

Marshall

People and Place



*Location*¹

Marshall is situated on the north bank of Polte Slough and on the east bank of the Yukon River, in the Yukon-Kuskokwim Delta. It is north of Arbor Island and is located on the northeastern boundary of the Yukon Delta National Wildlife Refuge. The community is located in the Wade Hampton Census Area and Bethel Recording District. The City of Marshall encompasses 4.7 square miles of land, and does not have jurisdiction over water area.

*Demographic Profile*²

In 2010, there were 414 residents in Marshall, making it the 134th largest of 352 communities in Alaska with recorded populations that year. Overall between 1990 and 2010, the population of Marshall increased by 51.6%. According to Alaska Department of Labor estimates, the population of permanent residents increased by 18.7% between 2000 and 2009, with an average annual growth rate of 1.53%, representing steady growth over time. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that the population of Marshall reaches its peak during summer months, in June and July. They said population fluctuations are somewhat driven by employment in the commercial fishing sector.

In 2010, the majority of the population of Marshall was American Indian and Alaska Native (94.7%), with 2.7% White, 0.2% Asian, and 2.4% individuals identifying with two or more races. In addition, 0.2% of Marshall's population identified themselves as Hispanic. The percentage of the population made up of White residents decreased slightly between 1990 and 2000, from 5.5% to 2.0%, and then increased very slightly by 2010 to 2.4%. The change in population from 1990 to 2010 is provided in Table 1 below, and changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

In 2010, the average household size in Marshall was 4.14, an increase from 3.84 persons per household in 2000 and 1.9 persons per household in 1990. The number of households in Marshall has increased over time, from 70 households in 1990 to 91 in 2000 and 100 in 2010. Of the 108 housing units surveyed for the 2010 Decennial Census, 58.3% were owner-occupied, 34.3% were rented, and 7.4% were vacant or used only seasonally. In 2010, no residents of Marshall lived in group quarters.

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>.

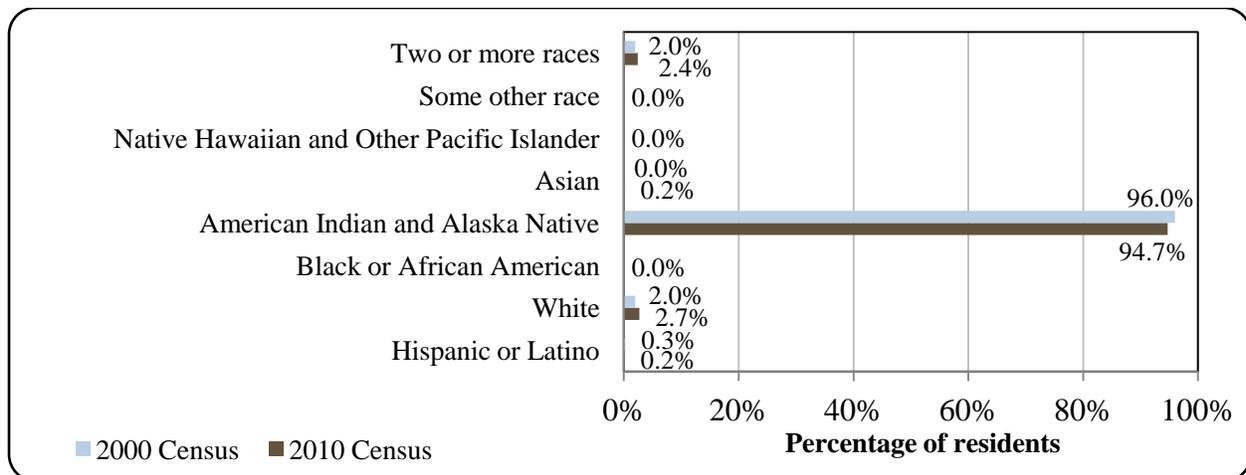
Table 1. Population in Marshall from 1990 to 2010 by Source.

| Year | U.S. Decennial Census ¹ | Alaska Dept. of Labor Estimate of Permanent Residents ² |
|------|------------------------------------|--|
| 1990 | 273 | - |
| 2000 | 349 | - |
| 2001 | - | 363 |
| 2002 | - | 364 |
| 2003 | - | 371 |
| 2004 | - | 366 |
| 2005 | - | 375 |
| 2006 | - | 387 |
| 2007 | - | 387 |
| 2008 | - | 416 |
| 2009 | - | 414 |
| 2010 | 414 | - |

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>.

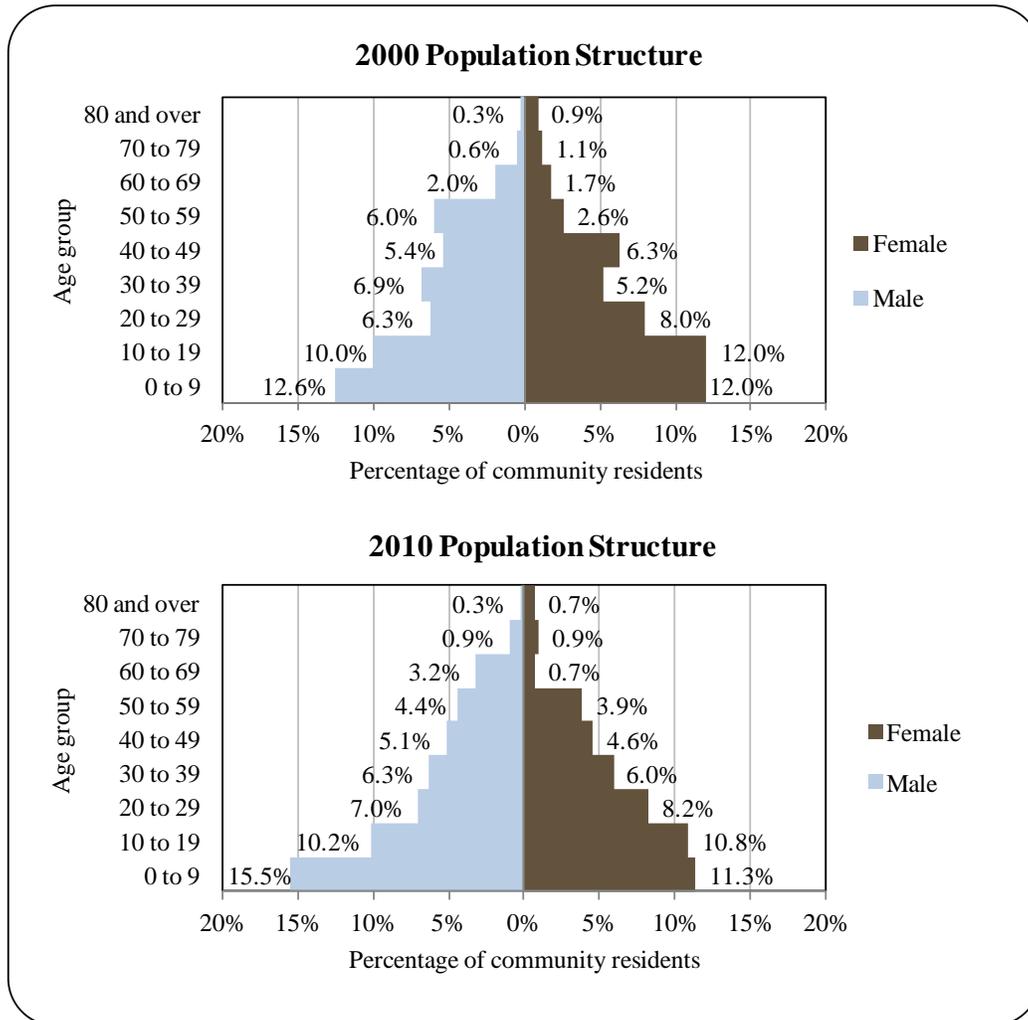
² Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from <http://labor.alaska.gov/research/pop/popest.htm>.

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



In 2010, the gender makeup of Marshall’s population (52.7% male and 47.3% female) was very close to the state population as a whole, at 52% male and 48% female. The median age of Marshall residents was 21.3 years, much younger than the national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, the age groups most heavily skewed toward males were 0 to 9 and 60 to 69, while there was a relatively even spread of males and females across other age categories in Marshall. Only 6.7% of Marshall’s population was age 60 or older in 2010. The overall population structure of Marshall in 2000 and 2010 is shown in Figure 2.

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



In terms of educational attainment, according to 2006-2010 American Community Survey (ACS) estimates,³ 72.5% of Marshall 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, 11.2% of the population was estimated to have less than a 9th grade education, compared to 3.5% of Alaska residents overall; 16.3% were estimated to have a 9th to 12th grade education but no diploma, compared to 5.8% of Alaska residents overall; 15.7% were estimated to have some college but no degree, compared to 28.3% of Alaska residents overall; 0% were estimated to have an Associate’s degree, compared to 8% of Alaska residents overall; 6.7% were estimated to have a Bachelor’s degree, compared to 17.4% of Alaska residents overall; and 3.4%

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.

were estimated to have a graduate or professional degree, compared to 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture

Marshall is located in traditional Yup'ik Eskimo territory. Alaska Natives living in southwest Alaska are named after the two main dialects of the Yup'ik language, known as Yup'ik and Cup'ik. The arrival of ancestral Eskimo cultures to Alaska is marked by the appearance around 4,000 years ago of the "Arctic Small Tools tradition." These small, finely-flaked tools first appeared in northwestern Alaska and spread rapidly southward.⁴ Historically the Yup'ik people were very mobile, traveling with the migration of game, fish, and plants. The ancient settlements and seasonal camps contained small populations, with numerous settlements throughout the region consisting of extended families or small groups of families.⁵

Several villages were historically located near the current site of Marshall, including Ohogamiut and Takshak. The site of Marshall itself was known as "Uglouaia", which means "little bow", and the area on Polte Slough was known as "Massercullermiut", meaning "the place to catch chum salmon."⁶ Because "southwestern Alaska lacked significant amounts of any of the commercially valuable resources that first drew non-Natives to other parts of the state," the Native people of the southwest region did not experience continual contact with the outside world until missionaries settled in the area beginning in the mid-1800's. The first to arrive were the Russian Orthodox, followed by the Moravians, and finally by the Jesuits.⁷

In 1913, gold was discovered in the Massercullermiut area, prompting a gold stampede to the area. The creek where gold was discovered was named Wilson Creek, after President Woodrow Wilson, and the placer mining camp that soon grew to support mining activity was called Marshall after then Vice President Thomas R. Marshall. Between 1914 and 1919, a total of 47,649 oz of gold and 6,800 oz of silver were mined from Wilson and Willow Creeks, and production continued throughout the 20th century.⁸

When Marshall applied for a federal post office in 1913, the postal service requested that the town use a name other than Marshall, given the high potential for confusion with the existing city of Marshall, Alabama. The miners chose the name Fortuna Ledge, after the first child to have been born in the mining camp, Fortuna Odell Hunter. The official name was not changed back to Marshall until 1984, after the village was incorporated as a 2nd Class City in 1970. In some places, however, Marshall is still referred to as Fortuna Ledge.^{9,10}

Residents of nearby Yup'ik villages had moved to Marshall by the late 1940s due to territorial laws requiring that their children be enrolled in school. Today the community is

⁴ National Park Service (n.d.) *Archaeology of the Tundra and Arctic Alaska website*. Retrieved December 8, 2011 from <http://www.nps.gov/akso/akarc/arctic.htm>.

⁵ Alaska Native Heritage Center (n.d) Yup'ik & Cup'ik - *Who We Are website*. Retrieved December 8, 2011 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/yupik/.

⁶ Rinear, Jeanne Ostnes and Eleanor Ostnes Vistaunet (2008). Marshall, Fortuna Ledge and the Mining of Willow Creek. Retrieved December 8, 2011 from <http://explorenorth.com/alaska/history/marshall-history.html>.

⁷ Fienup-Riordan, Ann, William Tyson, Pual John, Marie Meade, and John Active (2000). *Hunting Tradition in a Changing World*. New Brunswick: Rutgers University Press. Pg. 115.

⁸ See footnote 6.

⁹ Ibid.

¹⁰ 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.

predominantly made up of Yup'ik Eskimos. Residents of Marshall continue to participate in the traditional subsistence lifestyle, supplementing income from commercial fishing, processing, and other employment.¹¹ The sale, importation, and possession of alcohol are banned in the community.¹²

Natural Resources and Environment

The climate of Marshall is continental with maritime influences, with temperatures ranging between -54 and 86 °F.¹³ Average annual rainfall measures 18 inches, and the average annual snowfall is 23 inches.¹⁴ Heavy winds in the fall and winter often limit air accessibility. The Lower Yukon is ice-free from mid-June through October.¹⁵

Marshall is located at the northeastern boundary of the Yukon Delta National Wildlife Refuge (NWR). The NWR was established “to conserve fish and wildlife populations and habitats in their natural diversity, including, but not limited to shorebirds, seabirds, tundra swans, emperor, white-fronted and Cackling Geese, black brant, and other migratory birds, salmon, muskoxen, and marine mammals; to fulfill treaty obligations; to provide the opportunity for continued subsistence uses; and to ensure water quality and necessary water quantity.” Inland river corridors of the NWR host moose and black bear, and the Kilbuck Mountains south of Marshall provide habitat for brown bear, caribou, and sometimes wolves. NWR lands are open to sport and subsistence hunting and fishing, as well as trapping. A majority of visitors access the NWR via Bethel.¹⁶ The southwestern border of the Andreafsky Wilderness Area, covering slightly more than 5% of the Yukon Delta NWR, is located approximately 20 miles north of Marshall.¹⁷

The Yukon-Kuskokwim delta is rich in mineral deposits. Nearby Wilson and Willow Creeks were the focus of mining activity during the 20th century.¹⁸ Two current gold deposits, Stuyahok and Arnold Kako, are located less than 50 miles east of Marshall.¹⁹

Natural hazards identified in the Wade Hampton Census Area include flooding, wildfire, earthquake, severe weather, erosion, and volcanic activity.²⁰ A cluster of cinder cone volcanoes known as “Ingakslugwat Hills” is located approximately 50 miles southwest of Marshall in the

¹¹ Ibid.

¹² Alaska Dept. of Public Safety (2011). *Local Option Restrictions*. Retrieved May 31, 2012 from <http://dps.alaska.gov/abc/restrictions.aspx>.

¹³ Ibid.

¹⁴ Snow and rainfall estimates retrieved December 8, 2011 from <http://www.usa.com>.

¹⁵ See footnote 10.

¹⁶ U.S. Fish and Wildlife Service (2011). *Yukon Delta National Wildlife Refuge website*. Retrieved December 8, 2011 from <http://yukondelta.fws.gov/>.

¹⁷ Wilderness.net website (n.d). *Andreafsky Wilderness*. Retrieved December 8, 2011 from <http://www.wilderness.net>.

¹⁸ See footnote 6.

¹⁹ Alaska Dept. of Commerce (n.d.) *Mineral Resources of Alaska Map*. Retrieved December 2, 2011 from <http://commerce.alaska.gov/ded/dev/minerals/mining.htm>.

²⁰ State of Alaska (2002). *Hazard Mitigation Plan*. Retrieved February 8, 2012 from <http://biotech.law.lsu.edu/blaw/DOD/manual/.%5CFull%20text%20documents%5CState%20Authorities%5CAla.%20SHMP.pdf>.

Yukon-Kuskokwim Delta. The 32 small cinder cones and eight larger craters covers an area of more than 300 square miles, and are thought to have been active during the Holocene.²¹

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located near Marshall as of August 2013.²²

Current Economy²³

The economy of Marshall is very seasonal, based primarily on fishing, fish processing, and Bureau of Land Management fire fighting positions, all of which are for the most part performed in the summer months. Some income is also provided by trapping.²⁴ Top employers in Marshall in 2010 included local government, the village Native corporation, the school district, the Yukon Kuskokwim Health Corporation, the Rural Alaska Community Action Program (RurAL CAP), Fortuna Ledge Co-op Association, and a private construction company.²⁵ Community members supplement wage income with subsistence activities.²⁶

Based on household surveys for the 2006-2010 ACS,²⁷ in 2010, the per capita income in Marshall was estimated to be \$11,851 and the median household income was estimated to be \$37,500. This represents an increase from the per capita and median household incomes reported in the year 2000 (\$9,597 and \$32,917, respectively). However, if inflation is taken into account by converting the 2000 values to 2010 dollars,²⁸ 2010 income is revealed to have decreased slightly from a real per capita income in 2000 of \$12,620, and a real median household income of \$43,285. In 2010, Marshall ranked 243rd of 305 Alaskan communities with per capita income data that year, and 204th in median household income, out of 299 Alaskan communities with household income data.

Although Marshall's small population size may have prevented the ACS from accurately portraying economic conditions,²⁹ this decrease in per capita income is confirmed by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Marshall in 2010 is \$7,921.³⁰ This

²¹ Global Volcanism Program website (n.d.). *Ingakslugwat Hills*. Retrieved February 8, 2012 from <http://www.volcano.si.edu/world/volcano.cfm?vnum=1104-03->.

²² Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved April 17, 2012 from <http://dec.alaska.gov/spar/csp/list.htm>.

²³ Unless otherwise noted, all monetary data are reported in nominal values.

²⁴ 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.

²⁵ 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/>.

²⁶ See footnote 24.

²⁷ 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>.

²⁸ Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

²⁹ 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.

³⁰ See footnotes 25 and 27..

decline in income is reflected in the fact that the community was recognized as “distressed” by the Denali Commission,³¹ indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010. It is important to note that both ACS and DOLWD data are based on wage earnings, and these income statistics do not take into account the value of personal use and subsistence within the local economy.

In 2010, a slightly smaller percentage of Marshall residents was estimated to be in the civilian labor force (61.5%) compared to the civilian labor force statewide (68.8%). In the same year, 16.5% of local residents were estimated to be living below the poverty line, compared to 9.5% of Alaska residents overall, and the unemployment rate was estimated to be 12.1%, compared to a statewide unemployment rate of 5.9%. An alternative estimate of unemployment is based on the ALARI database, which indicates that the 2010 unemployment rate in Marshall was 30.7%, compared to a statewide unemployment rate estimate of 11.5%.³²

Also based on the 2006-2010 ACS, the greatest number of workers was estimated to be employed in the public sector (60%), and the remaining 40% was estimated to be employed in the private sector (40%). Of the 115 people aged 16 and over that were estimated to be employed in the civilian labor force, the majority was estimated to be working in public administration (23.5%), retail trade (21.7%) and the educational services, health care and social assistance sector (20.9%). The occupations in which the greatest percentages of the workforce were estimated to be employed were sales/office (32.2%), management/professional (22.6%), and natural resources/construction/maintenance occupations (20.9%). Information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

It is important to note that the number of individuals employed by fishing is probably underestimated in census statistics, as fishermen may hold another job and characterize their employment accordingly. In 2010, only 2.6% of the civilian labor force was estimated to be working in agriculture, forestry, fishing, hunting, and mining industries. Although 24 workers were estimated to be employed in natural resource/construction/maintenance occupations (20.9%), a breakdown of this category reveals that 0 individuals were employed in farming, fishing, and forestry occupations.

An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 189 employed residents in Marshall in 2010, of which 69.8% were employed in local government, 7.9% in trade, transportation, and utilities, 4.8% were employed in education and health services, 4.8% in construction, 3.2% in state government, 1.6% in financial activities, 1.1% in information, 0.5% in natural resources and mining, 0.5% in leisure and hospitality, 0.5% in professional and business services, and 5.3% in other industries.³³ As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents’ activity in the subsistence economy.

³¹ Denali Commission (2011). *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.

³² See footnote 25.

³³ *Ibid*.

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

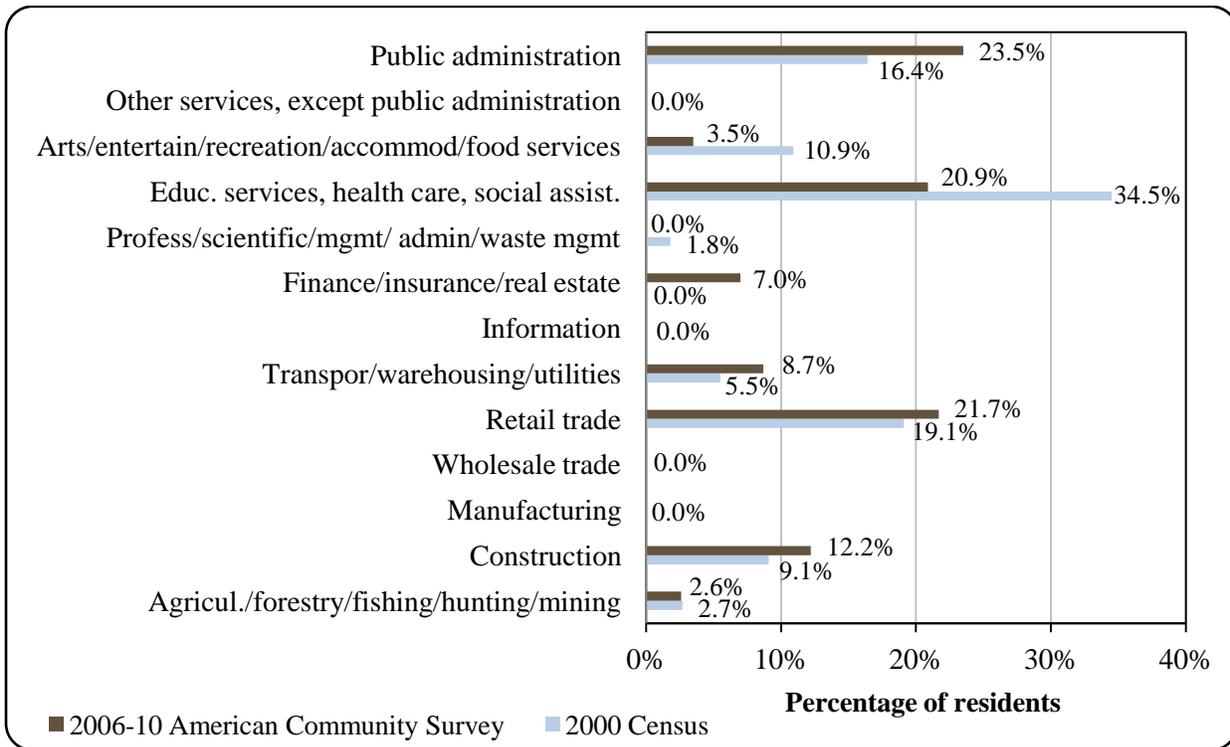
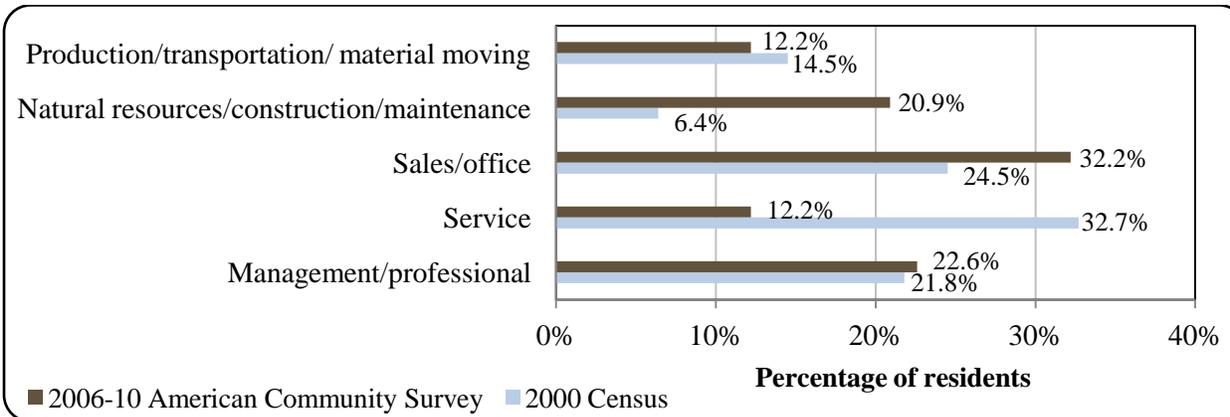


Figure 4. Local Employment by Occupation in 2000-2010, Marshall (U.S. Census).



Governance

Marshall was incorporated as a 2nd Class City in 1970, and is not part of an organized borough. The City has a Strong Mayor form of government, which includes a seven-person city council, including the mayor, a nine-person advisory school board, and several municipal employees. The City administers a 4% sales tax, but no other taxes.³⁴ Total municipal revenue,

³⁴ 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.

including locally-generated and outside revenue sources, fluctuated between approximately \$400,000 and over \$800,000 during the 2000-2010 period. In addition to sales tax, local revenue sources during the period included state and federal lease payments, water/sewer and garbage collection service fees, equipment and building rentals, and bingo/pull tabs. Outside revenue sources included the State Revenue Sharing program (approximately \$25,000 in contributions per year from 2000 to 2003) and the Community Revenue Sharing program (contributions of almost \$118,000 per year in 2009 and 2010). Some state revenue sharing came from other programs, such as the Shared Fisheries Business Tax refund (see the *Fisheries-Related Revenue* section of this profile). The City of Marshall also received payments in some years from the federal Payment in Lieu of Taxes program. Capital and special projects grants were also received in some years during the 2000-2010 period, including a \$50,000 grant in 2002 toward construction of a community center, \$41,000 in 2003, and \$25,000 in 2004. . No fisheries-related grants were reported to contribute to community revenue between 2000 and 2010. Information about selected aspects of Marshall’s municipal revenue is presented in Table 2.

Marshall was included under the Alaska Native Claims Settlement Act (ANCSA), and is federally recognized as a Native village. The authorized traditional entity, recognized by the Bureau of Indian Affairs, is the Native Village of Marshall. The office of the Native Village of Ohogamiut is also located in Marshall, and members of this federally recognized Tribe also live in the City. The local village Native corporation is Maserculiq Incorporated, which manages approximately 115,200 acres of land. The regional Native corporation to which Marshall and Ohogamiut belong is the Calista Corporation.³⁵

Marshall and Ohogamiut are also members of the Association of Village Council Presidents (AVCP), a tribal 501(c)(3) non-profit organization headquartered in Bethel that serves communities in the Yukon-Kuskokwim Delta. At the request of villages, AVCP provides social services, human development, and culturally relevant programming to “promote tribal self-determination and self-governance and to work to protect tribal culture and traditions.”³⁶ The AVCP is one of the 12 regional Alaska Native 501(c)(3) non-profit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native associations receive federal funding to administer a broad range of services to villages in their regions.³⁷ AVCP is made up of 56 villages and 45 village corporations.³⁸

The closest offices of the Alaska Department of Fish and Game (ADF&G) are located in Emmonak and Bethel, although the Emmonak office is only open during the summer season. The closest office of the Alaska Department of Commerce, Community, and Economic Development is also in Bethel. Anchorage has the nearest offices of the National Marine Fisheries Service (NMFS), Alaska Department of Natural Resources, and U.S. Bureau of Citizenship and Immigration Services.

³⁵ Ibid.

³⁶ Association of Village Council Presidents (n.d.). *Homepage*. Retrieved December 6, 2011 from www.avcp.org.

³⁷ U.S. Government Accountability Office (2005). *Alaska Native Villages: Report to Congressional Addressees and the Alaska Federation of Natives*. Retrieved February 7, 2012 from <http://www.gao.gov/new.items/d05719.pdf>.

³⁸ Calista Corporation (2011). *Our Communities: The Villages of the Calista Region*. Retrieved February 6, 2012 from <http://www.calistacorp.com/shareholders/communities>.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Marshall 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 | \$429,242 | \$60,606 | \$26,943 | n/a |
| 2001 | \$403,798 | \$63,524 | \$25,924 | n/a |
| 2002 | \$820,026 | \$52,233 | \$25,925 | n/a |
| 2003 | \$539,398 | \$52,845 | \$26,108 | n/a |
| 2004 | \$456,498 | \$52,402 | n/a | n/a |
| 2005 | \$397,491 | \$55,628 | n/a | n/a |
| 2006 | \$420,521 | \$54,006 | n/a | n/a |
| 2007 | \$546,742 | \$66,471 | n/a | n/a |
| 2008 | \$558,089 | \$82,855 | n/a | n/a |
| 2009 | \$585,960 | \$92,827 | \$117,936 | n/a |
| 2010 | \$620,506 | \$93,229 | \$117,956 | n/a |

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

¹ Alaska Department of Commerce, Community, and Economic Development. (n.d.). *Financial Documents Delivery System*. Retrieved at

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

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

³ Alaska Department of Revenue. (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Accessed at www.tax.state.ak.us. Data retrieved April 15, 2011.

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 Commerce, Community, and Economic Development. (n.d.). *Community Funding Database*. Retrieved at http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm. Data retrieved April 15, 2011.

Infrastructure

Connectivity and Transportation

Marshall is accessible for the most part by both air and water; there are no roads which connect it to other communities. The City has a state-owned 3,201-ft-long by 100-ft-wide gravel airstrip.³⁹ The approximate cost to travel by air roundtrip to Anchorage from Marshall in early June 2012 was \$690.⁴⁰ In a survey conducted by the AFSC in 2011, community leaders reported that a seaplane base is also present. Local residents have boats, but in the winter months they are reliant upon dog teams and snow machines. The City receives barge services.⁴¹

³⁹ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

⁴⁰ This price was calculated on November 21, 2011 using kayak.com.

⁴¹ See footnote 39.

Facilities

There are no hotels or accommodations in the Marshall for visitors.⁴² The City has a public safety building and jail facility, and police services are available from the state troopers and VPSO (Village Public Safety Officer) stationed in St. Mary's, approximately 50 miles downriver.^{43,44,45} A diesel powerhouse provides electricity to the community, operated by AVEC (the Alaska Village Electric Cooperative). The City operates a piped circulating water system and sewer system that serves the 70% of the community that is fully plumbed. The remainder of the residences must haul water from a central well and use honeybuckets.⁴⁶ The City also operates a landfill and provides refuse collection services. Telephone service is available in Marshall, but there is no local internet or cable provider.⁴⁷ According the 2011 AFSC survey, community leaders noted the presence of a U.S. post office, and said that improvements in water/sewer pipelines and sewage treatment are under way. They said that a community center/library is also under construction.

According the 2011 AFSC survey, community leaders reported the following fishing-related facilities and services available in Marshall: a fish processing plant, fishing gear sales, boat repair and welding, tackle and bait sales, commercial cold storage facilities, boat fuel sales, ice sales, and a fish cleaning station. According to responses on the survey, no dock space is available for transient, permanent, or public moorage, but new dock space and road access to the dock is under construction. Community leaders said the current dock facility is served by piped water.

Medical Services

Health care is available at Agnes Boliver Health Clinic, which is owned by the City and operated by the Yukon-Kuskokwim Health Corporation. The Clinic is a Community Health Aide Program site. Emergency Services have river and air access. Local emergency service is provided by a health aide.⁴⁸ In the 2011 AFSC survey, community leaders reported that improvements in emergency services are currently in process.

Educational Opportunities

There is one school in the community, which offers a preschool through 12th grade education. The Marshall School had a total of 132 students and 9 teachers in 2011.⁴⁹ In addition,

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Dept. of Public Safety (2011). *Active VPSO's by Village, December 2011*. Retrieved December 12, 2011 from <http://www.dps.alaska.gov/>.

⁴⁵ Alaska Dept. of Public Safety (2012). *Alaska State Trooper Detachments*. Retrieved June 1, 2012 from <http://www.dps.state.ak.us/ast/detachments.aspx>.

⁴⁶ A "honeybucket" is an indoor bucket used as a toilet in houses without plumbing.

⁴⁷ See footnote 39.

⁴⁸ Ibid.

⁴⁹ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

RurAL CAP has a school building used for a Head Start program that serves children aged 3 to 5 years.^{50,51}

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Yup'ik Eskimo people were historically very mobile, following the migration and seasonal availability of subsistence resources. It is likely that the site of the present day City of Marshall was used seasonally as a camp or subsistence village.⁵² The Yup'ik name for the area where Marshall is located along Polte Slough is “Massercullermiut”, meaning “the place to catch chum salmon.”⁵³ Subsistence fishing and hunting for salmon, moose, bear, and waterfowl continue to be a primary source of food for Marshall residents, in combination with employment in commercial fishing and processing and other industries.⁵⁴ Some residents also participate in sport fishing activities.

Indigenous people living along the Yukon River have long harvested salmon for subsistence purposes. Salmon was used for personal subsistence as well as food for sled dogs. The first recorded commercial harvest of salmon on the Yukon River took place in 1918, and early harvests were relatively large. Concerns about providing sufficient salmon resources for subsistence harvest led to limitations on commercial salmon fishing during several periods, including a complete commercial fishing closure on the Yukon River from 1925 to 1931. In the 1980s, concerns about possible overharvest of Chinook runs led to reduced commercial fisheries in the late 1980s and 1990s. Poor returns in the late 1990s and early 2000s resulted in restrictive management of the commercial fishery and complete closure in 2001 to ensure subsistence resources.⁵⁵

Currently, commercial salmon fishing is allowed along the entire 1,200 miles of the main stem of the Yukon River, as well as 225 miles of the Tanana River. There are 7 fishing districts, 10 sub-districts, and 28 statistical areas. Fishing on the lower Yukon River takes place with set and drift gill nets. Subsistence fishermen also most often utilize these gear types. Many subsistence fishermen are also commercial fishermen.⁵⁶

⁵⁰ Rural Alaska Community Action Program, Inc. (2011). *2010 Head Start Report*. Retrieved on December 20, 2011 from <http://www.ruralcap.com/>.

⁵¹ Personal communication with Raymond D. Alstrom, Marshall Mayor, October 7, 2004.

⁵² Alaska Native Heritage Center (n.d) Yup'ik & Cup'ik - *Who We Are website*. Retrieved December 8, 2011 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/yupik/.

⁵³ Rinear, Jeanne Ostnes and Eleanor Ostnes Vistaunet (2008). Marshall, Fortuna Ledge and the Mining of Willow Creek. Retrieved December 8, 2011 from <http://explorenorth.com/alaska/history/marshall-history.html>.

⁵⁴ 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.

⁵⁵ Clark, McGregor, Mecum, Krasnowski and Carroll (2006). The Commercial Salmon Fishery in Alaska. *Alaska Fisheries Research Bulletin* 12(1):1-146. Alaska Dept. of Fish and Game. Retrieved January 4, 2012 from <http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1.pdf>.

⁵⁶ Ibid.

In addition to salmon, a number of statewide “freshwater fish” permits were held by Marshall residents in 2009 and 2010. Commercial freshwater fish fisheries may target species such as Arctic char, northern pike, rainbow trout, Dolly Varden char, and sheefish.⁵⁷

Marshall is located approximately 150 miles up the Yukon River from the Bering Sea. This area is included in District 2 of the Lower Yukon River salmon fishery. It is also important to note that the ocean area into which the Yukon River flows is encompassed by Federal Statistical and Reporting Area 514, Pacific Halibut Fishery Regulatory Area 4E, and the Bering Sea Sablefish Regulatory Area. Marshall is not eligible to participate in the Community Quota Entity (CQE) program, and because the community is located more than 50 miles inland from the ocean, it is not eligible to participate in the Community Development Quota (CDQ) program.

According to a survey conducted by the AFSC in 2011, community leaders reported that Marshall participates in fisheries management processes in Alaska. The primary way in which the community is engaged in fisheries management processes is by sending a representative to sit on a regional fisheries advisory and/or working group run by ADF&G. Community leaders also noted local concern about diminishing Chinook salmon returns along the Yukon, which they attribute to ineffective salmon bycatch management in ocean fisheries.

Processing Plants

Although not listed on ADF&G’s 2010 Intent to Operate list, one processing plant has been active in Marshall in recent years. As recently as 2008, Maserculiq Fish Processors, Inc. was listed on the Intent to Operate list. The company utilizes fish harvested by local Yup’ik Eskimo fishermen and produces value-added salmon products which are distributed by Yukon King Seafoods of Alaska.⁵⁸

The 2010 Intent to Operate list did include a registered processing facility in the nearby community of Saint Mary’s (50 miles downriver from Marshall) called Boreal Fisheries, Inc. It is a husband-and-wife operation which began in 1974. Boreal Fisheries purchases salmon from local fishermen, with processing focused on Chinook, chum, and coho.⁵⁹

Fisheries-Related Revenue

According to information provided in Marshall’s annual municipal budgets between 2000 and 2010, Marshall received an average of \$813 per year in fisheries-related revenue. The primary source of fisheries-related revenue in Marshall during this period was the Shared Fisheries Business Tax. Information about selected fisheries-related revenue sources is presented in Table 3.⁶⁰

⁵⁷ Alaska Dept. of Fish and Game (2006). *Our Wealth Maintained: A Strategy for Conserving Alaska’s Diverse Wildlife and Fish Resources*. Retrieved June 21, 2012 from <http://www.adfg.alaska.gov/index.cfm?ADFG=species.wapview>.

⁵⁸ Yukon King Seafoods website (2008). *About us*. Retrieved December 8, 2011 from <http://www.yukonking.com>.

⁵⁹ Boreal Fisheries website (2009). Retrieved May 31, 2012 from <http://www.borealfish.com/>.

⁶⁰ A direct comparison between fisheries-related revenue and total municipal revenue cannot reliably be made as not all fisheries-related revenue sources are included in the municipal budget.

Commercial Fishing

Marshall is a river fishing community, located approximately 150 miles inland along the Yukon River. The primary fisheries resource available to Marshall fishermen is salmon. However, even though Marshall is not a coastal community, several residents also held permits in state fisheries for herring and freshwater fish (“other finfish”) during the 2000-2010 period. Although one shore-side processing facility was registered in Marshall until 2008 (see *Processing Plants* section), no fish buyers were reported to have been present in Marshall between 2000 and 2010 (Table 5). This lack of local fish buyers explains the lack of landings and ex-vessel revenue information reported in the community between 2000 and 2010 (Table 9).

Between 2000 and 2010, several Marshall residents were involved in state commercial fisheries as crew, permit owners, and vessel owners. In 2010, a total of 50 Marshall residents purchased commercial crew licenses, 8 vessels were homeported in the community, and 9 residents were the primary owner of a fishing vessel. Information about landings and ex-vessel revenue earned by Marshall vessel owners between 2000 and 2010 is considered confidential due to the small number of participants (Table 10). According to a survey conducted by the AFSC in 2011, community leaders reported that commercial fishing boats using Marshall as a base of fishing operations were all under 35 ft in length and were mostly gillnetters primarily involved in the salmon fishery.

In 2010, 46 individuals held a total of 53 Commercial Fisheries Entry Commission (CFEC) permits, of which 34 were actively fished that year. Of the total 53 permits, 43 were for the salmon fishery (Lower Yukon gill net fishery), 8 were for the “other finfish” fishery (freshwater set gill net, statewide), and 1 was a herring permit for the Norton Sound roe and food/bait gill net fishery. In 2010, 77% of salmon permits were actively fished, while no “other finfish” permits or the herring permit were actively fished. Marshall residents held between one and three herring permits per year between 2000 and 2010, but none of these permits were actively fished in any year during the period. It is also important to note that, in 2009, one herring permit was also held in the Goodnews Bay roe and food/bait gill net fishery, and that 2009 and 2010 were the only years during the 2000-2010 period that “other finfish” permits were held by Marshall residents. This information about CFEC permits is presented in Table 4.

Between 2000 and 2010, no residents of Marshall held Federal Fisheries Permits (FFP), License Limitation Program permits (LLP), or quota share accounts for federal halibut, sablefish, or crab catch share fisheries. Information about federal permits held by Marshall residents is presented in Table 4, and information about federal catch share participation is presented in Tables 6 through 8.

Table 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community Of Marshall: 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 | \$557 | \$1,011 | \$84 | n/a | n/a | \$1,047 | \$1,052 | \$2,758 | \$2,351 | \$79 |
| Fisheries Resource Landing Tax ¹ | 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 revenue</i> ⁴ | <i>n/a</i> | <i>\$557</i> | <i>\$1,011</i> | <i>\$84</i> | <i>n/a</i> | <i>n/a</i> | <i>\$1,047</i> | <i>\$1,052</i> | <i>\$2,758</i> | <i>\$2,351</i> | <i>\$79</i> |
| <i>Total municipal revenue</i> ⁵ | <i>\$429,242</i> | <i>\$403,798</i> | <i>\$820,026</i> | <i>\$539,398</i> | <i>\$456,498</i> | <i>\$397,491</i> | <i>\$420,521</i> | <i>\$546,742</i> | <i>\$558,089</i> | <i>\$585,960</i> | <i>\$620,506</i> |

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

¹ Alaska Department of Commerce, 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 Commerce, Community, and Economic Development. (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 financial statements. Alaska Department of Commerce, Community, and Economic Development. (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, Marshall: 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 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 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 | 4 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 |

Table 4 cont'd. Permits and Permit Holders by Species, Marshall: 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 | 20 | 8 |
| | Fished permits | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| | % of permits fished | - | - | - | - | - | - | - | - | - | 20% | 0% |
| | Total permit holders | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 8 |
| Salmon (CFEC) ² | Total permits | 43 | 41 | 40 | 41 | 41 | 40 | 43 | 42 | 42 | 44 | 44 |
| | Fished permits | 38 | 1 | 36 | 37 | 36 | 36 | 40 | 38 | 32 | 29 | 34 |
| | % of permits fished | 88% | 2% | 90% | 90% | 88% | 90% | 93% | 90% | 76% | 66% | 77% |
| | Total permit holders | 48 | 42 | 40 | 42 | 41 | 40 | 45 | 42 | 43 | 46 | 46 |
| <i>Total CFEC Permits²</i> | <i>Permits</i> | <i>45</i> | <i>43</i> | <i>43</i> | <i>43</i> | <i>43</i> | <i>41</i> | <i>44</i> | <i>43</i> | <i>43</i> | <i>66</i> | <i>53</i> |
| | <i>Fished permits</i> | <i>38</i> | <i>1</i> | <i>36</i> | <i>37</i> | <i>36</i> | <i>36</i> | <i>40</i> | <i>38</i> | <i>32</i> | <i>33</i> | <i>34</i> |
| | <i>% of permits fished</i> | <i>84%</i> | <i>2%</i> | <i>84%</i> | <i>86%</i> | <i>84%</i> | <i>88%</i> | <i>91%</i> | <i>88%</i> | <i>74%</i> | <i>50%</i> | <i>64%</i> |
| | <i>Permit holders</i> | <i>48</i> | <i>42</i> | <i>41</i> | <i>42</i> | <i>41</i> | <i>40</i> | <i>45</i> | <i>42</i> | <i>43</i> | <i>55</i> | <i>46</i> |

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

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 Marshall: 2000-2010.

| Year | Crew License Holders ¹ | Count Of All Fish Buyers ² | Count Of Shore-Side Processing Facilities ³ | Vessels Primarily Owned By Residents ⁴ | Vessels Homeported ⁴ | Vessels Landing Catch In Marshall ² | Total Net Pounds Landed In Marshall ^{2,5} | Total Ex-Vessel Value Of Landings In Marshall ^{2,5} |
|------|-----------------------------------|---------------------------------------|--|---|---------------------------------|--|--|--|
| 2000 | 37 | 0 | 1 | 12 | 10 | 0 | 0 | \$0 |
| 2001 | 2 | 0 | 1 | 9 | 8 | 0 | 0 | \$0 |
| 2002 | 36 | 0 | 1 | 8 | 6 | 0 | 0 | \$0 |
| 2003 | 49 | 0 | 1 | 11 | 10 | 0 | 0 | \$0 |
| 2004 | 17 | 0 | 1 | 10 | 9 | 0 | 0 | \$0 |
| 2005 | 65 | 0 | 1 | 8 | 7 | 0 | 0 | \$0 |
| 2006 | 60 | 0 | 1 | 9 | 8 | 0 | 0 | \$0 |
| 2007 | 59 | 0 | 1 | 12 | 10 | 0 | 0 | \$0 |
| 2008 | 49 | 0 | 1 | 10 | 9 | 0 | 0 | \$0 |
| 2009 | 36 | 0 | 0 | 10 | 9 | 0 | 0 | \$0 |
| 2010 | 50 | 0 | 0 | 9 | 8 | 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 by Residents of Marshall: 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 Marshall: 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 Marshall: 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 Marshall: 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 lb refers to the landed weight recorded in fish tickets.

² Totals only represent non-confidential data.

Table 10. Landed Pounds and Ex-vessel Revenue, by Species, by Marshall 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 | - | - | - | - | - | - | - | - | - | - | - |
| Herring | - | - | - | - | - | - | - | - | - | - | - |
| Other Groundfish | - | - | - | - | - | - | - | - | - | - | - |
| Other Shellfish | - | - | - | - | - | - | - | - | - | - | - |
| Pacific Cod | - | - | - | - | - | - | - | - | - | - | - |
| Pollock | - | - | - | - | - | - | - | - | - | - | - |
| Sablefish | - | - | - | - | - | - | - | - | - | - | - |
| Salmon | - | - | - | - | - | - | - | - | - | - | - |
| <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 | - | - | - | - | - | - | - | - | - | - | - |
| Finfish | - | - | - | - | - | - | - | - | - | - | - |
| Halibut | - | - | - | - | - | - | - | - | - | - | - |
| Herring | - | - | - | - | - | - | - | - | - | - | - |
| Other Groundfish | - | - | - | - | - | - | - | - | - | - | - |
| Other Shellfish | - | - | - | - | - | - | - | - | - | - | - |
| Pacific Cod | - | - | - | - | - | - | - | - | - | - | - |
| Pollock | - | - | - | - | - | - | - | - | - | - | - |
| Sablefish | - | - | - | - | - | - | - | - | - | - | - |
| Salmon | - | - | - | - | - | - | - | - | - | - | - |
| <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> |

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

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

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

² Totals only represent non-confidential data.

Recreational Fishing

From 2000 to 2010, there were no active sport fish businesses in Marshall, and no licensed sport fish guides were present in the community. During this period, 2007 was the first year in which sport fishing licenses were sold in Marshall. In 2010, 52 sport fishing licenses were sold to Marshall residents (irrespective of point of sale), and 50 licenses were sold in the City of Marshall,⁶¹ suggesting that sport fishing by local area residents is the primary source of sport fishing activity in the area. In a survey conducted by the AFSC in 2011, community leaders reported that both Alaska resident and non-Alaska resident sport fishermen fish off the dock in Marshall and also use private boats. They reported that recreational fishermen primarily target chum and Chinook salmon. The Alaska Statewide Harvest Survey,⁶² conducted by ADF&G between 2000 and 2010, did not report information about species targeted by private anglers in Marshall. However, the survey did note the following species targeted by sport fishermen out of Saint Mary's, a community located 50 miles downriver: coho and chum salmon, Dolly Varden char, Arctic grayling, northern pike, Pacific halibut, and rockfish. The survey also noted harvest of razor clams and hardshell clams by Saint Mary's recreational fishers. No kept/release log book data were reported for fishing charters out of Marshall between 2000 and 2010.⁶³

Marshall is located within Alaska Sport Fishing Survey Area Y – Yukon River Drainage. Information is available about both saltwater and freshwater sport fishing activity at this regional scale. Between 2000 and 2010, saltwater sport fishing activity was minimal, with between 0 and 81 non-Alaska resident angler days fished per year, and between 0 and 89 Alaska resident angler days fished per year. The low numbers reported for saltwater sport fishing make sense given that a majority of residents in Yukon drainage communities live at a great distance from the ocean, and fishing activities take place primarily in freshwater. Between 2000 and 2010, Alaska resident anglers in the Yukon River drainage consistently fished more days in freshwater (4,783 – 10,400 angler days per year) than non-Alaska resident anglers (2,573 – 5,761 angler days per year). This information about the sport fishing sector in and near Marshall is displayed in Table 11.

⁶¹ 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.]

⁶² 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).

⁶³ Alaska Department of Fish and Game (2011). Alaska sport fish charter logbook database, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 11. Sport Fishing Trends, Marshall: 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 Marshall ² |
|------|---|--|---|--|
| 2000 | 0 | 0 | 25 | 0 |
| 2001 | 0 | 0 | 53 | 0 |
| 2002 | 0 | 0 | 43 | 0 |
| 2003 | 0 | 0 | 26 | 0 |
| 2004 | 0 | 0 | 48 | 0 |
| 2005 | 0 | 0 | 22 | 0 |
| 2006 | 0 | 0 | 35 | 0 |
| 2007 | 0 | 0 | 90 | 34 |
| 2008 | 0 | 0 | 109 | 104 |
| 2009 | 0 | 0 | 31 | 77 |
| 2010 | 0 | 0 | 52 | 50 |

| 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 | 3,345 | 7,878 |
| 2001 | 29 | 14 | 4,063 | 6,454 |
| 2002 | 0 | 89 | 5,761 | 9,194 |
| 2003 | 0 | 17 | 3,344 | 5,756 |
| 2004 | 17 | 0 | 5,479 | 7,613 |
| 2005 | 0 | 0 | 4,182 | 4,783 |
| 2006 | 0 | 0 | 3,607 | 7,816 |
| 2007 | 0 | 0 | 3,168 | 8,226 |
| 2008 | 0 | 0 | 2,573 | 10,400 |
| 2009 | 0 | 0 | 2,969 | 7,639 |
| 2010 | 0 | 0 | 3,983 | 5,151 |

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/sport_fishingsurvey/ (Accessed September 2011).

Subsistence Fishing

Marshall residents depend on subsistence hunting and fishing to supplement work in commercial fishing and processing and other wage employment.⁶⁴ In a survey conducted by the AFSC in 2011, Marshall community leaders reported that Chinook salmon, chum salmon, and sheefish⁶⁵ are some of the most important aquatic subsistence resources harvested by residents.

In 2010, the only year that a subsistence survey was conducted by ADF&G in the community of Marshall between 2000 and 2010, 81% of households were estimated to participate in salmon subsistence, 74% in non-salmon fish subsistence (not including halibut), 46% in marine mammal subsistence, and 4% in halibut subsistence. Zero percent of Marshall households were estimated to participate in marine invertebrate subsistence in 2010. That year, the per capita subsistence harvest of land and sea-based resources in Marshall was estimated to be 1,680 lb (Table 12).

Data are also available from 2000 through 2008 regarding subsistence salmon permits. During this period, between 69 and 86 Marshall households per year were issued subsistence salmon permits. Based on those permits that were returned, Chinook and chum salmon were the two most heavily harvested species, with an average of 3,136 chum salmon and 2,629 Chinook salmon harvested per year. Coho, pink, and sockeye salmon were also harvested in much smaller quantities. Chinook salmon harvest numbers declined substantially after 2001, from harvests of over 3,000 or 4,000 to harvests consistently at or below 2,000 fish per year. In 2008, Chinook harvest rose again to above 3,000 fish. Table 13 presents this information on salmon permits, as well as the total harvest of non-salmon fish reported from the ADF&G 2010 subsistence survey. That year, Marshall residents were estimated to harvest 201,499 lb of non-salmon fish. No information was reported regarding harvest of marine invertebrates. Although Marshall is located approximately 150 miles from the ocean, several residents were reported to participate in the subsistence fishery for Pacific halibut during the 2000-2010 period. Between 2003 and 2007, one Subsistence Halibut Registration Certificate (SHARC) was issued to a Marshall resident each year. However, no information was reported about whether the SHARC card was fished or how many lb of halibut were harvested (Table 14). Between 2000 and 2010, no information was reported by management agencies regarding harvest of marine mammals for subsistence purposes by residents of Marshall (Table 15).

⁶⁴ 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.

⁶⁵ *Stenodus leucichthys*, known as sheefish or inconnu, is the largest member of the whitefish family. It ranges from Arctic drainages to the Kuskokwim, Yukon and Mackenzie Rivers, and is also found in Asia. Coastal populations are anadromous while lake populations are landlocked (Page, L. and B. Burr (1991). *A Field Guide to Freshwater Fishes*. Houghton Mifflin Company, Boston) According to Fish Alaska Magazine, the record sheefish was caught in 1986 and weighed 53 lb, and average size ranges from 5 to 12 lb (retrieved December 15, 2011 from <http://www.fishalaskamagazine.com/fish/sheefish.htm>).

Table 12. Subsistence Participation by Household and Species, Marshall: 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 | 81% | 4% | 46% | n/a | 74% | 1,680 |

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, Marshall: 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 | 86 | 30 | 3,279 | 3,234 | 11 | n/a | n/a | n/a | n/a |
| 2001 | 80 | 24 | 4,498 | 2,605 | 73 | n/a | n/a | n/a | n/a |
| 2002 | 76 | 24 | 2,290 | 2,824 | 386 | 473 | n/a | n/a | n/a |
| 2003 | 75 | 25 | 2,060 | 1,259 | 64 | n/a | n/a | n/a | n/a |
| 2004 | 73 | 33 | 1,990 | 2,056 | 425 | 105 | 30 | n/a | n/a |
| 2005 | 69 | 30 | 1,804 | 3,816 | 341 | 6 | n/a | n/a | n/a |
| 2006 | 76 | 28 | 1,897 | 4,802 | 191 | 3 | n/a | n/a | n/a |
| 2007 | 73 | 31 | 2,557 | 3,859 | 922 | n/a | 36 | n/a | n/a |
| 2008 | 73 | 27 | 3,284 | 3,771 | 490 | 26 | n/a | 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 | 201 |

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, Marshall: 2003-2010.

| Year | SHARC Issued | SHARC Cards Fished | SHARC Halibut Lbs Harvested |
|------|--------------|--------------------|-----------------------------|
| 2003 | 1 | n/a | n/a |
| 2004 | 1 | n/a | n/a |
| 2005 | 1 | n/a | n/a |
| 2006 | 1 | n/a | n/a |
| 2007 | 1 | n/a | n/a |
| 2008 | 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, Marshall: 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.

Additional Information⁶⁶

To get to Marshall during the gold stampede of the 1910s, people first traveled 2,500 miles from Seattle to Nome on steamships, where they then transferred to smaller boats and were ferried to St. Michael. From there they transferred again to shallow draft boats that would travel along the coast to the mouth of Yukon River, and up the river to Marshall Landing which is located eight miles upriver from Marshall.

Polte Slough is said to have been named after steamboat skipper Otto Polte.

⁶⁶ Rinear, Jeanne Ostnes and Eleanor Ostnes Vistaunet (2008). Marshall, Fortuna Ledge and the Mining of Willow Creek. Retrieved December 8, 2011 from <http://explorenorth.com/alaska/history/marshall-history.html>.