

Two Rivers



People and Place

*Location*¹

Two Rivers is dispersed from mi 13 to mi 25 of Chena Hot Springs Road. It lies between the Chena and the Little Chena Rivers. The community covers 28.5 sq mi of land. Two Rivers is unincorporated and under the jurisdiction of the Fairbanks North Star Borough.

*Demographic Profile*²

In 2010, there were 719 inhabitants in Two Rivers, making it the 86th largest of 352 total Alaskan communities with recorded populations that year. Overall, the population of Two Rivers grew by 58.7% between 1990 and 2010. The population grew by 37.6% between 2000 and 2009 with an average annual growth rate of 2.12%, which was significantly higher than the statewide average of 0.75% and indicative of robust growth. Information regarding population trends from 1990 to 2010 is shown in Table 1.

Two Rivers is predominately a White community. In 2010, 85.7% of residents identified themselves as White, compared to 88.6% in 2000. Also in that year, 3.6% of residents identified themselves as American Indian or Alaska Native, compared to 2.7% in 2000; 1.0% identified themselves as Asian, compared to 2.5% in 2000; 0.1% identified themselves as Black or African American, compared to 0.2% in 2000; 0.1% identified themselves as Native Hawaiian or Other Pacific Islander, compared to 0.0% in 2000; 8.2% identified themselves as two or more races, compared to 5.2% in 2000; and 1.3% identified themselves as some other race, compared to 0.8% in 2000. In addition, 5.0% of residents identified themselves as Hispanic or Latino, compared to 1.2% in 2000.

The average household size in Two Rivers in 2010 was 2.43, a decrease from 2.9 persons per household in 1990 and 2.72 in 2000. In that year, there were a total of 348 housing units, compared to 209 in 1990 and 192 in 2000. Of the households surveyed in 2010, 73% were owner-occupied, compared to 80% in 2000; 12% were renter-occupied, compared to 12% in 2000; 7% were vacant, compared to 4% in 2000; and 8% were occupied seasonally, compared to 4% in 2000. No residents lived in group quarters between 1990 and 2010.

The gender distribution in 2010 was slightly skewed at 51.7% male and 38.3% female. This was similar to the statewide distribution that year (52.0% male, 48.0% female), and more even than the distribution in 2000 (54.6% male, 45.4% female). The median age in 2010 was 42, which was significantly older than both the statewide median of 34, and 2000 median of 35.

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

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

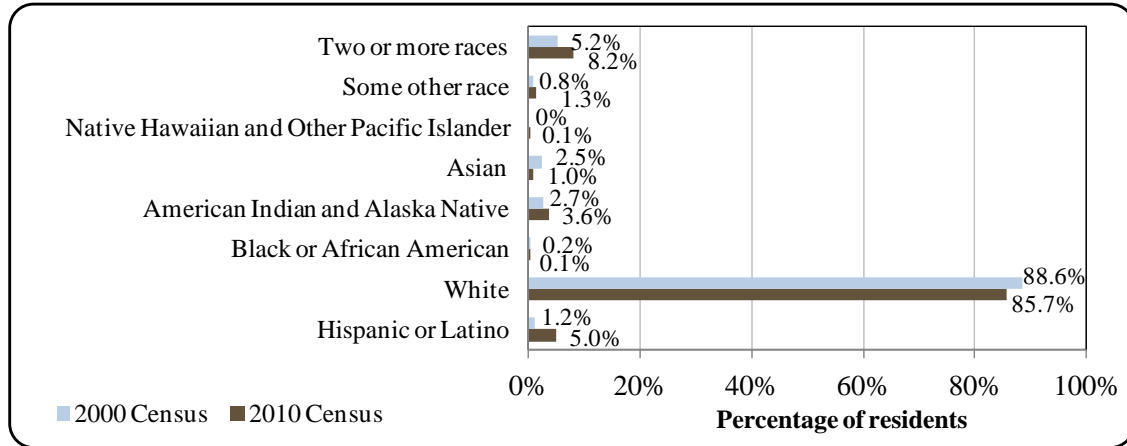
Table 1. Population in Two Rivers from 1990 to 2010 by Source.

| Year | U.S. Decennial Census ¹ | Alaska Dept. of Labor Estimate of Permanent Residents ² |
|------|------------------------------------|--|
| 1990 | 453 | - |
| 2000 | 482 | - |
| 2001 | - | 536 |
| 2002 | - | 540 |
| 2003 | - | 602 |
| 2004 | - | 600 |
| 2005 | - | 629 |
| 2006 | - | 627 |
| 2007 | - | 624 |
| 2008 | - | 656 |
| 2009 | - | 663 |
| 2010 | 719 | - |

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>.

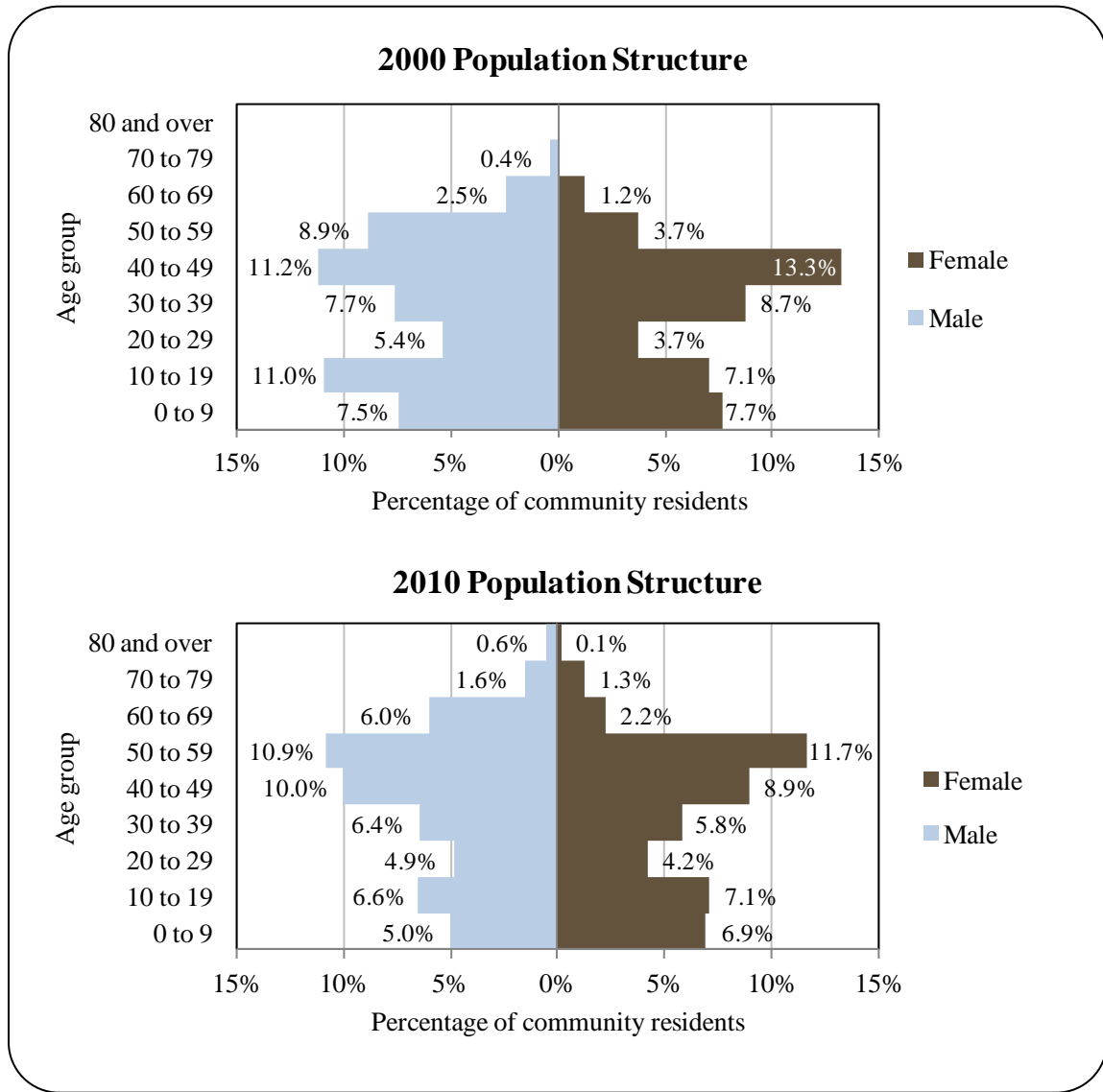
Figure 1. Racial and Ethnic Composition, Two Rivers: 2000-2010 (U.S. Census).



Overall, the gender distribution was less expansive in 2010 than in 2000, which is reflected in the rise in median age. In that year, 25.6% of residents were under the age of 20, compared to 33.3% in 2000; 11.8% were over the age of 59, compared to 4.1% in 2000; 53.7% were between the ages of 30 and 59, compared to 53.5%, and 9.1% were between the ages of 20 and 29, compared to 9.1% in 2000.

Gender distribution by age cohort was more even in 2010 than in 2000. In that year, the greatest absolute gender difference occurred in the 60 to 69 range (6.0% male, 2.2% female), followed by the 0 to 9 (6.9% female, 5.0% male) and 40 to 49 (10.0% male, 8.9% female) ranges. Of those three, the greatest relative gender difference occurred in the 60 to 69 range. Information regarding trends in Two Rivers' population structure can be found in Figure 2.

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



According to the 2006-10 American Community Survey,³ in terms of educational attainment, 100% of Two Rivers residents aged 25 and over were estimated to hold a high school diploma or higher degree in 2010, compared to 90.7% of Alaska residents overall. Also in 2010, 6.9% of residents aged 25 and older were estimated to have a high school diploma or equivalent, compared to 27.4% of Alaska residents overall; 49.6% were estimated to have some college but no degree, compared to 28.3% of Alaska residents overall; 27.4% were estimated to have an Associate’s degree, compared to 8% of Alaska residents overall; 9.3% were estimated to have a

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.

Bachelor's degree, compared to 17.4% of Alaska residents overall; and 6.9% were estimated to have a graduate or professional degree, compared to 9.6% of Alaska residents overall.

*History, Traditional Knowledge, and Culture*⁴

The Fairbanks region, specifically the Tanana Valley, had been inhabited by Tanana Athabascans for thousands of years prior to European contact. Tanana Athabascans 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 Athabascans, the northwest neighbors. Fairbanks, like much of central Alaska, was at the center of the race between British, Russian, and American control of the Yukon River from Norton Sound and Saint Michael to Fort Yukon and the current Canadian border.

Two Rivers lies on the banks of the upper Chena River, near the Little Chena River. It was the site of a territorial school. Expansion of the greater Fairbanks area since the 1970s has enabled the community to expand and develop. Dog mushing is a prevalent activity in Two Rivers. There are several community organizations, including churches, the Parent-Teacher Association, the Ski Club, 4-H, and scouts. A recreational complex is available at Pleasant Valley, approximately five mi from Two Rivers, which supports baseball, basketball, tennis, ice skating, and hockey.

Natural Resources and Environment⁵

Interior Alaska experiences seasonal temperature extremes. Average January temperatures range from -19 to -2 °F (-28.3 to -18.9 °C); average July temperatures range from 49 to 71 °F (9.4 to 21.7 °C). Annual precipitation averages 11.5 inches, with 68 inches of snowfall.

Two Rivers is adjacent to the Chena River State Recreation Area (SRA), an area that is administered by the Alaska Department of Natural Resources (DNR) Division of Parks and Outdoor Recreation. The following information was obtained from the Alaska DNR.⁶ Thomas and Robert Swan came across Chena Hot Springs in 1905. When local Fairbanks residents learned of this resource, they requested access, and the U.S. War Department built a trail to the hot springs in 1913. Today, part of the Yukon Quest, an annual 1,000-mi sled dog race, is run on the old trail. The area around the springs attracted attention from gold prospectors and loggers as well. The Chena River became a central mode of transportation, carrying people to the hot springs and timber to the rapidly growing city of Fairbanks. With the start of World War II, large numbers of servicemen settled in the Fairbanks area and developed the wild lands.

In 1967, Alaska legislators designated 15,360 acres as the Chena River SRA. One year later, oil was discovered in Prudhoe Bay and lands were rapidly parceled out and developed. Alaskans fought to preserve the remaining wild lands and their natural resources, and in 1975, 240,000 acs were added to the recreation area.

⁴ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

⁵ Ibid.

⁶ Alaska Department of Natural Resources (n.d.). *Chena River State Recreation Area Brochure*. Retrieved on April 19, 2012 from <http://dnr.alaska.gov/parks/units/chena/brochure/chenabrochure.pdf>.

Today, the Chena River SRA encompasses 397 sq mi of forests, rivers, and alpine tundra. Visitors may hike, bike, dogsled, ski, horseback ride, ski or, snowmobile, 4-wheel, or snowshoe on over 100 mi of maintained trails. The meandering, class I-II Chena River flows through the park, and is an ideal place for kayaking, canoeing, fishing, swimming, or sunbathing. Chena River SRA abounds with wildlife including moose, bears, lynx, and a multitude of birds. The Chena River, flanked by alpine ridges and towering landforms, cuts through this recreation area. The valley is anchored by Chena Dome (4,421 ft) to the north and the granite tors to the south. The granite tors' weathered, craggy spires of intrusive granite rise above their surroundings. The two-toned Angel Rocks on the east side are the exposed tips of a large granite mass underlying the Chena River area. Fishing in the Chena River is catch and release only, and small game animals bring trappers and hunters to the park during the winter. Sport hunting within the park includes moose, bear, rabbit, grouse, ptarmigan, and fur bearing animals. 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 miles east of Fairbanks. Placer mines exist in the area, although on a small scale. Fourteen known or prospective mineral deposits exist east 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.⁷

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 occurs across active floodplains.⁸

According to the Alaska Department of Environmental Conservation (DEC), there were no significant environmental remediation projects active in Two Rivers in 2010.⁹

Current Economy¹⁰

There are numerous local businesses in Two Rivers, and many residents are employed in the Fairbanks area. Three general stores, four restaurants, a post office, a laundromat, the University of California at Los Angeles' High Power Auroral Stimulation observatory, agricultural enterprises, a recreational vehicle park, and other small businesses exist in Two Rivers. Several residents are involved in dog mushing or raising horses, due to the excellent trails in the area. Top employers in 2010¹¹ included Fairbanks North Star School District, University of Alaska, Banner Health System, State of Alaska, Fairbanks Gold Mining Inc., Fairbanks North Star Borough, Tanana Chiefs Conference, Midnight Sun Subway LLC, Fountainhead Development Inc., and Wal-Mart Associates Inc.

⁷ Fairbanks Northstar Borough (2003). *Comprehensive Economic Development Strategy*. Retrieved July 18, 2012 from: <http://www.commerce.state.ak.us/dca/plans/FairbanksNorthStarBorough-EDP-2003.pdf>.

⁸ Ibid.

⁹ Alaska Department of Environmental Conservation (n.d.). *Contaminated Sites Program*. Retrieved March 25, 2013 from: <http://www.dec.state.ak.us/spar/csp/list.htm#Interior>.

¹⁰ Unless otherwise noted, all monetary data are reported in nominal values.

¹¹ 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 2010,¹² per capita income in Two Rivers was estimated to be \$44,736 and the median household income was estimated to be \$161,705, compared to \$24,351 and \$58,571 in 2000, respectively. Taking inflation into account by converting the 2000 values to 2010 dollars,¹³ the real per capita income in 2000 is shown to have been \$32,021 and the real 2000 median household income was \$77,020. This shows that both per capita income and median household income increased in Two Rivers between 2000 and 2010. In 2010, Two Rivers ranked ninth out of 305 Alaska communities from which per capita income was estimated, and first out of 299 Alaska communities from which median household income was estimated. However, Two Rivers' small population size may have prevented the American Community Survey from accurately portraying economic conditions.¹⁴ Another understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development. According to the ALARI database, the per capita income in Two Rivers in 2010 was \$19,560, which indicates an overall decrease compared to the real per capita income values reported by the U.S. Census in 2000.¹⁵

Based on the 2006-10 American Community Survey, 79.3% of the population age 16 and older was estimated to be part of the civilian labor force, compared to an estimated statewide rate of 68.8%. The local unemployment rate was estimated to be zero, compared to an estimated statewide rate of 5.9%. An estimated 9.5% of local residents were living below the poverty line, compared to an estimated 9.6% of Alaskans overall. There is a possibility that unemployment and poverty statistics are inaccurate given the small population of Two Rivers. A more accurate estimate based on 2010 ALARI estimates indicates that the unemployment rate in was 9% (based on unemployment insurance claimants). It should be noted that income and poverty statistics are based on wage income and other money sources; figures reported for Two Rivers are not reflective of the value of subsistence to the local economy. In addition, 2010 ALARI estimates are based on private and state employment figures and do not take into account self-employed or federally-employed workers.

Based on household surveys conducted for the 2006-2010 American Community Survey, the greatest percentage of workers was employed in the private sector (82.7%), while 4.2% of workers were employed in the public sector, 6.5% were self-employed, and 6.5% were unpaid family workers. Out of 260 people aged 16 and over that were estimated to be employed in the civilian labor force in 2010, the greatest percentage worked in educational services, health care, and social assistance (71.5%). Smaller percentages of the population were employed in public administration (4.4%), arts, entertainment, recreation, accommodations, and food services (6.6%), finance, insurance, and real estate (6.1%), retail trade (6.1%), and construction (5.3%). Between 2000 and 2010, there was significant variation in employment by industry sector. The greatest proportional changes occurred in education services, health care, and social assistance sectors, followed by construction and transportation, warehousing, and utilities sectors (Figure 3). No individuals characterized themselves as working in natural resource based occupations or industries that include fishing. However, given the data reported in the *Commercial Fishing*

¹² 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>.

¹³ Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved October 18, 2011 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

¹⁴ See footnote 3.

¹⁵ See footnote 11.

section below, the number of individuals employed in the farming, fishing, and forestry industries may be underestimated in census statistics as fishermen may hold another job and characterize their employment accordingly.

By occupation type, most (58.3%) employed residents were estimated to hold management or professional positions; followed by natural resources, construction, or maintenance (17.5%); service (6.6%); and sales or office positions (6.1%). Again, there was significant proportional variation in employment by occupation type between 2000 and 2010. Between those years, the greatest change occurred in management and professional occupations; followed by natural resources, construction, and maintenance; and production, transportation, and material moving positions (Figure 4).

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

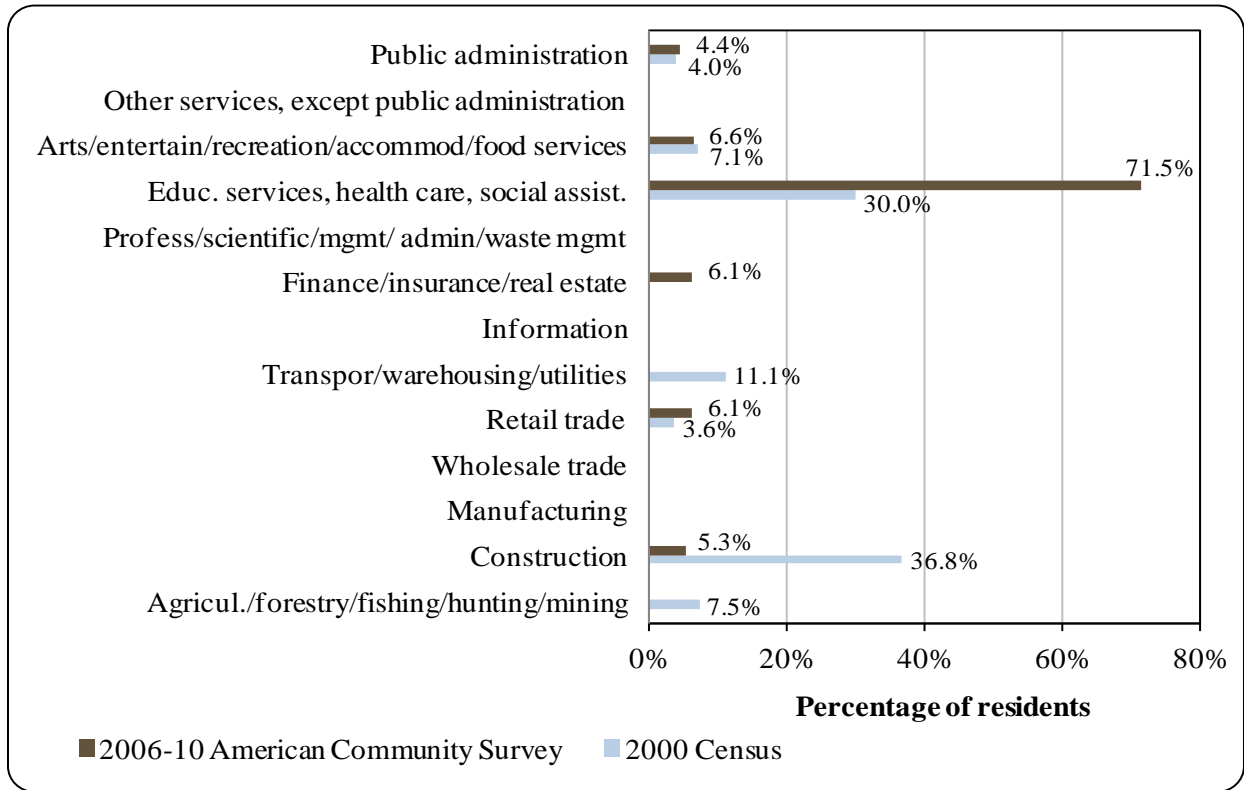
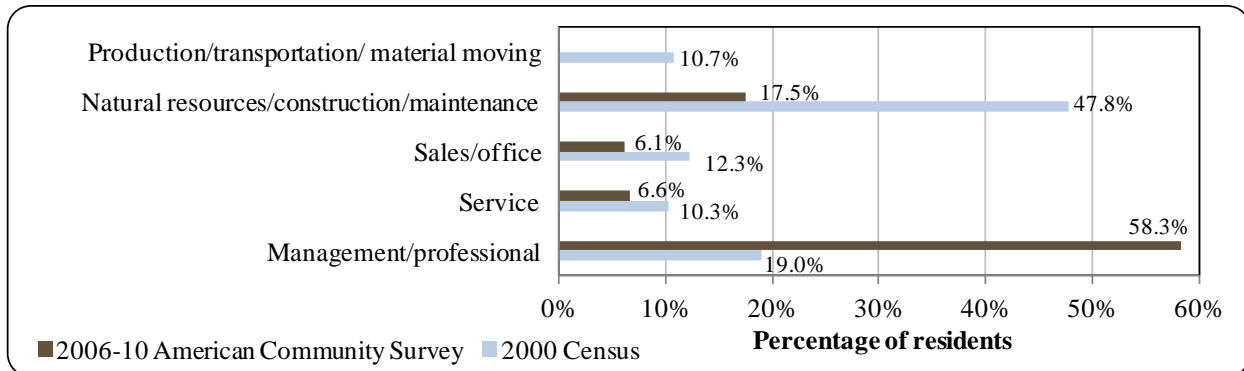


Figure 4. Local Employment by Occupation in 2000-2010, Two Rivers (U.S. Census).



Governance

Two Rivers is an unincorporated town located in the Fairbanks North Star Borough. Because of the unincorporated status of Two Rivers, no municipal taxes were administered between 2000 and 2010. In addition, Two Rivers did not receive any State/Community Revenue Sharing contributions or any fisheries-related grants between 2000 and 2010 (Table 2).

Two Rivers was not included in the Alaska Native Claims Settlement Act (ANCSA) and is not federally recognized as a Native village. However, the community is represented by Doyon, Ltd., a regional ANCSA chartered for-profit Alaska Native corporation.¹⁶

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

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Two Rivers 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 | n/a | n/a | n/a | n/a |
| 2001 | n/a | n/a | n/a | n/a |
| 2002 | n/a | n/a | n/a | n/a |
| 2003 | n/a | n/a | n/a | n/a |
| 2004 | n/a | n/a | n/a | n/a |
| 2005 | n/a | n/a | n/a | n/a |
| 2006 | n/a | n/a | n/a | n/a |
| 2007 | n/a | n/a | n/a | n/a |
| 2008 | n/a | n/a | n/a | n/a |
| 2009 | n/a | n/a | n/a | n/a |
| 2010 | n/a | n/a | n/a | n/a |

¹ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*.

Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/commfin/CF_FinRec.cfm.

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

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

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

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

¹⁶ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

Infrastructure

Connectivity and Transportation

Local roads connect to the Alaska road system. Airport, railway, and highway connections are available in nearby Fairbanks (approximately 25 mi).¹⁷ In June 2012, roundtrip airfare between Fairbanks and Anchorage was \$256.¹⁸

*Facilities*¹⁹

Homes in Two Rivers have individual wells or have water delivered, use septic tanks, and are fully plumbed. Nearly one-fourth of homes in this area are used only seasonally. Refuse is collected from dumpsters and transported to the borough landfill. Law enforcement services are provided by state troopers in Fairbanks, and fire and rescue services are provided by Two Rivers Rescue. Two Rivers has a Boys and Girls Club and a community hall.

*Medical Services*²⁰

Medical care is provided by the Fairbanks hospitals. Alternate health care is provided by Two Rivers Rescue and Fairbanks hospitals. Emergency services have highway and helicopter access and are provided by a 911 telephone service and volunteers.

*Educational Opportunities*²¹

The Two Rivers School provides instruction to students in pre-school through 9th grade. In 2011, the school had 91 students enrolled and 8 teachers employed. Beyond 9th grade, students attend school in nearby Fairbanks.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

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 bases with no harvest limits or eligibility criteria. In 1971, the first harvest limits for salmon were imposed. These

¹⁷ Ibid.

¹⁸ Airfare was obtained on the travel website <http://www.travelocity.com> for a round-trip ticket for travel from June 1 to June 8, 2012. Retrieved on December 1, 2011.

¹⁹ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

²⁰ Ibid.

²¹ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

limits were 25 Chinook and 200 “other salmon” per person. Since then, restrictions on numbers of fish and fishing periods have been increased.²²

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.²³

Two Rivers lies on the banks of the upper Chena River, near the Little Chena River. Due to its inland location, Two Rivers is not located within any Federal Statistical and Reporting Area, Pacific Halibut Fishery Regulatory Area, or Sablefish Regulatory Area. Two Rivers is not eligible for the Community Development Quota or Community Quota Entity programs.

Processing Plants

According to ADF&G’s 2010 Intent to Operate list, Two Rivers does not have a registered processing plant. The nearest processing plant is located in Fairbanks.

Fisheries-Related Revenue

Between 2000 and 2010, no data were reported about fisheries-related revenue received by Two Rivers (Table 3).

Commercial Fishing

In 2010, there were two residents of Two Rivers holding commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC) for the statewide salmon hand troll fishery. The number of salmon CFEC permits issued in Two Rivers increased from one to two between 2000 and 2010, but none of the permits issued was reported as fished during this period. No Two Rivers residents held Federal Fisheries Permits or License Limitation Program (LLP) permits between 2000 and 2010 (Table 4).

Between 2000 and 2010, the number of crew license holders in Two Rivers varied between zero and three, with one crew license holder in the community in 2010. There were no fish buyers or shore-side processing facilities in Two Rivers between 2000 and 2010. Between 2000 and 2004, there were between two and three vessels owned primarily by Two Rivers residents and there was one vessel homeported in Two Rivers between 2001 and 2004. Between 2005 and 2010, there were no vessels owned primarily by Two Rivers residents and no vessels homeported in Two Rivers. There were no vessels landing catch in Two Rivers between 2000 and 2010, and therefore there are no landings or associated ex-vessel revenue to report during this period. Information on characteristics of the commercial fishing sector in Two Rivers is provided in Table 5.

There were no quota share account holders in Two Rivers for halibut or sablefish between 2000 and 2010 (Tables 6 and 7) or for crab between 2005 and 2010 (Table 8). As

²² Caulfield, R. A. (1981). *Final Report of the Survey of Permitholders in the Tanana River Subsistence Salmon Permit Fishery*. Retrieved July 12, 2012 from: <http://www.subsistence.adfg.state.ak.us/TechPap/tp014.pdf>.

²³ Caulfield, R. A. (1980). *Interim Report on the Survey of Permitholders in the Tanana Subsistence Permit Fishery*. Retrieved July 12, 2012 from: <http://www.arlis.org/docs/vol1/10883183.pdf>.

previously stated, there were no landings or ex-vessel revenue recorded in Two Rivers between 2000 and 2010 (Table 9). Landings by Two Rivers residents between 2000 and 2004 were considered confidential due to a small number of participants, and no landings were recorded by Two Rivers residents between 2005 and 2010 (Table 10).

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

| Revenue source | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Raw fish tax ¹ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Shared Fisheries Business Tax ¹ | n/a | n/a | n/a | n/a | n/a | n/a | 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 | n/a | n/a |
| 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 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Port/dock usage 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 | n/a |
| Marine fuel sales tax ³ | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| <i>Total fisheries-related revenue⁴</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</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>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> |

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

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

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

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

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

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

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

| Species | | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|----------------------|------|------|------|------|------|------|------|------|------|------|------|
| Groundfish (LLP) ¹ | Total permits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Active permits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | % of permits fished | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Crab (LLP) ¹ | Total permits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Active permits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | % of permits fished | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Federal Fisheries Permits ¹ | Total permits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Fished permits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | % of permits fished | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Crab (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 | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 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 | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Halibut (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 | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Herring (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 | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 4 cont'd. Permits and Permit Holders by Species, Two Rivers: 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 | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Groundfish (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 | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | - | - | - | - | - | - | - | - | - | - | - |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Salmon (CFEC) ² | Total permits | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 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 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| <i>Total CFEC Permits²</i> | <i>Permits</i> | <i>1</i> | <i>1</i> | <i>1</i> | <i>1</i> | <i>1</i> | <i>2</i> | <i>2</i> | <i>2</i> | <i>2</i> | <i>2</i> | <i>2</i> |
| | <i>Fished permits</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> | <i>0</i> |
| | <i>% of permits fished</i> | <i>0%</i> | <i>0%</i> | <i>0%</i> | <i>0%</i> | <i>0%</i> | <i>0%</i> | <i>0%</i> | <i>0%</i> | <i>0%</i> | <i>0%</i> | <i>0%</i> |
| | <i>Permit holders</i> | <i>1</i> | <i>1</i> | <i>1</i> | <i>1</i> | <i>1</i> | <i>2</i> | <i>2</i> | <i>2</i> | <i>2</i> | <i>2</i> | <i>2</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 Two Rivers: 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 Two Rivers ² | Total Net Pounds Landed In Two Rivers ^{2,5} | Total Ex-Vessel Value Of Landings In Two Rivers ^{2,5} |
|------|------------------------------------|---------------------------------------|--|---|---------------------------------|--|--|--|
| 2000 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | \$0 |
| 2001 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | \$0 |
| 2002 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | \$0 |
| 2003 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | \$0 |
| 2004 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | \$0 |
| 2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| 2006 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| 2007 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| 2008 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| 2009 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |
| 2010 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 |

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 Two Rivers: 2000-2010.

| Year | Number of Halibut Quota Share Account Holders | Halibut Quota Shares Held | Halibut IFQ Allotment (pounds) |
|-------------|--|----------------------------------|---------------------------------------|
| 2000 | 0 | 0 | 0 |
| 2001 | 0 | 0 | 0 |
| 2002 | 0 | 0 | 0 |
| 2003 | 0 | 0 | 0 |
| 2004 | 0 | 0 | 0 |
| 2005 | 0 | 0 | 0 |
| 2006 | 0 | 0 | 0 |
| 2007 | 0 | 0 | 0 |
| 2008 | 0 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0 | 0 | 0 |

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

Table 7. Sablefish Catch Share Program Participation by Residents of Two Rivers: 2000-2010.

| Year | Number of Sablefish Quota Share Account Holders | Sablefish Quota Shares Held | Sablefish IFQ Allotment (pounds) |
|-------------|--|------------------------------------|---|
| 2000 | 0 | 0 | 0 |
| 2001 | 0 | 0 | 0 |
| 2002 | 0 | 0 | 0 |
| 2003 | 0 | 0 | 0 |
| 2004 | 0 | 0 | 0 |
| 2005 | 0 | 0 | 0 |
| 2006 | 0 | 0 | 0 |
| 2007 | 0 | 0 | 0 |
| 2008 | 0 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0 | 0 | 0 |

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

Table 8. Bering Sea and Aleutian Island Crab Catch Share Program Participation by Residents of Two Rivers: 2000-2010.

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

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

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

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

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.

Table 10. Landed Pounds and Ex-vessel Revenue, by Species, by Two Rivers 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 | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| Finfish | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| Halibut | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| Herring | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Groundfish | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Shellfish | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| Pacific Cod | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| Pollock | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| Sablefish | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| Salmon | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| <i>Total²</i> | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 |
| | <i>Ex-vessel Value (nominal U.S. dollars)</i> | | | | | | | | | | |
| | <i>2000</i> | <i>2001</i> | <i>2002</i> | <i>2003</i> | <i>2004</i> | <i>2005</i> | <i>2006</i> | <i>2007</i> | <i>2008</i> | <i>2009</i> | <i>2010</i> |
| Crab | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Finfish | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Halibut | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Herring | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Groundfish | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Shellfish | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Pacific Cod | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Pollock | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Sablefish | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Salmon | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| <i>Total²</i> | -- | -- | -- | -- | -- | \$0 | \$0 | \$0 | \$0 | \$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.

Recreational Fishing

Despite there being several sport fish guide businesses registered in the community, none were active between 2000 and 2010. This means that no kept/released logbook data were reported for fishing charters out of Two Rivers during those years.²⁴ The number of individuals holding sport fish guide licenses varied between zero and four during this period, with three sport fish guide license being held in 2010.

The number of sportfishing licenses sold to Two Rivers residents (irrespective of the location of the point of sale) remained relatively stable between 2000 and 2009 at an average of 148 per year, and then increased to 170 in 2010. Few sportfishing licenses were sold in the community until 2005, at which time between 185 and 255 licenses were sold annually. The number of licenses sold in the community was greater than the number of licenses sold to community residents between 2005 and 2010, indicating the potential that visitors to Two Rivers were pursuing sportfishing activities during this period.

Two Rivers is located within the Tanana River Drainage Alaska Sport Fishing Survey Area. Information is available about both saltwater and freshwater sportfishing activity at this regional scale. Between 2000 and 2010, sportfishing activity in this region varied considerably. For saltwater sportfishing, the number of angler days fished by non-Alaska residents decreased between 2000 and 2004, with no angler days fished by non-Alaska residents between 2005 and 2010. The number of angler days fished by Alaska residents in this region also declined between 2000 and 2003, with no saltwater angler days fished by Alaska residents between 2004 and 2010. In freshwater, Alaska residents fished considerably more angler days per year (an average of 88,125) than non-Alaska residents (an average of 9,480). This information about the sportfishing sector in and near Two Rivers is displayed in Table 11.

Table 11. Sport Fishing Trends, Two Rivers: 2000-2010.

| Year | Active Sport Fish Guide Businesses¹ | Sport Fish Guide Licenses¹ | Sport Fishing Licenses Sold to Residents² | Sport Fishing Licenses Sold in Two Rivers² |
|-------------|---|--|---|--|
| 2000 | 0 | 1 | 142 | 0 |
| 2001 | 0 | 4 | 153 | 9 |
| 2002 | 0 | 4 | 133 | 3 |
| 2003 | 0 | 3 | 152 | 0 |
| 2004 | 0 | 3 | 152 | 47 |
| 2005 | 0 | 4 | 157 | 250 |
| 2006 | 0 | 2 | 142 | 185 |
| 2007 | 0 | 2 | 151 | 224 |
| 2008 | 0 | 4 | 145 | 248 |
| 2009 | 0 | 3 | 157 | 192 |
| 2010 | 0 | 3 | 170 | 255 |

²⁴ Alaska Department of Fish and Game (2011). *Alaska sportfishing charter logbook database, 2000-2010*. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not public available as some information is confidential.]

Table 11 cont'd. Sport Fishing Trends, Two Rivers: 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 | 81 | 45 | 11,517 | 110,246 |
| 2001 | 29 | 14 | 10,744 | 80,391 |
| 2002 | 0 | 89 | 9,733 | 98,884 |
| 2003 | 0 | 17 | 7,502 | 92,432 |
| 2004 | 17 | 0 | 11,853 | 104,633 |
| 2005 | 0 | 0 | 11,335 | 82,063 |
| 2006 | 0 | 0 | 8,216 | 71,461 |
| 2007 | 0 | 0 | 9,327 | 91,629 |
| 2008 | 0 | 0 | 7,613 | 64,722 |
| 2009 | 0 | 0 | 7,415 | 85,082 |
| 2010 | 0 | 0 | 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).

The Alaska Statewide Harvest Survey,²⁵ conducted by ADF&G between 2000 and 2010, noted the following species targeted by private anglers in Two Rivers: Chinook salmon, coho salmon, sockeye salmon, rainbow trout, Arctic grayling, and northern pike.

Subsistence Fishing

Two Rivers is not designated as “rural” by the Federal Subsistence Board, meaning that rural subsistence preference is not granted on federal lands. However, Alaska Native preference is still afforded to some residents, and state subsistence rights for personal use fisheries are available to others. Data on subsistence participation by household and species and per capita subsistence harvest were not reported for Two Rivers between 2000 and 2010 (Table 12). In years for which data were reported for salmon harvests between 2000 and 2010, an average of 22 subsistence salmon permits was issued to Two Rivers residents, with an average of 20 permits returned during this period. Sockeye salmon were the primary species harvested under subsistence permits (an average of 358 sockeye per year), along with several Chinook salmon and coho salmon each year (Table 13).

²⁵ Alaska Department of Fish and Game (2011). *Alaska Sportfishing 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).

Data regarding subsistence harvest of marine invertebrates, non-salmon fish (Table 13), halibut (Table 14) and marine mammals (Table 15) were not reported between 2000 and 2010.

Additional Information

The Two Rivers Dog Musher’s Association represents dog mushers and dog-powered sports fans working together to promote the sport of dog mushing and to organize races, social events, and fund raising in the Two Rivers area, to maintain the winter trail system along Chena Hot Springs Road, to address trail issues relating to the interests of the dog mushers in the Two Rivers Area, and to mentor youth and mushers in the ethical treatment of sled dogs.²⁶

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

²⁶ Two Rivers Dog Musher’s Association (n.d.). *Our Purposes*. Retrieved April 19, 2012 from http://www.trdma.org/about_trdma.htm.

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Two Rivers: 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 | 18 | 18 | 3 | n/a | 22 | n/a | 224 | n/a | n/a |
| 2001 | 26 | 26 | 8 | n/a | 9 | n/a | 507 | n/a | n/a |
| 2002 | 21 | 20 | 7 | n/a | 11 | n/a | 309 | n/a | n/a |
| 2003 | 27 | 25 | 5 | n/a | n/a | n/a | 334 | n/a | n/a |
| 2004 | 21 | 19 | 9 | n/a | 4 | n/a | 326 | n/a | n/a |
| 2005 | 20 | 18 | 7 | n/a | n/a | n/a | 421 | n/a | n/a |
| 2006 | 23 | 20 | 7 | n/a | n/a | n/a | 457 | n/a | n/a |
| 2007 | 26 | 20 | 8 | n/a | 5 | n/a | 387 | n/a | n/a |
| 2008 | 18 | 15 | 5 | n/a | 1 | n/a | 258 | 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, Two Rivers: 2003-2010.

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

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

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

Table 15. Subsistence Harvests of Marine Mammal Resources, Two Rivers: 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 | n/a | n/a | n/a | n/a | n/a |
| 2001 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 2002 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 2003 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 2004 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 2006 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 2007 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 2008 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 2009 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 2010 | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

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

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.