

## **Lower Kalskag (Lower KAL-skag)**



### **People and Place**

#### *Location*<sup>1</sup>

Lower Kalskag is located on the north bank of the Kuskokwim River, 2 miles downriver from Upper Kalskag. It lies 26 miles west of Aniak, 89 miles northeast of Bethel, and 350 miles west of Anchorage. The community is located in the Bethel Census Area and Kuskokwim Recording District. The City of Lower Kalskag encompasses 1.3 square miles of land and 0.4 square miles of water.

#### *Demographic Profile*<sup>2</sup>

In 2010, there were 282 inhabitants in Lower Kalskag, making it the 167<sup>th</sup> largest of 352 total Alaskan communities with recorded populations that year. The town did not appear in U.S. Census records until the 1940s. Overall between 1990 and 2010, the population of Lower Kalskag remained relatively stable, decreasing by only 3.1%. According to Alaska Department of Labor estimates, between 2000 and 2009, the population of permanent residents fell by 6%, with an average annual growth rate of -0.98%. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that Lower Kalskag's population has a yearly peak during summer months, between June and September. They said that approximately 28 seasonal workers are present in the community during this period. According to the survey, seasonal population fluctuations are not driven by employment in fishing sectors.

In 2010, a majority of Lower Kalskag residents identified themselves as American Indian and Alaska Native (92.2%), along with 2.5% that identified as White, and 5.0% identifying with two or more races. None of Lower Kalskag's residents identified themselves as Hispanic in 2010. Individuals identifying as White made up 1.1% more of the population in 2010 compared to 1990, although the overall percentage of White residents decreased from 4.5% in 2000 to 2.5% in 2010. 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 Lower Kalskag was 3.76, a decline from 4.05 persons per household in 2000 and 4.3 persons per household in 1990. The number of households in Lower Kalskag has increased over time, from 67 occupied households in 1990 and 66 in 2000, to 75 in 2010. Of the 82 housing units surveyed for the 2010 U.S. Decennial Census, 64.6% were owner-occupied, 26.8% were rented, and 8.5% were vacant or used only seasonally. Between 1990 and 2010, no residents of Lower Kalskag lived in group quarters.

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<sup>1</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>2</sup> 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>.

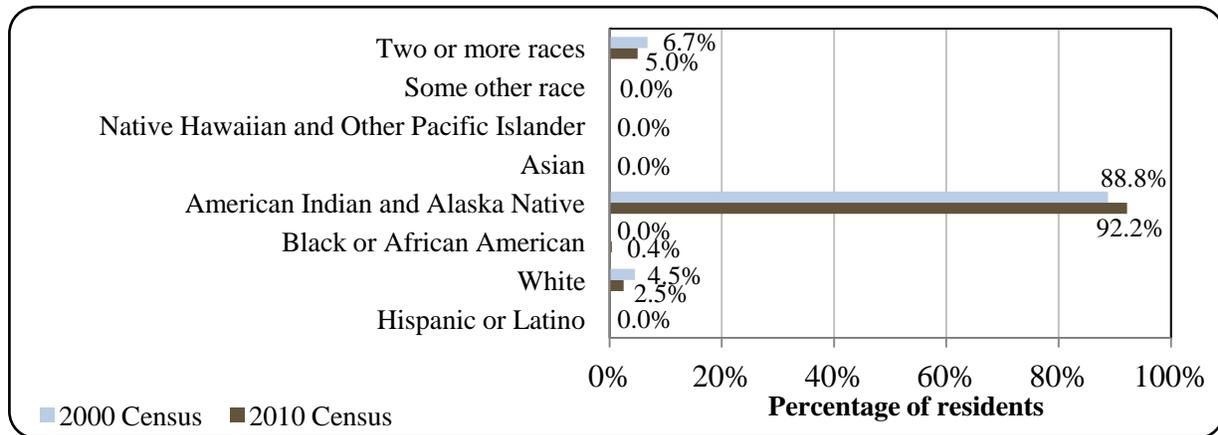
Table 1. Population in Lower Kalskag from 1990 to 2010 by Source.

Year	U.S. Decennial Census <sup>1</sup>	Alaska Dept. of Labor Estimate of Permanent Residents <sup>2</sup>
1990	291	-
2000	267	-
2001	-	256
2002	-	263
2003	-	267
2004	-	263
2005	-	252
2006	-	267
2007	-	251
2008	-	255
2009	-	251
2010	282	-

<sup>1</sup> (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>.

<sup>2</sup> 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, Lower Kalskag: 2000-2010 (U.S. Census).

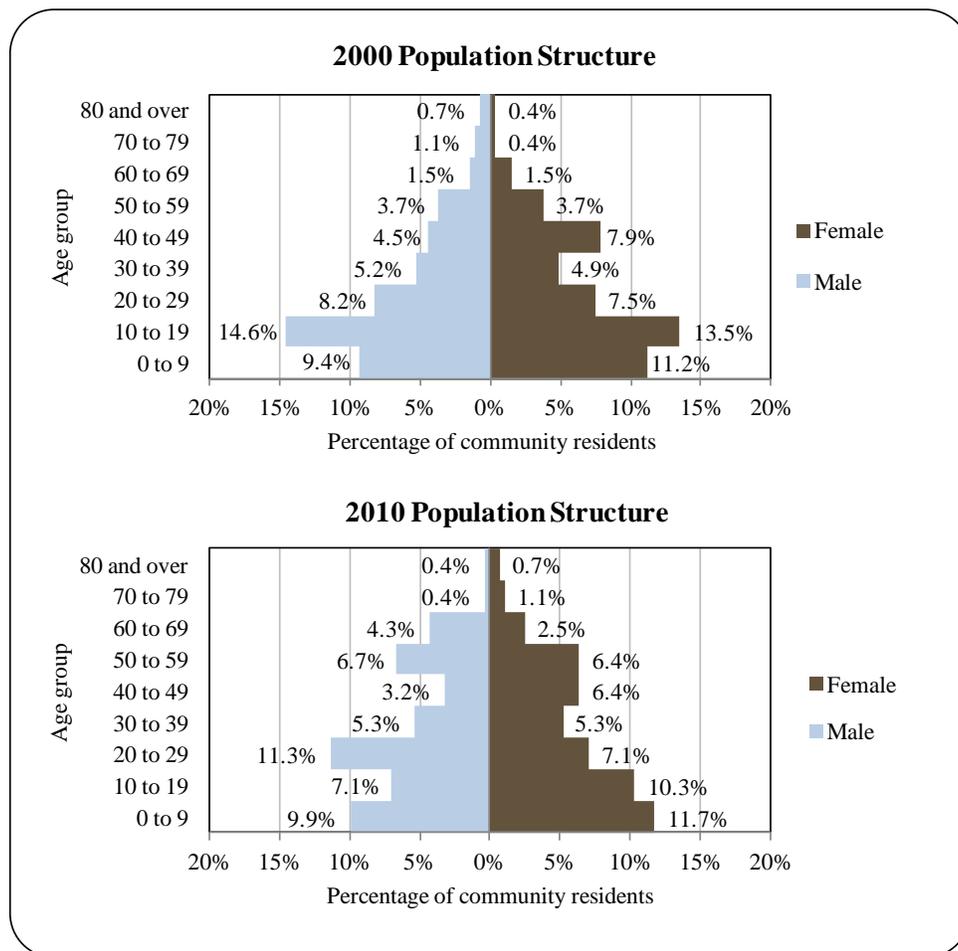


In 2010, the gender makeup of Lower Kalskag’s population was more heavily female than most Alaskan communities (51.4% female and 48.6% male). In contrast, the state population as a whole was 52% male and 48% female that year. The median age of Lower Kalskag residents was 25.8 years, much younger than the national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, there was a relatively even spread of males and females across age categories in Lower Kalskag. In 2010, the age groups most heavily skewed toward females were 0 to 19 and 40 to 49 years, while there were more men in age groups 20 to

29 and 60 to 69. Only 9.2% of Lower Kalskag’s population was age 60 or older in 2010. The overall population structure of Lower Kalskag in 2000 and 2010 is shown in Figure 2.

In terms of educational attainment, according to American Community Survey (ACS) estimates,<sup>3</sup> 78.3% of Lower Kalskag residents aged 25 and over held a high school diploma or higher degree in 2010, compared to 90.7% of Alaska residents overall. Also in 2010, 14.7% of the population was estimated to have less than a 9<sup>th</sup> grade education, compared to 3.5% of Alaska residents overall; 7% were estimated to have a 9<sup>th</sup> to 12<sup>th</sup> grade education but no diploma, compared to 5.8% of Alaska residents overall; 10.9% 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; 14.7% were estimated to have a Bachelor’s degree, compared to 17.4% of Alaska residents overall; and 0% were estimated to have a graduate or professional degree, compared to 9.6% of Alaska residents overall.

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



<sup>3</sup> 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.

### *History, Traditional Knowledge, and Culture*

The site of Lower Kalskag was originally used as a fish camp for families from Kalskag, 2 miles to the northeast. In 1930, people began to establish year-round homes. The Russian Orthodox residents of Upper Kalskag, a predominantly Roman Catholic village, moved to Lower Kalskag in the 1930s because of religious differences. The Russian Orthodox Chapel of St. Seraphim was built in 1940. A school was built in 1959, followed by a post office in 1962, a sawmill in 1965, and a power plant in 1969. A new church was built in the late 1970s. The City of Lower Kalskag was incorporated in 1969.<sup>4</sup> The sale and importation of alcohol are banned in the community.<sup>5</sup>

### **Natural Resources and Environment**

The climate of Lower Kalskag is semi-arctic with maritime influences from the Bering Sea. Annual precipitation averages 19 inches, with 60 inches of snowfall. Temperatures range between -55 and 87 °F. The Kuskokwim River is ice-free from mid-June through October.<sup>6</sup>

The community is located less than 100 miles from the boundary of Wood-Tikchik State Park, the largest state park in the United States. The State Park includes a diversity of terrain and ecosystems. The Wood River and Tilchik systems host all five species of Pacific salmon, along with rainbow trout, grayling, lake trout, Arctic char, Dolly Varden char and northern pike. Tilchik Lake is an important site for whitefish subsistence harvest. Moose, caribou, and brown bear are common in the park, along with black bear in a limited area of the park. Small game present in the area includes beaver, muskrat, otter, fox, wolverine, mink, and porcupine. Ground squirrels and marmots are abundant, along with a variety of resident and migratory waterfowl and land birds.<sup>7</sup>

There are many gold deposits along the Kuskokwim River. Donlin Gold, approximately 70 miles northeast of the Lower Kalskag, is one of the largest gold deposits in the world, with probable reserves estimated at 33.6 million oz of gold. In March 2010, Donlin Creek LLC renegotiated its lease with Calista Corporation, securing additional land to allow for future expansion and extending the lease to 2031.<sup>8</sup> Other smaller mine sites are scattered around the area, including Stuyahok and Arnold Kako to the north of Lower Kalskag, and Bogus Creek and Nyac to the south.<sup>9</sup> A majority of the surface land in proposed mining areas is owned by the Kuskokwim Corporation, the local Native village corporation, and the subsurface land is owned by the regional Native corporation, Calista Corporation.<sup>10</sup>

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<sup>4</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>5</sup> Alaska Dept. of Public Safety (2011). *Local Option Restrictions*. Retrieved May 31, 2012 from <http://dps.alaska.gov/abc/restrictions.aspx>.

<sup>6</sup> See footnote 4.

<sup>7</sup> Alaska Dept. of Natural Resources. (n.d.) *Wood-Tilchik State Park*. Retrieved December 6, 2011 from <http://dnr.alaska.gov/parks/units/woodtik.htm>.

<sup>8</sup> Alaska Dept. of Natural Resources (2010). *Alaska's Mineral Industry 2010, Special Report 65*. Accessed December 8, 2011 from <http://www.dggs.dnr.state.ak.us/pubs/minerals>.

<sup>9</sup> 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>.

<sup>10</sup> Donlin Gold. (n.d.). *Our Plan: The Project*. Retrieved December 7, 2011 from <http://www.donlingold.com/our-plan>.

Natural hazards identified in the Lower Kalskag area include high risk of flooding, erosion, and severe weather, and low risk of wildfire and earthquakes.<sup>11</sup>

According to the Alaska Department of Environmental Conservation, there are no notable active environmental cleanup sites located in Lower Kalskag as of May 2012.<sup>12</sup>

### **Current Economy<sup>13</sup>**

Lower Kalskag's economy is predominantly based on subsistence activities. Salmon, moose, black bear, porcupine, and waterfowl are utilized.<sup>14</sup> In 2010, top employers in the community in 2010 were the Lower Kalskag Traditional Council, the Cities of Lower Kalskag and Upper Kalskag, the school district, the Tuluksak Native Store, the Association of Village Council Presidents (AVCP), the Yukon-Kuskokwim Health Corporation, and several private companies.<sup>15</sup> The Alaska Department of Natural Resources and U.S. Bureau of Land Management firefighting also provide some seasonal income.<sup>16</sup> In a survey conducted by the AFSC in 2011, community leaders reported that a majority of Lower Kalskag residents rely primarily on subsistence fishing, and a few also engage in commercial fishing activities.

Based on household surveys conducted for the 2006-2010 ACS,<sup>17,18</sup> in 2010, the per capita income in Lower Kalskag was estimated to be \$11,966, and the median household income was estimated to be \$44,250. This represents an increase from the per capita and median household incomes reported in the year 2000 (\$7,654 and \$25,625, respectively). This is true even when accounting for inflation by converting the 2000 values to 2010 dollars,<sup>19</sup> revealing a real per capita income in 2000 of \$10,065, and a real median household income of \$33,697. In 2010, Lower Kalskag ranked 240<sup>th</sup> of 305 Alaskan communities with per capita income data that year, and 165<sup>th</sup> in median household income, out of 299 Alaskan communities with household income data.

Lower Kalskag's small population size may have prevented the ACS from accurately portraying economic conditions.<sup>20</sup> A potentially more accurate understanding of per capita income is obtained from economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development

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<sup>11</sup> City of Aniak and Bechtol Planning and Development (2005). *The City of Aniak, Alaska: All-Hazards Mitigation Plan*. Retrieved February 9, 2012 from

[http://www.dced.state.ak.us/dca/planning/nfip/Hazard\\_Mitigation\\_Plans/Aniak\\_HMP.pdf](http://www.dced.state.ak.us/dca/planning/nfip/Hazard_Mitigation_Plans/Aniak_HMP.pdf).

<sup>12</sup> Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved April 17, 2012 from <http://dec.alaska.gov/spar/csp/list.htm>.

<sup>13</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>14</sup> See footnote 4.

<sup>15</sup> 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/>.

<sup>16</sup> See footnote 4.

<sup>17</sup> 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>.

<sup>18</sup> 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.

<sup>19</sup> 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>).

<sup>20</sup> See footnote 18.

(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 Lower Kalskag in 2010 is \$5,609,<sup>21</sup> which indicates an overall decrease compared to the real per capita income values reported by the U.S. Census in 2000. This decline in income is reflected in the fact that the community was recognized as “distressed” by the Denali Commission,<sup>22</sup> 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 do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a smaller percentage of Lower Kalskag residents were estimated to be in the civilian labor force (63.5%) than the civilian labor force statewide (68.8%). In the same year, approximately 16% 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 22%, 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 Lower Kalskag was 26.6%, more than two times the ALARI statewide unemployment rate estimate of 11.5%.<sup>23</sup>

Based on household surveys conducted for the 2006-2010 ACS, the greatest number of workers were estimated to be employed in the public sector (54.5%), and the remaining 45.5% were estimated to be working in the private sector. Of the 66 people aged 16 and over that were estimated to be employed in the civilian labor force, the majority worked in educational services, health care and social assistance sector (63.6%), while 15.2% were estimated to be working in public administration, and 4.5% each in retail trade and in transportation, warehousing and utilities. The occupations in which the greatest percentages of the workforce were estimated to be employed were service (51.5%), production, transportation, and material moving (25.8%), and management, business, science, and arts occupations (18.2%). No Lower Kalskag residents were estimated to be working in fishing-related industries or occupations in 2010. The number of individuals employed by fishing is probably underestimated in census statistics, as fishermen may hold another job and characterize their employment accordingly. This information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 135 employed residents in Lower Kalskag in 2010, of which 74.8% were employed in local government, 5.2% were employed in education and health services, 3.7% in natural resources and mining, 3.7% in construction, 3% in professional and business services, 2.2% in trade, transportation, and utilities, 1.5% in financial activities, and 5.9% in other industries.<sup>24</sup> As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents’ activity in the subsistence economy.

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<sup>21</sup> See footnotes 15 and 17.

<sup>22</sup> Denali Commission 2011. Distressed Community Criteria 2011 Update. Retrieved April 16, 2012 from [www.denali.gov](http://www.denali.gov).

<sup>23</sup> See footnote 15.

<sup>24</sup> Ibid.

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

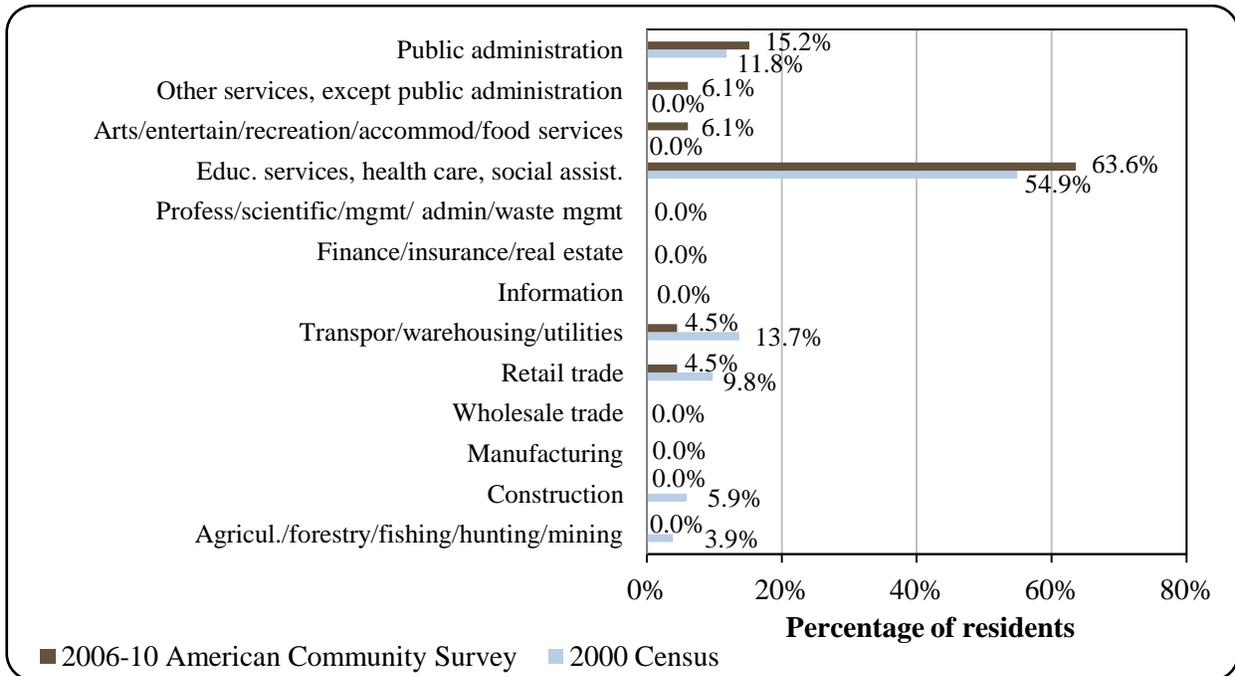
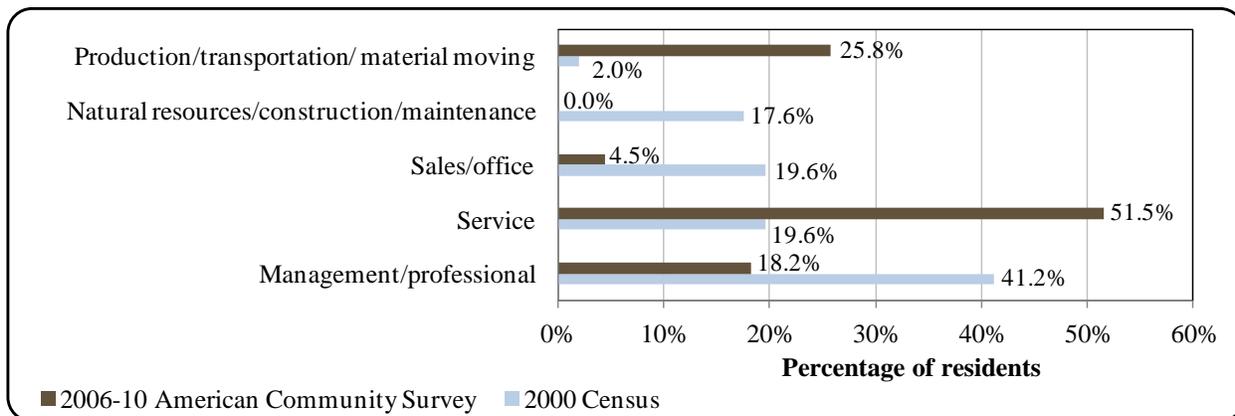


Figure 4. Local Employment by Occupation in 2000-2010, Lower Kalskag (U.S. Census).



## Governance

Lower Kalskag is a 2<sup>nd</sup> Class City, and is not part of an organized borough. The City was incorporated in 1969 and has a Strong Mayor form of government, which includes a seven-person city council, including the mayor, a seven-person advisory school board, and several municipal employees.<sup>25</sup> The City of Lower Kalskag did not administer any local taxes, and no sales tax revenue was reported between 2000 and 2010. Annual community revenue initially declined from \$161,689 in 2000 to a low of \$46,000 in 2006, but rebounded to \$174,052 by

<sup>25</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

2010. The City received State Revenue Sharing contributions of between \$26,000 and \$37,500 per year from 2000 to 2003, and Community Revenue Sharing contributions of just over \$100,000 per year in 2009 and 2010. Locally generated revenues included lease fees from federal and state facilities on city lands and bingo/pull tab sales. In addition to the State and Community Revenue Sharing programs, other outside revenue sources included job training, community policing grants, and suicide prevention grants, as well as funds from the Payment In Lieu of Taxes program. No state or federal fisheries-related grants were reported to contribute to community revenue between 2000 and 2010. Information about selected aspects of Lower Kalskag’s municipal revenue is presented in Table 2.

Lower Kalskag 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 Village of Lower Kalskag. The Native village corporation is The Kuskokwim Corporation, which manages 92,160 acres of land and represents numerous villages in the Lower Kuskokwim area. The regional Native corporation to which Lower Kalskag belong is the Calista Corporation.<sup>26</sup>

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

Year	Total Municipal Revenue <sup>1</sup>	Sales Tax Revenue <sup>2</sup>	State/Community Revenue Sharing <sup>3,4</sup>	Fisheries-Related Grants (State and Federal) <sup>5</sup>
2000	\$161,689	n/a	\$31,336	n/a
2001	\$173,757	n/a	\$31,339	n/a
2002	\$130,321	n/a	\$26,647	n/a
2003	\$49,593	n/a	\$37,593	n/a
2004	\$65,896	n/a	n/a	n/a
2005	\$85,926	n/a	n/a	n/a
2006	\$46,000	n/a	n/a	n/a
2007	\$61,189	n/a	n/a	n/a
2008	\$108,816	n/a	n/a	n/a
2009	\$147,584	n/a	\$109,122	n/a
2010	\$174,052	n/a	\$109,122	n/a

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

<sup>1</sup> Alaska Department of Commerce, Community, and Economic Development. (n.d.). *Financial Documents Delivery System*. Retrieved at [http://www.commerce.state.ak.us/dcra/commfin/CF\\_FinRec.cfm](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm). Data retrieved April 15, 2011.

<sup>2</sup> 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](http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm). Data retrieved April 15, 2011.

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

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

<sup>5</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm). Data retrieved April 15, 2011.

<sup>26</sup> Ibid.

Lower Kalskag is also a member 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.”<sup>27</sup> 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.<sup>28</sup> AVCP is made up of 56 villages and 45 village corporations.<sup>29</sup>

The closest office of the Alaska Department of Fish and Game (ADF&G), Alaska Department of Commerce, Community and Economic Development, and a field office of the National Marine Fishery Service (NMFS) are located in Bethel, 89 miles to the southwest. A main office of NMFS is located 350 miles to the east in Anchorage, along with the closest offices of the Bureau of Citizenship and Immigration Services and Alaska Department of Natural Resources.

## Infrastructure

### *Connectivity and Transportation*

A state-maintained 4.2-mile gravel road connects the Cities of Lower and Upper Kalskag, although the communities are not connected to a wider road network. Commercial barge lines deliver fuel and other bulk supplies in the summer. Passengers and other freight arrive by air through year-round scheduled daily air services. The state-owned 3,172-ft-long by 75-ft-wide gravel airstrip is shared by Upper Kalskag and Lower Kalskag. The price of a roundtrip ticket by plane from the Kalskag Airport to Anchorage in early June 2012 was \$464.<sup>30</sup> Winter trails exist to Russian Mission (40 miles) and Aniak (26 miles).<sup>31</sup>

### *Facilities*

An 85-ft well provides water, which is treated and piped to most homes and the school. The school, clinic, and over 40% of homes use individual septic tanks and have complete plumbing. A 10,000-gallon community septic tank allows for piped sewage collection in part of the village. Refuse is burned or buried at a landfill located between Upper Kalskag and Lower Kalskag. A diesel powerhouse provides electricity to the village, operated by AVEC (the Alaska Village Electric Cooperative). Police services are provided by state troopers stationed in Aniak,

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<sup>27</sup> Association of Village Council Presidents. (n.d.). AVCP homepage. Retrieved December 6, 2011 from [www.avcp.org](http://www.avcp.org).

<sup>28</sup> 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>.

<sup>29</sup> Calista Corporation (2011). Our Communities: The Villages of the Calista Region. Retrieved February 6, 2012 from <http://www.calistacorp.com/shareholders/communities>.

<sup>30</sup> This price was calculated on November 21, 2011 using [kayak.com](http://kayak.com).

<sup>31</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

and local fire and rescue services are provided by volunteers in the village. Lower Kalskag has a community hall, a school gymnasium that is closed during the summer, and a school library.<sup>32</sup>

With regard to fisheries-related infrastructure, community leaders reported in the 2011 AFSC survey that no dock space is available for permanent or public moorage. However, a barge landing area was completed in August 2011 to receive fuel, gravel and freight barges. Community leaders also reported that the community currently has a U.S. post office, full telephone service and broadband internet access, and that improvements are underway on water and sewer pipelines and water treatment. In addition, they noted that affordable housing, job placement services, and disability home care are provided in Lower Kalskag. Community leaders indicated that residents typically travel to nearby villages of Upper Kalskag, Aniak, and Bethel to access fisheries-related businesses and services not available in Lower Kalskag.

### *Medical Services*

Health services in Lower Kalskag are provided by the Crimet Phillips Sr. Clinic, which is operated by the Yukon Kuskokwim Health Corporation and owned by the Village Council. Emergency Services have river and air access. Local emergency service is provided by a health aide.<sup>33</sup> The closest hospital is located in Bethel.

### *Educational Opportunities*

There are two schools located in Lower Kalskag: George Morgan Sr. High School (grades 6-12) and Zackar Levi Elementary School (grades 1-8). In 2010 the high school had 6 teachers and was attended by 49 students, while the elementary school had 4 teachers and enrollment of 61 students.<sup>34</sup>

## **Involvement in North Pacific Fisheries**

### *History and Evolution of Fisheries*

Lower Kalskag was originally utilized as a summer fish camp by residents of Upper Kalskag. Subsistence fishing for salmon, along with subsistence hunting for birds and land mammals, has historically formed basis of the local economy.<sup>35</sup> According to the 2011 AFSC survey, community leaders reported that subsistence fishing remains one of the most important sources of food for local residents, while a few residents also participate in commercial and sportfishing activities.

Commercial harvest of salmon first took place in the Kuskokwim area in 1913, although in the early years it was a quasi-commercial fishery with limited distribution. Catch was dried and sold as food for sled dogs during the 1930s when dog teams were the primary means of hauling freight to villages in Western Alaska. At the time of statehood, commercial fishing districts were defined along the Kuskokwim River. In the 1960s and 1970s, commercial salmon

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<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

<sup>34</sup> Alaska Department of Education and Early Development. 2012. Statistics and Reports. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

<sup>35</sup> See footnote 31.

fisheries in the Kuskokwim were still considered experimental, and management efforts focused on increasing commercial use while ensuring continued supply for subsistence use. Harvest levels continued to increase until the mid-1990s, after which time fishing effort, harvest levels and salmon prices decreased. Current management is focused on sustainability of salmon runs, ensuring subsistence needs are met, and with a precautionary approach, providing opportunity for commercial harvest of available surpluses.<sup>36</sup>

In Alaska, commercial catch of herring for human consumption began in 1878, commercial harvest of herring for bait began around 1900, and herring sac roe fisheries developed in the late 1970s. Along the Yukon/Kuskokwim coast there are six commercial gill net sac roe districts: Security Cove, Goodnews Bay, Cape Avinof, Nelson Island, Nunivak Island, and Cape Romanzof. Harvests in these areas have been declining in recent years, in part due to lack of processing capacity in the region.<sup>37</sup>

Lower Kalskag is located along the Kuskokwim River, in District 2 of the Kuskokwim salmon fishery. The Kuskokwim River empties into Kuskokwim Bay and the Bering Sea. Although Lower Kalskag is over 100 miles inland, it is worth noting that the nearest marine area is included in Federal Statistical and Reporting Area 514, Pacific Halibut Fishery Regulatory Area 4E, and the Bering Sea Sablefish Regulatory Area. Lower Kalskag is not eligible to participate in the CQE (Community Quota Entity) program, and because the community is located more than 50 miles inland from the ocean, it is not eligible to participate in the CDQ (Community Development Quota) program.

According to the 2011 AFSC survey, community leaders reported that Lower Kalskag participates in fisheries management processes in Alaska. The two primary ways in which the community is engaged in management processes are through 1) sending a representative to sit on a regional fisheries advisory and/or working group run by ADF&G, and 2) sending a representative to participate in the Federal Subsistence Board of Federal Subsistence Regional Advisory Council process. They also reported that one of the primary concerns of local officials is that salmon escapement be managed effectively to allow sufficient volume of salmon upriver for subsistence harvest by inland communities such as Lower Kalskag.

### *Processing Plants*

According to ADF&G's 2010 Intent to Operate list, Lower Kalskag does not have a registered processing plant. In the 2011 AFSC survey, community leaders reported that commercial fishermen must deliver their catch to processing facilities downriver in Bethel.

### *Fisheries-Related Revenue*

Between 2000 and 2010, no information was reported regarding fisheries-related revenue sources in Lower Kalskag (Table 3). Although not specifically related to fishing, it is worth noting that Lower Kalskag's municipal revenue did include money from fuel sales: in the year

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<sup>36</sup> Clark, McGregor, Mecum, Krasnowski and Carroll 2006. Kuskokwim Commercial Salmon Fishery. In *The Commercial Salmon Fishery in Alaska*. Alaska Dept. of Fish and Game, Pgs. 105-146. Retrieved December 28, 2011 from [http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1\\_p4.pdf](http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1_p4.pdf).

<sup>37</sup> Woodby, Doug, Dave Carlile, Shareef Siddeek, Fritz Funk, John H. Clark, and Lee Hulbert (2005). *Commercial Fisheries of Alaska*. Alaska Dept. of Fish and Game, Special Publication No. 05-09. Retrieved December 29, 2011 from <http://www.adfg.alaska.gov/FedAidPDFs/sp05-09.pdf>.

2000 the City received \$110,550 from sale of fuel, \$1,398 in 2008, \$4,250 in 2009 and \$28,000 in 2010.<sup>38</sup> Additionally, in a survey conducted by the AFSC in 2011, community leaders reported that in 2010, Lower Kalskag received \$373,035 in funding or grants and \$161,800 in special allocations from the Coastal Villages Regional Fund (CVRF), one of six CDQ entities. CVRF represents 20 member communities within 50 miles of the Bering Sea coast, ranging from Platinum in the south to Scammon Bay in the north.

### *Commercial Fishing*

Lower Kalskag is located over 100 miles up the Kuskokwim River. Even though it is not a coastal community, the local economy depends on fisheries resources, especially the runs of chum, Chinook, coho, and sockeye salmon that return to the Kuskokwim River each year. In a survey conducted by the AFSC in 2011, community leaders reported that a majority of local residents rely heavily on subsistence hunting and fishing, and that a few residents also participate in commercial fisheries.

There were no shore-side processors or fish buyers in Lower Kalskag between 2000 and 2010, and as a result there were no direct landings of fisheries resources and no ex-vessel revenue was generated in Lower Kalskag during this period (Tables 5 and 9). Community leaders noted in the 2011 AFSC survey that commercial fishermen from Lower Kalskag deliver their catch in Bethel. From 2000 to 2010, between three and five residents of Lower Kalskag held Commercial Fisheries Entry Commission (CFEC) each year. A majority were salmon permits, held in the Kuskokwim and Lower Yukon gill net fisheries, and one permit was also held each year in the Goodnews Bay roe herring gill net fishery. The number of Kuskokwim salmon gill net permits declined from three held in 2000 to two held each year from 2001 and 2010. None of these permits were actively fished between 2000 and 2010. One gill net permit was also held in the Lower Yukon salmon fishery during four years of the 2000-2010 period, and the permit was actively fished in 2000 and 2004-2005 (Table 4).

Over the same period, no Federal Fisheries Permits (FFP) or federal License Limitation Program permits (LLP) were issued to residents of Lower Kalskag (Table 4), and no quota share accounts were held by Lower Kalskag residents in federal catch share fisheries for halibut, sablefish, or crab (Tables 6 to 8).

Several Lower Kalskag residents were reported to be involved in commercial fisheries as crew and vessel owners between 2000 and 2010. In 2000, 2003, and 2010, one resident per year held a commercial fishing crew license. From 2000 to 2004, one Lower Kalskag resident per year was the primary owner of a fishing vessel. Also from 2000 to 2004, one vessel per year was homeported in Lower Kalskag. According to the 2011 AFSC survey, community leaders reported that commercial fishing boats using Lower Kalskag as a base of fishing operations were all under 35 ft in length, and were gillnetters primarily involved in the salmon fishery. These characteristics of the Lower Kalskag fishing sector are presented in Table 5. Information about landings and ex-vessel revenue earned by Lower Kalskag vessel owners is considered confidential between 2000 and 2004 due to the small number of participants, and after 2004 no landings and revenue were attributable to vessels from Lower Kalskag. This information is presented in Table 10.

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<sup>38</sup> Alaska Dept. of Comm. and Rural Affairs (n.d.). Financial Documents Delivery System. Retrieved at [http://www.commerce.state.ak.us/dcra/commfin/CF\\_FinRec.cfm](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm). Data retrieved April 15, 2011.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	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 <sup>1</sup>	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 <sup>1</sup>	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 <sup>2</sup>	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 <sup>2</sup>	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 <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage <sup>2</sup>	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 <sup>2</sup>	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 <sup>3</sup>	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 <sup>3</sup>	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 revenue<sup>4</sup></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 revenue<sup>5</sup></i>	<i>\$161,689</i>	<i>\$173,757</i>	<i>\$130,321</i>	<i>\$49,593</i>	<i>\$65,896</i>	<i>\$85,926</i>	<i>\$46,000</i>	<i>\$61,189</i>	<i>\$108,816</i>	<i>\$147,584</i>	<i>\$174,052</i>

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

<sup>1</sup> 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](http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm).

<sup>2</sup> 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](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm).

<sup>3</sup> Reported by community leaders in a survey conducted by the AFSC in 2011.

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

<sup>5</sup> 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](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm).

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) <sup>1</sup>	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) <sup>1</sup>	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 <sup>1</sup>	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) <sup>2</sup>	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) <sup>2</sup>	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) <sup>2</sup>	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) <sup>2</sup>	Total permits	1	1	1	1	1	1	1	1	1	1	1
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	1	1	1	1	1	1	1	1	1	1	1

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	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) <sup>2</sup>	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) <sup>2</sup>	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) <sup>2</sup>	Total permits	4	2	2	2	3	2	2	3	2	2	2
	Fished permits	1	0	0	0	1	1	0	0	0	0	0
	% of permits fished	25%	0%	0%	0%	33%	50%	0%	0%	0%	0%	0%
	Total permit holders	4	2	2	2	3	2	2	3	2	2	2
<i>Total CFEC Permits<sup>2</sup></i>	<i>Permits</i>	5	3	3	3	4	3	3	4	3	3	3
	<i>Fished permits</i>	1	0	0	0	1	1	0	0	0	0	0
	<i>% of permits fished</i>	20%	0%	0%	0%	25%	33%	0%	0%	0%	0%	0%
	<i>Permit holders</i>	5	3	3	3	4	3	3	4	3	3	3

<sup>1</sup>National 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.]

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

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

Year	Crew License Holders <sup>1</sup>	Count Of All Fish Buyers <sup>2</sup>	Count Of Shore-Side Processing Facilities <sup>3</sup>	Vessels Primarily Owned By Residents <sup>4</sup>	Vessels Homeported <sup>4</sup>	Vessels Landing Catch In Lower Kalskag <sup>2</sup>	Total Net Pounds Landed In Lower Kalskag <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Lower Kalskag <sup>2,5</sup>
2000	1	0	0	1	1	0	0	\$0
2001	0	0	0	1	1	0	0	\$0
2002	0	0	0	1	1	0	0	\$0
2003	1	0	0	1	1	0	0	\$0
2004	0	0	0	1	1	0	0	\$0
2005	0	0	0	0	0	0	0	\$0
2006	0	0	0	0	0	0	0	\$0
2007	0	0	0	0	0	0	0	\$0
2008	0	0	0	0	0	0	0	\$0
2009	0	0	0	0	0	0	0	\$0
2010	1	0	0	0	0	0	0	\$0

<sup>1</sup> 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.]

<sup>2</sup> 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.]

<sup>3</sup> 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.]

<sup>4</sup> 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.]

<sup>5</sup> Totals only represent non-confidential data.

Table 6. Halibut Catch Share Program Participation in Lower Kalskag: 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 Lower Kalskag: 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 Lower Kalskag: 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 Lower Kalskag: 2000-2010.

	<i>Total Net Pounds<sup>1</sup></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>Total<sup>2</sup></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>Total<sup>2</sup></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.]

<sup>1</sup> Net lb refers to the landed weight recorded in fish tickets.

<sup>2</sup> Totals only represent non-confidential data.

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

	<i>Total Net Pounds<sup>1</sup></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>Total<sup>2</sup></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>Total<sup>2</sup></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.]

<sup>1</sup> Net lb refers to the landed weight recorded in fish tickets.

<sup>2</sup> Totals only represent non-confidential data.

*Recreational Fishing*

Between 2000 and 2010, there were no active sport fish guide businesses located in Lower Kalskag. One licensed sport fish guide did reside in Lower Kalskag in 2000 and 2001, but starting in 2002 no licensed sport fish guides were present in the community. In 2010, Lower Kalskag residents purchased 44 sportfishing licenses (irrespective of point of sale), although no licenses were sold in the City of Lower Kalskag itself.<sup>39</sup> In a survey conducted by the AFSC in 2011, community leaders reported that both Alaska resident and non-Alaska resident sport fishermen fish out of Lower Kalskag using private boats, and target chum, Chinook, coho, and sockeye salmon, whitefish, rainbow trout, and Arctic grayling. The Alaska Statewide Harvest Survey,<sup>40</sup> conducted by ADF&G between 2000 and 2010, noted the following species targeted by sport fishermen in Lower Kalskag: coho salmon, whitefish, and northern pike. No kept/release log book data were reported for fishing charters out of Lower Kalskag between 2000 and 2010.<sup>41</sup>

Lower Kalskag is located within Alaska Sport Fishing Survey Area V – Kuskokwim River and Bay Drainages. Information is available about both saltwater and freshwater sportfishing activity at this regional scale. Between 2000 and 2010, saltwater sportfishing activity was minimal, with between 0 and 28 non-Alaska resident angler days fished per year, and between 0 and 108 Alaska resident angler days fished per year. A majority of sportfishing activity occurred in freshwater, with non-Alaska resident anglers fishing consistently more angler days (12,624 to 17,582 angler days per year) than Alaska resident anglers (5,166 to 9,152 angler days per year). This information about the sportfishing sector in and near Lower Kalskag is displayed in Table 11.

Table 11. Sport Fishing Trends, Lower Kalskag: 2000-2010.

Year	Active Sport Fish Guide Businesses <sup>1</sup>	Sport Fish Guide Licenses <sup>1</sup>	Sport Fishing Licenses Sold to Residents <sup>2</sup>	Sport Fishing Licenses Sold in Lower Kalskag <sup>2</sup>
2000	0	1	34	0
2001	0	1	9	0
2002	0	0	16	0
2003	0	0	16	0
2004	0	0	8	0
2005	0	0	22	0
2006	0	0	33	0
2007	0	0	42	0
2008	0	0	47	0
2009	0	0	16	0
2010	0	0	44	0

<sup>39</sup> 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.]

<sup>40</sup> 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).

<sup>41</sup> 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, cont'd. Sport Fishing Trends, Lower Kalskag: 2000-2010.

Year	Saltwater		Freshwater	
	Angler Days Fished – Non-residents <sup>3</sup>	Angler Days Fished – Alaska Residents <sup>3</sup>	Angler Days Fished – Non-residents <sup>3</sup>	Angler Days Fished – Alaska Residents <sup>3</sup>
2000	27	13	13,388	6,602
2001	0	0	16,437	4,236
2002	0	0	14,583	6,062
2003	28	63	16,923	7,355
2004	0	15	16,239	9,152
2005	19	18	13,725	5,685
2006	0	0	14,773	7,616
2007	0	0	13,390	7,816
2008	0	108	17,582	8,172
2009	0	0	12,625	5,166
2010	0	0	14,033	5,422

<sup>1</sup> 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.]

<sup>2</sup> 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.]

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

### *Subsistence Fishing*

Subsistence hunting and fishing forms the basis of the economy in Lower Kalskag.<sup>42</sup> In a survey conducted by the AFSC in 2011, Lower Kalskag community leaders reported that a greater portion of the community is engaged in subsistence fishing for consumption than commercial fishing, and the most important marine resources harvested by residents include chum salmon, Chinook salmon, and whitefish. No information is available from ADF&G regarding the percentage of households utilizing various marine resources for subsistence purposes between 2000 and 2010, or the per capita consumption of subsistence resources in the community (Table 12).

However, data are available from 2000 and 2008 regarding subsistence salmon permits held in Lower Kalskag. Between 2000 and 2008, the number of Lower Kalskag households that were issued subsistence salmon permits varied between 62 and 89 per year. Chinook, chum, and sockeye were the three most heavily harvested salmon species, with an average of 1,744 Chinook, 1,528 chum, and 728 sockeye reported harvested per year. In addition, an average of 371 coho salmon was also harvested each year in Lower Kalskag (Table 13). No information was

<sup>42</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

reported by management agencies regarding subsistence harvest of marine invertebrates and non-salmon fish (Table 13) or marine mammals (Table 15) between 2000 and 2010.

Although Lower Kalskag is located over 100 miles from the ocean, several residents did participate in the subsistence fishery for Pacific halibut. Three Subsistence Halibut Registration Certificates (SHARC) were issued to Lower Kalskag residents in 2004, and two were issued in 2005. However, no information was reported about how many of these SHARC cards were fished or how many lb of halibut were harvested by these individuals in these years (Table 14).

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

Year	% Households Participating in Salmon Subsistence	% Households Participating in Halibut Subsistence	% Households Participating in Marine Mammal Subsistence	% Households Participating in Marine Invertebrate Subsistence	% Households Participating in Non-Salmon Fish Subsistence	Per Capita Subsistence Harvest (pounds)
2000	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a

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

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

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-Salmon Fish, Lower Kalskag: 2000-2010.

Year	Subsistence Salmon Permits Issued <sup>1</sup>	Salmon Permits Returned <sup>1</sup>	Chinook Salmon Harvested <sup>1</sup>	Chum Salmon Harvested <sup>1</sup>	Coho Salmon Harvested <sup>1</sup>	Pink Salmon Harvested <sup>1</sup>	Sockeye Salmon Harvested <sup>1</sup>	Lbs of Marine Inverts <sup>2</sup>	Lbs of Non-Salmon Fish <sup>2</sup>
2000	63	51	1,822	1,641	428	n/a	885	n/a	n/a
2001	62	52	2,181	1,316	539	n/a	824	n/a	n/a
2002	69	56	1,210	1,187	241	n/a	247	n/a	n/a
2003	73	47	2,016	1,569	375	n/a	714	n/a	n/a
2004	67	51	1,918	1,225	295	n/a	673	n/a	n/a
2005	81	52	1,387	954	293	n/a	409	n/a	n/a
2006	82	27	2,227	2,821	759	n/a	926	n/a	n/a
2007	83	57	1,043	1,461	337	n/a	531	n/a	n/a
2008	89	17	1,893	1,574	73	n/a	1,346	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.

<sup>1</sup> 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.

<sup>2</sup> 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, Lower Kalskag: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	n/a	n/a	n/a
2004	3	n/a	n/a
2005	2	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, Lower Kalskag: 2000-2010.

Year	# of Beluga Whales <sup>1</sup>	# of Sea Otters <sup>2</sup>	# of Walrus <sup>2</sup>	# of Polar Bears <sup>2</sup>	# of Steller Sea Lions <sup>3</sup>	# of Harbor Seals <sup>3</sup>	# of Spotted Seals <sup>3</sup>
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.

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.