

Kodiak (KOH-dee-ack)

People and Place



*Location*¹

Kodiak is located near the northwestern tip of Kodiak Island in the Gulf of Alaska. Kodiak Island (aka: “the emerald isle”) is the largest island in Alaska and is the second largest island in the United States. Kodiak National Wildlife Refuge (KNWR) encompasses nearly 1.9 million acres on Kodiak and Afognak Islands. It is 252 mi south of Anchorage (a 45-minute flight) and is a 4-hour flight from Seattle. The area encompasses 3.5 sq mi of land and 1.4 sq mi of water. Kodiak was first incorporated in 1940 and is now a Home Rule City and the seat of the Kodiak Island Borough .

*Demographic Profile*²

In 2010, there were 6,130 residents in Kodiak, ranking it the 16th largest of 352 total Alaskan communities with recorded populations that year. Between 1990 and 2010, the population declined by 3.7%. Between 2000 and 2009, the population increased by 4.6% with an average annual growth rate of 0.51%, which was similar to statewide average of 0.75% and indicative of modest growth (Table 1). In a survey conducted by the Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that there were an estimated 6,000 permanent residents, and 600 transient residents living in Kodiak in 2010. According to community leaders, seasonal workers live in Kodiak from July through September, with annual population peaks typically occurring in July and August. Peaks in population are mostly driven by employment in fisheries sectors.

Kodiak has a racially and ethnically diverse community. The majority of the Alaska Native population is Alutiiq, and there is a large Filipino subculture residing in the city. The majority of the changes in racial distribution in the population occurred as proportional increases in the Asian population and decreases in the White population between 2000 and 2010. Further, in 2010, 40.3% of residents identified themselves as White, compared to 46.4% in 2000; 37.4% identified themselves as Asian, compared to 31.7% in 2000; 9.9% identified themselves as American Indian or Alaska Native, compared to 10.5% in 2000; 1.0% identified themselves as Native Hawaiian or Other Pacific Islander, compared to 0.9% in 2000; 0.5% identified themselves as Black or African American, compared to 0.7% in 2000; 6.3% identified themselves as two or more races, compared to 5.4% in 2000; and 4.6% identified themselves as some other race, compared to 4.4% in 2000. In addition, 9.4% of residents identified themselves as Hispanic or Latino, compared to 8.5% in 2000. Information regarding racial and ethnic trends can be found in Figure 1.

¹ 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.

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>.

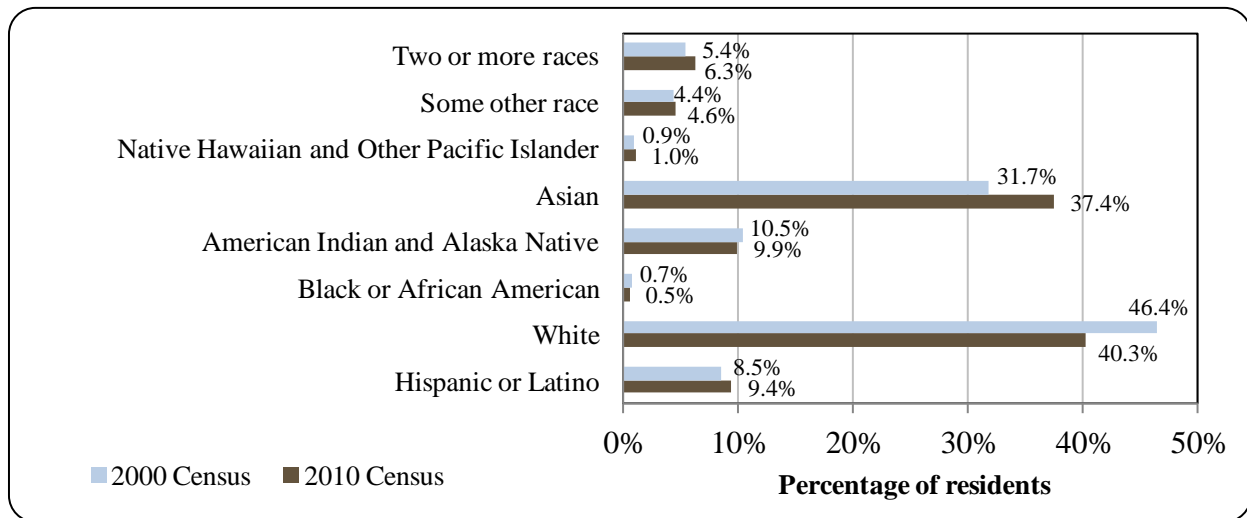
Table 1. Population in Kodiak from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	6,365	-
2000	6,334	-
2001	-	6,073
2002	-	6,100
2003	-	6,109
2004	-	6,210
2005	-	6,139
2006	-	5,670
2007	-	5,796
2008	-	6,541
2009	-	6,626
2010	6,130	-

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

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

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

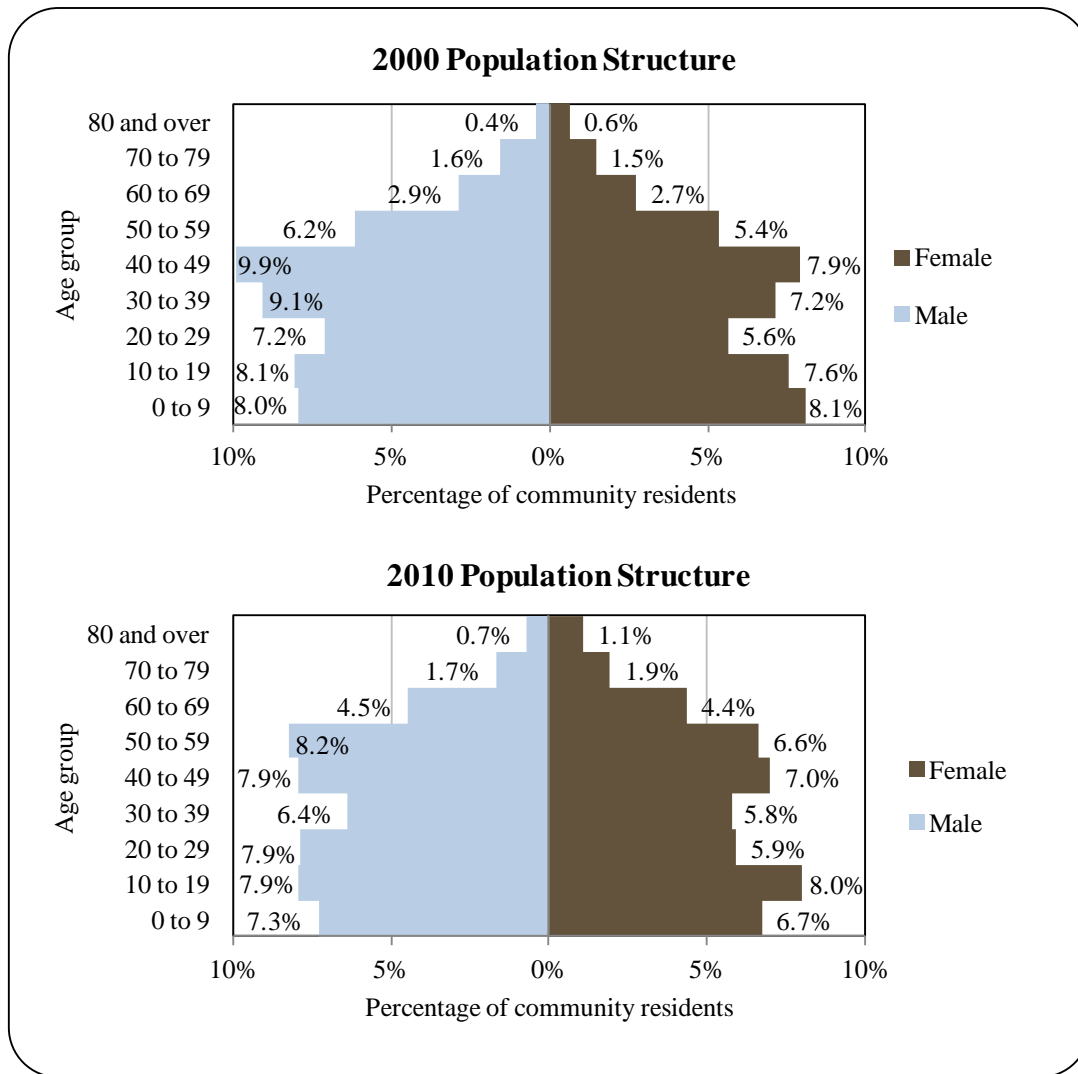


In 2010, the average household size was 2.94, compared to 2.90 in 1990 and 3.10 in 2000. In that year, there were a total of 2,178 households, compared to 2,177 in 1990 and 2,255 in 2000. Of the households surveyed in 2010, 46% were owner-occupied, compared to 43% in 2000; 47% were renter-occupied, compared to 46% in 2000; 5% were vacant, compared to 10% in 2000; and 2% were occupied seasonally, compared to 1% in 2000. In addition, 144 residents were living in group quarters in 2010, compared to 146 in 2000.

In 2010, the gender distribution in Kodiak was 52.5% male and 47.4% female. This was similar to both the statewide gender distribution (52.0% male, 48.0% female), and 2000 distribution (53.3% male, 46.7% female). The median age that year was 35.1 years, which was higher than both the statewide median of 33.8 years and 2000 median of 33.5 years.

In general, population structure was stationary in both 2000 and 2010. However, cohorts displayed age transitions consistent with a stable population, meaning that they retained their overall structure as they aged. In 2010, 29.9% of residents were under the age of 20, compared to 31.8% in 2000; 14.3% were over the age of 59, compared to 9.7% in 2000; 41.9% were between the ages of 30 and 59, compared to 45.7% in 2000; and 13.8% were between the ages of 20 and 29, compared to 12.8% in 2000.

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



Gender distribution by age cohort was more even in 2010 than in 2000. In that year, the greatest absolute gender difference occurred within the 20 to 29 range (7.9% male, 5.9% female), followed by the 50 to 59 (8.2% male, 6.6% female) and 40 to 49 (7.9% male, 7.0% female) ranges. Of those three, the greatest relative difference occurred within the 20 to 29 range. Information regarding changes in Kodiak's population structure can be found in Figure 2.

In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)³ estimated that 88.2% of residents aged 25 and older held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaska residents overall. Also in that year, an estimated 7.8% had less than a 9th grade education, compared to an estimated 3.5% of Alaska residents overall; and estimated 4.0% had 9th to 12th grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 30.4% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 8.5% held an Associate's degree, compared to an estimated 8.0% of Alaska residents overall; an estimated 17.8% held a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall; and an estimated 5.8% held a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture

Kodiak Island is estimated to have been inhabited for at least 7,500 years.^{4,5,6} According to some archaeologists "the ancestors of the present-day Native Alaska residents of the Alutiiq culture area have continuously inhabited the area for at least 7,000 years."⁷ Alutiiq is the more recent term which is used for the culture and the language of the "group of Alaska Native people indigenous to the Kodiak Island Archipelago, the southern coast of the Alaska Peninsula, Prince William Sound, and the lower tip of the Kenai Peninsula."⁸ By about 1200 C.E., the Island may have had a population of about 14,000 Alutiiq inhabitants which is similar to the total number of inhabitants today on the island of Kodiak.⁹

At the time of Russian contact the peoples living on Kodiak Island were the Koniags (the Alutiiq of Kodiak Island and the Alaska Peninsula) of which there were 10,000 or more.¹⁰ The first European and specifically Russian contact was in 1763 by Stephen Glotov. A Russian settlement was established at Three Saints Bay by Gregorii Shelikof in 1784 where the native population was forced to work hunting sea otters. Prior to this hundreds of Alutiiq natives were killed attempting to hide from Shelikof's party and the Alutiiqs were dominated by the Russians

³ 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.

⁴ Crowell, A.L. Steffian, A.F., and G.L. Pullar, eds. 2001. *Looking Both Ways: Heritage and Identity of the Alutiiq People*. University of Alaska Press, Fairbanks.

⁵ Clark, D.W. 1998. Kodiak Island: The Later Cultures. *Arctic Anthropology* 35:172-186.

⁶ Clark, D.W. 1984. Pacific Eskimo: Historical Ethnography. In *Handbook of North American Indians, vol. 5*. D. Damas, ed. Pp 185-197. Smithsonian Institution, Washington D.C.

⁷ Mason, R. (1995). *The Alutiiq Ethnographic Bibliography*. Retrieved April 3, 2012 from <http://www.ankn.uaf.edu/aeb.html>

⁸ Ibid.

⁹ Rennick, P., ed. (2002). From Kodiak to Unalaska. *Alaska Geographic*, 29(4).

¹⁰ Korsmo, F. L. (1994). The Alaska Natives. In Minority Rights Group (Ed.), *Polar Peoples: Self Determination and Development*. London: Minority Rights Publications.

using muskets and cannons. Shelikof was recalled back to Russia and in 1792 Alexander Baranov, a fur trapper established a trading post at St. Paul Harbor, which is the site of the City of Kodiak today. Kodiak became the capital of Russian America and at that time the island was called “Kikhtak” and later “Kadiak” which is the Inuit word for the island. Russian Orthodox clergymen arrived around 1794 to missionize the people of the region. There were more than 6,500 Koniags in the area at that time, but by the end of Russian control of the island in 1867 the population had decreased down to around 2,000 because of “hardship, accidents, and starvation, along with diseases introduced by the Russians.”¹¹

Alaska became a U.S. Territory in 1867 and the harvesting of the sea otters was still the major commercial enterprise of the area, although this quickly led to the near extinction of the animals. In 1882 a fish cannery opened at the Karluk spit which began the development of commercial fishing in the Kodiak area. Many canneries opened by the 1890’s with salmon being the main fish harvested at that time. Kodiak was incorporated in the year of 1940. During World War II, Kodiak was a key operations area throughout the Aleutian Campaign and both the Navy and Army built bases on the island. The population of the town rocketed up to more than 25,000 people during the World War II. After the war the Navy base was transferred into a Coast Guard base and now is the largest Coast Guard base in the world.

Natural Resources and Environment

The climate of the Kodiak Islands has a strong marine influence. There is little to no freezing weather, moderate precipitation, occasional high winds, and frequent cloud cover and fog. Severe storms are common from December through February. Annual rainfall averages 67 inches, and annual snowfall averages 78 inches. January temperatures range from 14 to 46 °F (-10 to 8 °C); July temperatures vary from 39 to 76 °F (4 to 24 °C).¹²

Kodiak Island comprises of 3,588 sq mi of diverse landscapes, and is part of a larger archipelago encompassing roughly 5,000 sq mi. The Island consists primarily of mountainous terrain, with mountain ridges running northeast-southeast. Most peaks range between 3,000 and 4,000 ft, although several peaks are greater than 4,000 ft. Approximately 40 small cirque glaciers are located along the main divide of the glaciers; feeding into hanging valleys. Many swift-water streams drain upland areas. The Barren Islands to the north of Shuyak Island consist primarily of barren, rocky environments. Tugidak Island is relatively flat and supports expansive areas of moist and wet tundra. Sitka spruce stands dominate much of the landscape from the shore to the treeline on Shuyak Island to northeastern Kodiak Island. Stands extend south to a general northwest-southeast divider running from Kupreanof Peninsula to Cape Chiniak. Southeast Kodiak Island is relatively flat and covered by wet and moist tundra. Exposed bedrock and shallow soils cover the 2,500 mi coastline.¹³

Subsurface geology is diverse, consisting of both marine sedimentary and meta-sedimentary rocks to intrusive igneous plutons that make up the ridge and peak formations that provide the interior drainage divide of Kodiak Island. The central part of the island is composed of weakly metamorphosed turbidites including shale, slate, and phyllite, with lesser amounts of

¹¹ See footnote 7.

¹² 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.

¹³ Kodiak Chamber of Commerce. (2003). *Kodiak Region Comprehensive Economic Development Strategy*. Retrieved September 11, 2012 from: <http://www.commerce.state.ak.us/dca/plans/KodiakRegion-EDP-2003.pdf>.

siltstone and greywacke sandstone. The southeast portion of the island consists of clastic sedimentary marine deposits, including siltstone. Most of the Kodiak Island was extensively glaciated during the late Pleistocene. During glacial maximum, glaciers extended well offshore in the southern region of the Island. As they retreated they scoured bedrock and left a thin layer of moraine which is clay-rich and poorly drained. As glaciers retreated into valleys, cobble and boulder outwash was deposited at the lower reaches, leaving glacio-fluvial gravels more than 100 ft thick in some areas. Following deglaciation, the Island was repeatedly covered by layers of volcanic ash from Alaska Peninsula volcanoes, the thickest and most recent originating from the 1912 Mt. Katmai eruption. Ash rich soils are moderately permeable and can form perched aquifers when covering bedrock. Perched aquifers are generally very shallow and easily contaminated, possibly leading to a high incidence of septic system failure on the Island.¹⁴

Primary habitat areas located within the Kodiak Island Borough include small portions of the Alaska Maritime National Wildlife Refuge and Alaska Peninsula National Wildlife Refuge, The KNWR, Shuyuk Island State Park, Afognak Island State Park, Tugidak Island Critical Habitat Area, Koniag Inc. trust lands, and other essential habitat areas throughout the Borough.¹⁵ The KNWR encompasses 1.9 million acres of the southwestern two-thirds of Kodiak Island, Uganik Island, Ban Island, and the Red Peaks area on the northwest side of Afognak Island. In terms of local wildlife, six species of terrestrial mammals occur naturally within the KNWR. These include: Kodiak brown bear, red fox, river otter, ermine, tundra vole, and little brown bat. Introduced species include Sitka black tail deer, mountain goats, Roosevelt elk, reindeer, beaver, red squirrel, snowshoe hare, and pine marten. In addition, a total of 247 species of birds have been observed on the Kodiak archipelago.¹⁶ Freshwater and anadromous fish include all five species of Pacific salmon, Dolly Varden, and rainbow trout. Saltwater species include sablefish, Alaska pollock, Pacific cod, Pacific halibut, black rockfish, skate, lingcod, octopus, littleneck clams, shrimp, scarlet king crab, red sea cucumber, golden king crab, Tanner crab, Dungeness crab, razor clams, sea urchin, and Pacific herring. Marine mammals include sea otters; Dalls porpoise; white-sided porpoise; fin, minke, sei, humpback, and gray whales; Steller sea lion; and harbor seals.¹⁷

Kodiak Island has an abundance of natural resources. The KNWR provides ecosystem services which support wildlife habitat and recreational opportunities. Wildlife viewing, hunting, hiking, fishing, and camping are accessible by boat, floatplane, or road system.¹⁸ Mineral resources include lode deposits of gold, mainly in quartz veins, are found throughout the Kodiak Island Borough. Tungsten, chromite, pyrite, arsenopyrite, galena, bornite, chalcopyrite, pyrrhotite, chlorite, sphalerite, and stibnite occurrences are also found within the Borough. Placer gold mining produced approximately \$150,000 from Borough beaches in the early 20th century. Lode mining of gold occurred prior to World War I, and a small amount of activity continued until 1935. However, gold mining has generally been unprofitable within the Borough, and there are no active commercial-scale mining operations within the vicinity of Kodiak. Coal Beds are found on the eastern portion of Kodiak Island and on Sitkinak Island. The coal that is exposed

¹⁴ Kodiak Island Borough. (2008). *KIB Comprehensive Plan Update*. Retrieved September 11, 2012 from: <http://www.commerce.state.ak.us/dca/plans/KodiakIslandBorough-CP-2008.pdf>.

¹⁵ Ibid.

¹⁶ U.S. Fish & Wildlife Service. (n.d.). *Kodiak National Wildlife Refuge*. Retrieved September 11, 2012 from: <http://www.fws.gov/refuge/kodiak/>.

¹⁷ Glen Gray and Associates. (2007). *KIB Coastal Management Plan – Final Plan Amendment*. Retrieved September 11, 2012 from: http://alaskacoast.state.ak.us/District/FinalFinalPlans/Kodiak/Kodiak_CMP.pdf.

¹⁸ See footnote 14.

does not contain economically viable reserves. Abundant sand, gravel, and rock resources are available for local use. A large sand and gravel deposit is found on one of the Trinity Islands.¹⁹

Timber resources are abundant, and make up an important although declining segment of the Kodiak economy. Sitka spruce stands extend from the northern portion of Kodiak Island toward both the south and west. Most natural emerging stands contain many knots which decrease their value. Second growth stands that develop naturally following clear-cutting produce higher quality timber. In 2002, two forest products companies operated within the Kodiak Island Borough. Production has been in decline due to depressed Asian timber markets. The Kodiak Island Borough contains portions of petroleum reserves located within the Cook Inlet Planning Area for Oil and Gas Lease 149. Three exploration plays sourced are recognized in the sale area.²⁰ Cultural and historic resources which are listed on the National Register of Historic Places and are located in Kodiak include the Agricultural Experiment Station Barn, American Cemetery, Erskine House, Fort Ambercrombie State Historic Site, Holy Resurrection Church, Kad'yak, and several archaeologically significant sites. Sites in the area are mostly related to Alutiiq cultural history, Russian Orthodox history, or World War II.²¹

Kodiak Island is located in a geologically active zone, and hazards posed by earthquakes and volcanism are prevalent. Many fault lines run along the length of Kodiak Island in a southwest-northeast direction, just south of the City of Kodiak. Kodiak Island lies directly above the eastern Aleutian subduction zone and the Aleutian megathrust, which lies under Kodiak, is the largest active fault in North America. The Kodiak Island Borough designates the entire coastal zone, excluding federal land, as an Earthquake Hazard Area. It generated the 1964 “Good Friday” earthquake which devastated many coastal areas around south-central Alaska. Much of downtown Kodiak was destroyed by the resulting tsunami. The City of Kodiak has experience at least 14 earthquake generated tsunamis since settlement by Russians in the late 18th century. The Alaska Volcano Observatory at the University of Alaska Fairbanks list 19 active or dormant volcanoes bordering the western edge of the Kodiak Island Borough, on the Alaska Peninsula. Several have generated major eruptions including the 1912 Mt. Katmai eruption. Pyroclastic flows, lahars, and slope failures have the potential to create tsunamis if they reach the Shelikof Straits. Steep slope relief within the Kodiak area poses a significant threat of slope failure and avalanche. Flood hazards are present in valley bottoms of larger rivers and along some coastlines. Bank erosion hazards are high among rivers and channels where there is a high content of glaciofluvial and alluvial deposition. The Kodiak Island Borough designates areas 20 ft on either side of rivers and streams and areas 50 ft from the mean high water mark of coastlines as erosion hazard areas.^{22,23}

There are a number of hazardous waste “Superfund” sites located within the Kodiak Island Borough; however, none of them are on the National Priorities List. Most contamination sites involve petroleum products, sourced from fuel farms and marine vessel spills. Portions of the Kodiak region were also impacted by the 1989 *Exxon Valdez* spill.²⁴ According to the Alaska Department of Environmental Conservation, there is an ongoing cleanup effort being conducted within the vicinity of the U.S. Coast Guard Integrated Support Command facility. Contaminates

¹⁹ See footnote 17.

²⁰ Kodiak Chamber of Commerce. (2003). *Kodiak Region Comprehensive Economic Development Strategy*. Retrieved September 11, 2012 from: <http://www.commerce.state.ak.us/dca/plans/KodiakRegion-EDP-2003.pdf>.

²¹ See footnote 14.

²² Ibid.

²³ See footnote 17.

²⁴ See footnote 14.

of concern include petroleum compounds, PCBs, paints, solvents, metals, herbicides, pesticides, and leachate from solid waste. Possible impacts to the Buskin River, which runs through the facility, are being monitored.²⁵

Current Economy²⁶

Commercial fishing, seafood processing, and commercial fishing support services are the major industries contributing to the local economy. The U.S. Coast Guard station is also a significant employer. Other industries include retail services and government. Tourism is growing, and recreational fishing, hiking, and kayaking are increasing in popularity. In 2002, the visitor industry generated estimated revenue of over \$19 million. The local hospital is another top employer. The Kodiak Launch Complex is a commercial orbital launch facility operated by the Alaska Aerospace Corporation, a public corporation of the State of Alaska. In 2001, the launch facility provided an equivalent of 85 jobs.²⁷ In a survey conducted by the AFSC in 2011, community leaders reported that Kodiak's economy is reliant on logging, fishing, ecotourism, and sport hunting and fishing.

In 2010,²⁸ the estimated per capita income was \$23,674 and the estimated median household income was \$56,731, compared to \$21,522 and \$55,142 in 2000. However, after adjusting for inflation by converting 2000 values to 2010 dollars,²⁹ the real per capita income (\$28,301) and real median household income (\$72,511) indicate a decline in both individual and household earnings. In 2010, Kodiak ranked 121st of 305 communities from which per capita income was estimated, and 91st of 299 communities from which median household income was estimated.

However, Kodiak's small population size may have prevented the ACS from accurately portraying economic conditions.³⁰ 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 (DOLWD). According to the ALARI database, residents earned \$84.04 million in total wages in 2010.³¹ When matched with the 2000 Decennial Census population, the per capita income equaled \$13,710, which was significantly lower than the 2010 ACS estimate, and suggests that caution should be used when comparing 2010 ACS and 2000 Census figures.³²

²⁵ Alaska Dept. of Environmental Conservation (n.d.). *Contaminated Sites Program*. Retrieved September 12, 2012 from: <http://dec.alaska.gov/spar/csp/list.htm>.

²⁶ Unless otherwise noted, all monetary data are reported in nominal values.

²⁷ See footnote 20.

²⁸ U.S. Census American Community Survey 2006-2010 estimates.

²⁹ 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>).

³⁰ 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.

³¹ ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.

³² Alaska Department of Labor and Workforce Development (n.d.). *Alaska Local and Regional Information Database*. Retrieved April 23, 2012 from <http://live.laborstats.alaska.gov/alari/>.

According to 2006-2010 ACS estimates,³³ 75.4% of residents over the age of 16 were in the civilian labor force and 2.5% were in the Armed Forces in 2010. Unemployment that year was estimated at 3.0%, compared to 5.9% statewide; and an estimated 12.8% of residents were living below the poverty level, compared to an estimated 9.5% of Alaska residents overall. According to 2010 ALARI estimates, the unemployment rate was 23.9% based on unemployment insurance claimants.³⁴ Both the unemployment rate and per capita income estimated by DOLWD differed significantly from 2010 ACS estimates.

Of those employed in 2010 (according to ACS estimates), an estimated 82.5% worked in the private sector, an estimated 13.6% worked in the public sector, and an estimated 3.9% were self-employed. Kodiak's economy is diverse. By industry, most (22.7%) employed residents were estimated to work in manufacturing sectors; followed by retail trade (18.8%) and education services, health care, social assistance sectors (15.4%). Between 2000 and 2010, there were no extreme variations in employment by industry sector. The most significant proportional increase occurred in retail trade sectors, while the most significant proportional decline occurred in manufacturing sectors. Agriculture, forestry, fishing, hunting, and mining sectors accounted for 1.8% of industry sector employment in 2010, compared to 6.8% in 2000. According to 2010 ALARI estimates, most (37.2%) employed residents worked in manufacturing sectors; followed by trade transportation, and utilities (16.1%) and educational and health service (9.3%) sectors.³⁵

According to 2006-2010 ACS estimates, by occupation, most (32.9%) employed residents were estimated to hold production, transportation, or material moving positions; followed by sales or office (28.9%); management or professional (17.9%); service (17.1%); and natural resource, construction, or maintenance (6.3%) positions. Again there were no extreme variations in employment by occupation type between 2000 and 2010. The most significant proportional gain occurred in residents holding sales or office positions. The most significant proportional decline occurred in residents holding natural resources, construction, or maintenance positions. According to 2010 ALARI estimates, most employed residents held occupations related to food processing; followed by cashiers, janitorial, and retail sales positions.³⁶ There was a diverse range of occupations represented in Kodiak in 2010, and DOLWD listed over 100 distinct occupational categories. Information regarding employment trends can be found in Figures 3 and 4.

³³ See footnote 30.

³⁴ See footnote 32.

³⁵ Ibid.

³⁶ Ibid.

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

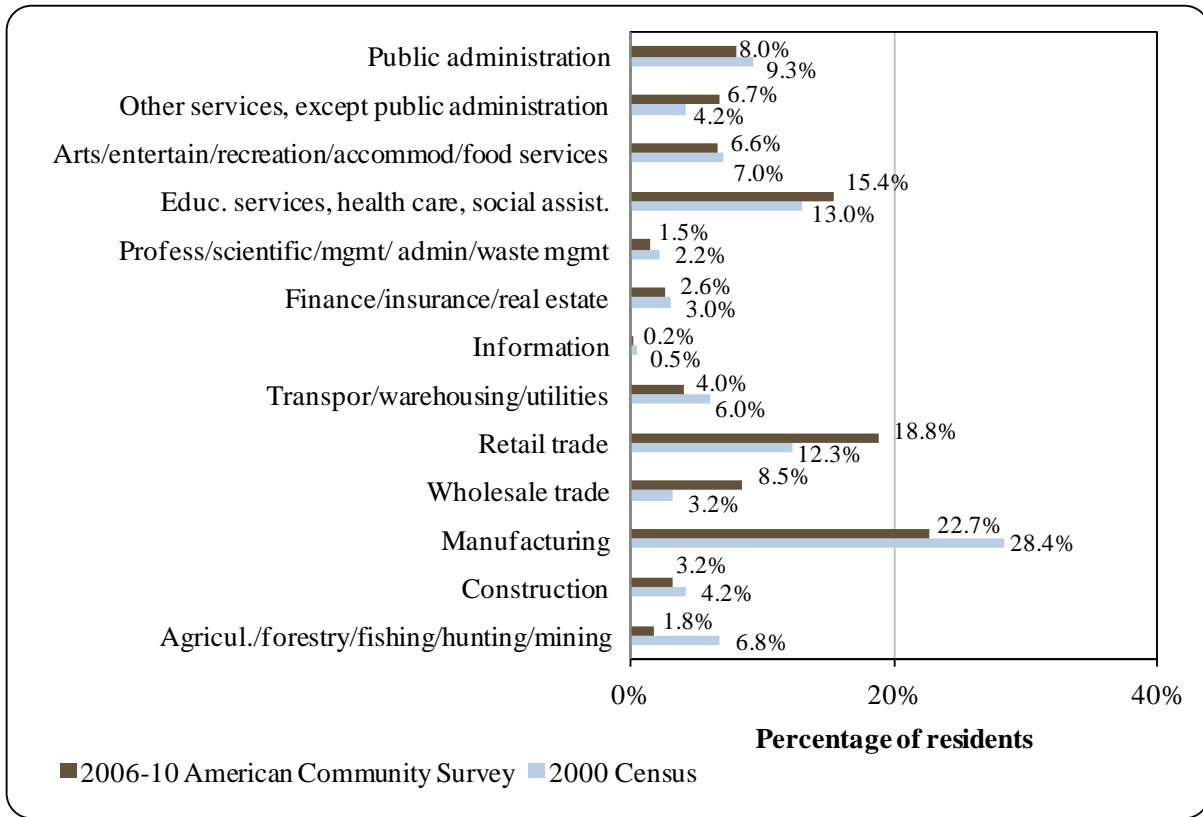
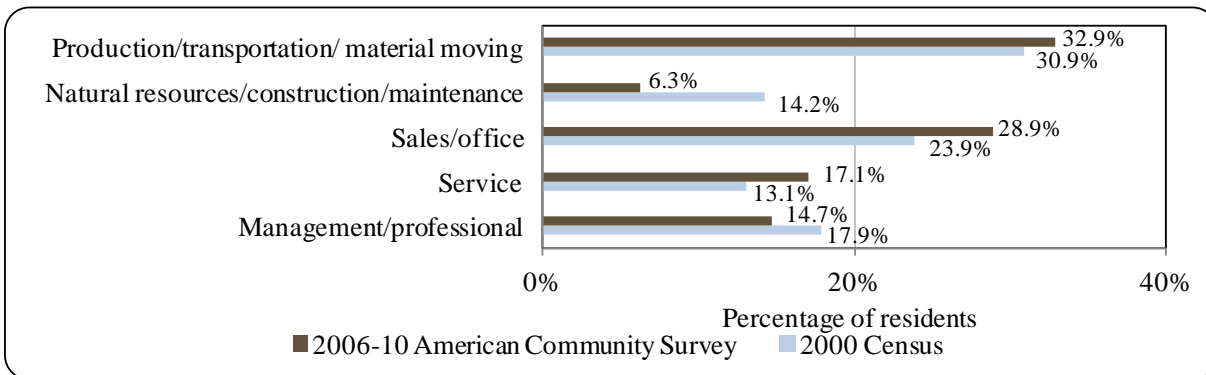


Figure 4. Local Employment by Occupation in 2000-2010, Kodiak (U.S. Census).



Governance

Kodiak is a Home Rule city and the seat of the Kodiak Island Borough. Incorporated in 1940, Kodiak has a Council-Manager form of government, which includes a mayor, a six-person city council, a five member school board, and six municipal employees. The City of Kodiak also has a seven-member advisory board.³⁷ In addition, there is a U.S. Bureau of Indian Affairs recognized tribal government located in Kodiak. The Shoonaq' Tribe of Kodiak was federally recognized in 2001. The Alaska Native Claims Settlement Act (ANCSA) chartered regional corporation representing Kodiak is Koniag, Incorporated, and the local ANCSA chartered non-profit is the Kodiak Area Native Association. The ANCSA chartered village corporation is Native of Kodiak, Inc.

The closest National Marine Fisheries Service (NMFS), Alaska Department of Fish & Game (ADF&G), and Bureau of Citizenship and Immigration Services offices are all located within the city of Kodiak. The new NOAA ship *Oscar Dyson* is homeported in Kodiak.

There is a 6% sales tax for a maximum of \$30 per transaction, a property tax of 2 mills (0.2%) by the City and 9.25 mills (0.93%) by the Borough, and a 5% accommodations tax imposed by the City and the Borough. Beyond the revenue sources that accrue to the municipality directly, residents of Kodiak (like the residents of other communities on the island) derive benefits from services provided by the Borough, which also funds its services in part through fishery derived revenues. The Borough has a resource-based severance tax that applies to extraction of natural resources including rock, sand, and gravel as well as timber and fish. This Borough tax is designed to mirror that state raw fish tax with the taxes being applied to the transactional value at the point of extraction, based on the value paid to commercial fishermen (as part of the transaction with the processors upon landing).

In 2010, Kodiak's municipal budget was \$30.48 million, compared to \$22.99 in 2000; a 2.5% increase after adjusting for inflation.³⁸ Municipal revenues estimated here include general fund revenues, special revenues, enterprise funds, and capital project funds. The annual municipal budget peaked in 2008 at \$60.76 million. In 2010, sales tax accounted for 30.5% of the total municipal budget that year, compared to 31.0% in 2000. In addition, state allocated Community Revenue Sharing accounted for 1.4% of the total municipal budget that year, compared to less than 1% in 2000. Fisheries related state and federal grants awarded to Kodiak between 2000 and 2010 included: \$2.0 million for a large vessel lift and boat yard, \$250,000 for a cruise ship pier master plan, \$710,000 for city harbor projects, \$2.3 million for Pier III repairs; \$2.3 million for a travel lift and tidal grid, \$78,367 for seafood marketing projects, \$15,000 for Half Moon Bay Fisheries: RSW and Skiff modifications, \$200,000 for St. Herman Harbor loading dock planning and design, \$200,000 for a fisheries research building feasibility study, and \$140,000 for St. Paul Harbor spit improvements. Information regarding municipal finances can be found in Table 2.

³⁷ City of Kodiak (2006). *City of Kodiak Annual Operating Budget: July 1, 2005 – June 30, 2006*. Prepared for Kodiak City Council. May 25, 2005. Retrieved July 27, 2012 from <http://www.commerce.state.ak.us/dcra/commfin/Kodiak/KodiakFY06Budget.pdf>.

³⁸ Inflation calculated using Anchorage CPI from Alaska DOL: <http://labor.alaska.gov/research/cpi/cpi.htm>.

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

Year	Total Municipal Revenue ¹	Sales Tax Revenue ²	State/Community Revenue Sharing ^{3,4}	Fisheries-Related Grants (State and Federal) ⁵
2000	\$22,985,854	\$7,122,358	\$82,265	n/a
2001	\$25,204,376	\$7,139,290	\$70,535	\$140,000
2002	\$29,219,409	\$6,996,894	\$68,511	\$400,000
2003	\$33,409,555	\$7,003,452	\$63,501	\$150,000
2004	\$27,827,753	\$7,130,691	n/a	\$95,367
2005	\$34,780,344	\$7,328,281	n/a	\$2,300,000
2006	\$32,797,953	\$7,814,820	n/a	\$2,000,000
2007	\$48,467,736	\$8,136,785	n/a	\$600,000
2008	\$60,759,520	\$8,838,679	n/a	n/a
2009	\$55,024,164	\$8,878,804	\$400,759	\$2,960,000
2010	\$30,482,743	\$9,308,959	\$428,304	n/a

¹ 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.

² 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.

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

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

⁵ Alaska 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*³⁹

Kodiak is accessible by air and sea. The state-owned Kodiak airport has three asphalt runways measuring 7,542-ft long by 150-ft wide, 5,399-ft long by 150-ft wide, and 5,013-ft long by 150-ft wide. Kodiak Municipal Airport also offers a 2,475-ft long by 40-ft wide paved runway. Three airlines serve Kodiak with several daily flights, and a number of air taxi services provide flights to other communities on the island. City-owned seaplane bases at Trident Basin and Lilly Lake accommodate floatplane traffic. Roundtrip airfare between Anchorage and Kodiak in June 2012 was \$360.⁴⁰

Approximately 140 mi of state roads connect island communities on the east side of the island. Rental cars are available through Budget, Rent-a-Heap, and Avis. Numerous taxi services are available for transport on the island. Kodiak also has its own transit system with limited public service.

³⁹ 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.

⁴⁰ Airfare calculated using lowest fare from www.travelocity.com (Retrieved November 22, 2011).

Facilities

Electricity in Kodiak is operated and purchased by Kodiak Electric Association Incorporated, a cooperative utility, from the Four Dam Pool-owned Terror Lake Hydroelectric Facility. Kodiak Electric Association also operates a Coast Guard-owned plant and owns three additional diesel-powered plants at Swampy Acres, Kodiak, and Port Lions. In a survey conducted by the AFSC in 2011, community leaders indicated that Kodiak plans to expand their alternative energy sources (e.g. hydro, wind, tidal) between 2012 and 2015. The City operates piped water and sewage systems. Water is supplied by the Pillar Creek and Monashka Creek reservoirs and chlorinated before distribution. Piped sewage is processed in a treatment plant. All homes are fully plumbed. A washeteria is privately operated within the community. Refuse collection services are provided by the Kodiak Borough through Waste Management Inc., and refuse is delivered to a permitted, Class 1 landfill located six mi north of the city at Monashka Bay.⁴¹

A public teen center, community gym and pool, public library, and food bank are also available in the community.⁴² Community leaders report that a community center will be completed between 2013 and 2015. Safety services are provided by the City police department and the state trooper post in Kodiak itself. The City also maintains its own fire department. Visitor accommodations are provided by Russian Heritage Inn, Comfort Inn, and 38 Bed and Breakfasts in the area.⁴³ The community is also home to four museums including the Alutiiq Museum. Kodiak also has a post office, and telephone service and broadband internet access are in place.

With regard to fisheries-related infrastructure, the City provides several public dock facilities. Pier I is 204-ft by 28-ft and provides mooring, loading, and unloading capabilities. Services include water and bulk fuel. This dock also services Alaska Marine Highway ferries. Pier II (City Dock) is 804-ft by 64-ft and has a harbor depth that exceeds 30 ft depending on tides (which range approximately 10 ft). Uses include loading and unloading commercial freight, and services include bulk fuel, water, warehousing, and cargo cranes. Pier III (Container Terminal) is 490-ft by 64-ft. Uses include container services for general cargo, and services include water and a 30 ton Gantry crane. Small vessel moorage includes two small boat harbors with 600 stalls and mooring buoys in St. Paul and St. Herman Harbors. Ship and boat repair services are available through local boatyards, and can accommodate vessels up to 150 tons. Dry dock storage is also available.⁴⁴

In the 2011 AFSC survey, community leaders reported that 35,000 linear ft of floating dock space and 3,000 linear ft of fixed dock space is available for permanent vessels to moor at. Transient vessels have access to 5% of dock space for mooring. The current dock infrastructure is serviced by electricity, water, and roads although no fuel tanks exist at the dock. Currently, community leaders report that vessels up to 710 ft long can use moorage in Kodiak, and the port of Kodiak is capable of handling rescue vessels (e.g., Coast Guard), cruise ships, ferries, fuel barges, and containers ships. Community leaders also report that Kodiak has a fish cleaning station and built dry dock space, haul out facilities, and an Environmental Protection Agency

⁴¹ See footnote 39.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Kodiak Chamber of Commerce. (2003). *Kodiak Region Comprehensive Economic Development Strategy*. Retrieved September 11, 2012 from: <http://www.commerce.state.ak.us/dca/plans/KodiakRegion-EDP-2003.pdf>.

certified boat cleaning station in 2009. Within the next 10 years, Kodiak hopes to make improvements to its existing dock structure and construct new dock spaces. Community leaders indicate that multiple fisheries-related businesses are available in Kodiak, including fish processing plants, fishing gear sales and repair, haul out facilities, and extensive boat repair services.

*Medical Services*⁴⁵

The primary medical facilities in Kodiak are the Alutiiq Health Clinic, the Kodiak Community Health Center, the Providence Kodiak Island Medical Center, and the U.S. Coast Guard (USCG) Rockmore-King Medical Clinic. Both hospitals are qualified Acute Care Facilities, and long-term care is available at Providence Kodiak Island Medical Center. The USCG facility provides emergency support only. The City is part of the Southern Emergency Medical System (EMS) Region. Emergency Services have limited highway marine airport floatplane and helicopter access, and are provided by 911 Telephone Service and paid EMS Service.

Educational Opportunities

In 2012, there were 6 schools and a correspondence school. Combined, these schools employed 144 teachers, and enrolled 2,147 students.⁴⁶ Kodiak is located in the Kodiak Island Borough School District. St. Herman Orthodox Seminary, located in Kodiak, is one of only two Russian Orthodox seminaries in the United States. Kodiak College, a branch of the University of Alaska system, offers a number of occupational certificates and undergraduate degrees. Bachelor's degrees are offered for early childhood education and elementary education.⁴⁷

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

The Kodiak archipelago was likely populated approximately 7,500 years ago. The Alutiiq culture has been strongly dependent on harvesting fish, marine invertebrates, and marine mammals. Salmon, caught in both salt and fresh water, have been extremely important resources and Alutiiq peoples have traditionally hunted whales. Today, residents of Kodiak Island Borough continue to rely on subsistence resources as a lifestyle, and to supplement income and diet. Reliance on subsistence resources is higher within the six villages within the Borough with higher Alaska Native populations than in the City of Kodiak and other communities along the road system.⁴⁸

⁴⁵ 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.

⁴⁶ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

⁴⁷ Kodiak College. (n.d.). *Degrees and Certificates*. Retrieved September 13, 2012 from: <http://www.koc.alaska.edu/>.

⁴⁸ Glen Gray and Associates. (2007). *KIB Coastal Management Plan – Final Plan Amendment*. Retrieved September 11, 2012 from: http://alaskacoast.state.ak.us/District/FinalFinalPlans/Kodiak/Kodiak_CMP.pdf.

Kodiak has participated in commercial fisheries since the early 1800s, when Russians in the area began salting and exporting salmon. The first salmon cannery was established on the Karluk spit in 1882 to take advantage of large sockeye runs. By 1889, five canneries were operating on the mouth of the Karluk River. Sockeye salmon harvests in the region ranged between 1.0 million (1887) and 4.83 million (1901) fish between 1887 and 1928. From 1984 to 1999, the average ex-vessel value of salmon landings was \$88.3 million. A record harvest of 39 million salmon occurred in 1993 within the Kodiak Management Area (KMA). Over 800 salmon producing streams are located in the KMA, contributing to the highly productive fishery.⁴⁹

Before 1950, most seafood processing facilities in Kodiak were dedicated to salmon. However, in 1950, 60,000 pounds of king crab were landed and processing capacity was added by building new plants and expanding others. The king crab fishery became a major component in Kodiak's fisheries economy from 1950 to 1959 as catch increased from 60,000 to 21 million pounds. By 1968, the City of Kodiak was the largest fishing port in the United States in terms of ex-vessel value. However, by the late 1960s and early 1970s, harvest levels began to drop and several seafood processors relocated in Unalaska and Dutch Harbor to be closer to the crab supply. This diverted much of the Bering Sea and Aleutian Island harvests away from Kodiak. In 1982, king crab harvest was 8.7 million pounds, which was the lowest in 24 years. Soon after, the crab fishery was closed because of poor stock conditions.

The Kodiak shrimp fishery began in the 1950s with a harvest of 31,886 pounds in 1958. The fishery grew rapidly to an annual catch of 10 to 12 million pounds in the early 1960s. The 1964 "Good Friday" earthquake devastated seafood processing infrastructure, leading to the fishery's decline; however, harvests peaked in 1970s at 82.2 million pounds in 1971. Sharp declines in harvests followed this peak, and effort was shifted to the Chignik and South Peninsula areas until those areas experienced similar declines in the late 1970s. Since its decline, the Kodiak shrimp fishery has remained depressed.

As harvests and processing capacity declined through overharvesting and resource competition, an effort to develop groundfish fisheries began in the 1980s and continued through the 1990s. During those two decades, groundfish landings increased from \$528,000 to almost \$45 million ex-vessel, making groundfish one of Kodiak's most valuable fisheries.

Kodiak is located in Federal Statistical and Reporting Area 630, Pacific Halibut Fishery Regulatory Area 3A, and the Central Gulf of Alaska Sablefish Regulatory Area. The community is not eligible for the Community Quota Entity program or the Community Development Quota program.

Processing Plants

According to ADF&G's Intent to Operate list, there were 11 shoreside processing plants in Kodiak in 2010. Alaska Fresh Seafoods, Inc. operates a seafood processing facility in Kodiak. The plant began operations in 1978 and in 2010 employed a maximum of 60 workers.⁵⁰ Alaska

⁴⁹ Kodiak Chamber of Commerce. (2003). *Kodiak Region Comprehensive Economic Development Strategy*. Retrieved September 11, 2012 from: <http://www.commerce.state.ak.us/dca/plans/KodiakRegion-EDP-2003.pdf>.

⁵⁰ This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

Fresh Seafoods processes cod (black, Pacific), crab (king, snow), halibut, herring, lingcod, pollock, scallops, and all five species of Pacific salmon.⁵¹

Alaska Seafood Systems operates a seafood processing facility in Kodiak. Alaska Seafood Systems processes cod (black and Pacific), flounder, halibut, octopus, pollock, sea urchin, skate, and all five species of Pacific salmon.⁵² The plant began operations in 2007 and in 2010 employed a maximum of 20 workers.⁵³

Global Seafoods North America owns several processing facilities though out the Pacific Rim, including a plant in Kodiak. The plant began operations in 2000 and was previously owned by Peter Pan Seafoods.⁵⁴ The facility in Kodiak processes black and Pacific cod, pollock, sole, rockfish, halibut and several species of salmon.⁵⁵ In 2010, the plant employed a maximum of 100 workers.⁵⁶

International Seafoods of Alaska, Inc. was founded in Kodiak in 1978. Its shoreside processing facility takes deliveries from fishing vessels directly from its dock. Located near the Kodiak boat harbor, the plant operates year round. During the summer months the facility processes salmon, halibut and black cod. Throughout the rest of the year the plant processes Pacific cod, pollock, and various types of sole and rockfish. In addition to processing facilities International Seafoods of Alaska also owns the largest cold storage facility in Kodiak.⁵⁷ In 2010, the plant employed a maximum of 420 workers.⁵⁸

Island Seafoods began in 1995 as a small custom processing facility for charter boat fishermen. After being acquired by Pacific Seafood Group in 2003, Island Seafoods has expanded dramatically. Their processing facility is located just outside the Kodiak boat harbor breakwater. Today, the Island Seafoods processing facility operates year round and processes millions of pounds of cod, halibut, rockfish and salmon from commercial fishing vessels. Staying true to its roots, Island Seafood continues to offer custom processing for sport fishermen.⁵⁹ In 2010, the plant employed a maximum of 100 workers.⁶⁰

Since 1984, Kodiak Island Smokehouse has been a small family owned and operated smokehouse that processes smoked salmon (Chinook, sockeye and coho) caught by sport fishermen and a few commercial salmon boats. The plant began operations in 2001 and its

⁵¹ Alaska Seafood Marketing Institute. (n.d.). *Supplier Information*. Retrieved August 15, 2012 from: <http://alaskaseafood.org/>.

⁵² Ibid.

⁵³ This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

⁵⁴ Ibid.

⁵⁵ Global Seafoods. (n.d.). *Company Homepage*. Retrieved August 15, 2012 from: <http://www.globalseafoods.com>.

⁵⁶ This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

⁵⁷ International Seafoods of Alaska. (n.d.). *International Seafoods of Alaska, Inc.* Retrieved August 15, 2012 from: <http://isa-ak.com/about.html>.

⁵⁸ This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

⁵⁹ Island Seafoods. (n.d.). *About Us*. Retrieved August 15, 2012 from:

http://www.islandseafoods.com/index.php?option=com_content&view=article&id=48&Itemid=61.

⁶⁰ This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

primary customers are tourists and locals.⁶¹ Kodiak Island Smokehouse also processes and smokes black cod and halibut. It is located on Mill Bay road.⁶²

North Pacific Seafoods Inc. facility is located in the City of Kodiak. The plant was originally built in the early 1950s as an ice and cold storage facility. When North Pacific Seafoods purchased the facility in 1975 they expanded it to include seafood processing. Today, the plant is open year-round and processes all major commercially harvested species from the Gulf of Alaska including salmon, pollock, Pacific cod, rockfish, black cod, halibut, crab, roe, octopus, herring, flatfish and sea cucumber. During the peak season from June until the end of September the facility employs a maximum of 280 workers.⁶³ The Kodiak plant provides to its fish processors free room and board (including shower facilities), as well as free air transportation from and to Anchorage, provided the processors fulfill their contractual obligations.⁶⁴

Ocean Beauty Seafoods LLC., founded in 1910, operates the largest and oldest seafood production facility in Kodiak (constructed in 1911). Located near the Kodiak boat harbor, Ocean Beauty - Kodiak is a major producer of fresh, frozen and canned salmon, as well as halibut, perch, cod, pollock, flatfish and herring. The facility processes seafood year round and employs a maximum of 375 workers during the peak season.⁶⁵

Trident Seafoods Corporation, founded 1973, owns and operates two processing facilities in Kodiak. A portion of the processing activity takes place on the *Star of Kodiak*, a permanently moored World War II Liberty Ship that has been converted into a processing facility. The shipboard operation works in conjunction with another modern facility located next to the vessel. The facilities operate year-round, processing cod (black and Pacific), crab, pollock, halibut, flatfish, rockfish, and various species of Pacific salmon. The *Star of Kodiak* alone can process 1.1 million pounds of pollock and 400,000 pounds of cod per day. The very culturally diverse crew size varies from 100 to 300 employees depending on the season. The Kodiak facility provides room and board (including shower facilities) to its fish processing workforce at a nominal fee, as well as free air transportation from and to Seattle. Its on-site store sells personal care items to the workers, such as toothpaste and soap.⁶⁶

Westward Seafoods was established in 1989 and started operations in 1991. In 2004, Western Alaska Fisheries merged with Westward Seafoods to form what is now known as Westward Seafoods Inc. One of Westward's seafood processing facilities is located in Kodiak. Westward also owns a facility in Dutch Harbor. The Kodiak plant processes cod, pollock, halibut

⁶¹Ibid.

⁶² Kodiak Island Smokehouse. (n.d.). *Kodiak Island Smokehouse*. Retrieved August 15, 2012 from: <http://www.kodiaksmokehouse.com/>.

⁶³ This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

⁶⁴ North Pacific Seafoods. (n.d.). *Production Facilities*. Retrieved August 15, 2012 from: http://northpacificseafoods.com/index.php?option=com_content&task=view&id=40&Itemid=51.

⁶⁵ This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

⁶⁶ Trident Seafoods. (n.d.). *Alaska Plants*. Retrieved August 15, 2012 from: http://www.tridentseafoods.com/company/plants_alaska.php#Kodiak.

and salmon. The facility has an annual total production of 45,000,000 pounds⁶⁷ and employs a maximum of 300 workers each year.⁶⁸

Wildsource Inc. processes black cod and salmon (Chinook, coho, pink and sockeye) in Kodiak⁶⁹ and began operations in 2008.⁷⁰ The Sun'aq tribe purchased the Wildsource facility in January 2010 with grant money from the Office of Indian Energy and Economic Development.⁷¹ The plant employs a maximum of six workers each year.⁷²

Fisheries-Related Revenue

In 2010, Kodiak collected \$5.27 million in fisheries-related taxes, compared to \$3.63 million in 2000. However, it should be noted that data related to port/dock usage fees are not available for 2010. Since those fees accounted for a significant portion of fisheries-related revenue in previous years, it is likely that revenue figures are grossly underrepresented. The most accurately represented year was 2009, when fisheries-related revenue peaked at \$31.1 million. In that year, port/dock usage fees accounted for most revenues collected, followed by harbor usage fees and Shared Fisheries Business Tax revenues. Revenue collected for port/dock fees increased significantly between 2000 and 2009. Information regarding fisheries-related taxes and fees can be found in Table 3. In a survey conducted by the AFSC in 2011, community leaders reported that Kodiak received \$100,680 from harbor sales tax, \$1.05 million from raw fish tax sharing, and \$179,789 from Commercial Passenger Vessel Tax revenues in 2010. Revenues collected from fisheries-related taxes are put towards maintaining the harbor, roads, water and wastewater systems, and public safety services.

Commercial Fishing

Kodiak hosts Alaska's largest fishing port. The KMA has 7 districts and 52 sections. There are approximately 750 salmon producing streams within the KMA. Chinook salmon occur in 6 streams, and sockeye salmon are found in 49. Coho salmon are found in 204 streams, while 404 streams support pink salmon. Finally, chum salmon can be found in 174 streams. Two hatcheries are located within the KMA which supplement natural populations. One is located in Kitoi Bay on the southeast side of Afognak Island, while the other is located at Pillar Creek near the City of Kodiak. Commercial salmon in the KMA dates back to 1882. In 1974, a limited entry system was created by the state to restrict effort. The primary gear used in harvesting is either purse or beach seine, although gillnets are also used. In 2010, the projected KMA harvest was

⁶⁷ Westward Seafoods. (n.d.). *Our Plants*. Retrieved August 15, 2012 from: <http://www.westwardseafoods.com/company.php>.

⁶⁸ This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

⁶⁹ Alaska Seafood Marketing Institute. (n.d.). *Suppliers*. Retrieved August 15, 2012 from: alaskaseafood.org/industry/suppliers/.

⁷⁰ This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

⁷¹ Kodiak Daily Mirror "Sun'aq Tribe awarded grant for entering seafood industry." October 11, 2010. Retrieved August 15, 2012 from: kodiakdailymirror.com.

⁷² This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

20,000 Chinook, 2.49 million sockeye, 413,108 coho, 11.4 million pink, and 1.02 million chum salmon.⁷³

Pacific herring have been harvested for food and bait in the KMA since 1912. Early harvests were primarily used for food or reduction products. During the 1980s and 1990s, harvests occurred mainly in the northeast portion of the Shelikof Strait, with effort targeting both the Kodiak and Kamishak Bay stocks. However, the Kamishak spawning biomass has been below acceptable levels since 1998, and the Kamishak Bay sac roe and Kodiak food/bait fisheries have remained closed since then. Fisheries remain open in the rest of the KMA where spawning stocks are strong. The Kodiak food/bait herring fishery has been utilized primarily as bait for crab and longline fisheries, while the sac roe fishery is typically exported to Asian markets.⁷⁴

Halibut stocks in IPHC Area 3A were at average levels as of 2007; however, levels are believed to be declining due to low recruitment and decreasing size-at-age.⁷⁵

Historically, Kodiak supported significant red king crab populations, and trawl shrimp fisheries. However, since the 1980s, red king crab populations have been depressed, and the commercial fishery remains closed. Shrimp stocks as of 2009 only support minor fisheries. Small green sea urchin, golden king crab, and grooved Tanner crab fisheries exist, and various clam species are commercial harvested for consumption or bait. The dominate species harvested from Kodiak waters in 2009 were Tanner crab, Dungeness crab, giant Pacific octopus, and red sea cucumber. Dungeness crab was the most valuable shellfish harvested in the Kodiak area in 2009.⁷⁶

Commercially significant groundfish species harvested in the Kodiak area include Pacific cod, sablefish, lingcod, skates, black rockfish, and walleye pollock. In 2010, walleye pollock and Pacific cod comprised the largest volume of groundfish harvested from state waters around Kodiak. Pacific cod are managed primarily through NMFS, although ADF&G issues emergency orders for state-water or parallel fisheries. The largest harvest of cod in federal waters occurred in the early 1990s, but has recently been more closely regulated in order to mitigate impacts on Steller sea lion populations. Harvest of Pacific cod within the KMA during the 2010 parallel season reached 8.59 million pounds. The majority of cod was harvested using pot and longline gear. Total Pacific cod harvests from state-waters in 2010 was 13.56 million pounds. Walleye pollock are managed by NMFS as three separate stocks, with parallel fisheries occurring in state-waters. Harvests from state-waters within the KMA totaled 23.68 million pounds in 2010.⁷⁷ Black rockfish were not targeted commercially in the Kodiak area until 1990. Harvests declined shortly after they started due to low abundance and poor market conditions. Skate harvests grew

⁷³ Jackson, J.; Dinnocenzo, J.; and Spalinger, G. (2010). *Kodiak Management Area Commercial Salmon Fishery Annual Management Report, 2010*. Fishery Management Report No. 10-47. Retrieved September 14, 2012 from: <http://www.adfg.alaska.gov/FedAidpdfs/FMR10-47.pdf>.

⁷⁴ Jackson, J. (2011). *Kodiak Management Area Commercial Herring Food and Bait Fishery Harvest Strategy, 2010*. Fishery Management Report No. 10-34. Retrieved September 14, 2012 from: <http://www.sf.adfg.state.ak.us/FedAidpdfs/FMR10-34.pdf>.

⁷⁵ Glen Gray and Associates. (2007). *KIB Coastal Management Plan – Final Plan Amendment*. Retrieved September 11, 2012 from: http://alaskacoast.state.ak.us/District/FinalFinalPlans/Kodiak/Kodiak_CMP.pdf.

⁷⁶ Stichert, M. A. (2010). *Annual Management Report for Shellfish Fisheries in the Kodiak, Chignik, and Alaska Peninsula Areas, 2009*. Fishery Management Report No. 10-32. Retrieved September 14, 2012 from: <http://www.adfg.alaska.gov/FedAidPDFs/FMR10-32.pdf>.

⁷⁷ Stichert, M. A.; Phillips, K.; and Converse, P. (2011). *Annual Management Report for Groundfish Fisheries in the Kodiak, Chignik, and South Alaska Peninsula Management Areas, 2010*. Fishery Management Report No. 11-44. Retrieved September 14, 2012 from: <http://www.adfg.alaska.gov/FedAidPDFs/FMR11-44.pdf>.

quickly starting in 2003 due an emerging Korean market for skate products. Fishermen targeting skates were also allowed to retain cod in some instances. Sablefish habitat in state waters is limited in the Kodiak area, and larger adult fish prefer deeper waters. Lingcod are not typically targeted in the western Gulf of Alaska (GOA), although they are harvested from bycatch. Harvests primarily occur in rocky reef areas, although large catches are sometimes taken in offshore trawl fisheries.⁷⁸

In 2010, 587 residents, or 9.6% of the population, held 1,279 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 716 residents held 1,646 CFEC permits, indicating an 18% decrease in commercial fisheries participation by local residents over the decade. Of the permits held in 2010, 13% were for crab, compared to 8% in 2000; 6% were for “other” shellfish, compared to 4% in 2000; 16% were for halibut, compared to 18% in 2000; 11% were for herring, compared to 10% in 2000; 3% were for sablefish, compared to 4% in 2000; 23% were for groundfish, compared to 34% in 2000; and 31% were for salmon, compared to 23% in 2000. Also in that year, 187 residents held 216 License Limitation Program (LLP) groundfish permits, compared to 245 permits held by 200 residents in 2000; 42 residents held 47 LLP crab permits, compared to 67 permits held by 56 residents in 2000; and 137 residents held 143 Federal Fisheries Permits (FFP), compared to 188 FFP held by 168 residents in 2000.

In 2010, 224 account holders held 47.77 million shares of halibut quota, compared to 304 who held 57.08 million in 2000. The number of halibut quota shares held in Kodiak peaked in 2000. However, it should be noted that the amount of Individual Fish Quota (IFQ) in pounds decreased steadily between 2000 and 2010 from 9.26 million pounds, to 6.44 million. Also in 2010, 62 account holders held 19.09 million shares of sablefish quota, compared to 67 who held 17.99 million in 2000. The number of sablefish shares held in Kodiak peaked in 2010, and the IFQ allotment peaked in 2006 at 1.79 million pounds. Finally, 57 account holders held 174.24 million pounds of crab quota, compared to 46 who held 146.08 million in 2005. The number of crab quota shares held in Kodiak peaked in 2009 at 181.71 million, and the IFQ allotment peaked in 2008 at 6.75 million pounds. Overall, Kodiak residents held 23.3% of halibut, 14.4% of sablefish, and 32.5% of crab quota statewide in 2010.

Of the CFEC permits held in 2010, 59% were actively fished, compared to 60% in 2000. By fishery, 47% of crab permits were actively fished, compared to 69% in 2000; 35% of “other: shellfish permits, compared to 36% in 2000; 86% of halibut permits, compared to 81% in 2000; 26% of herring permits, compared to 23% in 2000; 89% of sablefish permits, compared to 69% in 2000; 63% of groundfish permits, compared to 52% in 2000; and 59% of salmon permits, compared to 73% in 2000.

Residents held 884 commercial crew licenses in 2010, compared to 1,263 in 2000; which was also the year in which the number of locally held crew licenses peaked. Also in that year, residents held majority ownership of 452 commercial fishing vessels, compared to 719 in 2000; which was again, the year in which local vessel ownership peaked. Both the number of crew licenses and the number of vessels owned by local residents declined at a steady rate between 2000 and 2010. Fisheries prosecuted by Kodiak residents in 2010 included: Westward pot Dungeness crab; Kodiak pot king and Tanner crab; Bering Sea pot king and Tanner crab; Bristol Bay pot king crab; Alaska Peninsula pot Tanner crab; statewide hand troll, mechanical jig, and longline halibut; southeast purse seine herring roe; Kodiak purse seine and gillnet herring roe; Alaska Peninsula purse seine herring roe; Bristol Bay purse seine herring roe; Kodiak purse seine

⁷⁸ See footnote 75.

herring food/bait; statewide longline, otter trawl, mechanical jig, and pot miscellaneous saltwater finfish; GOA longline, otter trawl, pot, and mechanical jig miscellaneous saltwater finfish; southeast longline demersal shelf rockfish; statewide pot octopi/squid; Prince William Sound pot shrimp; Westward pot shrimp; statewide dive sea cucumber; Kodiak dive sea cucumber; statewide dredge scallop; statewide longline sablefish; Prince William Sound purse seine and drift gillnet salmon; Kodiak set gillnet and purse and beach seine salmon; Chignik purse seine salmon; Cook Inlet drift gillnet salmon; Alaska Peninsula drift gillnet salmon; Bristol Bay drift and set gillnet salmon; and statewide power troll salmon.⁷⁹

In 2010, a total of 316.50 million pounds of seafood was landed in Kodiak valued at \$121.70 million ex-vessel, compared to 285.43 million pounds valued at \$96.71 million in 2000. Pounds landed in Kodiak peaked in 2006 at 376.51 million. Total ex-vessel value of landings peaked in 2008 at \$145.33 million. Overall, 13.6% of total 2010 landings made in Alaska were made in Kodiak, compared to 13.0% in 2000. In addition, Kodiak received 9.9% of total ex-vessel revenue made statewide that year, compared to 13.2% in 2000. Kodiak ranked 2nd of 65 communities reporting landings for 2010 in both total pounds landed and total ex-vessel value of landings and pollock was ranked first in 2010 in terms of pounds landed, followed by Pacific cod, “other” groundfish, salmon, herring, halibut, sablefish, and “other” shellfish. In that year, 106.78 million pounds of pollock valued at \$17.43 million ex-vessel was landed, compared to 106.09 million pounds valued at \$12.17 million ex-vessel in 2000; an increase of \$0.00 per pound ex-vessel after adjusting for inflation.⁸⁰ Also in that year, 75.38 million pounds of Pacific cod valued at \$19.43 million ex-vessel was landed, compared to 64.17 million pounds valued at \$22.90 ex-vessel in 2000; a decrease of \$0.23 per pound ex-vessel after adjusting for inflation.⁸¹ In terms of “other” groundfish, landings totaled 66.15 million pounds valued at \$7.41 million ex-vessel, compared to 47.02 million valued at \$4.54 million ex-vessel in 2000. In terms of salmon, 44.22 million pounds were landed valued at \$24.02 million ex-vessel, compared to 52.03 million pounds valued at \$18.59 million ex-vessel in 2000; an increase of \$0.05 per pound ex-vessel after adjusting for inflation,⁸² and without considering the species composition of landings. In terms of herring, landings totaled 11.63 million pounds valued at \$1.33 million in 2010, compared to 1.87 million pounds valued at \$635,596 in 2000; a decrease of \$0.11 per pound ex-vessel after adjusting for inflation.⁸³ In terms of halibut, 6.45 million pounds valued at \$31.16 million were landed in 2010, approximately a third less than landed in 2000 (9.23 million pounds valued at \$23.02 million); however, also representing an increase of \$0.40 per pound ex-vessel after adjusting for inflation.⁸⁴ In terms of sablefish, 2.76 million pounds were landed valued at \$21.02 million, compared to 2.07 million pounds valued at \$6.34 million in 2000; an increase of \$0.72 per pound ex-vessel after adjusting for inflation.⁸⁵ Finally, 674,606 pounds of “other” shellfish were landed valued at \$452,263, significantly higher than the 141,935 pounds valued at \$49,545 landed in 2000.

⁷⁹ 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.]

⁸⁰ Inflation calculated using 2010 Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, <http://www.bls.gov/ppi/#data>.

⁸¹ Ibid.

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁵ Ibid.

For landings made by Kodiak residents in 2010, pollock ranked first in terms of pounds landed; followed by Pacific cod, salmon, “other” groundfish, herring, halibut, crab, sablefish, and “other” shellfish. In that year, residents landed 67.07 million pounds of pollock valued at \$10.40 million ex-vessel, compared to 75.44 million pounds valued at \$8.48 million ex-vessel; an increase of \$0.01 per pound ex-vessel after adjusting for inflation.⁸⁶ Residents landed 54.20 million pounds of Pacific cod valued at \$14.65 million ex-vessel, compared to 52.90 million pounds valued at \$22.45 million ex-vessel in 2000; a decrease of \$0.31 per pound ex-vessel after adjusting for inflation.⁸⁷ Residents landed 31.97 million pounds of salmon valued at \$18.88 million ex-vessel, compared to 31.73 million pounds valued at \$11.66 million ex-vessel in 2000; an increase of \$0.08 per pound ex-vessel after adjusting for inflation,⁸⁸ and without considering the species composition of landings. Residents landed 27.82 million pounds of “other” groundfish valued at \$3.24 million ex-vessel, compared to 35.76 million pounds valued at \$4.55 million ex-vessel in 2000. Residents landed 22.36 million pounds of herring valued at \$3.60 million ex-vessel, compared to 8.0 million pounds valued at \$1.19 million in 2000; a decrease of \$0.04 per pound ex-vessel after adjusting for inflation.⁸⁹ Residents landed 7.52 million pounds of halibut valued at \$35.64 million ex-vessel, compared to 10.85 million pounds valued at \$27.04 million ex-vessel in 2000; an increase of \$1.31 per pound ex-vessel after adjusting for inflation.⁹⁰ Residents landed 7.30 million pounds of crab valued at \$17.29 million ex-vessel, compared to 7.41 million pounds valued at \$19.15 million ex-vessel in 2000; a decrease of \$1.18 per pound ex-vessel after adjusting for inflation,⁹¹ and without considering the species composition of landings. Residents landed 1.61 million pounds of sablefish valued at \$8.60 million ex-vessel, compared to 1.87 million pounds valued at \$6.62 million in 2000; an increase of \$0.47 per pound ex-vessel after adjusting for inflation.⁹² Finally, residents landed 453,391 pounds of “other” shellfish valued at \$446,032, compared to 224,160 pounds valued at \$311,114 in 2000. Information regarding commercial fishing trends can be found in Tables 4 through 10.

⁸⁶ Ibid.

⁸⁷ Ibid.

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² Ibid.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	\$520,000	\$520,000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	\$1.05 M ³
Shared Fisheries											
Business Tax ¹	\$617,330	\$649,909	\$885,447	\$610,634	\$503,617	\$642,980	\$711,505	\$828,287	\$884,658	\$1.02 M	\$1.12 M
Fisheries Resource											
Landing Tax ¹	\$337	\$18,016	\$3,868	\$17,084	\$857	\$580	\$918	\$485	\$1,018	\$779	\$1,441
Fuel transfer tax ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Extraterritorial fish tax ²	\$26,000	\$30,000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulk fuel transfers ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage ²	\$1.27 M	\$1.77 M	\$2.38 M	\$2.46 M	\$2.77 M	\$2.37 M	\$1.79 M	\$1.89 M	\$2.58 M	\$2.63 M	\$3.10 M
Port/dock usage ²	\$1.20 M	\$1.80 M	\$1.22 M	\$578,776	\$2.06 M	\$3.38 M	\$2.63 M	\$8.74 M	\$15.77 M	\$27.45 M	n/a
Fishing gear storage on public land ³	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marine fuel sales tax ³	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Total fisheries-related revenue⁴</i>	<i>\$3.63 M</i>	<i>\$4.79 M</i>	<i>\$4.48 M</i>	<i>\$3.67 M</i>	<i>\$5.34 M</i>	<i>\$6.40 M</i>	<i>\$5.13 M</i>	<i>\$11.46 M</i>	<i>\$19.24 M</i>	<i>\$31.10 M</i>	<i>\$5.27 M</i>
<i>Total municipal revenue⁵</i>	<i>\$22.99 M</i>	<i>\$25.20 M</i>	<i>\$29.22 M</i>	<i>\$33.41 M</i>	<i>\$27.83 M</i>	<i>\$34.78 M</i>	<i>\$32.80 M</i>	<i>\$48.47 M</i>	<i>\$60.76 M</i>	<i>\$55.02 M</i>	<i>\$30.48 M</i>

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

¹ 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.

² 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.

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

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

⁵ Total municipal revenue represents the total revenue that the city reports each year in its municipal budget. Alaska 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, Kodiak: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) ¹	Total permits	245	228	215	209	204	211	209	210	218	215	216
	Active permits	125	125	126	113	110	111	106	101	109	109	116
	% of permits fished	51%	54%	58%	54%	53%	52%	50%	48%	50%	50%	53%
	Total permit holders	200	195	187	176	176	181	182	179	188	187	187
Crab (LLP) ¹	Total permits	67	61	58	52	51	50	51	50	50	49	47
	Active permits	39	36	36	33	32	31	28	25	22	21	19
	% of permits fished	58%	59%	62%	63%	62%	62%	54%	50%	44%	42%	40%
	Total permit holders	56	50	49	43	41	42	43	42	43	41	42
Federal Fisheries Permits ¹	Total permits	188	197	202	171	174	180	153	160	164	141	143
	Fished permits	0	0	1	125	121	124	112	118	125	112	109
	% of permits fished	0%	0%	0%	73%	70%	69%	73%	74%	76%	79%	76%
	Total permit holders	168	176	180	157	160	163	144	149	152	135	137
Crab (CFEC) ²	Total permits	124	268	295	217	215	222	182	172	168	166	167
	Fished permits	85	195	240	146	125	107	84	70	56	55	79
	% of permits fished	69%	73%	81%	67%	58%	48%	46%	41%	33%	33%	47%
	Total permit holders	79	198	220	155	133	176	154	149	145	143	144
Other shellfish (CFEC) ²	Total permits	73	63	56	60	53	64	43	39	45	35	45
	Fished permits	27	12	16	17	13	14	9	9	13	8	16
	% of permits fished	36%	19%	28%	28%	24%	21%	20%	23%	28%	22%	35%
	Total permit holders	56	52	42	47	44	47	37	31	37	31	35
Halibut (CFEC) ²	Total permits	289	270	248	243	229	224	221	217	210	208	207
	Fished permits	235	207	217	208	192	188	192	186	187	172	177
	% of permits fished	81%	77%	88%	86%	84%	84%	87%	86%	89%	83%	86%
	Total permit holders	262	249	234	227	216	212	208	206	198	198	196
Herring (CFEC) ²	Total permits	159	145	139	134	131	131	132	131	128	133	135
	Fished permits	36	36	36	32	30	38	19	20	23	28	35
	% of permits fished	23%	25%	26%	24%	23%	29%	14%	15%	18%	21%	26%
	Total permit holders	103	102	97	91	94	97	100	96	97	98	94

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	58	55	52	52	47	46	52	53	48	50	44
	Fished permits	40	42	43	42	33	39	42	43	37	40	39
	% of permits fished	69%	76%	83%	81%	70%	85%	81%	81%	77%	80%	89%
	Total permit holders	57	54	50	50	46	46	51	50	47	50	44
Groundfish (CFEC) ²	Total permits	559	406	348	379	399	411	345	332	340	293	290
	Fished permits	292	183	164	211	238	234	198	181	189	176	182
	% of permits fished	52%	45%	47%	56%	60%	57%	57%	55%	56%	60%	63%
	Total permit holders	386	299	264	282	300	309	269	267	262	239	237
Other Finfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	384	378	370	367	372	386	381	385	383	391	391
	Fished permits	279	240	179	204	207	221	207	211	208	210	232
	% of permits fished	73%	63%	48%	56%	56%	57%	54%	55%	54%	54%	59%
	Total permit holders	391	375	363	346	356	361	355	352	349	345	347
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>1,646</i>	<i>1,585</i>	<i>1,508</i>	<i>1,452</i>	<i>1,446</i>	<i>1,484</i>	<i>1,356</i>	<i>1,329</i>	<i>1,322</i>	<i>1,276</i>	<i>1,279</i>
	<i>Fished permits</i>	<i>994</i>	<i>915</i>	<i>895</i>	<i>860</i>	<i>838</i>	<i>841</i>	<i>751</i>	<i>720</i>	<i>713</i>	<i>689</i>	<i>760</i>
	<i>% of permits fished</i>	<i>60%</i>	<i>58%</i>	<i>59%</i>	<i>59%</i>	<i>58%</i>	<i>57%</i>	<i>55%</i>	<i>54%</i>	<i>54%</i>	<i>54%</i>	<i>59%</i>
	<i>Permit holders</i>	<i>716</i>	<i>666</i>	<i>661</i>	<i>633</i>	<i>636</i>	<i>659</i>	<i>628</i>	<i>624</i>	<i>608</i>	<i>595</i>	<i>587</i>

¹National 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.]

²Alaska 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 Kodiak: 2000-2010.

Year	¹	Count Of All Fish Buyers²	Count Of Shore-Side Processing Facilities³	Vessels Primarily Owned By Residents⁴	Vessels Homeported⁴	Vessels Landing Catch In Kodiak²	Total Net Pounds Landed In Kodiak^{2,5}	Total Ex-Vessel Value Of Landings In Kodiak^{2,5}
2000	1,263	27	15	719	697	661	285,432,670	\$96,713,090
2001	1,127	30	12	644	645	621	280,354,204	\$79,969,674
2002	965	34	16	601	633	536	260,611,820	\$66,415,954
2003	920	29	13	579	621	508	271,050,978	\$84,596,173
2004	937	35	11	581	620	527	324,206,948	\$95,440,256
2005	891	42	12	526	565	610	361,877,488	\$108,642,258
2006	901	32	12	485	537	498	376,511,736	\$123,710,448
2007	892	33	13	490	511	477	328,773,989	\$133,955,945
2008	891	31	12	468	530	504	289,541,359	\$145,335,157
2009	868	34	11	457	536	499	308,772,614	\$112,442,426
2010	884	33	11	452	533	506	316,500,477	\$121,704,107

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

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

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

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

⁵ Totals only represent non-confidential data.

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

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (pounds)
2000	304	57,080,447	9,255,627
2001	287	50,510,994	9,243,424
2002	271	46,525,462	8,729,310
2003	264	44,811,524	8,603,499
2004	251	44,645,629	8,189,985
2005	252	47,078,550	8,140,122
2006	249	48,840,531	7,759,598
2007	249	48,900,974	7,510,047
2008	236	50,549,298	7,865,301
2009	229	48,807,714	7,050,593
2010	224	47,765,032	6,444,672

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 Kodiak: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (pounds)
2000	67	17,988,783	1,573,109
2001	65	16,950,060	1,453,540
2002	62	14,816,809	1,327,576
2003	57	15,398,307	1,653,396
2004	54	13,365,140	1,605,057
2005	55	14,666,666	1,672,611
2006	56	16,641,450	1,785,365
2007	60	15,728,908	1,622,165
2008	60	16,535,007	1,452,653
2009	58	17,347,762	1,384,865
2010	62	19,086,362	1,447,274

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 Kodiak: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (pounds)
2005	46	146,078,033	4,459,871
2006	47	170,384,920	4,402,191
2007	48	175,622,924	7,278,521
2008	54	175,501,341	6,749,102
2009	58	181,707,004	5,689,446
2010	57	174,235,081	5,715,071

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.]

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

	<i>Total Net Pounds¹</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	9,233,449	8,659,750	7,657,222	7,988,764	8,514,844	8,638,822	8,416,196	8,243,195	8,384,759	7,507,807	6,452,623
Herring	1,865,675	3,164,892	3,193,111	4,395,581	6,765,288	7,414,634	5,410,127	4,958,669	6,099,140	9,767,602	11,626,225
Other Groundfish	47,024,536	41,843,195	43,993,573	47,182,133	46,235,331	52,646,313	66,964,895	71,000,361	82,093,807	71,964,543	66,146,874
Other Shellfish	141,935	355,233	483,660	336,158	445,659	1,501,641	3,268,894	1,231,477	686,828	1,041,789	674,606
Pacific Cod	64,174,761	53,748,832	49,182,878	51,774,863	61,285,752	53,882,267	49,023,028	54,288,908	58,902,808	45,702,810	75,380,048
Pollock	106,094,642	89,611,856	65,111,550	71,338,423	84,169,222	104,029,882	98,427,793	73,202,635	71,933,351	56,927,178	106,776,930
Sablefish	2,071,265	2,105,860	1,683,118	2,328,749	2,600,036	2,525,996	2,410,174	3,080,707	2,455,314	2,466,658	2,763,564
Salmon	52,027,172	78,838,317	86,970,330	83,542,164	111,910,020	127,826,561	139,194,438	109,715,426	56,188,080	110,801,766	44,222,475
<i>Total²</i>	<i>282,633,435</i>	<i>278,327,935</i>	<i>258,275,442</i>	<i>268,886,835</i>	<i>321,926,152</i>	<i>358,466,116</i>	<i>373,115,545</i>	<i>325,721,378</i>	<i>286,744,087</i>	<i>306,180,153</i>	<i>314,043,345</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	\$23,023,430	\$17,207,856	\$16,857,177	\$22,552,489	\$24,904,619	\$25,122,905	\$32,175,455	\$34,889,958	\$35,848,807	\$22,848,762	\$31,157,917
Herring	\$635,596	\$919,020	\$793,678	\$1,170,045	\$1,661,260	\$1,663,673	\$562,236	\$783,448	\$1,298,566	\$2,137,909	\$1,333,146
Other Groundfish	\$4,541,561	\$3,434,518	\$3,285,893	\$4,188,390	\$3,202,659	\$5,141,931	\$8,688,375	\$10,404,637	\$12,021,987	\$7,778,009	\$7,407,750
Other Shellfish	\$49,545	\$269,242	\$333,135	\$248,386	\$312,463	\$521,266	\$469,014	\$506,827	\$533,670	\$490,720	\$452,263
Pacific Cod	\$22,903,026	\$15,547,542	\$12,091,259	\$16,026,883	\$17,123,994	\$16,785,166	\$19,688,080	\$27,269,569	\$33,533,205	\$14,451,852	\$19,430,012
Pollock	\$12,170,802	\$11,080,009	\$6,281,669	\$6,385,428	\$8,868,979	\$14,176,306	\$13,390,885	\$8,145,267	\$12,290,730	\$9,616,228	\$17,425,037
Sablefish	\$6,342,126	\$6,063,222	\$4,779,447	\$7,449,042	\$7,406,201	\$7,569,457	\$8,237,177	\$10,104,721	\$9,290,959	\$9,924,865	\$13,621,925
Salmon	\$18,591,496	\$18,822,924	\$13,598,450	\$19,265,619	\$23,978,687	\$28,104,742	\$32,171,181	\$32,438,126	\$32,094,870	\$39,095,940	\$24,024,558
<i>Total²</i>	<i>\$88,257,582</i>	<i>\$73,344,333</i>	<i>\$58,020,709</i>	<i>\$77,286,282</i>	<i>\$87,458,861</i>	<i>\$99,085,445</i>	<i>\$115,382,402</i>	<i>\$124,542,554</i>	<i>\$136,912,794</i>	<i>\$106,344,285</i>	<i>\$114,852,609</i>

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

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

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

² Totals only represent non-confidential data.

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

	<i>Total Net Pounds¹</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	7,410,891	5,383,969	6,205,762	6,169,872	5,755,299	6,497,203	6,323,098	7,926,096	13,063,779	9,299,824	7,302,708
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	10,850,819	10,266,327	10,515,056	10,270,942	9,879,735	9,364,183	8,834,092	9,059,984	8,640,983	8,151,599	7,524,511
Herring	7,998,326	8,421,986	9,096,512	8,033,311	9,612,358	12,169,653	11,802,235	9,974,002	19,046,884	15,125,022	22,362,694
Other											
Groundfish	35,756,763	25,770,366	21,584,998	22,295,660	16,205,733	16,707,938	19,251,764	23,767,197	27,598,223	29,141,207	27,821,343
Other Shellfish	224,160	240,167	342,992	326,250	607,091	676,168	1,369,868	708,282	514,370	635,151	453,391
Pacific Cod	52,897,317	30,635,990	34,366,630	39,768,485	43,055,249	39,314,436	39,207,893	41,358,433	36,577,122	32,558,237	54,196,122
Pollock	75,435,694	72,877,022	74,679,015	73,879,805	79,078,724	77,582,088	74,419,635	66,797,804	49,862,065	45,852,004	67,067,727
Sablefish	1,873,774	1,246,189	1,376,278	1,468,051	1,596,333	1,578,174	1,521,295	1,867,634	1,474,405	1,572,900	1,613,994
Salmon	31,732,849	49,172,809	42,441,699	35,631,899	49,241,534	56,259,715	58,244,505	57,047,460	31,377,462	56,906,860	31,967,261
<i>Total²</i>	<i>224,180,593</i>	<i>204,014,826</i>	<i>200,608,942</i>	<i>197,844,276</i>	<i>215,032,056</i>	<i>220,149,558</i>	<i>220,974,385</i>	<i>218,506,892</i>	<i>188,155,293</i>	<i>199,242,804</i>	<i>220,309,751</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	\$19,154,686	\$14,525,267	\$17,325,538	\$18,691,177	\$17,539,509	\$15,887,860	\$11,995,305	\$21,043,428	\$31,909,307	\$18,846,590	\$17,293,854
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	\$27,037,553	\$20,304,227	\$23,350,180	\$29,375,078	\$29,105,782	\$27,716,712	\$33,507,055	\$38,638,741	\$36,788,565	\$24,588,722	\$35,636,950
Herring	\$1,192,064	\$1,502,602	\$1,329,126	\$1,162,874	\$1,599,499	\$2,197,767	\$1,060,641	\$1,526,360	\$3,871,738	\$3,539,728	\$3,600,773
Other											
Groundfish	\$4,553,293	\$3,545,368	\$2,469,797	\$2,837,700	\$1,146,875	\$1,754,855	\$2,702,843	\$3,506,269	\$4,423,705	\$3,314,810	\$3,238,609
Other Shellfish	\$311,114	\$219,060	\$243,164	\$292,305	\$583,952	\$503,749	\$430,632	\$489,759	\$503,357	\$487,513	\$446,032
Pacific Cod	\$22,453,748	\$8,801,981	\$8,482,457	\$12,795,181	\$11,790,348	\$12,189,145	\$16,007,844	\$21,059,066	\$21,084,289	\$9,921,927	\$14,647,444
Pollock	\$8,477,141	\$7,098,811	\$7,853,801	\$6,974,400	\$7,855,493	\$10,065,597	\$9,642,785	\$8,005,230	\$9,143,172	\$8,028,073	\$10,397,353
Sablefish	\$6,618,730	\$3,714,869	\$4,203,723	\$5,018,220	\$4,612,858	\$4,886,092	\$5,387,704	\$6,612,485	\$6,038,160	\$6,997,784	\$8,602,511
Salmon	\$11,662,171	\$10,540,860	\$6,343,594	\$7,714,676	\$9,830,603	\$11,828,845	\$15,016,648	\$16,599,984	\$16,707,469	\$20,652,430	\$18,877,120
<i>Total²</i>	<i>\$101,460,500</i>	<i>\$70,253,046</i>	<i>\$71,601,381</i>	<i>\$84,861,611</i>	<i>\$84,064,918</i>	<i>\$87,030,622</i>	<i>\$95,751,457</i>	<i>\$117,481,322</i>	<i>\$130,469,764</i>	<i>\$96,377,576</i>	<i>\$112,740,645</i>

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

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

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

² Totals only represent non-confidential data.

Recreational Fishing

The KMA is a very popular recreational fishing area for both Alaska resident and non-resident anglers. The 70 mi of paved and hard-packed gravel roads provide access to 10 significant salmon streams and over 20 stocked lakes. Freshwater fishing opportunities available include Chinook, pink, sockeye, and coho salmon, Dolly Varden, rainbow trout, and steelhead. Fishing destinations not located adjacent to the road system can be accessed by boat or floatplane. Approximately 11,000 people live along the Kodiak road system, and around 14,000 visitors travel to the Kodiak area every year. Available services include 65 charter operators, 33 remote lodges, 6 air taxis, 12 state and federal public cabins, 10 private remote rental cabins, 5 hotels and motels, 30 bed and breakfasts, 4 sporting good stores, and a range of other services which support a robust visitor economy.⁹³ According to ADF&G records, there were 46 sport fish guide businesses active in Kodiak in 2010, compared to 47 in 2000. According to records, active sport fish guide businesses peaked in 2008 at 58. In addition, 98 sport fish guide licenses were issued to residents in 2010, compared to 140 in 2000. The number of sport fish guide licenses held by residents declined at a steady rate between 2000 and 2010. Between 4,300 and 5,000 sportfishing licenses were sold to residents each year between 2000 and 2010; however, as many as 11,436 licenses were sold in the community (irrespective of residence) indicating that Kodiak is a popular sportfishing destination for non-residents (Table 11).

On the road system, Chinook salmon can be found offshore of Monashka Bay, Cape Chiniak, and the American and Olds rivers. Saltwater trolling is a popular activity in marine waters, and most trolling occurs in Chiniak Bay between April and October. The Karluk and Ayakulik rivers, located on the southwest end of Kodiak Island, are Kodiak's only native Chinook fisheries. There are three sockeye salmon producing streams on the Kodiak road system: the Buskin, Pasagshak, and Saltery rivers. The largest sockeye run occurs on the Saltery River, starting in early July, and peaking near the end of the month. Pink salmon are widely available throughout the Kodiak area. Pinks can be taken along beaches or at the mouth of most drainages, and are available by mid-July. Coho salmon are typically targeted in marine waters by troll vessel during the last week of July as they begin to move towards shore.

Popular areas include Cape Chiniak and Buoy 4. Steelhead trout are available in limited numbers within Buskin, Miam, and Saltery drainages adjacent to the road system. The Karluk River contains Kodiak Island's largest population of steelhead. The Dog Salmon and Litnik rivers also contain large concentrations. Halibut are found in abundance throughout marine waters around Kodiak Island, and are typically targeted from late April through early September. More than 30 species of rockfish are also available, with yellow-eye caught most often. Lingcod can be targeted beginning July 1, but are in relatively lower abundance. Dolly Varden are at their peak in late May, and again from mid-July through October. Fishing areas along the road system include Mission and Pillar creek beaches in the spring and most Kodiak drainages in the summer and fall.⁹⁴

Kodiak is located in the Kodiak ADF&G Harvest Survey Area, which included all Alaskan waters, including drainages, of the Kodiak and Afognak Island groups. In 2010, there were a total of 40,377 saltwater and 41,082 freshwater angler days fished, compared to 55,576

⁹³ Alaska Dept. of Fish and Game. (n.d.). *Kodiak Management Area*. Retrieved September 17, 2012 from: <http://www.adfg.alaska.gov/index.cfm?adfg=ByAreaSouthcentralKodiak.fishingInfo#/runtiming>

⁹⁴ Alaska Dept. of Fish and Game. (n.d.). *Kodiak*. Retrieved September 17, 2012 from: <http://www.adfg.alaska.gov/static-sf/Region2/pdfpubs/kodiak.pdf>.

and 65,831 in 2000, respectively (Table 11). Both saltwater and freshwater angler days fished peaked in 2000. Between 2000 and 2010, the proportion of non-Alaska residents participating in freshwater and saltwater recreational fisheries grew relative to the total number of angler days fished. Overall, non-Alaska residents accounted for 49.6% of saltwater and 45.9% of freshwater angler days fished in 2010, compared to 30.2% and 28.1% in 2000, respectively.

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

Year	Active Sport Fish Guide Businesses ¹	Sport Fish Guide Licenses ¹	Sport Fishing Licenses Sold to Residents ²	Sport Fishing Licenses Sold in Kodiak ²
2000	47	140	5,062	6,402
2001	43	142	4,699	5,271
2002	44	165	4,733	7,182
2003	45	154	4,785	6,990
2004	45	151	4,691	7,112
2005	53	102	4,754	7,606
2006	53	109	4,602	7,134
2007	55	116	4,450	7,436
2008	58	106	4,317	6,931
2009	49	97	4,436	6,472
2010	46	98	4,418	11,436

Year	Saltwater		Freshwater	
	Angler Days Fished – Non-residents ³	Angler Days Fished – Alaska Residents ³	Angler Days Fished – Non-residents ³	Angler Days Fished – Alaska Residents ³
2000	16,767	38,809	18,524	47,307
2001	14,761	24,604	18,299	19,757
2002	18,356	19,737	15,018	35,113
2003	17,715	23,726	13,362	34,034
2004	18,896	22,787	21,331	31,124
2005	21,269	33,917	23,789	36,753
2006	23,511	21,991	23,483	26,239
2007	21,668	31,554	26,916	31,072
2008	20,275	31,944	24,944	24,876
2009	20,813	26,520	10,859	21,283
2010	20,012	20,365	18,871	22,211

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

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

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

In a survey conducted by the AFSC in 2011, community leaders reported that private anglers in Kodiak target Chinook salmon, coho salmon, sockeye salmon, halibut, and crab. Fishing is typically done by charter vessel, locally owned private vessel, or from shore (residents only). According to ADF&G Harvest Survey data, local private anglers target all five species of Pacific salmon, rainbow trout, Dolly Varden, Arctic grayling, northern pike, Pacific halibut, rockfish, lingcod, Pacific cod, sablefish, smelt, Dungeness crab, Tanner crab, razor clams, hardshell clams, and shrimp.⁹⁵ According to 2010 catch/release data collected by ADF&G, charter vessels kept 1,017 Chinook salmon, 1,759 coho salmon, 83 sockeye salmon, 421 unspecified salmon, 7,133 halibut, 1,423 lingcod, and 11,388 rockfish. Overall, the number of salmon caught was lower in 2010 than in previous years since 2000. The number of Chinook and coho salmon caught was lower than any other year during that decade. Conversely, the number of rockfish caught was at its highest level in 10 years in 2010.

Subsistence Fishing

Subsistence resources have been relied on in Kodiak since human occupation began some 7,500 years ago. The Alutiiq culture relied strongly on subsistence use of marine fish, invertebrates, marine mammals, terrestrial mammals, and freshwater fish. While Kodiak's economy is not as dependent on subsistence resources as more remote locations on Kodiak Island, residents still practice subsistence to supplement diets and income. Participation in the KMA subsistence salmon fishery is open to any Alaska residents. However, subsistence activities on federal waters are limited only to qualified rural Alaska residents. All communities located within the KMA are considered rural by the Federal Subsistence Board and are eligible to participate in subsistence activities on federal lands and waters.⁹⁶ In a survey conducted by the AFSC in 2011, community leaders reported that residents consider salmon, halibut, and crab as the three most important aquatic subsistence resources. Species which Kodiak Island Borough residents harvest for subsistence purposes include: all five species of Pacific salmon, halibut, sole, flounder, herring, capelin, cod, bass, snapper, herring, crab, mussels, razor clams, butter clams, softshell clams, cockles, emmas, bidarkis, king crabs, tanner crabs, Dungeness crabs, horse crabs, limpets, snails, octopus, sea urchins, shrimp, Dolly Varden, whitefish, lake trout, rainbow/steelhead trout, Arctic grayling, Northern pike, burbot, blackfish, longnose sucker, smelt, harbor seal, spotted seal, ringed seal, bearded seal, Steller sea lion, walrus, and beluga whale.⁹⁷

According to 2006 ADF&G estimates detailed in Kodiak Island Borough's *2007 Coastal Management Plan*, 93.3% of Kodiak residents use subsistence salmon, 1.9% use marine mammals, 79.0% use marine invertebrates, and 95.2% use non-salmon fish.⁹⁸ Of the species listed by ADF&G in Table 13, residents reported harvesting sockeye salmon the most, followed by coho, pink, Chinook, and chum salmon. In 2008, residents reported harvesting 19,996 salmon,

⁹⁵ 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).

⁹⁶ Federal Subsistence Board. (2010). *Rural Determinations*. 50 CFR 100 Subpart B – Subsistence Management Regulations for Public Lands in Alaska. Retrieved September 18, 2012 from: <http://ecfr.gpoaccess.gov>

⁹⁷ Glen Gray and Associates. (2007). *KIB Coastal Management Plan – Final Plan Amendment*. Retrieved September 11, 2012 from: http://alaskacoast.state.ak.us/District/FinalFinalPlans/Kodiak/Kodiak_CMP.pdf.

⁹⁸ Ibid.

compared to 23,619 in 2000. Reported salmon harvests peaked in 2004 at 29,399 fish. In 2010, residents were issued 1,720 Subsistence Halibut Registration Certificates (SHARC), compared to 1,345 in 2003. In that year, an estimated 130,384 pounds of halibut was harvested on 508 SHARC, compared to an estimated 157,746 pounds harvested on 667 SHARC in 2003. This represents a significant decline in both the number of SHARC fished and the estimated pounds harvested, as well as the lowest permit activity relative to the number of SHARC issued since the program began. Subsistence halibut harvests peaked in 2004 at an estimated 257,581 pounds harvested on 827 SHARC (Table 14). Between 2000 and 2010, an estimated 458 sea otters were harvested. Estimated sea otter harvests peaked in 2002 at 64 otters. Between 2000 and 2008 an estimated 222 harbor seals and 8 Steller sea lions were harvested (Table 15).

Additional Information

In a survey conducted by the AFSC in 2011, community leaders reported that high fuel prices, variable fish prices, and continuous changes in fishery regulations are current challenges for the portion of Kodiak’s economy that is based on fishing. They expressed that due to the diversity of Kodiak’s fleet and seafood processing sectors, most policy or management changes have an impact on some portion of the local population and fishing industry. In the past, regulations pertaining to rationalization and privatization have affected Kodiak the most.

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

Year	Subsistence Salmon Permits Issued ¹	Salmon Permits Returned ¹	Chinook Salmon Harvested ¹	Chum Salmon Harvested ¹	Coho Salmon Harvested ¹	Pink Salmon Harvested ¹	Sockeye Salmon Harvested ¹	Lbs of Marine Inverts ²	Lbs of Non-Salmon Fish ²
2000	24	1,118	282	206	3,531	467	19,133	n/a	n/a
2001	26	1,683	16	8	n/a	4	753	n/a	n/a
2002	17	1,755	14	13	n/a	n/a	1,069	n/a	n/a
2003	14	1,768	12	2	13	n/a	559	n/a	n/a
2004	1,740	1,730	252	153	3,493	594	24,907	n/a	n/a
2005	1,424	1,424	293	135	4,815	860	20,107	n/a	n/a
2006	23	20	26	10	n/a	7	526	n/a	n/a
2007	28	22	22	7	n/a	n/a	930	n/a	n/a
2008	1,276	1,268	112	104	2,721	669	16,390	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

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

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

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

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	1,345	667	157,746
2004	1,587	827	257,581
2005	1,762	885	217,016
2006	1,738	975	210,696
2007	1,902	966	197,788
2008	1,745	978	180,440
2009	1,847	941	182,340
2010	1,720	508	130,384

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, Kodiak: 2000-2010.

Year	# of Beluga Whales ¹	# of Sea Otters ²	# of Walrus ²	# of Polar Bears ²	# of Steller Sea Lions ³	# of Harbor Seals ³	# of Spotted Seals ³
2000	n/a	41	n/a	n/a	2	27	n/a
2001	n/a	39	n/a	n/a	3	18	n/a
2002	n/a	64	n/a	n/a	3	18	n/a
2003	n/a	61	n/a	n/a	n/a	32	n/a
2004	n/a	38	n/a	n/a	n/a	21	n/a
2005	n/a	57	n/a	n/a	n/a	11	n/a
2006	n/a	38	n/a	n/a	n/a	11	n/a
2007	n/a	26	n/a	n/a	n/a	21	n/a
2008	n/a	54	n/a	n/a	n/a	63	n/a
2009	n/a	5	n/a	n/a	n/a	n/a	n/a
2010	n/a	35	n/a	n/a	n/a	n/a	n/a

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

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

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

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