

Fairbanks (FAIR-banks)



People and Place

Location¹

Fairbanks is located in central Alaska. This centrality though, seems more geographical than social or economical. The city, which is part of the Fairbanks North Star Borough and located in the Fairbanks Recording District, was founded on the banks of the Chena River in the Tanana Valley and in the very heart of interior Alaska. Fairbanks is 45 minutes away by plane from Anchorage and three hours from Seattle. It lies 358 road mi north of Anchorage. The area encompasses 31.9 sq mi of land and 0.8 sq mi of water. The arctic daylight variations have an important impact on Fairbanks lifestyle: 21 hours of daylight between May 10th and August 2nd each summer, and less than four hours of daylight between November 18th and January 24th each winter.

Demographic Profile²

In 2010, there were 31,535 residents living in Fairbanks, ranking it the second largest city in Alaska. Between 1990 and 2010, the population increased by 2.2%. There was a slight decline in population from 2009 to 2010, but in general the population of Fairbanks remained unchanged. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that on average, there are seasonal workers living in Fairbanks from April through September. The population peaks between June and August; however, they are not thought to be driven by employment in fisheries sectors.

In 2010, the majority of Fairbanks residents identified themselves as White (66.1%), compared to 67.0% in 2000. Also in that year, 10.0% of residents identified themselves as American Indian or Alaska Native, compared to 10.0% in 2000; 9.0% identified themselves as Black or African American, compared to 11.0% in 2000; 3.6% identified themselves as Asian, compared to 3.0% in 2000; 0.8% identified themselves as Native Hawaiian and Other Pacific Islander, compared to 1.0% in 2000; 7.9% identified themselves as two or more races, compared to 7.0% in 2000; 2.6% identified themselves as some other race, compared to 2.0% in 2000. In addition, 9.0% of residents identified themselves as Hispanic or Latino, compared to 6.0% in 2000. Further information regarding trends in 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>.

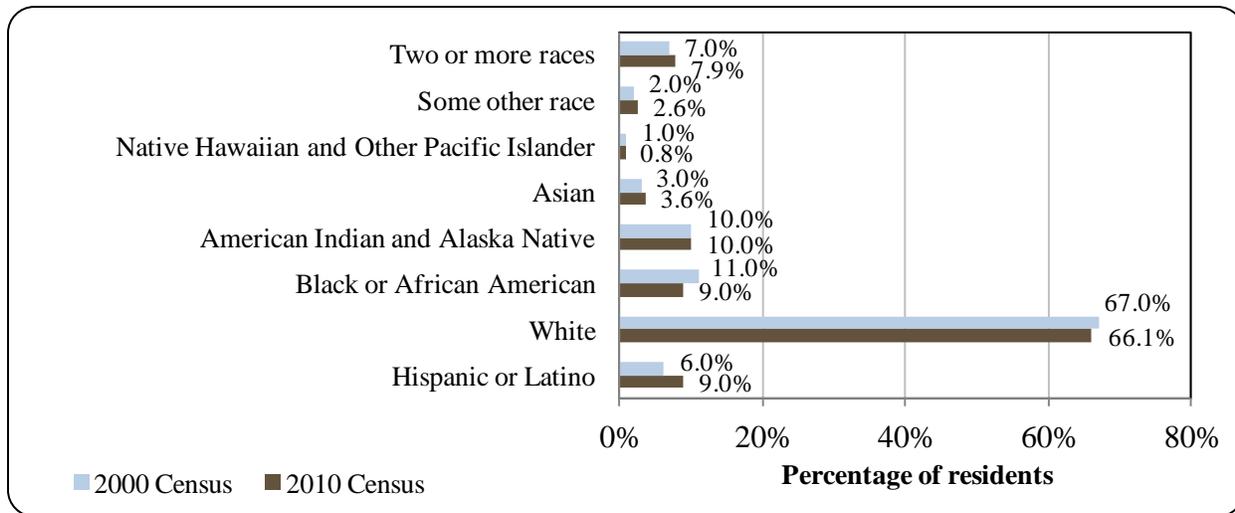
Table 1. Population in Fairbanks from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Department of Labor Estimate of Permanent Residents ²
1990	30,843	-
2000	30,224	-
2001	-	29,521
2002	-	29,778
2003	-	28,929
2004	-	30,109
2005	-	31,115
2006	-	30,189
2007	-	31,801
2008	-	31,450
2009	-	32,506
2010	31,535	-

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, Fairbanks: 2000-2010.



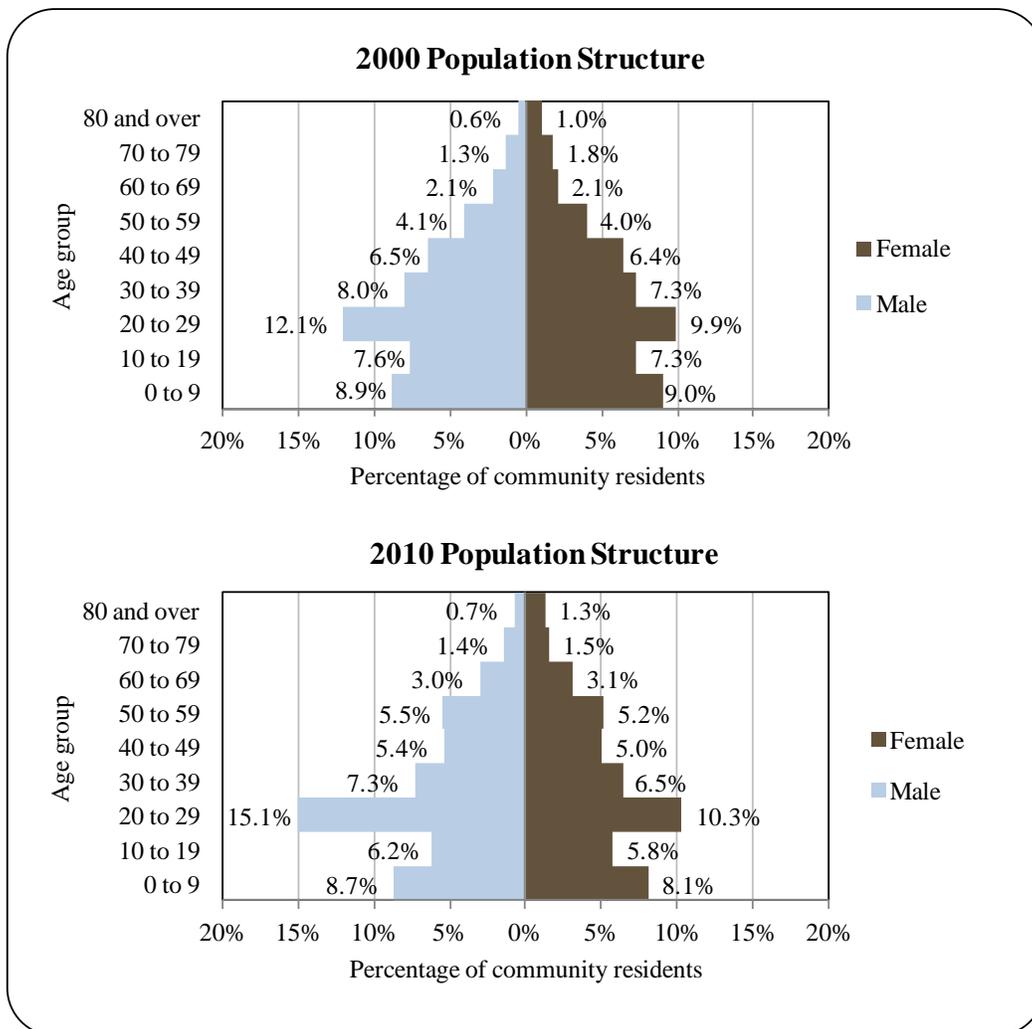
In 2010, the average household size was 2.52, a slight decline from 2.60 in 1990 and 2.56 in 2000. In that year, there were a total of 13,056 housing units, compared to 12,537 in 1990 and 12,357 in 2000. Of the households surveyed in 2010, 32% were owner-occupied, compared to 31% in 2000; 57% were renter-occupied, compared to 58% in 2000; 10% were vacant, compared to 9% in 2000; and 1% were occupied seasonally, compared to 1% in 2000. In addition, 2,518 residents lived in group quarters in 2010, compared to 1,899 in 2000.

In 2010, the gender makeup of Fairbanks was 53.2% male and 46.7% female. This was similar to the gender distribution statewide (52.0% male, 48.0% female) and less even than the distribution in 2000 (51.3% male, 48.7% female). The median age was 27.9 years, which was less than both state (33.8 years) and national (36.8 years) median age estimates.

Compared with 2000, the population structure in 2010 was somewhat more constricted. In that year, 28.8% of residents were under the age of 20, compared to 32.8% in 2000; 11.0% were over the age of 59, compared to 8.9% in 2000; 34.9% were between the ages of 30 and 59, compared to 36.3% in 2000; and 25.4% were between the ages of 20 and 29, compared to 22.0% in 2000.

Age distribution by age cohort was slightly less even in 2010 than in 2000. In that year, the greatest absolute gender difference occurred within the 20 to 29 age range (15.1% male, 10.3% female), followed by the 30 to 39 (7.3% male, 6.5% female) and 0 to 9 (8.7% male, 8.1% female) ranges. Of those three, the greatest relative gender difference occurred in the 20 to 29 range. Further information regarding trends in Fairbanks' population structure can be found in Figure 2.

Figure 2. Population Age Structure in Fairbanks in 2000 and 2010 (U.S. Census).



In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)³ estimated that 89.3% 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 3.3% of residents had less than a 9th grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 7.4% had a 9th to 12th grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 30.8% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 11.8% held a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall; and an estimated 6.7% held a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall.

*History, Traditional Knowledge, and Culture*⁴

The Fairbanks region, the Tanana Valley, had been inhabited by Tanana Athabaskans for thousands of years prior to European interests. Tanana Athabaskans were strictly territorial and used hunting and gathering practices in their semi-nomadic way of life and dispersed habitation patterns. The boundaries of such systems of life were, presumably, fairly fluid and it may explain some references to the presence in the area of Koyukon Athabaskans, the northwest neighbors.

In 1901, E. T. Barnette established a trading post on the banks of the Tanana River, approximately seven miles from its confluence with the Yukon River. This trading post would later become the city of Fairbanks. Throughout its history, Fairbanks has been a boom and bust town. In 1902, rumors of gold in creeks around Fairbanks started to spread. Prospectors began to flood into Fairbanks, leading to the community's first population boom. Fairbanks was incorporated in 1903, and Barnette was elected as mayor. By 1908 there were 18,500 people living within the Fairbanks mining district. Mining prospects began to decline shortly after, and by 1920, the population had shrunk to 1,100. Advancements in mining led to a mining revival, and mining remained the region's most important industry until World War II. By the 1940s, a construction boom was underway as the military constructed airfields, roads, and communications systems. The 1968 Prudhoe Bay oil lease sale brought on an economic boom to Fairbanks, prompting the regional population to swell to over 74,000 people. Wages soared, and many oil workers received up to \$1,500 per week. However, the oil recession of 1978 devastated the local economy and by 1979, local unemployment was at 20%. Oil revenues recovered between 1980 and 1986, resulting in yet another boom environment in Fairbanks. Today, the city remains heavily reliant on oil, construction, military, and government services. The continuing uncertainty of the oil industry has a particularly significant effect on the city, compared to other communities in Alaska.⁵

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 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.

⁵ Fairbanks Alaska Information Site (n.d.). *History of Fairbanks*. Retrieved March 12, 2013 from: <http://fairbanks-alaska.com/fairbanks-history.htm>

Natural Resources and Environment

Interior Alaska experiences seasonal temperature extremes. Average January temperatures range from -19 to -2 °F (-28 to -19 °C); average July temperatures range from 53 to 72 °F (12 to 22 °C). Annual precipitation averages 11.5 inches with 67.8 inches of snowfall. Temperatures have been recorded as low as -62 °F (-52 °C) in mid-winter and as high as 96 °F (36 °C) in summer. During the winter months, if the temperature drops below -20 °F (-29 °C), ice fog can occur. Fairbanks is known for its lingering summer days. When the solstice arrives, there are more than 22 hrs of daylight.⁶

Fairbanks is located within the Tanana River valley, between the Alaska Range to the south, and the Yukon-Tanana Uplands to the north/northwest. Lowlands consist of moraines and outwash fans deposited by glaciers from the Alaska Range. The mountainous region to the south consists of alpine glaciers, U-shaped valleys, moraines, and alluvial fans. The Yukon-Tanana Uplands rise up to 2,000 ft above the valley floors, and consist of rounded, even-topped, unglaciated ridges with gentle slopes. Soils include alluvial and active floodplain deposits of gravel, sand, and silt. Upland areas consist of glacial deposits. Organic soils include brown and black peat, and organic silts. Permafrost in the area is discontinuous and varies in depth.⁷

The broad outwash plain, south of Fairbanks, is populated by many drainages with small lakes occurring at blockages. The region provides habitat for animals relying on aquatic or riparian habitats including mink, marten, muskrat, beaver, and river otter. Streams are important spawning areas for Chinook, coho, and chum salmon. northern pike, whitefish, and burbot are common in larger lakes and rivers. Arctic grayling are common in smaller streams. Boreal forests dominate the landscape. Black spruce is found in bog environments, while white spruce and balsam poplar line rivers. Tall willow, resin birch, and alder shrub stands are scattered throughout the area. Permafrost flats support birch-heath shrubs and sedge tussocks. Low shrubs include resin birch, Labrador-tea, bog blueberry, and low-bush cranberry. There are over forty non-native plant species in the Tanana River Valley. Common invasive plant species include common dandelion, foxtail barley, and annual hawksbeard. Boreal forests in the area support moose, caribou, wolves, black bears, brown bears, weasel, lynx, marten, mink, red squirrels, and other rodents. Avian species in the area include black-capped and boreal chickadees, common redpolls, gray jays, ravens, black-backed and three-toed woodpeckers, northern flickers, hawk owls, horned owls, ptarmigan, and grouse.⁸

Fishery resources include Arctic char, broad whitefish, burbot, Chinook salmon, coho salmon, chum salmon, Dolly Varden, Arctic grayling, humpback whitefish, lake trout, least cisco, longnose sucker, northern pike, rainbow trout, round whitefish, and sheefish.

Mineral resources include Fort Knox Gold Mine, which produces about 363,000 ounces of gold per year. Pogo Gold development is located 115 mi east of Fairbanks. Placer mines exist in the area, although on a small scale. Fourteen known or prospective mineral deposits exist east

⁶ Ibid.

⁷ Alaska State Transportation Board (2008). *Draft Environmental Impact Statement: Alaska Railroad Corporation Construction and Operation of a Rail Line Between North Pole and Delta Junction, Alaska*. Retrieved July 18, 2012 from: <http://www.stb.dot.gov/decisions/readingroom.nsf/fc695db5bc7ebe2c852572b80040c45f/86e5013e455643d48525751a0071fde4?OpenDocument>.

⁸ Ibid.

of Fairbanks. The Tanana Valley State Forest contains approximately 1.8 million acres of forestland. In 2003, 1.77 million acres of lands were designated as harvestable.⁹

Flooding and wildfire are the most prevalent environmental hazards in the area, although permafrost melt and land subsidence hazards have been increasing. Fires are common, and are mostly caused by summer lightning strikes along the foothills. Frequent flooding across active floodplains of the Tanana results in erosion and alluvial bar formation.¹⁰

There are several notable environmental remediation sites located in and around Fairbanks according to the Alaska Department of Environmental Conservation (DEC).¹¹ The former Arctic Surplus Salvage Yard was treated for a wide range of surface soil and groundwater contaminants, including volatile and semi-volatile organic and inorganic compounds, polychlorinated biphenyls (PCBs), chlorinated pesticides, dioxins, lead, furans, and trichloroethylene (TCE). Cleanup was concluded in 2004, and the site is now available for industrial or commercial use. Contaminates do remain, and restrictions are in place to prevent people from coming into contact with hazardous materials.

Groundwater around Eielson Air Force Base has been contaminated with lead and volatile organic compounds such as trichloroethylene (TCE), benzene, and tetrachloroethylene (PCE). In addition, oils, solvents, and fuels have been discharged into the soils. Remediation efforts commenced in the 1990s, and contaminated soil was excavated and treated. Soil caps were put in place to limit human exposure. A fishing restriction was put in place for Garrison Slough, and people are advised against coming in contact with the water. As of 2012, most sites were in a long-term monitoring program to ensure that contaminate plumes are contained.

Petroleum contamination was first discovered at the derelict Universal Recycling Center in 1993 during a solid waste inspection. There was also evidence of possible dioxin contamination. Cleanup of the property commenced in 2005, and contaminated soils were removed. Groundwater monitoring was conducted in 2007, and no contaminants of concern were observed above cleanup levels.

In 2005, construction of a 54-acre housing project on Fort Wainwright unearthed an area with extensive polychlorinated biphenyl (PCB) contamination. As of 2009, all excavated materials from the construction site were tested for contamination and removed for treatment. Military related munitions were also found in the area and removed. Numerous groundwater monitoring wells were installed between 2005 and 2008.

Current Economy¹²

Gold mining and exploration figures strongly in Fairbanks' social and environmental history. In 1901, a trading post was established on the Chena River and soon afterwards gold was discovered in the area and a new wave of the gold rush was underway. Prospectors inundated the trading post and the city of Fairbanks emerged around the old steamboat landing banks. The town, named after Indiana Senator Charles Fairbanks, boomed along with many other mining field communities. The passage of a local government law in 1900, which regularized

⁹ Fairbanks North Star Borough (2003). *Comprehensive Economic Development Strategy*. Retrieved July 18, 2012 from: <http://www.commerce.state.ak.us/dca/plans/FairbanksNorthStarBorough-EDP-2003.pdf>.

¹⁰ See footnote 7.

¹¹ Alaska Department of Environmental Conservation (n.d.). *Contaminated Sites Program*. Retrieved July 20, 2012 from: <http://dec.alaska.gov/spar/csp/sites/arcticsurplus.htm>.

¹² Unless otherwise noted, all monetary data are reported in nominal values.

incorporation procedures and authorized the use of certain fees by city councils and school districts, gave Fairbanks security and tools to avoid the collapse that other boom towns suffered after the gold rush.

During the twentieth century, two major events transformed Fairbanks and the rest of Alaska: the Second World War and the oil boom of the seventies. In both cases major flow of resources and infrastructure construction fueled the growth and consolidation of Fairbanks as one of the main urban centers of the state. In the 1940s, initiated by the war effort and concern about the Japanese threat, the Alaska-Canada (Alcan) Highway was built. In the 1970s, coinciding with a world's oil shortage, the Trans-Alaska oil pipeline was established.

Fairbanks provides supplies, as well as private and public services, to most of interior Alaska and thus plays a central role in the region. This centrality is fundamental to understanding the organization and composition of Fairbanks' economic system. By virtue of this centrality Fairbanks has a high density of public institutions: City, Borough, state and federal government services of all sorts. The Eielson Air Force Base and Fort Wainwright are both large government service employers.

On a more local basis, tourism is also a significant part of the economy. The recently developed tourism sector attracts an estimated 325,000 visitors to Fairbanks each summer. The Alaska Railroad brings a significant number of summer visitors to the Fairbanks area from Anchorage and southcentral Alaska. The Tanana Chiefs Conference opened the Chena River Convention Center, which provides space for attracting a variety of events to the area, and several organizations teamed together to construct the Morris Thompson Cultural and Visitor Center.¹³

The Tanana Valley is one of the most productive agriculture regions in the state. During the 1990s, Tanana Valley farmers planted 58.8% of the total acreage farmed in Alaska, which accounted for 33.1% of total crop production during that time. In addition, the number of farms in the Fairbanks North Star Borough increased by 4% between 1997 and 2002. Mining is a large contributor to the local economy. The amount of refined gold in the Eastern Interior Region of Alaska increased between 2000 and 2006, from 392,862 ounces to 474,900 ounces. Fairbanks functions as an important staging area for oil and gas exploration, development, and production in Alaska's northern and interior regions. The area is the midpoint of the 800-mi Trans-Alaska Pipeline System that runs south from Prudhoe Bay to Valdez. The pipeline also supplies refineries located within the Borough and the Alaska North Slope. In addition, oil and gas deposits comparable to those of Cook Inlet have been identified in the Yukon Flats region. The United States Geological Survey (USGS) reports that the region 200 mi from Fairbanks contains 5.5 trillion cubic feet of natural gas and 173 million barrels of oil.¹⁴ Top employers in 2010¹⁵ included: the Fairbanks North Star School District, University of Alaska, State of Alaska, Banner Health System, Fred Meyer Stores Inc., Tanana Chiefs Conference, Safeway Inc., Fairbanks North Star Borough, and Fairbanks Gold Mining Inc.

¹³ See footnote 9.

¹⁴ Fairbanks North Star Borough (2008). *Comprehensive Economic Development Strategy*. Retrieved July 20, 2012 from: <http://www.commerce.state.ak.us/dca/plans/FairbanksNorthStarBorough-EDP-2008.pdf>.

¹⁵ 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/>.

In 2010,¹⁶ the estimated per capita income was \$26,373 and the estimated median household income was \$51,320, compared to \$19,814 and \$40,577 in 2000, respectively. After adjusting for inflation by converting 2000 values into 2010 dollars,¹⁷ the real per capita income (\$26,055) and real median household income (\$53,358) indicate that while individual earnings remained relatively unchanged, household earnings increased. In 2010, Fairbanks ranked 92nd of 305 communities from which per capita income was estimated, and 124th of 299 communities from which median household income was estimated.

According to the 2006-2010 ACS, an estimated 59.9% of residents aged 16 and older were part of the civilian labor force in 2010 and an estimated 12.9% were in the employed in the Armed Forces. In that year, unemployment was estimated at 4.5%, compared to an estimated 5.9% statewide; and an estimated 11.0% of residents were living below the poverty line, compared to an estimated 9.5% of Alaska residents overall. Of those employed in the civilian labor force, an estimated 73.1% worked in the private sector, an estimated 22.1% worked in the public sector, an estimated 4.7% were self-employed, and an estimated 0.1% were unpaid family workers.

By industry, most (20.2%) employed residents were estimated to work in education services, health care, and social assistance sectors in 2010; followed by retail trade sectors (20.0%); arts, entertainment, recreation, accommodations, and food service sectors (11.7%); and construction sectors (10.2%) (Figure 3). Agriculture, forestry, fishing, and mining sectors made up 1.5% of sector employment in 2010. However, this may not accurately portray the importance of fisheries within the community, as is reflected in the *Commercial Fisheries* section.

By occupation type, most (30.4%) employed residents were estimated to hold sales or office positions in 2010; followed by management or professional positions (27.2%); service positions (19.6%); natural resources, construction, or maintenance positions (13.0%); and production, transportation, or material moving positions (9.8%) (Figure 4).

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 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

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

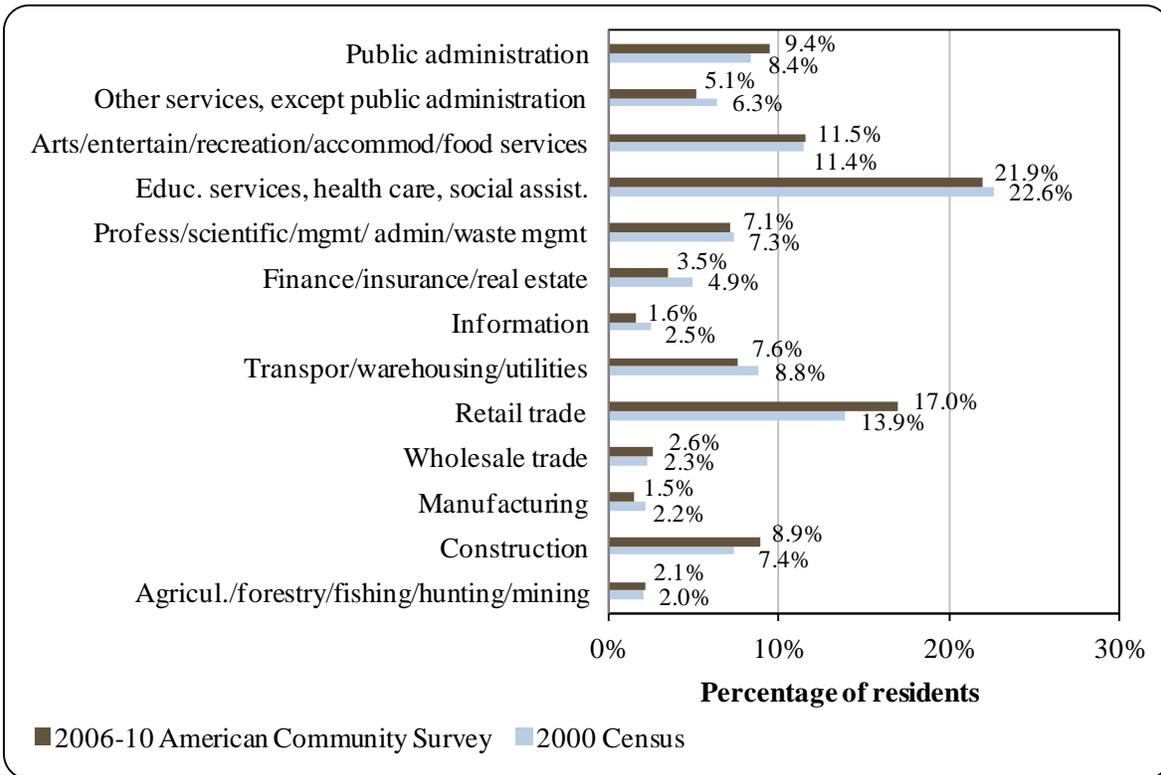
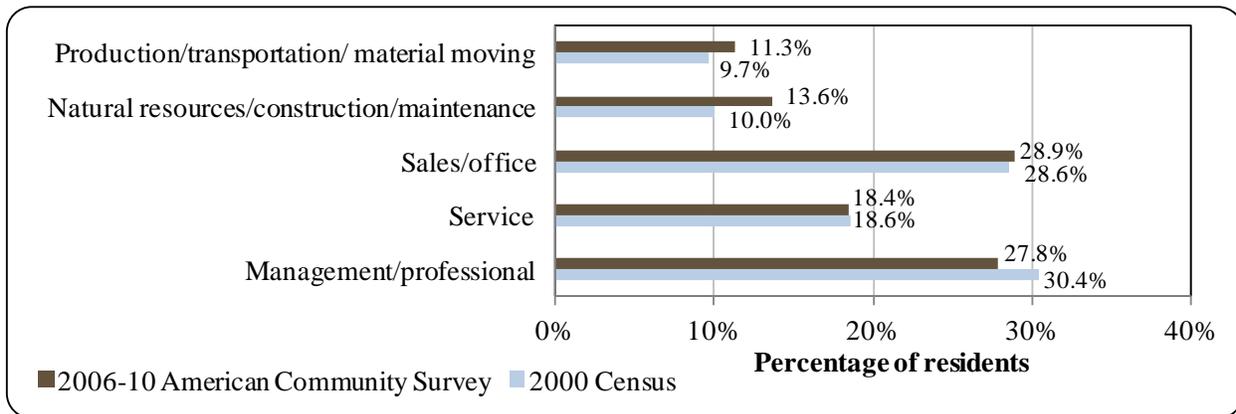


Figure 4. Local Employment by Occupation in 2000-2010, Fairbanks (U.S. Census).



Overall, there were areas of significant variation in sector and occupational employment between 2000 and 2010. Most notably, there were significant proportional declines in professional, scientific, management, administrative, and waste management sectors; while there were significant proportional increases in public administration and retail trade sectors. In addition, there were significant proportional declines in the number of service positions; while there were significant proportional increases in the number of management and professional positions.

Governance

Fairbanks was incorporated in 1903 and is a Home Rule City. The city imposes a 0.057% property tax and an 8% tax on tobacco. The Borough also implements property and tobacco taxes, 0.15% and 8%, respectively. In 2010, the City did not administer a sales tax. The total community revenue in 2010 was \$30,218,824, which increased by \$8,184,230 compared to 2000.¹⁸ The state administered Community Revenue Sharing program allocated \$1,726,227 to Fairbanks in 2010, which is more than five times the amount allocated in 2000 (Table 2).

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Fairbanks 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	\$22,140,114	n/a	\$300,533	n/a
2001	\$20,054,115	n/a	\$265,458	n/a
2002	\$22,548,441	n/a	\$265,831	n/a
2003	\$22,645,231	n/a	\$265,423	n/a
2004	\$21,170,164	n/a	n/a	n/a
2005	\$26,242,790	n/a	n/a	n/a
2006	\$29,420,482	n/a	n/a	n/a
2007	\$35,633,332	n/a	n/a	n/a
2008	\$37,384,876	n/a	n/a	n/a
2009	\$33,753,147	n/a	\$1,645,149	n/a
2010	\$31,285,189	n/a	\$1,726,227	n/a

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

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

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

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

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

Fairbanks was not included in the Alaska Native Settlement Act (ANCSA) of 1971 and is not represented by a federally recognized Native traditional council. However, several Alaska Native institutions are based in Fairbanks. These include regional and local corporations as well as village councils: Denakkanaaga Inc. (regional Native non-profit.-Tribal Elders Council for Doyon Region), Doyon Limited (regional Native corporation), Fairbanks Native Association (regional Native non-profit providing social services) and the Tanana Chiefs Conference (regional health corporation-non-profit for Doyon Ltd.). Other local or regional institutions of the area are the Interior Regional Housing Authority (Housing Authority) the Alaska Sea Otter

¹⁸ 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.

Commission and the Fairbanks Community Food Bank. Permanent offices of both Alaska Department of Fish and Game (ADF&G) and Bureau of Customs and Immigration Services are located in Fairbanks. The nearest National Marine Fisheries Service office is in Anchorage.

Federal agencies with offices located within the Borough include U.S. District Court, Appellate Court, U.S. Fish & Wildlife Service, Federal Aviation Administration, U.S. Customs Service, Internal Revenue Service, Bureau of Land Management, National Parks Service, U.S. Department of Agriculture, and the U.S. Postal Service.

Infrastructure

Connectivity and Transportation

Fairbanks connects Anchorage with the North, Interior Alaska and Canada. It lies at the confluence of the Richardson Highway, George Parks Highway, Steese Highway, and Elliott Highway. Another major route, the Dalton Highway (formerly the North Slope Haul road) to Prudhoe Bay, begins about 75 mi north of town. The Alaska Railroad connects Fairbanks to Anchorage and Seward at the shoreline of the Gulf of Alaska.

The city is also easily reachable by air. The state-owned Fairbanks International Airport is regularly serviced by Alaska Airlines, Air North, Warbelow's Air Ventures, Larry's Flying Service, Marina Air, Frontier Flying Service, Arctic Circle Adventure, Midnight Sun Aviation, Interior Alaska Adventures, Tanana Air Service, Tatonduck Outfitters and Wright Air Service. The facility has an 11,800-ft asphalt runway, a heliport and a seaplane landing strip. A public seaplane base is also located on the Chena River. In addition, there are several privately-owned airstrips and heliports in the vicinity. Roundtrip airfare between Fairbanks and Anchorage in June 2012 was \$256.¹⁹

Due to its geographic and climatic features, Fairbanks must import most of the goods that its population consumes. Goods are transported to Fairbanks by air and truck along the Alaska Railroad. The Borough operates a public transportation system, and cab companies and rental car services are available. Each summer, this city receives more than 300,000 visitors and has a correspondingly wide variety of accommodation possibilities.

Facilities

Fifteen circulating pump stations distribute treated water throughout the greater Fairbanks area. City water, sewer, and electric systems are operated by private companies. The Chena power site has four steam turbines fueled by coal and one oil-fueled generator. Garbage collection services are provided by the city for a fee, and refuse is hauled to the Class 1 Borough landfill on South Cushman. Fort Wainwright operates its own landfill. Fairbanks offers a wide range of visitor accommodations and attractions, comparable with other cities its size. Public safety services include city police and local state troopers. Fire and rescue services are provided by local fire department and Emergency Medical Services (EMS); Fort Wainwright Fire and EMS, Fairbanks Northstar Borough Fire and EMS, and U.S. Bureau of Land Management (BLM) Alaska Fire Service. Legal services include State Superior Court, District Court,

¹⁹ Airfare was calculated using lowest fare. Source: <http://www.travelocity.com> (retrieved November 22, 2011).

Appellate Courts, and Fairbanks Correctional Center. Several community, youth, and senior service centers are available. Thirty-eight libraries are available, and five museums.²⁰

There are three undersea fiber optic cable systems which connect Alaska to the contiguous United States. Two systems connect Fairbanks to this undersea network. Communications services are provided by Alaska Communications Systems (ACS), General Communications Inc. (GCI), and AT&T/Alascom. Services include local and long distance telephone, cable, and broadband internet.²¹

In a survey conducted by the AFSC in 2011, community leaders reported infrastructure projects completed between 2000 and 2010, or in progress as of 2010. These projects included new dock space, dock improvements, broadband internet improvements, road improvements, alternative energy projects, public safety improvements, fire service improvements, improvements to education services, and a state-run sport fish hatchery. As of 2010, there was 30 ft of dock space available for transient moorage at Fairbanks Northstar Borough Pioneer Park. Vessels up to 24 ft in length can use moorage in Fairbanks. Community leaders noted that there were less charter/party boats observed in Fairbanks in 2010 than in 2005. This was partially attributed to the Tanana Queen Riverboat halting service.

According to the 2011 AFSC survey, fisheries-related businesses and services available locally include fish processors, sportfishing gear sales, boat repair (welding and mechanical services), small vessel haul-out facilities, tackle sales, bait sales, commercial cold storage, vessel fuel sales, and air taxi services. Community leaders also noted that residents travel to Nenana, Valdez, and Seward for businesses and services not available locally. Additional public services include food banks, soup kitchens, job placement services, and publically subsidized housing.

Medical Services

Healthcare services in Fairbanks are provided by the Fairbanks Memorial Hospital, the Interior Neighborhood Health Clinic, Chief Andrew Isaac Health Center, Bassett Army Community Hospital/Fort Wainwright. In addition specialized care is provided by FNA Regional Center for Alcohol & Other Addictions, Fairbanks Pioneers' Home, and the Denali Center.

Educational Opportunities

As of 2011, the Fairbanks school district has 35 schools, a total of 872 teachers, and 14,285 students enrolled. The student-teacher ratio was 17.6.²² The city is also home to the University of Alaska Fairbanks (UAF), which was founded in 1917 and as of 2010 had a total of 11,034 enrolled students.²³ UAF offers seven major research units including the Agricultural and Forestry Experiment Station, Arctic Region Supercomputing Center, the Geophysical Institute, the Institute of Marine Science, the Institute of Arctic Biology, the Institute of Northern Engineering, and the International Arctic Research Center. UAF offers 163 degree and 24

²⁰ Alaska Department of Community and Rural Affairs (n.d.). *Community Database Online*. Retrieved November 15, 2011 from http://www.dced.state.ak.us/dca/commdb/CF_BLOCK.htm

²¹ Fairbanks North Star Borough (2003). *Comprehensive Economic Development Strategy*. Retrieved July 18, 2012 from: <http://www.commerce.state.ak.us/dca/plans/FairbanksNorthStarBorough-EDP-2003.pdf>.

²² Alaska Department of Education and Early Development (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

²³ See footnote 20.

certificates in 114 disciplines, and is the only doctoral degree granting institution in Alaska. UAF also encompasses eight regional campuses in rural and urban locations throughout the state. This includes campuses in Dillingham, Kotzebue, Bethel, Nome, the Interior-Aleutians Campus, and the Rural College.²⁴

Involvement in North Pacific Fisheries

*History and Evolution of Fisheries*²⁵

Although the city of Fairbanks is over 300 mi from the Alaska coastline, it has historical ‘long distance’ involvement in the commercial fishing industry. The city is home to a substantial number of vessel owners, commercial permit holders, and registered crew members. There is also a commercial fish processing plant. In short, Fairbanks is proof that Alaska’s commercial fishing industry is as much about networks and inter-community linkages as it is about location.

Much of the sportfishing effort in the area takes place within the Tanana River ADF&G Management Area. The Tanana River is the second largest tributary system of the Yukon River. The Chena, Salcha, Chatanika, and Delta Clearwater rivers, Minto Flats, Harding, Fielding, and Table lakes, and various stocked waters are all popular areas for recreational and subsistence fishing. The most commonly targeted species include Chinook and coho salmon, Arctic grayling, burbot, northern pike, lake trout, and stocked rainbow trout.

The Chena River supports one of the largest Chinook salmon populations in the Alaskan portion of the Yukon River drainage. Adult Chinook enter the Tanana River between late June and the second week of July. The run ends in late July or early August. Chum salmon are primarily available in July and August and are typically targeted or caught incidentally along with Chinook. The Salcha River supports the largest Chinook salmon population in the Tanana River drainage. Run characteristics are similar to those found in the Chena River. However, coho salmon are not found in the Salcha River drainage.

Coho salmon migrate into small tributaries on the south side of the Tanana River drainage, and tributaries near Delta Junction host some of the largest known coho spawning concentrations in the Yukon River drainage. The Delta Clearwater River supports the largest recreational coho fishery within the Tanana River drainage. Coho are the last of the salmon species to enter the Yukon River system. They typically enter around mid-September, and runs peak by mid-October. Some have even reported seeing coho spawning as late as January. Spring fed tributaries in the area provide ideal habitat for juvenile coho.

During the late 1970s and mid-1980s, the Chena River Arctic grayling fishery was the largest in the state. During the latter part of the 1980s, the bag limit for Arctic grayling decreased following poor stock levels, and the fishery began to decline somewhat. The fishery was further restricted to catch-and-release by the Alaska Board of Fisheries in 1994, and fishing effort dropped off considerably. Stock assessments in 2005 showed a stable population; however, it is unlikely that the population would be able to sustain a large annual harvest similar to historic levels. Other Arctic grayling fisheries within the Tanana River drainage are found within the Chatanika River, Nenana River, Salcha River, Fielding Lake, the Goodpaster River, the Tok River drainage, Shaw Creek, and the Richardson Clearwater River.

²⁴ See footnote 21.

²⁵ Brase, A. L. J., and B. Baker. 2011. *Fishery Management Report for Recreational Fisheries in the Tanana River Management Area, 2009*. Retrieved July 23, 2012 from: <http://www.adfg.alaska.gov/FedAidpdfs/FMR11-17>.

The Minto Flats, located about 35 mi west of Fairbanks, is a popular northern pike fishing and waterfowl hunting area. The Minto Lakes are thought to support the majority of the northern pike sport fishery within the Tolovana River drainage. During the winter, much of the waters within the Flats become anoxic, forcing fish to move to waters within the Chatanika and Tolovana rivers or other tributaries. From 1984 to 1986, the total harvest of northern pike from the Minto Flats area doubled, and many females were caught during the winter ice fishing season. After 1987, sportfishing for northern pike was closed between October 15 and May 31, and the bag limit was reduced. Estimated sport catch of northern pike peaked in 1994. Northern pike is also common in many smaller lakes, sloughs, and tributaries throughout the Tanana River drainage.

Burbot are commonly caught by set-line through ice during the winter. Prior to 1988, there was no bag limit for burbot if taken by hook and line. There was a 10 fish per day limit for fish taken by spear or bow and arrow. However, in 1988, bag limits of 15 fish per day in flowing waters, and 5 fish per day in lakes were established. Before regulations were established, burbot fishing primarily occurred in the Fielding and Tangle Lakes system. From 1981 to 1984, burbot harvests averaged 330 fish per year in those systems. Low recruitment eventually led to restrictions on catch.

The Chatanika River supports a large population of whitefish (humpback and least cisco). The only major whitefish sport fishery occurs on the Chatanika River. This fishery historically took place in September. Both humpback and least cisco were harvested, as were a small number of round whitefish. The fishery became very popular in the 1980s. Prior to 1988, the fishery was unregulated. However, as with many other recreational fisheries in the area, the implementation of regulations followed a decline in harvest levels in the late 1980s.

Lakes containing wild lake trout in the Tanana River Management Area include Harding, Fielding, Two Bit, Landmark Gap, Glacier, Sevenmile, and the Tangle lakes system. A new state-run hatchery began to produce a small number of lake trout in 2009.

While very little of Fairbanks' municipal revenue is fishing-related (Table 3), Fairbanks residents are engaged in North Pacific fisheries via their purchase and use of permits for a range of species (Table 4) and individual fishing quotas for halibut and sablefish (Tables 6 and 7). Salmon is the most targeted species, with 134 salmon permits issued to residents of Fairbanks in 2010.

Because Fairbanks is located more than 50 mi from the coast, the community is not located within a Federal Statistical and Reporting Area, a Pacific Halibut Fishery Regulatory Area, or a Sablefish Regulatory Area. Fairbanks is not eligible to participate in the Community Development Quota program or the Community Quota Entity program.

Processing Plants

According to ADF&G's 2010 Intent to Operate list, one shoreside processing facility was in operating in Fairbanks. Santa's Smokehouse operates a family owned and operated plant in Fairbanks called Interior Alaska Fish Processors, which processes halibut and all five species of Pacific salmon.²⁶ Interior Alaska Fish Processors also processes sport-caught fish and game, and it smokes sport-caught salmon (all species but pink).²⁷

²⁶ Alaska Seafood Marketing Institute (2011). Directory of Alaska Seafood Suppliers. Retrieved December 12, 2011 from <http://www.alaskaseafood.org/industry/suppliers/index.cfm>.

²⁷ Santa's Smokehouse (n.d.). *Homepage*. Retrieved November 15, 2011 from <http://santassmokehouse.com>.

Fisheries-Related Revenue

Fisheries-related revenue received by the City of Fairbanks is minimal, only including a small amount of revenue raised from the Shared Fisheries Business Tax (Table 3).

Commercial Fishing

In 2010, 146 residents, or less than 1% of the population, held 159 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 145 residents held 167 CFEC permits. Of the CFEC permits held in 2010, 85% were for salmon, compared to 77% in 2000; 7% were for herring, compared to 7% in 2000; 4% were for halibut, compared to 10% in 2000; 2% were for “other” shellfish, compared to 2% in 2000; and less than 1% were for sablefish, “other” groundfish, and crab. In addition, two residents held two Federal Fisheries Permits (FFP) and two residents held two License Limitation Program (LLP) groundfish permits. In 2010, residents held 376,376 shares of halibut quota on 15 accounts, compared to 457,129 shares on 22 accounts in 2000. Also in that year, residents held 283,873 shares of sablefish quota on one account, compared to 0 shares on one account in 2000. No residents held crab quota between 2010 and when the program began.

Residents held 79 commercial crew licenses in 2010, compared to 81 in 2000. In addition, residents held majority ownership of 30 vessels, compared to 102 in 2000. Of the CFEC permits held in 2010, 25% were actively fished, compared to 31% in 2000. This varied by fishery from 100% of halibut and sablefish permits, to 24% of salmon permits, 9% of herring permits, and 0% of “other” shellfish, “other” finfish, and groundfish permits. In addition, 50% of FFP and 0% of LLP were actively fished. Fisheries prosecuted by Fairbanks residents in 2010 included: statewide longline and mechanical jig halibut, statewide longline sablefish, southeast Alaska drift gillnet salmon, Bristol Bay drift gillnet salmon, Cook Inlet set gillnet salmon, Kodiak set gillnet salmon, Lower Yukon gillnet salmon, Norton Sound gillnet salmon, and statewide power troll salmon.

No landings were made in Fairbanks in 2000 and 2001, and landings between 2002 and 2010 are considered confidential. Landings made by Fairbanks residents in 2010 are considered confidential, with the exception of salmon. In that year, residents landed 1.09 million pounds of salmon valued at \$1.41 million ex-vessel; compared to 578,459 lb valued at \$347,747 ex-vessel in 2000; an increase of \$0.47 per pound landed after adjusting for inflation²⁸ and without considering the species composition of landings. Revenue from salmon landings peaked in 2010. In 2009, residents landed 23,222 lb of halibut valued at \$75,955 ex-vessel, compared to 13,455 lb valued at \$35,207 ex-vessel in 2000; a decrease of \$0.05 per pound landed after adjusting for inflation.²⁹ Information regarding commercial fishing trends can be found in Tables 4 through 10.

²⁸ Inflation calculated using Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, <http://www.bls.gov/ppi/#data>

²⁹ Ibid.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a										
Shared Fisheries Business Tax ¹	n/a	n/a	n/a	n/a	\$163	\$279	n/a	n/a	n/a	n/a	n/a
Fisheries Resource Landing Tax ¹	n/a	n/a	n/a	n/a			n/a	n/a	n/a	n/a	n/a
Fuel transfer tax ²	n/a										
Extraterritorial fish tax ²	n/a										
Bulk fuel transfers ¹	n/a										
Boat hauls ²	n/a										
Harbor usage ²	n/a										
Port/dock usage ²	n/a										
Fishing gear storage on public land ³	n/a										
Marine fuel sales tax ³	n/a										
<i>Total fisheries-related revenue⁴</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>\$163</i>	<i>\$279</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
<i>Total municipal revenue⁵</i>	<i>\$22.14 M</i>	<i>\$20.05 M</i>	<i>\$22.55 M</i>	<i>\$22.65 M</i>	<i>\$21.17 M</i>	<i>\$26.24 M</i>	<i>\$29.42 M</i>	<i>\$35.63 M</i>	<i>\$37.38 M</i>	<i>\$33.75 M</i>	<i>\$31.29 M</i>

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

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

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

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

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

⁵ Total municipal revenue represents the total revenue that the City reports in its annual municipal budgets. 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, Fairbanks: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) ¹	Total permits	2	2	2	2	2	2	2	2	2	2	2
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	2	2	2	2	2	2	2	2	2	2	2
Crab (LLP) ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits ¹	Total permits	3	3	3	4	4	4	2	2	2	2	2
	Fished permits	0	0	0	0	0	0	0	0	0	1	1
	% of permits fished	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%
	Total permit holders	3	3	3	4	4	4	2	2	2	2	2
Crab (CFEC) ²	Total permits	0	0	0	0	0	0	1	4	2	1	1
	Fished permits	0	0	0	0	0	0	1	2	0	1	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	100%	50%	0%	100%	0%
	Total permit holders	0	0	0	0	0	0	1	4	2	1	1
Other shellfish (CFEC) ²	Total permits	3	2	1	1	1	1	1	2	2	2	3
	Fished permits	1	0	0	0	0	0	0	1	1	0	0
	% of permits fished	33%	0%	0%	0%	0%	0%	0%	50%	50%	0%	0%
	Total permit holders	3	2	1	1	1	1	1	2	2	2	3
Halibut (CFEC) ²	Total permits	17	12	11	8	5	7	8	7	7	8	6
	Fished permits	7	9	8	6	5	7	6	7	5	8	6
	% of permits fished	41%	75%	73%	75%	100%	100%	75%	100%	71%	100%	100%
	Total permit holders	17	12	11	8	5	7	8	7	7	8	6
Herring (CFEC) ²	Total permits	12	7	7	7	7	6	9	9	8	10	11
	Fished permits	2	3	3	3	1	1	1	1	0	0	1
	% of permits fished	17%	43%	43%	43%	14%	17%	11%	11%	0%	0%	9%
	Total permit holders	11	7	7	7	7	6	9	9	8	10	11

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	1	2	2	2	0	3	0	0	0	1	1
	Fished permits	0	1	1	2	0	3	0	0	0	1	1
	% of permits fished	0%	50%	50%	100%	n/a	100%	n/a	n/a	n/a	100%	100%
	Total permit holders	1	2	2	2	0	2	0	0	0	1	1
Groundfish (CFEC) ²	Total permits	4	4	2	0	0	0	0	0	0	1	1
	Fished permits	2	0	1	0	0	0	0	0	0	1	0
	% of permits fished	50%	0%	50%	n/a	n/a	n/a	n/a	n/a	n/a	100%	%
	Total permit holders	4	3	2	0	0	0	0	0	0	1	1
Other Finfish (CFEC) ²	Total permits	2	2	2	2	2	2	2	2	2	1	1
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	2	2	2	2	2	2	2	2	2	1	1
Salmon (CFEC) ²	Total permits	128	124	124	130	130	134	135	135	140	140	135
	Fished permits	39	30	34	36	29	39	43	38	38	37	32
	% of permits fished	30%	24%	27%	28%	22%	29%	32%	28%	27%	26%	24%
	Total permit holders	121	116	117	124	128	129	130	129	132	132	131
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>167</i>	<i>153</i>	<i>149</i>	<i>150</i>	<i>145</i>	<i>153</i>	<i>156</i>	<i>159</i>	<i>161</i>	<i>164</i>	<i>159</i>
	<i>Fished permits</i>	<i>51</i>	<i>43</i>	<i>47</i>	<i>47</i>	<i>35</i>	<i>50</i>	<i>51</i>	<i>49</i>	<i>44</i>	<i>48</i>	<i>40</i>
	<i>% of permits fished</i>	<i>31%</i>	<i>28%</i>	<i>32%</i>	<i>31%</i>	<i>24%</i>	<i>33%</i>	<i>33%</i>	<i>31%</i>	<i>27%</i>	<i>29%</i>	<i>25%</i>
	<i>Permit holders</i>	<i>145</i>	<i>132</i>	<i>131</i>	<i>135</i>	<i>136</i>	<i>140</i>	<i>142</i>	<i>144</i>	<i>147</i>	<i>144</i>	<i>146</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 Fairbanks: 2000-2010.

Year	Crew Licenses 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 Fairbanks ²	Total Net Pounds Landed In Fairbanks ^{2,5}	Total Ex-Vessel Value Of Landings In Fairbanks ^{2,5}
2000	81	0	3	102	41	0	0	\$0
2001	93	0	1	90	31	0	0	\$0
2002	55	5	2	88	35	0	--	--
2003	60	5	3	76	34	0	--	--
2004	53	4	3	87	34	0	--	--
2005	60	4	2	32	9	0	--	--
2006	52	5	2	40	10	0	--	--
2007	76	6	1	34	7	0	--	--
2008	70	2	2	34	7	0	--	--
2009	78	2	2	36	4	0	--	--
2010	79	1	1	30	5	0	--	--

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 in Fairbanks: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (pounds)
2000	22	457,129	84,887
2001	25	473,675	99,633
2002	24	479,198	100,302
2003	23	457,522	97,058
2004	21	391,163	81,409
2005	21	369,050	74,438
2006	19	350,745	66,568
2007	16	340,141	55,101
2008	13	335,627	53,962
2009	15	376,376	52,756
2010	15	376,376	48,643

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 in Fairbanks: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (pounds)
2000	1	n/a	n/a
2001	1	263,141	27,250
2002	2	292,115	30,908
2003	2	312,847	39,892
2004	2	318,971	40,800
2005	2	374,254	41,287
2006	1	283,873	35,277
2007	1	283,873	33,043
2008	1	283,873	28,692
2009	1	283,873	25,869
2010	1	283,873	24,583

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 in Fairbanks: 2000-2010.

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

Note: n/a indicates that no data was reported for that year. Source: National Marine Fisheries Service. 2011. Alaska Individual Fishing Quota (IFQ) permit data. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for 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 Fairbanks: 2000-2010.

	<i>Total Net Pounds¹</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	0	0	--	--	--	--	--	--	--	--	--
Finfish	0	0	--	--	--	--	--	--	--	--	--
Halibut	0	0	--	--	--	--	--	--	--	--	--
Herring	0	0	--	--	--	--	--	--	--	--	--
Other Groundfish	0	0	--	--	--	--	--	--	--	--	--
Other Shellfish	0	0	--	--	--	--	--	--	--	--	--
Pacific Cod	0	0	--	--	--	--	--	--	--	--	--
Pollock	0	0	--	--	--	--	--	--	--	--	--
Sablefish	0	0	--	--	--	--	--	--	--	--	--
Salmon	0	0	--	--	--	--	--	--	--	--	--
<i>Total²</i>	0	0	--	--	--	--	--	--	--	--	--
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	\$0	\$0	--	--	--	--	--	--	--	--	--
Finfish	\$0	\$0	--	--	--	--	--	--	--	--	--
Halibut	\$0	\$0	--	--	--	--	--	--	--	--	--
Herring	\$0	\$0	--	--	--	--	--	--	--	--	--
Other Groundfish	\$0	\$0	--	--	--	--	--	--	--	--	--
Other Shellfish	\$0	\$0	--	--	--	--	--	--	--	--	--
Pacific Cod	\$0	\$0	--	--	--	--	--	--	--	--	--
Pollock	\$0	\$0	--	--	--	--	--	--	--	--	--
Sablefish	\$0	\$0	--	--	--	--	--	--	--	--	--
Salmon	\$0	\$0	--	--	--	--	--	--	--	--	--
<i>Total²</i>	\$0	\$0	--	--	--	--	--	--	--	--	--

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 Fairbanks 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	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	13,455	--	12,276	--	--	--	--	--	--	23,222	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other	--	139	--	--	--	--	--	--	1,004	1,621	--
Groundfish											
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	578,459	578,459	759,886	626,138	710,142	835,931	619,093	1,224,488	909,097	719,426	1,090,201
<i>Total²</i>	<i>591,914</i>	<i>578,598</i>	<i>772,162</i>	<i>626,138</i>	<i>710,142</i>	<i>835,931</i>	<i>619,093</i>	<i>1,224,488</i>	<i>910,101</i>	<i>744,269</i>	<i>1,090,201</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	\$35,207	--	\$26,015	--	--	--	--	--	--	\$75,955	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other	--	\$55	--	--	--	--	--	--	\$1,505	\$1,360	--
Groundfish											
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	\$347,747	\$377,673	\$324,873	\$342,695	\$537,153	\$461,665	\$923,986	\$686,925	\$752,425	\$911,759	\$1,414,934
<i>Total²</i>	<i>\$382,954</i>	<i>\$377,728</i>	<i>\$350,888</i>	<i>\$342,695</i>	<i>\$537,153</i>	<i>\$461,665</i>	<i>\$923,986</i>	<i>\$686,925</i>	<i>\$753,930</i>	<i>\$989,074</i>	<i>\$1,414,934</i>

Note: Cells showing "--" indicate that the data is 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 Confidential data not included in annual totals.

Recreational Fishing

Due to the inland geographic location of Fairbanks, saltwater sport fishermen must travel a great distance to the coast, making freshwater sportfishing a more common form of recreational fishing in Fairbanks. The Tanana River watershed is a popular destination for private anglers, and a description of recreational fisheries was provided in the *History and Evolution of Fisheries* section.

In 2010, around 19% of sport fish guide businesses registered in Fairbanks were active, compared to 21% in 2000. The number of sport fish guide licenses held in the community declined significantly during that period from 105 in 2000, to 32 in 2010. The number of sportfishing licenses issued to residents has steadily increased, from 16,969 licenses in 2000 to 18,729 licenses in 2010. The number of sportfishing licenses sold in the community has increased as well, with 25,854 licenses sold in 2010 compared to 9,589 in 2000 (Table 11). Fairbanks is located within Alaska Sport Fishing Survey Area U – Tanana River drainage. This area includes the entire Tanana River watershed. Information is available about freshwater sportfishing activity only at this regional scale. In 2010, there were a total of 96,859 freshwater angler days fished, compared to 121,763 in 2000. In that year, non-Alaska residents accounted for 9.3% of total angler-days fished, compared to 10.4% in 2000.

According to ADF&G Harvest Survey data, local private anglers target all five species of Pacific salmon, landlocked salmon, rainbow trout, Dolly Varden, cutthroat trout, whitefish, burbot, Arctic grayling, northern pike, sheefish, Pacific halibut, rockfish, lingcod, Pacific cod, shark, smelt, steelhead trout, “other” finfish, Dungeness crab, Tanner crab, razor clams, hardshell clams, and shrimp.³⁰ No kept/released charter logbook data are available for Fairbanks. In a survey conducted by the AFSC in 2011, community leaders reported that local recreational fishing effort is done by charter boat, private boat, or by shore. Both residents and non-Alaska residents participate in recreational fisheries. Typically, Chinook salmon are the most popular species targeted. Information regarding recreational fishing trends can be found in Table 11.

³⁰ 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. Sportfishing trends, Fairbanks: 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 Fairbanks ²	Freshwater Angler Days Fished – Non-residents ³	Freshwater Angler Days Fished – Alaska Residents ³
2000	12	105	16,969	9,589	11,517	110,246
2001	14	94	16,940	10,058	10,744	80,391
2002	12	98	16,960	10,231	9,733	98,884
2003	9	90	17,841	23,027	7,502	92,432
2004	13	101	18,438	25,244	11,853	104,633
2005	6	37	18,044	24,577	11,335	82,063
2006	11	38	16,746	23,610	8,216	71,461
2007	6	42	18,413	26,331	9,327	91,629
2008	8	41	17,456	24,637	7,613	64,722
2009	7	33	17,675	24,177	7,415	85,082
2010	3	32	18,729	25,854	9,025	87,834

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

Evidence of historic use of the Tanana River was documented by early Euro-American explorers. The subsistence fishery was essentially unrestricted until a regulatory system was put into place in 1964. In the beginning, permits were issued on an individual basis with no harvest limits or eligibility criteria. In 1971, the first harvest limits for salmon were imposed. These limits were 25 Chinook and 200 “other salmon” per person. Since then, restrictions on numbers of fish and fishing periods have been increased.³¹

Many Fairbanks area residents participate in personal use fisheries on the Tanana River. In a 1980 ADF&G survey of Tanana River fishermen, 76.9% of respondents indicated that they lived in the greater Fairbanks area. Of those surveyed that year, 58.5% reported that subsistence harvest activities account for “half” or “some” of their annual meat consumption. Only 7.8% reported that subsistence activities account for “all” of their annual meat consumption.³²

In 2008, the city issued 3,077 subsistence salmon permits, which had grown slightly from 2,560 permits in 2000. Based on the subsistence salmon permits that were returned to ADF&G in 2008, sockeye salmon appeared to be by far the most common salmon species harvested for subsistence, with an estimated total of 35,765 harvested in 2008. Fairbanks residents also

³¹ Caulfield, R. A. 1981. *Final Report of the Survey of Permit holders in the Tanana River Subsistence Salmon Permit Fishery*. Retrieved July 12, 2012 from: <http://www.subsistence.adfg.state.ak.us/TechPap/tp014.pdf>.

³² Caulfield, R. A. 1980. *Interim Report on the Survey of Permit holders in the Tanana Subsistence Permit Fishery*. Retrieved July 12, 2012 from: <http://www.arlis.org/docs/vol1/10883183.pdf>.

reported subsistence harvests of Chinook, chum and coho salmon. Pink salmon were estimated to be the least harvested salmon for subsistence, with 41 harvested in 2008 (Table 13).

Residents of Fairbanks also rely on the use Subsistence Halibut Registration Certificates (SHARC) for subsistence harvest of halibut. In 2010, 7 SHARC were issued and an estimated 140 lb of halibut was harvested using one SHARC, compared to an estimated 567 lb harvested using 4 SHARC in 2004. In terms of marine mammal harvests, a total estimate of nine sea otters were harvested by residents in 2006 and 2007. In addition, an estimated three walrus were harvested by residents in 2000; however, no reports of walrus harvests in subsequent years are available. No information is available about harvests of other marine mammal species. Further information regarding subsistence trends can be found in Tables 12 through 15.

Table 12. Subsistence Participation by Household and Species, Fairbanks: 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, Fairbanks: 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	Lb of Marine Inverts ²	Lb of Non-Salmon Fish ²
2000	2,560	2,415	2,926	382	1,250	n/a	36,595	n/a	n/a
2001	2,825	2,496	2,407	408	808	2	42,183	n/a	n/a
2002	2,425	2,075	2,791	545	1,757	n/a	33,905	n/a	n/a
2003	2,404	2,074	2,841	2,492	2,290	n/a	31,241	n/a	n/a
2004	2,934	2,383	4,649	3,390	3,999	92	43,571	n/a	n/a
2005	3,208	2,666	4,680	9,501	3,940	9	51,915	n/a	n/a
2006	3,177	2,524	3,518	8,590	2,152	8	52,378	n/a	n/a
2007	3,291	2,811	4,319	6,566	1,549	n/a	54,854	n/a	n/a
2008	3,077	2,618	3,129	1,549	1,629	41	35,765	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, Fairbanks: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lb Harvested
2003	6	1	n/a
2004	10	4	567
2005	9	2	340
2006	6	n/a	n/a
2007	11	n/a	n/a
2008	5	2	85
2009	4	n/a	n/a
2010	7	1	140

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

Source: Fall, J.A., and D. Koster. 2011. Subsistence harvests of Pacific halibut in Alaska, 2010. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 357, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

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

Year	# of Beluga Whales ¹	# of Sea Otters ²	# of Walrus ²	# of Polar Bears ²	# of Steller Sea Lions ³	# of Harbor Seals ³	# of Spotted Seals ³
2000	n/a	n/a	3	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	5	n/a	n/a	n/a	n/a	n/a
2007	n/a	4	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

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.