Dillingham (*DILL-eeng-ham*)

People and Place

Location [1]

Dillingham is located at the extreme northern end of Nushagak Bay in northern Bristol Bay, at the confluence of the Wood and Nushagak Rivers. It lies 327 mi southwest of Anchorage and is a 6 hour flight from Seattle. The area encompasses 33.6 sq mi of land and 2.1 sq mi of water. Dillingham was incorporated as a First-class city in 1963, is located in the Dillingham Census Area, and is not under the jurisdiction of a borough.

Demographic Profile [2]

In 2010, there were 2,329 residents, ranking Dillingham 40th of 352 communities in terms of population size. Between 1990 and 2010, the population grew by 15.5%. Between 2000 and 2009, the population fell by 8.2% with an average annual growth rate of -0.53, which was less than the statewide average of 0.75% and indicative of a slowly shrinking population during that time. However, 2010 Census data indicate that the population has recovered somewhat since 2009 Alaska Department of Labor and Workforce Development (DOLWD) estimates. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that there was an estimated 2,500 seasonal or transient workers living in Dillingham in 2010, in addition to year round residents. On average, there are seasonal workers living in Dillingham from May through September. The population typically peaks in June and July, and is mostly driven be employment in the fishing sectors. Information regarding population trends can be found in Table 1.

Dillingham's racial composition is predominately Yup'ik Eskimo and White. In 2010, 55.9% of residents identified themselves as American Indian or Alaska Native, compared to 52.6% in 2000. Also in that year, 30.7% of residents identified themselves as White, compared to 35.6% in 2000; 1.3% identified themselves as Asian, compared to 1.2% in 2000; and 11.2% identified themselves as two or more races, compared to 9.4% in 2000. Residents identifying themselves as Black or African American, Native Hawaiian or Other Pacific Islander, or some other race each made up less than one percent of the population. Hispanics and Latinos made up 2.9% of the population in 2010, compared to 3.5% in 2000. Information regarding race and ethnicity can be found in Figure 1.

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

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

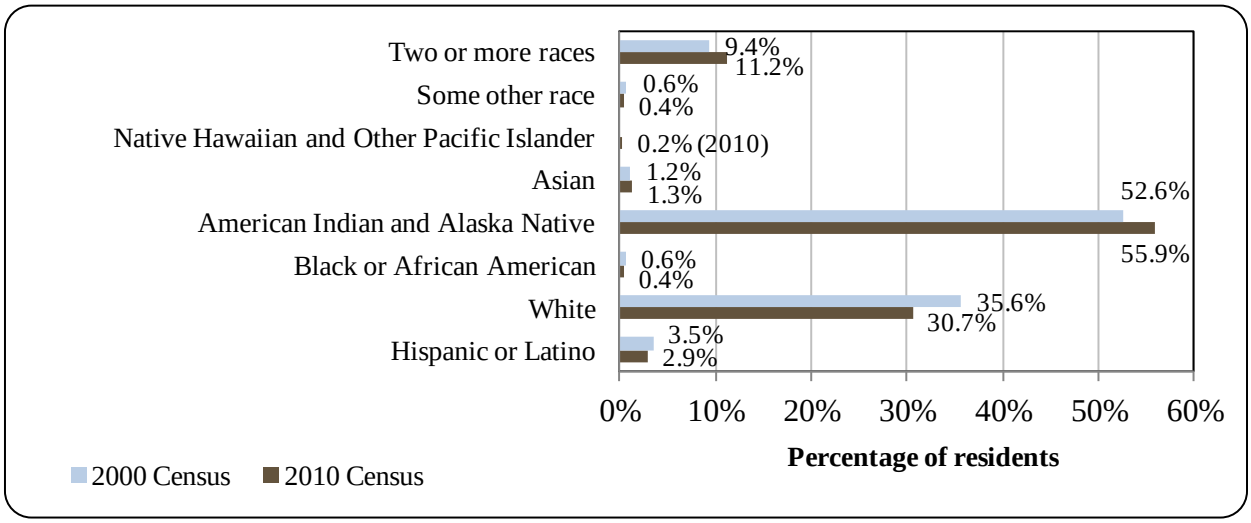
Table 1. Population in Dillingham from 1990 to 2010 by Source.

Year	U.S. Decennial Census[1]	Alaska Department of Labor Estimate of Permanent Residents[2]
1990	2,017	-
2000	2,466	-
2001	-	2,461
2002	-	2,468
2003	-	2,385
2004	-	2,407
2005	-	2,371
2006	-	2,405
2007	-	2,404
2008	-	2,335
2009	-	2,264
2010	2,329	-

[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, Dillingham: 2000-2010 (U.S. Census).



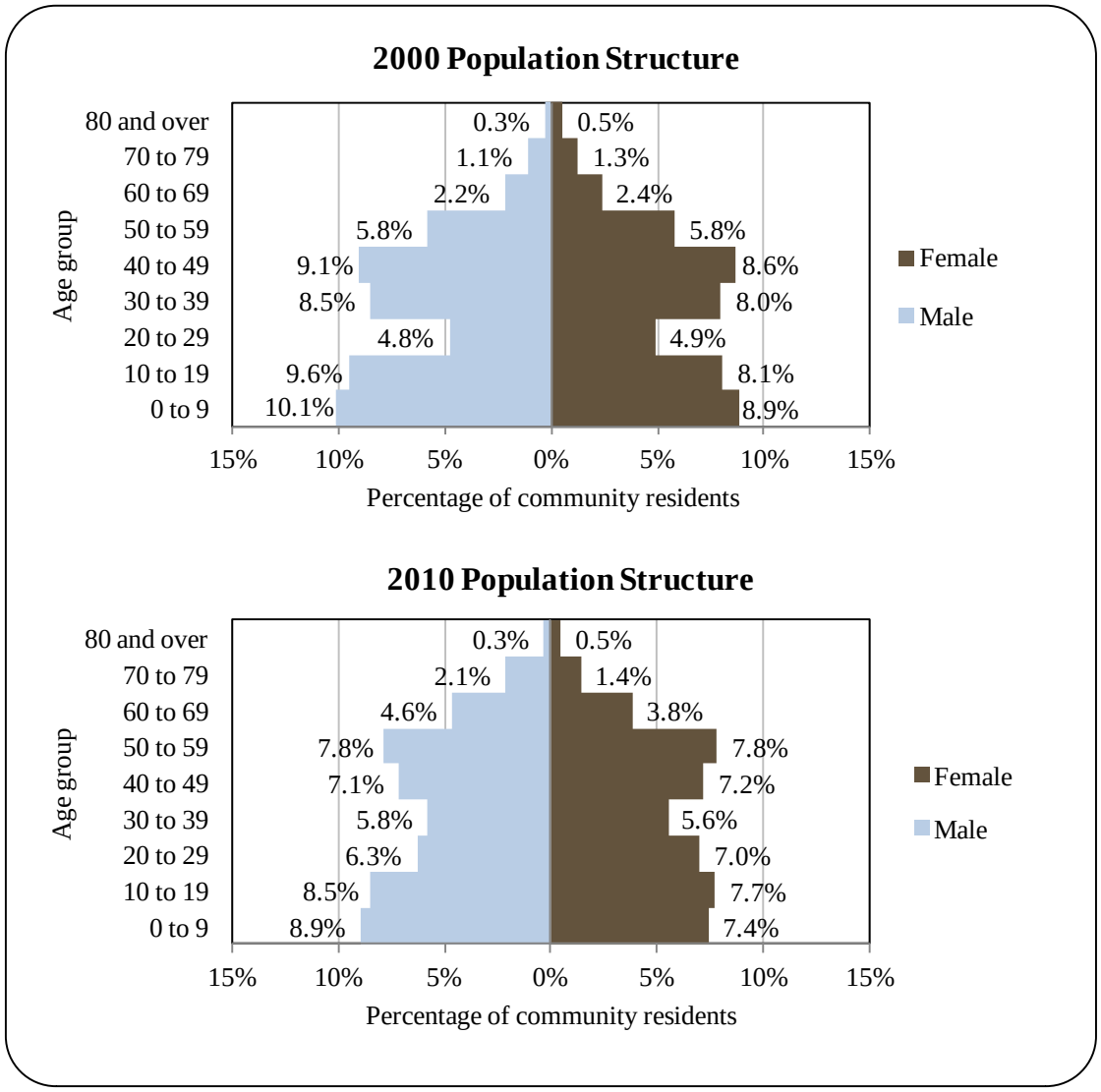
In 2010, the average household size in Dillingham was 2.66, a decline from 2.90 in 1990 and 2.75 in 2000. In that year, there were a total of 1,047 housing units, compared to 851 in 1990 and 1,000 in 2000. Of those households surveyed in 2010, 42% were owner-occupied, compared to 43% in 2000; 40% were renter-occupied, compared to 45% in 2000; 13% were vacant,

compared to 8% in 2000; and 6% were occupied seasonally, compared to 4% in 2000. There were 52 residents living in group quarters that year, compared to 33 in 2000.

The gender distribution in 2010 was relatively even at 51.6% male and 48.4% female. This was similar to the gender distribution statewide (52% male, 48% female) and identical to the distribution in 2000. The median age that year was 32.8, which was similar to the statewide median of 33.8 and identical to the median age in 2000.

Compared with 2000, the population structure in 2010 was slightly more stationary. In addition, age transitions were consistent with a stable population, meaning that the population aged while still mostly retaining its structural character. In 2010, 32.5% of residents were under the age of 20, compared to 36.7% in 2000. Also in that year, 12.7% of residents were over the age of 59, compared to 7.8% in 2000; and 41.3% were between the ages of 30 and 59, compared to 45.8% in 2000. The proportion of residents between the ages of 20 and 29 grew from 9.7% in 2000 to 13.3% in 2010, perhaps indicating greater youth retention in the community.

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



Gender distribution by age cohort was relatively even in both 2000 and 2010. In 2010, the greatest absolute gender difference occurred in the 0 to 9 range (8.9% male, 7.4% female), followed by the 10 to 19 range (8.5% male, 7.7% female) and 70 to 79 range (2.1% male, 1.4% female). Of those three, the greatest difference relative to cohort size occurred in the 70 to 79 range. In 2000, the greatest absolute gender difference occurred in the 10 to 19 range (9.6% male, 8.1% female), followed by the 0 to 9 range (10.1% male, 8.9% female) and 30 to 39 range (8.5% male, 8% female). Of those three, the greatest difference relative to cohort size occurred in the 10 to 19 range. Information regarding population structure trends can be found in Figure 2.

In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)[3] estimated that 94.3% of residents aged 25 and over 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 3.5% of residents had less than a 9th grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 2.3% had a 9th to 12th grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 29.8% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 5% held an Associate's degree, compared to an estimated 8% of Alaska residents overall; an estimated 18.4% held a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall; and an estimated 15% held a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture

Previous to Russian and European contact, the Nushagak River region was occupied by the Nushagagmiut culture of Yup'ik Eskimos. The area's proximity to highly productive salmon grounds and location between the Alaska Peninsula and Yukon-Kuskokwim Delta lent to considerable cultural mixing, trade, and in some instances, conflict. Cultural groups in the greater area included the Aglemiut group, who occupied the mouth of the Nushagak river and Bristol Bay coast; and Athabascans, who occupied the Mulchatna river to the north of Dillingham.

Bristol Bay was visited by Captain James Cook in 1778 while searching for a northwest passage. The bay was named after the Admiral Earl of Bristol. Although this was the first well recorded visit to Bristol Bay by Europeans, Cook gave evidence of a prior Russian presence in the area.

In 1818, Alexander Baranov, first governor of the Russian American colonies, sent an expedition to establish a permanent station on the Nushagak River. A fort was completed that year and was named Alexandrovsk, possibly after Alexander Baranov. A census conducted shortly after showed three Russian men and two Russian women at the post. Under Kolmaof, the Russians were reported to have made peace with the various cultural groups in the area by 1822, including the Aglemiut, who were said to be "warrior people". At that time, fur trade could be conducted without difficulty. A Russian Orthodox mission was established at Nushagak as early as 1837.

[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.

The Bristol Bay population grew as the fur trade proliferated. The first official Census in Alaska in 1880 reported populations of 178 at Nushagak, and 142 at nearby Kanulik. In 1884, the Arctic Packing Company established the first salmon cannery in the Bristol Bay region at Nushagak. The next year, another cannery was constructed on the west bank of the Bay, close to the junction of the Wood and Nushagak Rivers. In 1886, yet another cannery was built at a site which would eventually become the city of Dillingham. In that year, a Moravian Church was established near Kanulik. Aside from missionary activities, the church operated as a hospital and school. In the 1890 census, the mission had a population of 189. A post office was established in Nushagak in 1899. In 1904, the Moravians ceased operations, in part because of the entrenched Russian Orthodoxy in the area.

By 1900, most of the population and economic activity shifted to the west side of Nushagak Bay and the Moravian Mission and village of Kanulik were largely deserted. In 1901, a new cannery was constructed at Wood River Village, north of present day Dillingham, while continued emigration occurred in Nushagak. Between 1908 and 1910, there were about 10 canneries in Nushagak Bay. During that time, there was a small hospital in the area operated at the village of Kanakanak. The post office of Dillingham was established on Snag Point in 1904. At that time, the town of Dillingham was located 3 mi southwest at what is now known as "Olsonville".

The 1918-19 influenza epidemic hit the region hard and by 1920, the population of Nushagak Bay had been reduced to around 500. Most of the residents of Kanakanak died of influenza and an orphanage was constructed to care for children orphaned by the epidemic. The 1920 census recorded 36 people in Kanakanak, compared to 250 in 1918. Villages along the Wood River were virtually wiped out by influenza. People did not begin to move back into the area until the late 1920s.

The present location of Dillingham is the former location of a village known as Ahleknuguk (also known as Chogiung). Dillingham was named in 1904 for the U.S. Senator William Paul Dillingham. Around 1944, the post office was closed at Kanakanak and the name "Dillingham" was transferred to Snag Point where the post office had been assigned since 1904. By 1950, the population of Dillingham reached 577 and by 1962, a boat harbor and high school had been completed. A sewer system and disposal plant was completed in 1964. By 1970, the population grew to 914.[4]

Traditionally a Yup'ik Eskimo area with Russian influences, Dillingham is now a highly mixed population of both Alaska Native and non-Alaska Native residents. The outstanding commercial fishing opportunities in the Bristol Bay area are the focus of the local culture.[5]

Natural Resources and Environment

The primary climatic influence is marine; however, the arctic climate of the Interior also affects the Bristol Bay coast. Average summer temperatures range from 37 to 66 °F (3 to 19 °C). Average winter temperatures range from 4 to 30 °F (-16 to -1 °C). Annual precipitation averages 26 inches, and annual snowfall averages 65 inches. Heavy fog is common in July and August.

[4] Tryck, Nyman & Hayes. (1985). *City of Dillingham Comprehensive Plan.* Retrieved March 9, 2012 from: http://www.commerce.state.ak.us/dca/plans/Dillingham-CP-1985.pdf.
[5] Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

Winds of up to 60-70 mph may occur between December and March. The Nushagak River is ice-free from June through November.[6]

Located just outside the Togiak National Wildlife Refuge (TNWR), Dillingham rests in an area characterized by a mixture of wet lowlands, gentle hills, and moraine deposits. Steep sloped areas are rare aside from coastal peat bluffs that extend from the city to the end of Wood River Road. Soils around Dillingham are familiar to those found in previously glaciated areas. The city itself lies on rolling moraine hills covered by silty loess. Lowlands are dominated by wetlands and muskeg.[7] Vegetation consists of a mix of moist tundra and spruce stands. Tundra consists of mosses, lichens, and grasses. Spruce forests consist of white spruce and paper birch, and typically cover moraine hills. Other tree species in the greater area include quaking aspen, black spruce, and cottonwood.[8]

Terrestrial wildlife around the TNWR includes moose, caribou, brown and black bears, wolves coyotes, red and arctic fox, wolverines, lynx, otters, mink and weasels, marten, marmot, beavers, muskrat, ground and red squirrels, hares, porcupine, shrews, voles, mice, and lemmings. Marine mammals include spotted seals, harbor seals, ribbons seals, ringed seals, bearded seals, Pacific walrus, Steller sea lions, fur seals, and a wide variety of whales. There are many species of fish within the TNWR which have both economic and subsistence importance. These include all five species of Pacific salmon, lake trout, arctic char, Dolly Varden char, arctic grayling, rainbow trout, northern pike, blackfish, burbot, cisco, whitefish, herring, smelt, sculpin, stickleback, and flounder.[9]

Beyond fishing, there are few environmental resources being exploited in the Dillingham area. There are thought to be oil and gas deposits within the Bristol Bay lowlands, however it is uncertain whether they are economically viable. Mineral prospects in the immediate area are slim; however, there are mineral claims outside the lowland areas. These include gold, copper, lead, zinc, arsenic, and molybdenum deposits and Shotgun Hills; tin, tungsten, silver, copper, zinc, arsenic, and bismuth deposits at Sleitat (80 mi west); iron, titanium, platinum, and palladium deposits at Kemuk Mountain (40 mi northwest); and mercury and antimony deposits at Cinnabar Creek an Kagati Lake.[10]

Local natural hazards come primarily in the form of flooding and erosion. Most flooding in the area is a result of storm surges. These storm surges often cause seasonal flooding in lowlands west of Dillingham, as well as along most shorelines. Erosion is most prevalent along the Nushagak Bay coastline and around the entrance to the Dillingham boat harbor. Steep bluffs are undercut by waves during high tide and southerly currents erode low-lying silt shorelines which complicates shoreline development.[11]

The Alaska Department of Environmental Conservation (DEC) reports that no significant environmental remediation projects were being undertaken as of 2010. However, they reported

[6] Ibid.
[7] City of Dillingham. (2006). *City of Dillingham Comprehensive Plan.* Retrieved March 13, 2012 from: http://www.commerce.state.ak.us/dca/plans/Dillingham-CP-2006.pdf.
[8] Palcsak, B.B. and Dorava, J. M. (1994). *Overview of Environmental and Hydrogeologic Conditions at Dillingham, Alaska.* Retrieved February 9, 2012 from: http://www.dggs.alaska.gov/webpubs/usgs/of/text/of94-0482.PDF.
[9] U.S. Fish and Wildlife Service. (n.d.). Retrieved March 13, 2012 from: http://togiak.fws.gov.
[10] See footnote 7.
[11] Ibid.

several smaller cleanup projects in Dillingham, most of which involved limited petroleum contamination of soils and groundwater.[12]

Current Economy[13]

In a survey conducted by the AFSC in 2011, community leaders reported that Dillingham's economy is reliant on commercial fishing. Most of the city's economy is centered on its involvement in Bristol Bay fisheries and its place as an economic, transportation, and public service center for the region. Commercial fishing, fish processing, cold storage, and fishing support services are all mainstays for residents. Dillingham's role as a regional center helps stabilize the economy, and provides year-round employment. Many residents also supplement wage earnings with subsistence activities. Trapping beaver, otter, mink, lynx, and fox provide cash income. Salmon, grayling, pike, moose, bear, caribou, and berries are also harvested for food.[14] Top employers[15] in 2010 included Bristol Bay Area Health Corp. (BBAHC); Bristol Bay Native Association; Dillingham City School Dist.; Bristol Bay Housing Authority; State of Alaska; City of Dillingham; Nushagak Electric & Tele Coop Inc.; University of Alaska; Omni Enterprises Inc.; and S.A.F.E Inc.

In 2010,[16] the per capita income in Dillingham was estimated at $34,156 and the median household income was estimated at $74,828, compared to $21,537 and $51,458 in 2000, respectively. After accounting for inflation by converting 2000 values to 2010 dollars,[17] the real per capita income ($28,321) and real median household income ($67,667) indicate a rise in both individual and household earnings. In that year, Dillingham ranked 36th of 305 communities from which per capita income was estimated, and 35th of 299 communities from which median household income was estimated.

Dillingham's small population size may have prevented the American Community Survey from accurately portraying economic conditions.[18] Another understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the DOLWD. According to the ALARI database, residents earned $43.97 million in total wages in 2010.[19] When matched with the population in 2010, the per capita income equals $18,879, which was significantly lower than the 2010 ACS

[12] Alaska Department of Environmental Conservation. (n.d.). *List of contaminated site summaries by region.* Retrieved March 13, 2012 from: http://dec.alaska.gov/spar/csp/list.htm.
[13] Unless otherwise noted, all monetary data are reported in nominal values.
[14] See footnote 7.
[15] 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/.
[16] U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.
[17] Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, http://labor.alaska.gove/research/cpi/inflationcalc.htm).
[18] 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.
[19] ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.

estimates and suggests that caution should be used when comparing 2010 ACS and 2000 Census figures.[20]

According to 2006-10 ACS estimates,[21] 83.7% of residents aged 16 and over were part of the civilian labor force in 2010. In that year, unemployment was estimated at 5.8%, compared to an estimated 5.9% statewide; and 13.2% of residents were estimated to be living below the poverty line, compared to an estimated 9.5% of Alaskan residents overall. Of those employed, an estimated 58% worked in the private sector, an estimated 37% worked in the public sector, and an estimated 5% were self-employed. By industry, Dillingham's economy was relatively diverse in 2010. In that year, most residents were estimated to be working in education services, health care, and social assistance sectors (40.1%), followed by public administration sectors (11.7%) and transportation, warehousing, and utilities sectors (8.4%). An estimated 3.9% of employed residents worked in agriculture, forestry, fishing, hunting, and mining sectors. However, the number of individuals employed in farming, fishing, and forestry occupations and industries may be underestimated in census statistics as fishermen may hold another job and characterize their employment accordingly. By occupation type, most (49.5%) employed residents were estimated to hold management or professional positions in 2010, followed by sales or office positions (21.7%); natural resources, construction, or maintenance positions (12.9%); service potions (10.9%); and production, transportation, or material moving positions (5%). There was little significant change in employment by industry between 2000 and 2010. There was a small decline in the agriculture, forestry, fishing, hunting, and mining sectors in that time from 5.1% in 2000, to an estimated 3.9% in 2010. There were only modest changes in occupation types in that time, although there was significant growth in management or professional positions. Information regarding employment trends can be found in Figures 3 and 4. According to 2010 ALARI estimates compiled by DOLWD,[22] most (23.4%) employed residents were estimated to work in education and health service sectors; followed by local government (17.4%) and trade, transportation, and utilities sectors (14.9%).

[20] See footnote 15.
[21] 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.
[22] See footnote 15.

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

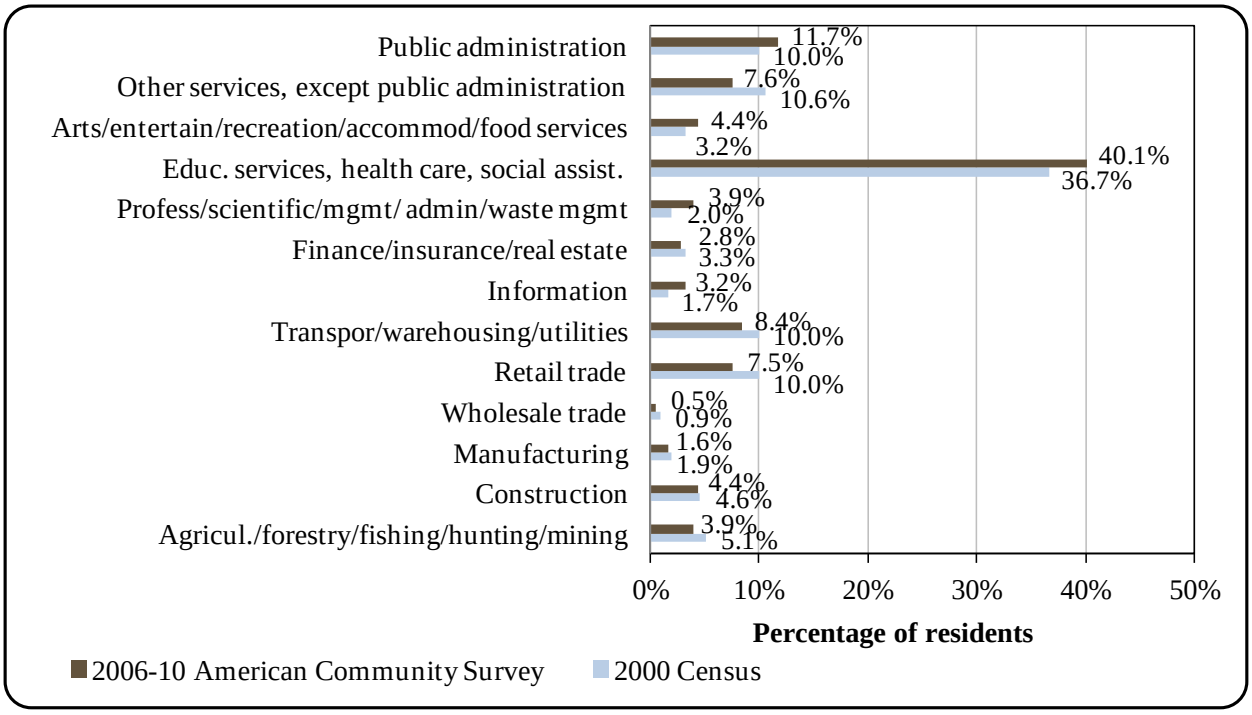
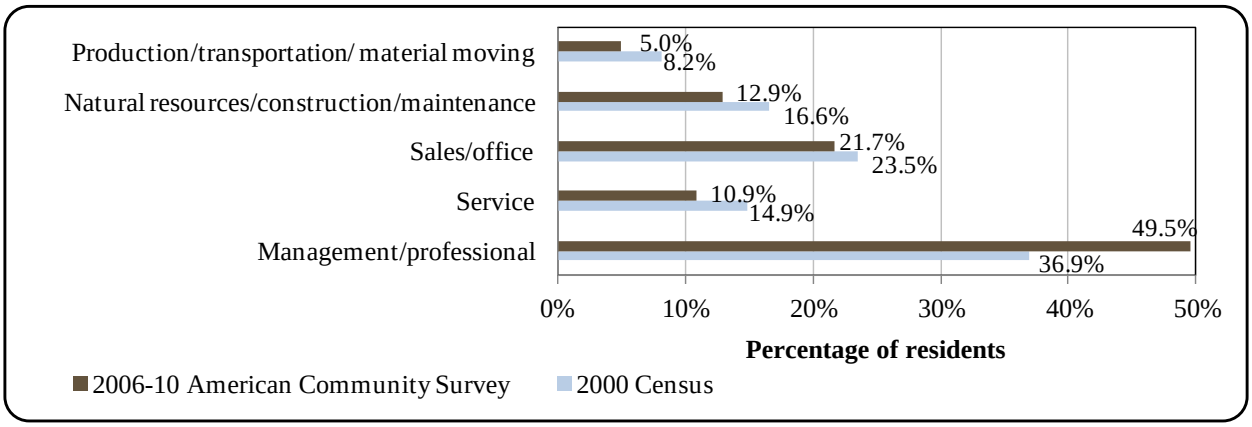


Figure 4. Local Employment by Occupation in 2000-2010, Dillingham (U.S. Census).



Governance

Dillingham is a First-class city with a mayoral form of government. There is a federally recognized Native village council (Curyung Tribal Council) and an ANCSA chartered Native village corporation (Choggiung Limited). Bristol Bay Native Corporation is the regional ANCSA for-profit corporation. Other organizations and Tribal councils in Dillingham include the Knagnuk Tribal Council, the Native Village of Ekuk, Olsonville Inc., Bristol Bay Area Health Corporation, Bristol Bay Housing Authority, Alaska Department of Transportation, U.S. Fish and Wildlife Service, Alaska Department of Fish and Game (ADF&G), and Bristol Bay Native Association. The closest National Marine Fisheries Service (NMFS) field office is located in

Bethel, 160 mi northwest. The closest U.S. Bureau of Citizenship and Immigration Services is located in Anchorage, 327 mi northeast.

In 2010, Dillingham administered a 6% sales tax, 13 mills property tax, and a 10% accommodations tax. In that year, most general fund revenues were collected from sales taxes, followed by property taxes, jail contract revenues, and payments in lieu of taxes. The 2010 municipal budget was $10.1 million, compared to $9.9 million in 2000 representing a 20.5% decrease after accounting for inflation (Table 2).[23] Total sales tax revenue in 2010 was $2.4 million, which accounted for 24% of total municipal revenues that year. This was a proportional increase from 2000 when $1.6 million accounted from 16.6% of total revenues. Dillingham received $209,543 in state allocated Community Revenue Sharing in 2010, which accounted for 2.6% of total revenues that year. This was also an increase from 2000 when $54,468 in State Revenue Sharing accounted for less than one-percent of total revenues. Fisheries-related state and federal grants awarded to Dillingham between 2000 and 2010 include: $4.1 million for dock projects; $1.9 million for harbor projects, $57,000 for a cold storage project, $195,000 for a small boat harbor project, $1 million for bulkhead extension, $350,000 for small boat harbor ramps construction, $5.2 million for construction of an all-tide dock, $1.4 million for ice and fish quality maintenance and market expansion, and $1 million for harbor dredging. In addition, the Bristol Bay Economic Development Corporation (BBEDC) contributed $600,000 for portable ice machines. Further information regarding municipal finances can be found in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Dillingham 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	$9,856,680	$1,633,393	$54,468	$1,229,345
2001	$8,735,387	$1,717,094	$46,724	$1,452,550
2002	$7,867,575	$1,892,967	$49,467	$532,777
2003	$7,555,483	$1,838,724	$48,306	$3,514,992
2004	$7,239,929	$2,014,814	-	$3,955,913
2005	$7,361,692	$2,110,190	-	$439,212
2006	$7,578,172	$2,206,634	-	$492,935
2007	$8,092,899	$2,295,601	-	$547,226
2008	$8,931,832	$2,407,193	-	$622,400
2009	$9,994,760	$2,132,402	$215,730	$1,892,075
2010	$10,130,963	$2,427,974	$209,543	$780,635

[1] Alaska Department of Community and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.
[2]Alaska Department of Community and Economic Development (n.d.). *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.
[3]Alaska Department of Revenue (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Retrieved April 15, 2011from https://www.tax.state.ak.us.
[4] The State Revenue Sharing program ceased in 2003 and was replaced by the Community Revenue Sharing program starting in 2009.
[5]Alaska Department of Community and Rural Affairs. (n.d.). *Community Funding Database*. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

[23] Inflation calculated using Anchorage CPI from Alaska DOL: http://labor.alaska.gov/research/cpi/cpi.htm.

Infrastructure

Connectivity and Transportation

Dillingham can be reached by air and sea. The state-owned airport provides a 6,400-ft long by 150-ft wide paved runway and regular jet flights are available from Anchorage. Airline services include Alaska Airlines, Grant Aviation, and Peninsula Airways. The price of round-trip airfare between Anchorage and Dillingham in June 2012 was $452.[24] A seaplane base owned by the U.S. Bureau of Land Management is available 3 mi west at Shannon's Pond.. A heliport is available at Kanakanak Hospital. There is a city-operated small boat harbor with 320 berths, a dock, barge landing, boat launch, and boat haul-out facilities, however it is a tidal harbor and only available for seasonal use. Two barge lines make scheduled trips from Seattle. There is a 23-mi Alaska Department of Transportation maintained gravel road to Aleknagik that was constructed in 1960.[25]

Airfreight accounts for almost a quarter of total freight moved through Dillingham. Airfreight is limited to smaller or time sensitive goods, and heavier freight is moved by sea. Air transportation is the principle means of moving people throughout the region, and improving winter services has been a consistent challenge. A lack of long-distance road systems within the Dillingham Census Area has kept communities isolated from the rest of the state. While approximately three quarters of freight in the area is moved by barge, limited facilities and large tidal ranges often produce challenges. Dillingham lacks deepwater port facilities and at times, barges are grounded during low tide while freight is offloaded.[26] In a survey conducted by the AFSC in 2011, community leaders reported that while there was no public dock space available for permanent moorage, 600-700 ft was available for transient moorage. Vessels up to 85 ft in length can use moorage in Dillingham.

Facilities

Around 90% of homes are fully plumbed. Dillingham's water is derived from three deep wells. Water is treated, stored in tanks (capacity is 1.25 million gallons), and distributed. Approximately 40% of homes are served by the city's piped water system; 60% use individual wells. The core townsite is served by a piped sewage system; waste is treated in a sewage lagoon. However, the majority of residents (75%) have septic systems. Dillingham Refuse, Inc., a private firm, collects refuse three times a week. The senior center collects aluminum for recycling, and National Auto Parts Association (NAPA) recycles used batteries. The Chamber of Commerce coordinates recycling of several materials, including fishing web. Nushagak Electric owns and operates a diesel plant in Dillingham that also supplies power to Aleknagik. Visitor accommodations include the Bristol Inn, Beaver Creek Bed & Breakfast, Bristol Bay Lodge, Coho Bed & Breakfast, and Aleknagik Schoolhouse Inn. Public safety services are provided by City Department of Public Safety and a local state troopers post. Fire and rescue services are provided by Dillingham Volunteer Fire and Rescue Squad, and local medevac. Youth services

[24] Airfare was calculated using lowest fare from www.travelocity.com. (Retrieved November 22, 2011).
[25] Alaska Department of Community and Rural Affairs (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.
[26] City of Dillingham (2006). *City of Dillingham Comprehensive Plan.* Retrieved March 13, 2012 from: http://www.commerce.state.ak.us/dca/plans/Dillingham-CP-2006.pdf.

include a local youth center and Boys and Girls Club. Senior services include a senior center and housing. There is one museum and three libraries located in town. Communications services include cable television and internet, radio, local television, and local and long distance telephone.[27]

In a survey conducted by the AFSC in 2011, community leaders reported that infrastructure projects completed or in progress as of 2010 included: construction of new dock space, dock improvements, dockside water utilities, dock access, harbor dredging, public water and sewer pipeline improvements, sewage treatment improvements, water treatment improvements, and improvements to education facilities. There are also plans for a fish cleaning station, dockside electrical facilities, a new breakwater, new haul-out facilities, broadband internet service, alternative energy projects, a new landfill/solid waste site, new community center/library, improvements to public safety, improvements to communications services, bikes for the harbor, road improvements, and additional pedestrian facilities. Fisheries-related businesses and services available in Dillingham include: seafood processing plants, fishing gear sales, boat repair (i.e., electrical, welding, mechanical services, machine shop, hydraulics), small vessel haul-out facilities, commercial and recreational fishing vessel moorage, marine refrigeration, fish lodges, fishing related bookkeeping, boat fuel sales, fishing gear repair, fishing gear storage, ice sales, seaplane services, and air taxi. Residents typically go to Seattle, Anchorage, or Naknek for services not available locally. Additional public services available in Dillingham include medical services, a food bank, job placement services, publically subsidized housing, assisted living, alcoholism treatment, an abuse shelter, and a senior center.

Medical Services[28]

Kanakanak Hospital is a qualified Acute Care Facility providing generalized, long term, and specialized care. Public Health Services provides generalized health care and additional health assistance. Jake's Place and BBAHC's "Our House" provide crisis counseling and respite services. Mental health services are available through BBAHC community mental health center. Regional Emergency Medical Services is available.

Educational Opportunities

Dillingham Elementary School offers preschool through 5th grade instruction. As of 2011, there were 226 students in attendance and 19 teachers employed. Dillingham Middle/High School offers 6th through 12th grade instruction. As of 2011 there were 253 students in attendance and 19 teachers employed.[29] The University of Alaska Fairbanks operates a satellite campus in Dillingham. The Bristol Bay campus offers a variety of certificate, Associate's, Bachelor's, and Master's degree programs mostly focusing on business and rural development.[30]

[27] See footnote 25.
[28] Ibid.
[29] Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.
[30] University of Alaska Fairbanks (n.d.). *Bristol Bay Campus Homepage.* Retrieved March 14, 2012 from: http://www.uaf.edu/bbc/.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries[31]

The Bristol Bay region is historically defined by traditional subsistence harvesting practiced by Yup'ik, Aleuts, and Athabascans of the region for millennia. Subsistence activities historically and continue to define livelihood, exchange, social networks, and social organization in the region. Subsistence supplements wage employment, and is considered culturally necessary for much of the population. In 1819, Russian fur traders established a trading post at Nushagak Point. Salmon was mostly harvested for local consumption although small amounts of salted salmon were exported. In 1864, canning techniques were being developed in California and by 1878 Alaska's first salmon cannery was built in Klawock.

In 1883, the exploratory vessel *Neptune* anchored in Nushagak Bay to assess potential commercial salmon prospects. Plentiful runs prompted a cannery to be built at the village of Kanulik. By the late 1880s, canneries were built at Scandinavian Creek, Kanakanak, and Clark's Point. Gillnetters flocked to the region and by 1890, canneries were producing more product then there were buyers. This posed a problem for packers, who reacted by forming the Alaska Packers Association in order to control production. By 1895, landings in Bristol Bay reached five million sockeye and new canneries were built on the Ugashik, Egegik, Naknek, and Kvichak Rivers.

The Spanish-American War and Klondike Gold Rush bolstered the demand for canned salmon in the late nineteenth and early twentieth centuries. By 1901, there were 18 canneries throughout Bristol Bay, and landings reached 10 million sockeye. Mechanization and industry expansion increased production substantially, causing it to peak in 1912 at 20 million salmon landed by over 1,000 gillnetters. For the next 7 years, production would range between 20 and 25 million. Fueled by demand for canned salmon during WWI, canneries operated 24 hours a day, seven days a week, and recorded record profits. This caused a major crash in sockeye runs throughout Bristol Bay in 1919.

Following the salmon crash, the White Act of 1924 assigned the federal government with managing the Alaska salmon fishery and mandated a 50% escapement rate. This prompted fishery closures and gear restrictions including the abolishment of powerboats, purse seines, and fish traps. However, new regulations being put in place were rarely enforced during the early years following the passage of the White Act.

Commercial salmon fishing prospered in the 1920s and early 1930s and accounted for 80% of tax revenues collected by the territorial government. However, variable runs, foreign encroachment, and the Great Depression stressed the industry and in 1935, only three million salmon were caught almost prompting a total shut-down of the Bristol Bay salmon fishery.

World War II brought significant changes to the Bristol Bay commercial fishing industry. Worker shortages prompted canneries to hire local labor and fishermen, and communities began to organize. In Dillingham, fishermen and cannery workers formed co-ops in 1944 to counter what was seen as an overly influential processing industry. Following World War II, salmon runs were once again in decline, although the Pacific Decadal Oscillation coupled with lower ocean productivity was to blame this time. However, further threats faced the industry from overfishing in the Bering Sea. By 1955, deep-sea catches by Japanese vessels reached 50 million salmon. Inshore catches on the other hand, averaged at 6.7 million sockeye annually during the 1950s. At

[31] The Bristol Bay Economic Development Corporation (2003). *An Analysis of Options to Restructure the Bristol Bay Salmon Fishery.* Retrieved March 14, 2012 from: http://www.bbsalmon.com/FinalReport.pdf.

this point, many seafood producers switched to more lucrative tuna, which became the iconic fish of the baby boom years.

Following statehood in 1959, salmon management responsibility shifted to state managers. In Bristol Bay, this meant more aggressive forms of in-season management and escapement monitoring. Seasons were regulated according to in-season run strength indicators instead of pre-season forecasts. Despite rigorous management, salmon recovery was slow. Bristol Bay salmon fell to historic lows in 1973 when fewer than one million sockeye salmon were harvested. The state's response was both a scathing indictment of Japanese fishing effort and limits to fishery entry. Following an amendment to Alaska's constitution in 1972, the state issued transferable limited entry permits based on experience and economic dependence to the fishery. In 1976, the U.S. asserted jurisdiction over much of the outer continental shelf surrounding its coastlines. The 200-mi exclusive economic zone, along with revised Bering Sea fishing boarders and favorable environmental conditions, set the stage for salmon recovery.

Salmon returned to the Bristol Bay region in 1978, when after a weak sockeye season, a surge in pink salmon into the Nushagak River overwhelmed processing capacity. Sockeye returned in force the following year, and strong demands elevated prices over $1.00 per pound. In 1980, over 64 million sockeye returned to Bristol Bay and subsequent seasons remained strong. By 1988, sockeye prices rose to $2.40 per pound. Average gross earnings by drift boats exceeded $100,000 and the value of Bristol Bay drift permits surged to almost $250,000. As permit value rose, entry into the fishery became increasingly contested and litigated, resulting in additional permits being issued. However, during this time Chile began exporting farmed salmon to Japan. While insignificant at first, salmon farming would soon subvert the Alaska salmon industry and cause a significant drop in prices. A year after salmon prices peaked, they dropped to $1.09 per pound. By 1991, seafood processors were offering $0.50 per pound which resulted in fishermen striking. Once again, the Japanese were the focus of ire, with many fishermen making accusations of price-fixing from Japanese-owned seafood processors. During that time, Bristol Bay still maintained record salmon harvests, with 45 million fish taken in 1995. Revenues remained high despite low prices due to large harvests. However, once again the fishery would falter, and once again the Pacific Decadal Oscillation was to blame.

In previous lean years, production shortages would drive prices up. However, the abundance of farmed fish within the market changed this. By 1997, the overall value of Bristol Bay salmon was cut in half from the previous year to $63 million. Runs in years following were characterized by modest rebounds followed by more declines. In that time, Bristol Bay was declared both a state and federal disaster area and many permit holders opted to not participate in the 2001 season. In 2002, additional fishermen as well as several canneries and cold storage facilities opted out as well. In that year, the Bristol Bay drift permit once valued at $250,000 was valued at less than $20,000. In addition, total ex-vessel value of the fishery was down 90% from its peak in 1992.

Today, Bristol Bay salmon prices are slowly recovering thanks to increased demand for "Wild" Alaskan salmon, and a willingness by consumers to pay a premium for them. In a survey conducted by the AFSC in 2011, community leaders reported that Dillingham does not participate directly in the fisheries management process in Alaska; although one City Council member is a state salmon fishery manager. Instead, it relies on regional organizations such as the BBEDC and Bristol Bay Regional Seafood Development Association (RSDA) to provide information on fisheries management issues. Dillingham is eligible to participate in the Community Development Quota (CDQ) program and is represented by the BBEDC. The CDQ

program was implemented to help alleviate economic distress in rural communities in western Alaska by allocating a percentage of halibut, crab, and groundfish to six CDQ non-profit organizations representing 65 communities in the Bering Strait and Aleutian Islands region.[32] Managers of CDQ organizations authorize individual fishermen and fishing vessels to harvest a certain portion of the allocated CDQ.

The city is located in Federal Reporting Area 514, International Pacific Halibut Commission (IPHC) Regulatory Area 4E, and the Bering Sea Sablefish Regulatory District.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, three shoreside processing plants were in operation in 2010. This includes plants operated by Peter Pan Seafoods, Snopac Products, and Dancing Salmon Company LLP.

Peter Pan Seafoods is the largest sockeye salmon processing plant in the world. The Dillingham facility, which first began operations in 1901, processes sockeye salmon from early June to early August. The plant is the oldest continually operating cannery in Alaska. The facility employs a maximum of 395 workers each year people. The plant relies on public water services, power/electricity, and waste management services.[33]

Snopac Products purchased the Dillingham facility in 2008 from Dragnet Fisheries. Snopac is an independent, family-owned, Seattle-based company. The plant processes primarily salmon and some halibut and employs a maximum of 340 workers each year. It relies on public docks, water services, power/electricity, and waste management services.[34] The Dillingham facility is Snopac's fist shore-based Alaska plant, although Snopac has operated a 336-ft floating salmon processor in Bristol Bay since 2005.[35]

Dancing Salmon Company LLP also operates a seafood processing plant in Dillingham; however, no further information is known about the plant.

Fisheries-Related Revenue

In 2010, Dillingham collected $584,671 in fisheries-related revenue. Most of this was collected through Shared Fisheries Businesses Taxes; however, raw fish taxes, Fisheries Resource Landings Taxes, gear storage fees, and harbor usage fees were collected as well. In a survey conducted by the AFSC in 2011, community leaders reported that fees collected by harbor use is put towards maintaining harbor facilities, as well as providing a crane, ice machine, and police and fire services. In addition, Dillingham received $150,000 in funding from its CDQ entity (BBEDC) in 2010. Information regarding fisheries-related revenue can be found in Table 3.

[32] Fina, M. (2011). Evolution of Catch Share Management: Lessons from Catch Share Management in the North Pacific. *Fisheries*, Vol. 36(4). Retrieved September 12, 2012 from http://www.fakr.noaa.gov/npfmc/PDFdocuments/catch_shares/Fina_CatchShare_411.pdf.
[33] This information is based on the results of a processing plant survey conducted by the Alaska Fisheries Science Center in 2011.
[34] Ibid.
[35] SeafoodSource.com (n.d.). *Snopac Acquires Dillingham, Alaska, Facility*. Retrieved January 18, 2008 from: http://www.seafoodsource.com/newsarticledetail.aspx?id=1413.

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

Commercial Fishing

Popular commercial fisheries in Dillingham include salmon, herring, and halibut. There were 302 residents who held commercial crew licenses in 2010, compared to 481 in 2000. In addition, residents held majority ownership of 123 vessels that year, compared to 276 vessels in 2000. In 2010, 274 residents, 11.8% of the population, held 308 permits issued by the Commercial Fisheries Entry Commission (CFEC), compared to 321 and 477 in 2000, respectively. Of the CFEC permits issued in 2010, 80% were for salmon, compared to 56% in 2000; 16% were for herring, compared to 34% in 2000; and 4% were for halibut, compared to 9% in 2000. In addition, six residents held six Federal Fisheries Permits (FFP) although none were active that year. In 2010, residents held 1.52 million shares of halibut quota on 5 accounts, compared to 970,022 shares held on 10 accounts in 2000. Also in that year, residents held 3.18 million shares of sablefish quota on 2 accounts, compared to 3.18 million shares held on 1 account in 2000; accounting for 2.4% of statewide sablefish quota. Finally, residents held 23.43 million shares of crab quota on 1 account in 2010, compared to 19.97 million shares on 1 account in 2000; accounting for 4.4% of statewide crab quota that year.

Of the CFEC permits issued in 2010, 65% were actually fished. This varied by fishery from 78% of salmon permits, to 16% of herring and 0% of halibut permits. Fisheries prosecuted by residents of Dillingham in 2010 included: Bristol Bay purse seine herring roe, Bristol Bay gillnet herring roe, Alaska Peninsula drift gillnet salmon, and Bristol Bay drift and set gillnet salmon.[36]

In 2010, a total of 51.3 million pounds of fish were landed in Dillingham, valued at $44.6 million. This represented a significant increase in ex-vessel value of total landings from 2001, when 50.5 million pounds landed was valued at $5.7 million. Much of this can be attributed to the herring roe fishery which dominated landings in 2001 and 2002. Landings in Dillingham between 2003 and 2010 were made up almost entirely of salmon, and in 2010 Dillingham ranked 13th of 76 Alaskan communities in terms of total pounds landed within the community and 10th of 67 communities in terms of total ex-vessel value of landings. Although the species composition of landings is not available, it is assumed that landings were composed mostly of sockeye salmon. In 2010, 51.3 million pounds of salmon valued at $44.6 million were landed, compared to 6.3 million pounds valued at $2.4 million in 2001; representing an increase of $0.31 per pound landed after adjusting for inflation.[37]

Landings by residents of Dillingham, regardless of location made, saw similar increases in the ex-vessel value of salmon landings. In 2010, residents landed 7.7 million lb of salmon valued at $6.6 million ex-vessel, compared to 5.5 million pounds valued at $2.1 million; representing an increase of $0.32 per pound landed after adjusting for inflation.[38] In addition,

[36] 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.]
[37] Inflation calculated using 2010 Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, http://www.bls.gov/ppi/#data.
[38] Ibid.

residents landed 2.6 million pounds of herring valued at $195,338 ex-vessel, compared to 2.2 million poounds valued at $224,600 in 2000; representing a decrease of $0.06 per pound landed after accounting for inflation.[39]

In 2007, Bristol Bay salmon accounted for almost a third of the total value of all Alaska salmon, and continues to be the single most valuable salmon fishery in the state. However, the ex-vessel value of sockeye salmon in Bristol Bay is typically lower than other regions. To address this, efforts have been made by the RSDA and other organizations to improve marketing and value of Bristol Bay salmon.[40] The herring sac roe fishery in Dillingham declined between 2000 and 2010, marked by a decline in herring permits issued to residents and price paid for landings. In response to market declines, some processors eventually opted out of buying herring, which put additional strain on the industry.[41] Local and regional efforts to increase the value of herring are undertaken continuously. While halibut permit activity reduced to 0% in 2010, the BBEDC offers halibut quota to local residents for a small fee.

In a survey conducted by the AFSC in 2011, community leaders reported that on average, herring seasons run from May to June, halibut seasons run from March 12th to November 18th, and salmon seasons run from June to August. Since 2005, there had been a large increase in commercial fishing vessels smaller than 35 ft in length, and somewhat more vessels between 35 and 125 ft in length. This was attributed to the increase of fish and markets in the Nushagak River area. Information regarding commercial fishing trends can be found in Tables 4 through 10.

[39] Ibid.
[40] City of Dillingham. (2006). *City of Dillingham Comprehensive Plan.* Retrieved March 13, 2012 from: http://www.commerce.state.ak.us/dca/plans/Dillingham-CP-2006.pdf.
[41] Carlson, S. (2005). *Changes in Roe Herring Markets: A Review of Available Evidence.* CFEC Report Number 05-5N. Retrieved March 15, 2012 from: http://www.cfec.state.ak.us/RESEARCH/05-5N/RoeMarkets_CFEC05-5N.pdf.

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

Revenue source	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Raw fish tax[1]	$153,647	$200,000	$200,000	$150,000	$50,000	$75,000	$100,000	$125,000	$150,000	$162,000	$176,000
Shared fisheries business tax[1]	$166,932	$226,238	$197,233	$66,228	$94,742	$118,059	$177,092	$175,259	$210,233	$209,720	$218,655
Fisheries resource landing tax[1]	n/a	n/a	n/a	n/a	n/a	n/a	$120	$311	$1,215	$2,056	$2,128
Fuel transfer tax[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Extraterritorial fish tax[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulk fuel transfers[1]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage[2]	$93,000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$102,958*
Port/dock usage[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fishing gear storage on public land[3]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$84,930
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
Total fisheries-related revenue[4]	*$413,579*	*$426,238*	*$397,233*	*$216,228*	*$144,742*	*$193,059*	*$277,212*	*$300,570*	*$361,448*	*$373,776*	*$584,671*
Total municipal revenue[5]	*$9.86 M*	*$8.74 M*	*$7.87 M*	*$7.56 M*	*$7.24 M*	*$7.36 M*	*$7.58 M*	*$8.09 M*	*$8.93 M*	*$9.99 M*	*$10.13 M*

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

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

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

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

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

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

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

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) [1]	Total permits	0	0	0	0	1	2	2	2	2	2	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	0%	0%	0%	0%	0%	0%	n/a
	Total permit holders	0	0	0	0	1	1	1	1	1	1	0
Crab (LLP) [1]	Total permits	0	0	0	0	1	2	2	2	2	2	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	0%	0%	0%	0%	0%	0%	n/a
	Total permit holders	0	1	2	3	1	1	1	1	1	1	0
Federal Fisheries Permits [1]	Total permits	0	0	0	0	0	0	0	0	13	6	6
	Fished permits	0	0	0	0	0	0	0	0	1	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8%	0%	0%
	Total permit holders	0	1	2	3	4	5	6	7	12	6	6
Crab (CFEC) [2]	Total permits	0	0	1	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	0%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	1	0	0	0	0	0	0	0	0
Other shellfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) [2]	Total permits	44	38	33	31	27	26	26	24	27	16	13
	Fished permits	14	11	16	12	10	10	8	11	12	4	0
	% of permits fished	32%	29%	48%	39%	37%	38%	31%	46%	44%	25%	0%
	Total permit holders	44	38	33	31	27	26	26	24	27	16	13
Herring (CFEC) [2]	Total permits	164	139	93	93	75	74	73	61	58	53	50
	Fished permits	49	34	18	20	14	17	13	8	8	8	8
	% of permits fished	30%	24%	19%	22%	19%	23%	18%	13%	14%	15%	16%
	Total permit holders	105	95	70	73	62	64	59	56	54	47	47

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) [2]	Total permits	4	4	2	1	0	0	0	1	2	0	0
	Fished permits	0	0	0	0	0	0	0	1	1	0	0
	% of permits fished	0%	0%	0%	0%	n/a	n/a	n/a	100%	50%	n/a	n/a
	Total permit holders	4	4	2	1	0	0	0	1	2	0	0
Other Finfish (CFEC) [2]	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) [2]	Total permits	265	268	269	259	261	248	249	250	246	243	245
	Fished permits	243	224	171	192	185	187	194	198	195	182	191
	% of permits fished	92%	84%	64%	74%	71%	75%	78%	79%	79%	75%	78%
	Total permit holders	292	291	285	279	276	271	270	263	260	248	256
Total CFEC Permits[2]	*Permits*	*477*	*449*	*398*	*384*	*363*	*348*	*348*	*336*	*333*	*312*	*308*
	Fished permits	*306*	*269*	*205*	*224*	*209*	*214*	*215*	*218*	*216*	*194*	*199*
	% of permits fished	*64%*	*60%*	*52%*	*58%*	*58%*	*61%*	*62%*	*65%*	*65%*	*62%*	*65%*
	Permit holders	*321*	*315*	*308*	*304*	*297*	*291*	*291*	*284*	*280*	*267*	*274*

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

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

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

Year	Crew License Holders[1]	Count Of All Fish Buyers[2]	Count Of Shore-Side Processing Facilities[3]	Vessels Primarily Owned By Residents[4]	Vessels Homeported[4]	Vessels Landing Catch In Dillingham[2]	Total Net Lb Landed In Dillingham[2,5]	Total Ex-Vessel Value Of Landings In Dillingham[2,5]
2000	481	3	2	276	408	396	--	--
2001	399	18	2	220	387	477	50,541,247	$5,682,688
2002	282	28	3	205	348	571	47,737,422	$10,459,433
2003	325	20	3	203	348	622	47,731,864	$22,334,806
2004	321	22	4	201	366	545	43,897,018	$20,918,381
2005	336	29	4	146	201	708	50,069,177	$27,996,395
2006	304	23	3	141	209	748	71,789,825	$43,568,239
2007	315	25	3	138	217	694	54,429,801	$33,316,897
2008	333	27	3	134	214	549	43,459,968	$30,380,555
2009	302	26	3	126	203	464	51,575,899	$38,226,534
2010	302	18	3	123	204	597	51,311,403	$44,649,994

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

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

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

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

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

[5] Totals only represent non-confidential data.

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

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (pounds)
2000	10	970,022	242,054
2001	9	1,605,875	381,689
2002	10	1,607,745	365,290
2003	8	1,513,783	352,523
2004	8	1,513,783	304,252
2005	8	1,513,783	276,068
2006	9	1,603,788	252,021
2007	9	1,603,788	244,186
2008	7	1,612,806	256,288
2009	5	1,522,529	231,605
2010	5	1,522,529	229,615

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 Dillingham: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (pounds)
2000	1	3,176,112	286,564
2001	1	3,176,112	283,355
2002	1	3,176,112	295,459
2003	1	3,176,112	361,419
2004	1	3,176,112	391,744
2005	1	3,176,112	362,767
2006	1	3,176,112	356,742
2007	1	3,176,112	345,785
2008	2	3,181,804	304,986
2009	2	3,181,804	277,243
2010	2	3,181,804	263,166

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 Dillingham: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (pounds)
2005	1	19,973,229	626,024
2006	1	21,805,680	596,431
2007	1	21,805,680	962,981
2008	1	21,805,680	902,472
2009	1	23,425,807	772,070
2010	1	23,425,807	823,238

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

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	2,765	--
Herring	--	44,279,805	29,347,509	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	6,261,442	18,389,913	47,731,864	43,896,787	50,069,177	71,789,825	54,429,801	43,459,968	51,573,134	51,311,403
Total[2]	--	*50,541,247*	*47,737,422*	*47,731,864*	*43,896,787*	*50,069,177*	*71,789,825*	*54,429,801*	*43,459,968*	*51,575,899*	*51,311,403*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	$11,790	--
Herring	--	$3,235,982	$2,172,037	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	$2,446,705	$8,287,397	$22,334,806	$20,918,378	$27,996,395	$43,568,239	$33,316,897	$30,380,555	$38,214,744	$44,649,994
Total[2]	--	*$5,682,688*	*$10,459,433*	*$22,334,806*	*$20,918,378*	*$27,996,395*	*$43,568,239*	*$33,316,897*	*$30,380,555*	*$38,226,534*	*$44,649,994*

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 lb refers to the landed weight recorded in fish tickets.

[2] Totals only represent non-confidential data.

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

	Total Net Pounds[1]										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	17,477	48,120	61,091	29,301	27,390	22,736	20,592	28,256	15,236	--	--
Herring	2,171,928	1,955,361	1,508,979	2,906,603	1,679,834	1,730,147	3,065,831	2,302,803	2,385,579	1,813,068	2,605,163
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	9,149,312	5,499,959	2,584,279	6,582,093	8,620,831	8,622,274	9,917,811	8,631,223	7,565,248	7,983,915	7,721,233
Total[2]	*11,338,717*	*7,503,440*	*4,154,349*	*9,517,997*	*10,328,055*	*10,375,157*	*13,004,234*	*10,962,282*	*9,966,063*	*9,796,983*	*10,326,396*
	Ex-vessel Value (nominal U.S. dollars)										
	2000	***2001***	***2002***	***2003***	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	$43,012	$80,720	$130,942	$52,552	$62,853	$41,526	$39,154	$54,281	$50,592	--	--
Herring	$224,600	$149,508	$113,050	$220,580	$119,962	$139,120	$222,092	$162,172	$176,695	$135,980	$195,388
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	$5,871,078	$2,051,655	$1,128,208	$3,065,251	$4,106,991	$4,836,521	$6,009,522	$5,270,159	$5,174,092	$5,914,562	$6,580,455
Total[2]	*$6,138,690*	*$2,281,883*	*$1,372,201*	*$3,338,383*	*$4,289,807*	*$5,017,167*	*$6,270,767*	*$5,486,612*	*$5,401,379*	*$6,050,542*	*$6,775,842*

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 lb refers to the landed weight recorded in fish tickets.

[2] Totals only represent non-confidential data.

Recreational Fishing

In a survey conducted by the AFSC in 2011, community leaders reported that sportfishing is conducted on private boats owned by local residents, private boats owned by non-residents, and guided boats on the Nushagak River. There has been a significant increase in the number of personal boats and skiffs on the Wood and Nushagak Rivers since 2005. In 2010, there were four sport fish guide businesses registered in Dillingham, of which none were active. Between 2000 and 2010, there were only two years (2002 and 2003) in which there were active sport fish guide businesses. There were 24 sport fish guide licenses held in Dillingham in 2010, compared to 24 in 2000. Also In that year, 1,629 sportfishing licenses were sold in the community, compared to 1,213 in 2000. In addition, residents were sold 696 sportfishing licenses, compared to 684 in 2000. No kept/released charter information is available for Dillingham.

Dillingham is located within the Nushagak, Wood River and Togiak ADF&G Harvest Survey Area, which includes the Nushagak River, Mulchatna River, Wood River, and Tilchik Lake drainages, as well as water westward to Cape Newenham.[42] Overall, there was a steady decline in freshwater angler days fished in the survey area between 2000 and 2010. In 2010, freshwater resident and non-Alaska resident angler days fished totaled 23,385 days, compared to 43,083 in 2000. In that year, non-Alaska residents accounted for 89% of angler days fished, compared to 73% in 2000. Between 2000 and 2010, there was significantly less saltwater angler days fished than freshwater. In 2009, there was 147 total saltwater angler days fished, compared to 429 in 2000. According to ADF&G Harvest Survey data,[43] local private anglers target all five species of Pacific salmon, rainbow trout, Dolly Varden char, whitefish, arctic grayling, northern pike, Pacific halibut, rockfish, smelt, and other finfish. Information regarding sportfishing trends can be found in Table 11.

Table 11. Sport Fishing Trends, Dillingham: 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 Dillingham[2]
2000	0	24	684	1,213
2001	0	21	737	1,702
2002	1	24	700	1,897
2003	1	24	617	2,051
2004	0	19	670	2,229
2005	0	23	640	2,004
2006	0	23	678	2,091
2007	0	27	700	2,058
2008	0	20	680	1,829
2009	0	36	691	1,767
2010	0	24	696	1,629

[42] Alaska Department of Fish and Game. (n.d.). Alaska Sport Fishing Survey. Retrieved February 13, 2012 from: http://www.adfg.alaska.gov/sf/sportfishingsurvey/index.cfm?ADFG=area.home

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

Table 11 cont'd. Sport Fishing Trends, Dillingham: 2000-2010.

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	246	183	31,290	11,793
2001	652	599	31,489	10,779
2002	665	31	20,011	11,911
2003	321	464	26,783	13,419
2004	767	61	25,203	19,980
2005	81	246	33,089	15,662
2006	365	196	28,840	14,858
2007	326	921	28,541	13,762
2008	113	103	27,066	7,356
2009	107	38	22,444	7,805
2010	n/a	44	15,676	7,709

[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).

Subsistence Fishing

Many residents in Dillingham participate in subsistence activities. Fish and shellfish harvested in the Bristol Bay region include salmon, herring, halibut, cod, crab, clams, mussels, and freshwater fish. Moose, caribou, black and brown bear, Dall sheep, seal, ducks, geese, and spruce hen are hunted in the region. Beaver, otter, muskrat, hares, porcupine, fox, weasel, mink, and wolverine are all harvested for pelts. Plants and berries harvested include blueberries, cranberries, salmonberries, and crowberries, wild celery, wild spinach, and fiddlehead ferns.[44] In a survey conducted by the AFSC in 2011, community leaders reported that important subsistence resources harvested by Dillingham residents include: salmon, halibut, clams, seals, beluga whales, ducks, and geese. According to the ADF&G *Community Subsistence Information System*,[45] residents of Dillingham have harvested and/or used butter clams, Dungeness crab, king crab, razor clams, shrimp, Tanner crab, harbor seal, Steller sea lion, blackfish, burbot,

[44] Lowe, M. (2007). *Socioeconomic Review of Alaska's Bristol Bay Region.* Retrieved March 15, 2012 from: http://www.iser.uaa.alaska.edu/Publications/bb-socio-review.pdf.

[45] 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).

capelingcod, Dolly Varden, Arctic grayling, herring, lake trout, northern pike, rainbow trout, smelt, and whitefish.

According to ADF&G household surveys conducted in 2010, 19% of households harvested or used halibut, 15% harvested or used marine invertebrates, 20% harvested or used marine mammals, 80% harvested or used non-salmon fish, and 80% harvested or used salmon. In that year, estimated harvests in pounds per capita totaled 417.89 (Table 12). Data are also available regarding total harvests of salmon, halibut and marine mammals. In 2008, 327 subsistence salmon permits were issued to households in Dillingham. By, sockeye salmon made up the majority of recorded subsistence salmon harvests in 2008, followed by Chinook, coho, chum, and pink salmon. In that year, reported harvests totaled 25,907 salmon, compared to 26,823 in 2000 (Table 13).

In addition, 46 residents were issued Subsistence Halibut Registration Certificates (SHARC) by NMFS in 2009, although there no reported harvests that year. SHARC halibut harvests peaked in 2005 at an estimated 1,135 lb and declined to half that in 2007 (Table 14). No information was reported regarding subsistence harvests of other fish species or marine invertebrates.

Between 2000 and 2008, an estimated 37 beluga whales were harvested, although no harvests were reported following 2006. In addition, an estimated 20 walruses were harvested during those years. One sea otter was reported harvested in 2008. Finally, an estimated 83 spotted seals and 6 harbor seals were harvested between 2000 and 2008, with spotted seal harvests increasing steadily during those years. Information regarding subsistence trends can be found in Tables 12 through 15.

Additional Information

In a survey conducted by the AFSC in 2011, community leaders reported that local funding and shoreline erosion are current challenges for the portion of Dillingham's economy that is based on fishing. Small rural communities in the region feel that when federal infrastructure projects are undertaken, local conditions and needs are not adequately considered. Shoreline erosion is of critical concern to the City, and community leaders felt like conditions were not adequately addressed when building harbor and bulkhead infrastructure. Because of this, the City is responsible for maintaining infrastructure that is rapidly deteriorating. Moreover, the current state of Dillingham's shoreline has become such that harbor facilities relied on by the local fishing industry are being threatened along with other critical infrastructure. Finally, cost of living associated with high fuel and ice prices has impacted the commercial fishing fleet's ability to improve product quality.

Overall, community leaders felt that fisheries are managed well. The state has made successful efforts to accommodate subsistence and grants provided through the CDQ program have made positive impacts. Areas which need attention include regulatory enforcement and salmon bycatch. Locals are concerned over trawl vessels coming to close to shore and impacting halibut and salmon resources. In addition, regulations allowing duel permits to be fished on boats has impacted local employment.

When asked about potential future fisheries policy or management concerns, community leaders expressed concern over the proposed Pebble Mine and offshore oil exploration which they worry may jeopardize the local salmon fishery.

Table 12. Subsistence Participation by Household and Species, Dillingham: 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	80%	19%	20%	15%	80%	417.89

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, Dillingham: 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	342	326	4,908	1,279	4,185	1,286	15,165	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	308	271	8,185	1,668	2,276	1,268	8,911	n/a	n/a
2005	307	280	5,807	1,149	3,385	192	10,409	n/a	n/a
2006	283	248	4,649	1,733	2,071	1,329	11,614	n/a	n/a
2007	315	265	6,988	1,272	1,736	199	14,552	n/a	n/a
2008	327	294	6,626	1,640	3,165	1,275	13,201	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, Dillingham: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	35	10	395
2004	48	7	90
2005	62	11	1,135
2006	64	8	914
2007	75	18	654
2008	56	5	n/a
2009	46	n/a	n/a
2010	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.
Source: Fall, J.A. and D. Koster. 2011. Subsistence harvests of Pacific halibut in Alaska, 2009. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 357, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

Table 15. Subsistence Harvests of Marine Mammal Resources, Dillingham: 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	5	n/a	3	n/a	n/a	n/a	n/a
2001	8	n/a	2	n/a	n/a	5	1
2002	1	n/a	1	n/a	n/a	n/a	4
2003	8	n/a	3	n/a	n/a	n/a	6
2004	4	n/a	5	n/a	n/a	n/a	8
2005	7	n/a	3	n/a	n/a	n/a	12
2006	4	n/a	n/a	n/a	n/a	n/a	15
2007	n/a	n/a	n/a	n/a	n/a	n/a	15
2008	n/a	1	3	n/a	n/a	1	22
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

[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.