to 184,426 lbs valued at \$70,268 in 2001. Pacific cod landings totaled 1.07 million lbs valued at \$320,352, compared to 901,249 lbs valued at \$356,323 in 2000; a decrease of \$0.08 per lb after adjusting for inflation. 357 Pollock landings in 2002 totaled 3,659 lbs valued at \$231. Sablefish landings in 2001 totaled 49,605 lbs valued at \$157,306. Information regarding commercial fishing trends can be found in Tables 4 through 10.

<sup>357</sup> Ibid.

<sup>&</sup>lt;sup>354</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>355</sup> Inflation calculated using the 2010 Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, http://www.bls.gov/ppi/#data. 356 Ibid.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	n/a										
Shared Fisheries Business Tax <sup>1</sup>	n/a										
Fisheries Resource Landing Tax <sup>1</sup>	n/a										
Fuel transfer tax <sup>2</sup>	n/a										
Extraterritorial fish tax <sup>2</sup>	n/a										
Bulk fuel transfers <sup>1</sup>	n/a										
Boat hauls <sup>2</sup>	n/a										
Harbor usage <sup>2</sup>	n/a										
Port/dock usage <sup>2</sup>	n/a										
Fishing gear storage on public land <sup>3</sup>	n/a										
Marine fuel sales tax <sup>3</sup>	n/a										
Total fisheries-related revenue <sup>4</sup>	n/a										
Total municipal revenue <sup>5</sup>	n/a										

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

<sup>&</sup>lt;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.

<sup>&</sup>lt;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.

<sup>&</sup>lt;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>&</sup>lt;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.

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) 1	Total permits	7	9	10	10	8	8	7	7	7	8	8
	Active permits	4	7	6	7	4	4	3	4	4	4	4
	% of permits fished	57%	77%	60%	70%	50%	50%	42%	57%	57%	50%	50%
	Total permit holders	5	6	7	7	6	6	6	6	6	7	7
Crab (LLP) 1	Total permits	0	0	1	1	1	1	1	1	1	1	1
	Active permits	0	0	0	1	0	1	0	0	1	0	0
	% of permits fished	n/a	n/a	0%	100%	0%	100%	0%	0%	100%	0%	0%
	Total permit holders	0	0	1	1	1	1	1	1	1	1	1
Federal Fisheries	Total permits	9	9	9	3	3	3	4	4	4	3	3
Permits <sup>1</sup>	Fished permits	0	0	0	2	3	2	3	4	2	3	3
	% of permits fished	0%	0%	0%	67%	100%	67%	75%	100%	50%	100%	100%
	Total permit holders	7	7	7	3	3	3	4	4	4	3	3
Crab (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) <sup>2</sup>	Total permits	6	7	6	6	7	7	8	7	7	6	6
	Fished permits	4	5	6	6	7	7	8	6	7	6	6
	% of permits fished	67%	71%	100%	100%	100%	100%	100%	86%	100%	100%	100%
	Total permit holders	6	7	6	6	7	7	8	7	7	6	6
Herring (CFEC) <sup>2</sup>	Total permits	3	3	3	2	1	1	1	1	2	1	1
	Fished permits	2	0	0	0	0	0	0	0	1	0	0
	% of permits fished	67%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%
	Total permit holders	1	1	1	1	1	1	1	1	2	1	1

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	Total permits	5	5	5	1	0	0	1	2	1	1	2
	Fished permits	2	5	2	0	0	0	1	0	1	1	0
	% of permits fished	40%	100%	40%	0%	n/a	n/a	100%	0%	100%	100%	0%
	Total permit holders	5	5	5	1	0	0	1	2	1	1	2
Groundfish (CFEC) <sup>2</sup>	Total permits	14	20	16	9	11	8	8	8	9	11	6
	Fished permits	9	10	8	3	4	5	5	5	6	9	4
	% of permits fished	64%	50%	50%	33%	36%	63%	63%	63%	67%	82%	67%
	Total permit holders	6	7	7	5	5	4	6	6	6	7	5
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										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) <sup>2</sup>	Total permits	16	17	18	18	16	18	19	17	18	18	15
	Fished permits	15	10	12	12	11	13	13	12	13	14	12
	% of permits fished	94%	59%	67%	67%	69%	72%	68%	71%	72%	78%	80%
	Total permit holders	16	17	18	18	16	18	19	17	18	17	15
Total CFEC Permits <sup>2</sup>	Permits	44	52	48	36	35	34	37	35	37	37	30
	Fished permits	32	30	28	21	22	25	27	23	28	30	22
	% of permits fished	73%	58%	58%	58%	63%	74%	73%	66%	76%	81%	73%
	Permit holders	19	20	21	21	21	22	24	20	23	20	18

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>&</sup>lt;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 Willow: 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 Willow <sup>2</sup>	Total Net Lbs Landed in Willow <sup>2,5</sup>	Total Ex- Vessel Value of Landings in Willow <sup>2,5</sup>
2000	16	0	0	32	16	0	0	\$0
2001	16	0	0	32	25	0	0	\$0
2002	12	0	0	37	32	0	0	\$0
2003	12	0	0	43	29	0	0	\$0
2004	14	0	0	35	21	0	0	\$0
2005	17	0	0	11	0	0	0	\$0
2006	15	0	0	13	1	0	0	\$0
2007	22	0	0	15	2	0	0	\$0
2008	19	0	0	14	0	0	0	\$0
2009	26	0	0	12	0	0	0	\$0
2010	23	0	0	11	0	0	0	\$0

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>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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 Willow: 2000-2010.

Year	Number of Halibut Quota Share	Halibut Quota	Halibut IFQ Allotment (lbs)
	Account Holders	Shares Held	, ,
2000	3	155,692	15,415
2001	5	420,053	49,728
2002	8	443,922	54,339
2003	8	443,922	54,322
2004	8	445,329	60,346
2005	9	457,690	64,255
2006	9	468,438	64,993
2007	7	455,606	64,554
2008	9	404,674	53,004
2009	7	400,974	47,055
2010	7	470,466	56,039

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 Willow: 2000-2010.

Year	Number of Sablefish Quota Share Account	Sablefish Quota Shares Held	Sablefish IFQ Allotment (lbs)
	Holders		
2000	0	0	0
2001	2	0	0
2002	0	0	0
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	1	143,794	19,030
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 Willow: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (lbs)
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 Willow: 2000-2010.

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

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.]

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

Totals only represent non-confidential data.

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

	Total Net Pounds <sup>1</sup>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab											
Finfish											
Halibut		51,523	75,809				80,931		58,355		
Herring											
Other Groundfish		184,426	20,326	179,285				32,413			
Other Shellfish											
Pacific Cod	901,249	1,354,036	1,074,270								
Pollock			3,659								
Sablefish		49,605									
Salmon	387,574	237,939	419,273	424,551	562,215	383,970	635,315	563,243	481,537	497,825	695,046
Total <sup>2</sup>	1,288,823	1,877,529	1,593,337	603,836	562,215	383,970	716,246	595,656	539,892	497,825	695,046
			Ex-ve	essel Value	(nominal U.	S. dollars)					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab											
Finfish											
Halibut		\$104,800	\$169,360				\$312,334		\$260,112		
Herring											
Other Groundfish		\$70,268	\$7,780	\$42,552				\$12,478			
Other Shellfish											
Pacific Cod	\$356,323	\$441,241	\$320,352								
Pollock			\$231								
Sablefish		\$157,306									
Salmon	\$296,558	\$128,519	\$186,821	\$231,734	\$326,150	\$292,183	\$444,844	\$448,268	\$364,850	\$422,273	\$668,183
Total <sup>2</sup>	\$652,881	\$902,133	\$684,544	\$274,286	\$326,150	\$292,183	\$757,178	\$460,746	\$624,962	\$422,273	\$668,183

*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>&</sup>lt;sup>1</sup> Net lbs refers to the landed weight recorded in fish tickets.

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

#### Recreational Fishing

Recreational fishing is an important part of Willow's fisheries-related economy. Many throughout the state maintain residences in Willow, which they use part-time. According to the 2010 U.S. Census, 47% of total households were occupied full-time. Many streams and lakes in the area are stocked with rainbow trout, arctic grayling, char, and landlocked coho salmon. In a survey conducted by the AFSC in 2011, community leaders reported that sportfishing takes place on charter or party boats, private boats owned by local residents, private boats owned by non-local residents, and from shore or docks. In addition, "fly-in" (remote destination) sportfishing is a popular local activity. Species targeted by local private anglers include all five species of Pacific salmon and hooligan.

In 2010, there were no registered sport fish guide businesses active in Willow, compared to one in 2000. The number of sport fish guide licenses held in the community declined steadily between 2000 and 2010, from 40 to 15. The number of sport fish guide licenses held in the community peaked at 46 in 2004. Also in 2010, 1,109 sportfishing licenses were sold to Willow residents, compared to 896 in 2000; and 817 sportfishing licenses were sold within the community, compared to 421 in 2000. Sportfishing license sales within the community peaked in 2005 at 1,321 licenses.

Willow is located within the Susitna River Drainage ADF&G Harvest Survey area which includes all drainages of the Susitna River. In 2010, there was a total of 122,235 freshwater angler days fished, compared to 241,457 in 2000. In that year, non-Alaska residents accounted for 33% of angler days fished, compared to 27% in 2000. Between 2000 and 2010, there were declines in both Alaska resident and non-Alaska resident angler days fished although the decline in Alaska resident angler days fished was relatively more significant. Information regarding recreational fishing trends can be found in Table 11. According to ADF&G Harvest Survey records, <sup>360</sup> private anglers in Willow target all five species of Pacific salmon, landlocked coho, rainbow trout, Dolly Varden char, whitefish, burbot, Arctic grayling, northern pike, Pacific halibut, rockfish, lingcod, Pacific cod, smelt, razor clams, hardshell clams, shrimp and other shellfish, and other finfish. Kept/released charter information is not available in Willow.

# Subsistence Fishing

Willow is not considered a subsistence-dependent community, and traditional subsistence

activities are generally not practiced by local residents. In a survey conducted by the AFSC in 2011, community leaders reported that subsistence harvesting is not done by residents of Willow. However, residents do harvest salmon as a personal use fishery, through sportfishing. Subsistence data compiled by ADF&G is limited; and information on subsistence participation by household and on subsistence halibut, marine invertebrate, other non-salmon fish and marine

<sup>&</sup>lt;sup>358</sup> Alaska Department of Natural Resources (1983). *Nancy Lake State Recreation Area*. Retrieved April 26, 2012 from: http://www.dnr.alaska.gov/parks/plans/nancylake/nancylake/nancylakesramasplan.pdf.

<sup>&</sup>lt;sup>359</sup> Alaska Department of Fish and Game (n.d.). *Matanuska-Susitna Valley Small Lakes Management Plan*. Retrieved April 27, 2012 from: http://www.adfg.alaska.gov/Static/fishing/pdfs/hatcheries/12region2.pdf. <sup>360</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).

mammal harvests is unavailable. Minimal harvests of salmon for subsistence have been reported by residents. Sockeye salmon are harvested most by residents, followed by coho and Chinook salmon. In 2008, residents reported harvesting 564 salmon, compared to 960 in 2000. Reported subsistence salmon harvests peaked in 2007 at 1,225 fish. Between 2003 and 2008, one resident held a Subsistence Halibut Registration Certificate (SHARC) although no halibut harvests were reported in that time. Two residents held SHARC in 2009 and 2010; again, there were no reported harvests. Information regarding subsistence trends can be found in Tables 12 to 15.

#### **Additional Information**

In a survey conducted by the AFSC in 2011, community leaders were asked their opinions on impacts that fisheries-related management and policies have had on their communities. Community leaders were concerned over poor salmon returns to Willow Creek, Little Willow Creek, Lake Creek, and Deshka River, and their impacts on recreational fishing. When asked about current challenges for the portion of Willow's economy that is based on fishing, community leaders expressed concern over overharvesting and poaching of salmon. Specifically, there were concerns regarding Cook Inlet netting and its affect on Susitna River salmon runs. When asked about the effects fisheries policies or management actions have had on Willow, community leaders expressed concerns over emergency openings for Kenai sockeye impacting northbound salmon stocks. In addition, coho and Chinook salmon bycatch in the Cook Inlet is of chief concern. Overall, there is concern over poor salmon returns and equitable management on a region-wide level.

Table 11	Sport	Eiching	Tranda	Willow	2000-2010.
Table II	Sport	Fishing	i renas.	W1HOW:	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 Willow <sup>2</sup>	Freshwater Angler Days Fished – Non- residents <sup>3</sup>	Freshwater Angler Days Fished – Alaska Residents <sup>3</sup>
2000	1	40	896	421	64,141	177,316
2001	1	44	945	449	71,249	128,658
2002	1	38	973	1,114	59,863	126,516
2003	0	43	1,010	1,117	56,844	131,687
2004	0	46	1,021	1,237	56,934	130,366
2005	0	17	1,050	1,321	68,753	100,803
2006	1	13	1,074	1,272	63,255	109,462
2007	1	18	1,047	1,240	58,471	115,578
2008	0	25	1,108	1,070	49,911	98,827
2009	0	19	1,112	1,001	40,797	99,404
2010	0	15	1,109	817	40,414	81,821

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>&</sup>lt;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>&</sup>lt;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, Willow: 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, Willow: 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	49	45	22	n/a	5	n/a	933	n/a	n/a
2001	57	52	20	n/a	14	n/a	820	n/a	n/a
2002	35	30	9	n/a	17	n/a	641	n/a	n/a
2003	38	31	6	2	16	2	692	n/a	n/a
2004	43	40	28	n/a	2	8	570	n/a	n/a
2005	36	29	10	n/a	30	n/a	309	n/a	n/a
2006	48	37	23	n/a	3	n/a	876	n/a	n/a
2007	48	47	23	4	35	n/a	1,163	n/a	n/a
2008	51	48	10	n/a	20	n/a	534	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>&</sup>lt;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>&</sup>lt;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, Willow: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	1	n/a	n/a
2004	1	n/a	n/a
2005	1	n/a	n/a
2006	1	n/a	n/a
2007	1	n/a	n/a
2008	1	n/a	n/a
2009	2	n/a	n/a
2010	2	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, 2010. 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, Willow: 2000-2010.

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

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

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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.

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