

## **Stebbins (STEB-inz)**



### **People and Place**

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

Stebbins is located on the northwest coast of St. Michael Island, on Norton Sound. It lies 8 miles north of St. Michael and 120 miles southeast of Nome. Stebbins is located in the Cape Nome Recording District and the Nome Census Area, and is not located within an organized Borough. The community encompasses 35.2 square miles of land and 1.7 square miles of water.

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

In 2010, there were 556 inhabitants in Stebbins, making it the 109<sup>th</sup> largest of 352 total Alaskan communities with recorded populations that year. Between 2000 and 2010, the population of Stebbins grew by 10.6%, with an average annual growth rate of 1.58%. The change in population from 1990 to 2010 is provided in Table 1.

In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders did not report the presence of seasonal workers or transients in Stebbins; however, they did report that the annual peak in population is during the subsistence fishing season (between May and October).

In 2010, a majority of Stebbins residents identified themselves as American Indian and Alaska Native (95.3%). Other ethnic groups present in Stebbins that year included White (4.3%), Asian (0.2%), and Black or African American (0.2%). Between 2000 and 2010, the population of residents identifying themselves as American Indian and Alaska Native increased by 1.3%, and the population of residents identifying themselves as Asian increased by 0.2%. There were corresponding decreases in the percentages of the population identified as White and as two or more races. Changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

The average household size in Stebbins in 2010 was 4.15, a decrease from 4.6 persons per household in 1990 and 4.45 in 2000. The total number of households in Stebbins increased from 86 in 1990 to 123 in 2000 to 134 occupied housing units in 2010. Of the 153 total housing units surveyed for the 2010 Decennial Census, 63 were owner-occupied, 71 were renter-occupied, and 19 were vacant. Throughout this period, no residents of Stebbins were reported to be living 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 Stebbins 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	400	-
2000	547	-
2001	-	599
2002	-	587
2003	-	570
2004	-	589
2005	-	597
2006	-	613
2007	-	597
2008	-	577
2009	-	605
2010	556	-

<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, Stebbins: 2000-2010 (U.S. Census).

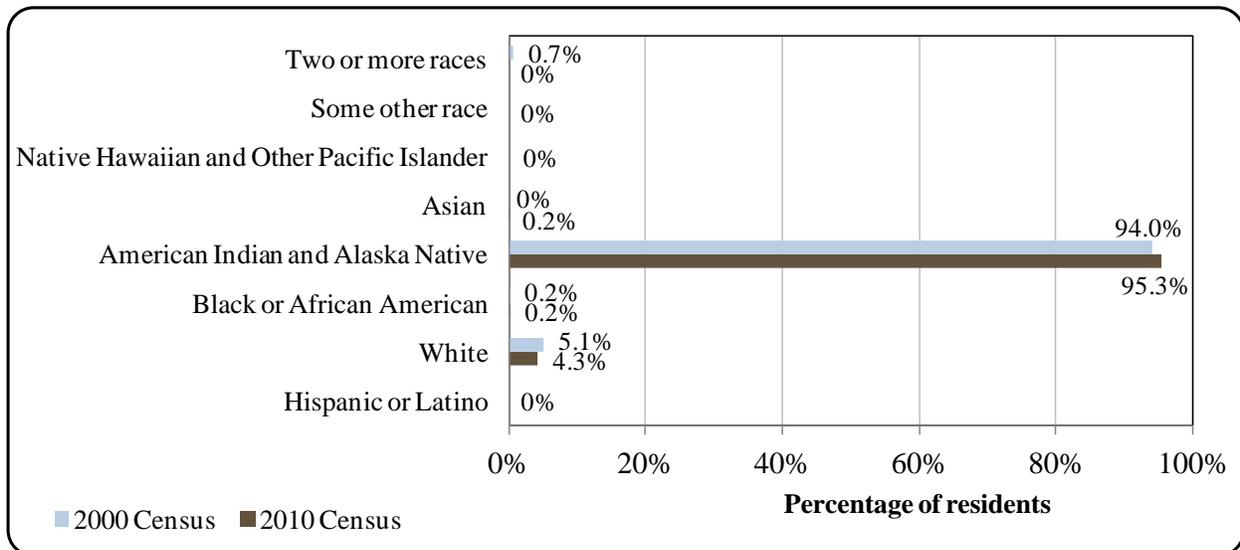
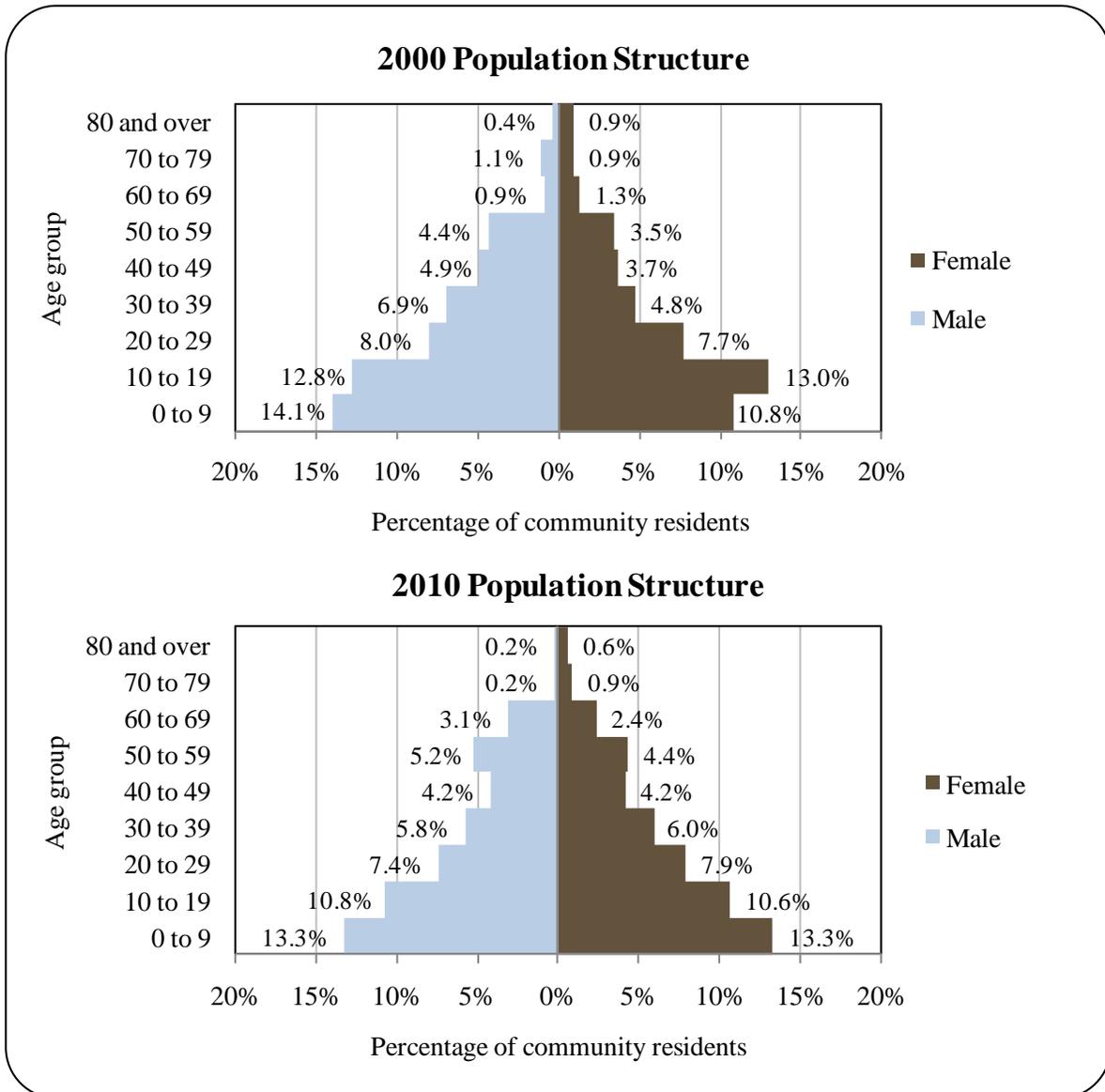


Figure 2. Population Age Structure in Stebbins Based on the 2000 and 2010 U.S. Decennial Census.



In 2010, the gender makeup in Stebbins was even 50% male and 50% female, slightly different from the state as a whole (52% male, 48% female). The median age was estimated to be 21.5 years, lower than both the U.S. national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, the largest percentage of the population fell within the age group zero to nine years old, with the next largest percentage falling within the age group 10 to 19 years old. Relatively few Stebbins residents were age 70 or older. The overall population structure of Stebbins in 2000 and 2010 is shown in Figure 2.

According to the 2006-10 American Community Survey (ACS),<sup>3</sup> in terms of educational attainment, 73.1% of Stebbins residents aged 25 and over were estimated to hold a high school diploma or higher degree in 2010, compared to 90.7% of Alaskan residents overall. Also in 2010, 13.5% of residents aged 25 and older were estimated to have less than a ninth grade education, compared to 3.5% of Alaskan residents overall; 13.5% were estimated to have a ninth to 12<sup>th</sup> grade education but no diploma, compared to 5.8% of Alaskan residents overall; 47.6% were estimated to have a high school diploma or equivalent, compared to 27.4% of Alaskan residents overall; 16.8% were estimated to have some college but no degree, compared to 28.3% of Alaskan residents overall; 1.9% were estimated to have an Associate's degree, compared to 8% of Alaskan residents overall; 1% were estimated to have a Bachelor's degree, compared to 17.4% of Alaskan residents overall; and 5.8% were estimated to have a graduate or professional degree, compared to 9.6% of Alaskan residents overall.

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

The Ipiutak culture occupied the Norton Sound region from the Seward Peninsula to the Kuskokwim around 1,700 years ago, although Bering Sea traditions in the area can be traced back over 7,000 years by evidence of Denbigh flint tool technologies.<sup>4</sup> Redoubt St. Michael was built at nearby St. Michael by the Russian-American Company in 1833. The Eskimo village of “Atroik” or “Atowak” was recorded north of there in 1898 by the U.S. Coast and Geodetic Survey. The Yup'ik name for the community is “Tapraq,” and the name Stebbins was first recorded in 1900. The first U.S. Census population count in Stebbins occurred in 1950, indicating a community population of 80 Yup'ik Eskimos. The city government was incorporated in 1969. Stebbins is a Yup'ik Eskimo village with a commercial fishing and subsistence lifestyle. The sale and importation of alcohol is banned in the village.<sup>5</sup>

### **Natural Resources and Environment**

Stebbins experiences a subarctic climate with a maritime influence during the summer. Norton Sound is ice-free from June to November, but clouds and fog are common. Average summer temperatures are 40 to 60 °F (4.4 to 15.6 °C); winter temperatures range from -4 to 16 °F (-20 to -8.9 °C). Extremes have been measured from -55 to 77 °F (-48.3 to 25 °C). Annual precipitation averages 12 inches, with 38 inches of snowfall.<sup>6</sup>

Stebbins is located near the Andreafsky Wilderness Area. The U.S. Congress designated the Andreafsky Wilderness Area in 1980, and the area now has a total of 1,300,000 acres. The Wilderness Area is managed by the U.S. Fish & Wildlife Service. The expansive 1.3-million-acres of the Andreafsky Wilderness Area cover only slightly more than 5 percent of the monstrously vast 20-million-acre Yukon Delta National Wildlife Refuge, America's largest unit

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<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.

<sup>4</sup> Collins, H. B. (n.d.). *Archaeological Research in the North American Arctic*. Retrieved July 10, 2012 from: <http://136.159.25.41/ojstest/index.php/arctic/article/viewFile/1267/775>.

<sup>5</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>6</sup> Ibid.

of the National Wildlife Refuge System. Most of the delta is wetland tundra and marsh, and about one-third of it lies underwater. Local wildlife populations include moose, foxes, beavers, martens, minks, wolves, wolverines, caribou, large populations of black and brown bears, and millions of salmon. Forests of white spruce and balsam poplar grow along the riverbanks of the Andreafsky River through the Wilderness Area. Near the headwaters the forests give way to alpine tundra, and a relatively flat, treeless delta. The area is known for its fishing opportunities. Both rivers are scenic, but the East Fork has more trees and runs closer to the mountains. One hundred twenty-five miles of the Andreafsky and 137 miles of the East Fork are designated National Wild and Scenic Rivers, attracting river runners and anglers.<sup>7</sup>

According to a state assessment, natural hazards with the potential of occurring in the Nome Census Area include earthquake, flood, wildfire, severe weather, erosion, and tsunami or seiche. The probability of occurrence of earthquakes was rated as high, tsunami/seiche activity was rated at low probability, and the other hazards had unknown probabilities.<sup>8</sup>

According to the Alaska Department of Environmental Conservation, there were no notable active environmental cleanup sites located in the Stebbins area as of March 2013.<sup>9</sup>

## **Current Economy<sup>10</sup>**

The Stebbins economy is based on subsistence harvests supplemented by part-time wage earnings. The city and schools provide the only full-time positions.<sup>11</sup> Top employers in 2010 included the City of Stebbins, Bering Strait School District, Rural Alaska Community Action Program, Stebbins Native Store, Stebbins Community Association, Norton Sound Health Corporation, Kawerak Inc., Stebbins Housing Authority, Bering Straits Regional Housing Authority, and the Norton Sound Economic Development Corporation.<sup>12</sup>

According to household surveys conducted for the 2006-2010 ACS,<sup>13</sup> in 2010, the per capita income in Stebbins was estimated to be \$8,552 and the median household income was estimated to be \$31,250, compared to \$8,249 and \$23,125 in 2000, respectively. Taking inflation into account by converting the 2000 values to 2010 dollars,<sup>14</sup> the real per capita income in 2000 is shown to have been \$10,847 and the real 2000 median household income was \$30,409. This shows that per capita income decreased between 2000 and 2010, while the household income

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<sup>7</sup> The University of Montana. Wilderness.net: Andreafsky Wilderness. Retrieved from <http://www.wilderness.net/index.cfm?fuse=NWPS&sec=wildView&WID=11> on March 22, 2012.

<sup>8</sup> 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>.

<sup>9</sup> Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites by Region*. Retrieved March 5, 2013 from <http://dec.alaska.gov/spar/csp/list.htm>.

<sup>10</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>11</sup> See footnote 5.

<sup>12</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>13</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>.

<sup>14</sup> Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved October 18, 2011 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

increased. In 2010, Stebbins ranked 289<sup>th</sup> of 305 Alaskan communities with per capita income that year, and 239<sup>th</sup> out of 299 Alaskan communities with household income data.

However, Stebbins' small population size may have prevented the American Community Survey from accurately portraying economic conditions.<sup>15</sup> An alternative understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development. If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Decennial Census, the resulting per capita income estimate for Stebbins in 2010 is \$5,663.<sup>16</sup> This estimate provides additional support for an overall decrease in per capita income between 2000 and 2010. These relatively low income figures are reflected in the fact that the community was recognized as “distressed” by the Denali Commission, and is prioritized for economic assistance.<sup>17</sup> It should be noted that both ACS and DOLWD data are based on wage earnings, and do not take into account the economic value of subsistence.

Also based on the 2006-2010 ACS, in 2010, 63.5% of the population age 16 and older was estimated to be in the civilian labor force, compared to the statewide rate of 68.8%. The local unemployment rate was 17.2%, much higher than the statewide unemployment rate of 5.9%. Approximately 35.6% of local residents were living below the poverty line, compared to 9.6% of Alaskans overall. It should be noted that income and poverty statistics are based on wage income and other money sources; the relatively low income figures and high poverty rates reported for Stebbins are not reflective of the value of subsistence to the local economy. In addition, these unemployment and poverty statistics are likely inaccurate given the small population of Stebbins. An alternative estimate is based on the ALARI database, which indicates that the unemployment rate in 2010 was 25.6%.<sup>18</sup>

Based on data reported by the 2006-2010 ACS, the greatest percentage of workers was estimated to be employed in the public sector (54%), while 44.5% were employed in the private sector, and 1.5% were unpaid family workers. Out of 137 people aged 16 and over that were estimated to be employed in the civilian labor force in 2010, the greatest percentage worked in education services, health care, and social assistance (46%), retail trade (11.7%), public administration (10.2%), and other services, except public administration (9.5%). Occupations in which the greatest percentages of the workforce were estimated to be employed were management, business, science, and arts (35.8%) and service occupations (29.9%). It is important to note that 1.5% of the workforce was estimated to be employed in fishing, farming, and forestry-related industries and occupations in 2010. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed by fishing is likely underestimated in census statistics, as fishermen may hold another job and characterize their employment accordingly. As with income and poverty statistics, it should also be noted that these employment statistics do not reflect residents' activity in the subsistence economy. Information about employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

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<sup>15</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>16</sup> See footnotes 12 and 13.

<sup>17</sup> Denali Commission. (2011). *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from: [www.denali.gov](http://www.denali.gov).

<sup>18</sup> See footnote 12.

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

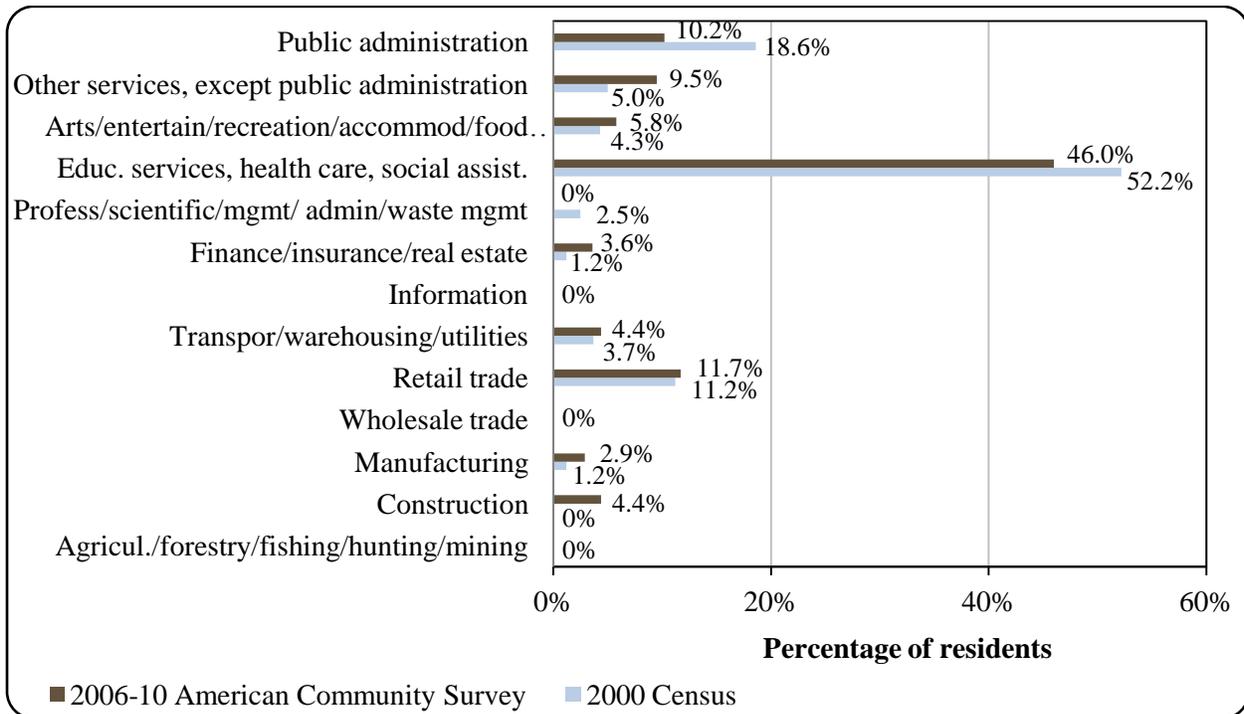
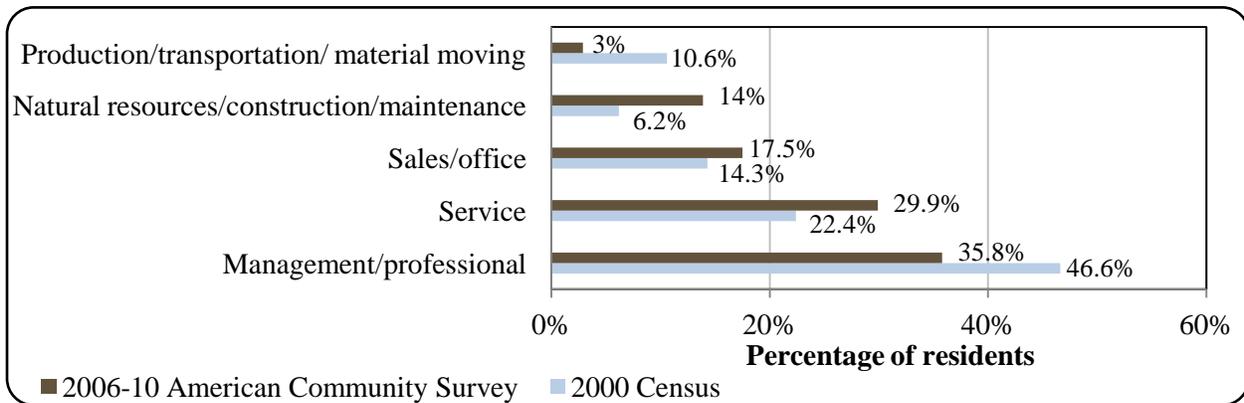


Figure 4. Local Employment by Occupation in 2000-2010, Stebbins (U.S. Census).



## Governance

Stebbins is a 2<sup>nd</sup> Class City, and is not located in an organized borough. The city administers a 3% municipal sales tax.<sup>19</sup> In addition to sales tax revenue, other locally-generated income sources in Stebbins between 2000 and 2010 included contracts for operation of the electric utility and health clinic and maintenance of the airport, building and equipment rentals, bingo and pull tab receipts, and charges for services such as water and sewer, washeteria/sauna,

<sup>19</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).

garbage collection, and cable TV. Outside revenue sources included state and federal grants and shared revenues. Sources of shared revenue included the State Revenue Sharing program (approximately \$28,000 per year from 2000 to 2003), the Community Revenue Sharing programs (\$125,000 each year in 2009 and 2010), the SAFE Communities program (public safety, utilities, infrastructure, etc.), state telephone and electric co-op tax refunds, and state raw fish tax refunds in some years (see the *Fisheries-Related Revenue* section). Stebbins did not receive any fisheries-related grants between 2000 and 2010. Information about selected aspects of the Stebbins community revenue is presented in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Stebbins 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	\$478,462	\$50,812	\$28,951	n/a
2001	\$507,549	\$51,928	\$27,906	n/a
2002	\$559,617	\$46,666	\$27,906	n/a
2003	\$710,809	\$55,649	\$28,051	n/a
2004	\$680,946	\$45,997	n/a	n/a
2005	\$675,017	\$51,215	n/a	n/a
2006	\$628,186	\$47,190	n/a	n/a
2007	\$606,729	\$48,904	n/a	n/a
2008	\$981,520	\$59,538	n/a	n/a
2009	\$744,663	\$71,755	\$126,818	n/a
2010	\$848,826	\$66,161	\$125,435	n/a

<sup>1</sup> Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011 from [http://www.commerce.state.ak.us/dcra/commfin/CF\\_FinRec.cfm](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm).

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

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

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

Stebbins 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 (BIA) is the Stebbins Community Association. The Native village corporation is Stebbins Native Corporation, and the regional Native corporation to which Stebbins belongs is the Bering Strait Native Corporation.<sup>20</sup>

The Stebbins Community Association is also a member of Kawerak Inc., a Tribal non-profit organization with a mission to “assist, promote and provide programs and services to improve the social, economic, educational, cultural and governmental self-sufficiency for the betterment of the Native people within the region, and to preserve the traditional culture,

<sup>20</sup> Ibid.

languages and values.”<sup>21</sup> Kawerak, Inc. 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 services to villages in their regions.<sup>22</sup> Kawerak, Inc. offers children and family services, community services, and education, employment and training opportunities for residents of 18 member villages in the Bering Straits region. The non-profit also includes a Natural Resources Division, which incorporates the Eskimo Walrus Commission, Land Management Services, Reindeer Herders Association, and Subsistence Resources Division.<sup>23</sup>

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

## Infrastructure

### *Connectivity and Transportation*

Stebbins is accessible by air and sea. There is a state-owned 3,000 foot long by 60 foot wide gravel runway. Regular flights, charters, and freight services are available from Bethel. A cargo ship brings supplies annually. There is no dock, and goods must be lightered out of Nome. Overland travel in the winter is by snowmobile.<sup>24</sup> Round-trip airfare between Stebbins and Anchorage in June 2012 was \$620.<sup>25</sup>

### *Facilities*

Water is derived during the summer from Big Clear Creek and is treated and stored in a 1,000,000-gallon steel water tank. Refuse is collected by the city from central bins. The washeteria is operated by the city. Law enforcement is provided by a Village Public Safety Officer (VPSO) and the city police department. Fire and rescue services are provided by the state VPSO and the city, which uses volunteer fire project code red equipment. The community has a teen center and a city/community hall, as well as a school gym and school library. The nearest state trooper post is located in Unalakleet.<sup>26</sup>

In a survey conducted by the AFSC in 2011, community leaders reported that the following infrastructure projects have been completed in the last 10 years: roads, airport, water treatment facility, new landfill/solid waste site, community center/library, public safety – police department, school, telephone service, and post office. In the same survey, community leaders noted that the following infrastructure projects are currently in progress: barge landing area,

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<sup>21</sup> Kawerak, Inc.. 2006. *Homepage*. Retrieved February 17, 2012 from <http://www.kawerak.org/>.

<sup>22</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>23</sup> See footnote 21.

<sup>24</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>25</sup> Airfare was obtained on the travel website <http://www.travelocity.com> for a round-trip ticket for travel from June 1 to June 8, 2012. Retrieved on December 1, 2011.

<sup>26</sup> See footnote 24.

diesel powerhouse, and emergency response. In addition, community leaders indicated that there are no docking facilities available for permanent or transient vessels, and there is no dock space available for public moorage, but that the port of Stebbins is capable of handling fuel barges.

### *Medical Services*

Medical care is provided by the Tapraqmuit Yungcarviat Clinic, which is owned by the city and operated by the Norton Sound Health Corporation. The clinic is a Community Health Aid Program (CHAP) site and a qualified Emergency Care Center. Emergency services have coastal and air access and are provided by a health aide.<sup>27</sup> The nearest qualified Emergency Care Center is located in Unalakleet, and the nearest hospital is located in Nome.

### *Educational Opportunities*

The Tukumgailnguq School provides instruction to students from pre-school through 12<sup>th</sup> grade.<sup>28</sup> In 2011 the school had 193 students and 18 teachers. Stebbins is also a Head Start site.<sup>29</sup>

## **Involvement in North Pacific Fisheries**

### *History and Evolution of Fisheries*

Commercial salmon fisheries began to develop shortly after the purchase of Alaska by the U.S. in 1867. However, the Norton Sound commercial salmon fishery developed later than in other regions of the State. In 1959 and 1960, biologists from the Division of Commercial Fisheries conducted an inventory of salmon resources and determined that harvestable surpluses were present in several Norton Sound river systems. They encouraged processors to develop the fishery after statehood as part of an effort to bring economic benefits to this area of rural Alaska. The first commercial harvest occurred in 1961, and salmon markets in the area have been sporadic since that time. Harvests increased through the 1990s, and have declined since then.<sup>30</sup>

Commercial exploitation of halibut and groundfish first extended into the Bering Sea region in 1928 after development of diesel engines, which allowed fishing vessels to undertake longer trips.<sup>31</sup> King crab fisheries developed in the Bering Sea beginning in the 1950s, and Norton Sound is one of the historical centers of this fishery.<sup>32</sup>

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<sup>27</sup> Ibid.

<sup>28</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

<sup>29</sup> Rural Alaska Community Action Program. (2011). 2010 Annual Report. Retrieved from [www.ruralcap.com](http://www.ruralcap.com) on December 20, 2011.

<sup>30</sup> Clark, McGregor, Mecum, Krasnowski and Carroll. 2006. *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>31</sup> Thompson, William F. and Norman L. Freeman. 1930. *History of the Pacific Halibut Fishery*. Report of the International Fisheries Commission. Number 5. Retrieved June 1, 2012 from <http://www.iphc.int/publications/scirep/Report0005.pdf>.

<sup>32</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>.

Commercial fishing of herring by domestic fishermen dates back to 1916 when a fall food fishery began in Golovin Bay. By 1981, the herring fleet in Norton Sound was harvesting approximately 20% of the observed biomass with over 300 fishermen were participating in the fishery.<sup>33</sup> The observed herring biomass within the Norton Sound District was 53,786 tons in 2011.<sup>34</sup>

In 1976, red king crab (legal) biomass within the Norton Sound was approximately 1.7 million crabs. By 1982, that number had fallen to roughly 0.8 million crabs. In 1999, the estimated crab population reached a near historical high of 1.6 million, which fell again to approximately 0.8 million in 2002. In 2008, the legal population was estimated at 1.5 million. Total open access red king crab harvest for the Norton Sound District in 2008 was 364,235 pounds. Total Community Development Quota (CDQ) red king crab harvest that year was 30,900 pounds.<sup>35</sup>

Norton Sound has the northernmost fisheries for both Pacific herring and red king crab. Although the Norton Sound herring spawning biomass has been relatively stable in recent times, the market for herring roe has declined due to decreasing consumption of herring roe in Japan. Processor interest in the Norton Sound sac roe fishery has declined more than in other areas of the State, largely due to the timing of the fishery, which takes place later than sac roe fisheries elsewhere in the state and conflicts with the opening of the first salmon fisheries of the season. In addition, ice floes are often present in Norton Sound during the herring season.<sup>36</sup> In contrast, the Norton Sound red king crab stock has shown an increasing trend since a population low in the 1990s, and today provides small summer and winter fisheries. NMFS and ADF&G jointly manage Bering Sea king crab stocks.<sup>37</sup> Nome king crab fishermen hold both state-issued king crab permits, as well as permits in the CDQ king crab fishery. The CDQ program “allocates a percentage of all Bering Sea and Aleutian Island quotas for groundfish, prohibited species, halibut, and crab to eligible communities.”<sup>38</sup>

In 1959 and 1960 an experimental salmon fishery was established in the Norton Sound area. State officials encouraged seafood processors to explore and develop fisheries in the region in hopes of providing economic benefits to local communities. In 1961, commercial harvesters began targeting Chinook and coho salmon in the Unalakleet and Shaktoolik areas. Back then, catch was cleaned and shipped to Anchorage for further processing. A single freezer ship processed pink and chum salmon in the area during 1961. By 1962, two floating processors were in operation, and commercial salmon fishing extended into Norton Bay, Moses Point, and Golovin Bay. Peak canning operations occurred in 1963. Commercial Chinook harvests peaked in the 1980s when the 10-year annual average harvest was about 8,000 fish. Commercial harvests of sockeye salmon have always been minor. Coho salmon harvests averaged about 40,000 annually during the 1980s. By the 1990s, that number increased to approximately 55,000 fish,

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<sup>33</sup> Lean, C. (1989). *The Development of the Norton Sound Herring Fishery, 1979-1988*. Retrieved April 3, 2012 from: <http://www.sf.adfg.state.ak.us/FedAidPDFs/RIR.3N.1989.04.pdf>.

<sup>34</sup> Alaska Department of Fish and Game. (2012). *2012 Arctic-Yukon-Kuskokwim Herring Outlook*. Retrieved April 3, 2012 from: [http://www.adfg.alaska.gov/static/fishing/PDFs/commercial/2012\\_ayk\\_herring\\_outlook.pdf](http://www.adfg.alaska.gov/static/fishing/PDFs/commercial/2012_ayk_herring_outlook.pdf).

<sup>35</sup> Menard, J.; Soong, J.; & Kent, S. (2010). *2008 Annual Management Report Norton Sound, Port Clarence, and Kotzebue*. Retrieved April 3, 2012 from: <http://www.adfg.alaska.gov/FedAidPDFs/FMR10-49.pdf>.

<sup>36</sup> Ibid.

<sup>37</sup> Alaska Dept. of Fish and Game. 2012. *Red King Crab Species Profile*. Retrieved June 20, 2012 from <http://www.adfg.alaska.gov/index.cfm?ADFG=redkingcrab.main>.

<sup>38</sup> NOAA Fisheries. (n.d.). *Community Development Quota (CDQ) Program*. Retrieved June 20, 2012 from <http://www.fakr.noaa.gov/cdq/default.htm>.

but decreased by half by 2000. Pink salmon harvests are sporadic, and fluctuate by year. In 1994, almost one million pink salmon were commercially harvested while in more recent years, harvests have dropped to zero. Commercial harvests of chum salmon averaged 150,000 fish annually during the 1970s and 1980s. Stricter escapement goals reduced that number in the 1990s.<sup>39</sup>

Stebbins is located in Pacific Halibut Fishery Regulatory Area 4E and the Bering Sea Sablefish Regulatory Area. Stebbins participates in the CDQ program as a member of the Norton Sound Economic Development Corporation. In a survey conducted by the AFSC in 2011, community leaders reported that Stebbins does not participate in the fisheries management process in Alaska.

### *Processing Plants*

According to ADF&G's 2010 Intent to Operate list, Stebbins does not have a registered processing plant. The nearest processing plant is located in Unalakleet.

### *Fisheries-Related Revenue*

Stebbins received fisheries-related revenue from the raw fish tax and the Shared Fisheries Business Tax between 2000 and 2010. Amounts received from both sources were variable from year to year. In all years during this period, fisheries-related was minimal compared to the total municipal revenue received. Information on known fisheries-related revenue received by the community of Stebbins between 2000 and 2010 is presented in Table 3.<sup>40</sup>

In a survey conducted by the AFSC in 2011, community leaders reported that no community services are specifically funded by the raw fish tax or the Shared Fisheries Business Tax, and that Stebbins does not have local fishing-related fee programs that specifically support public services and infrastructure.

### *Commercial Fishing*

In the 2011 AFSC survey, community leaders reported that no commercial fishing boats use Stebbins as their base of operations during the fishing season, and that Stebbins does not currently have commercial fishing. Community leaders also noted that commercial fishermen from the area go to Yukon.

In 2010, there were a total of 24 permit holders that held 29 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC) for crab, herring, and salmon. Herring CFEC permits were issued for the gill net fishery in Norton Sound, while crab CFEC permits were issued for the king crab pot fishery using vessels under 60 feet in Norton Sound. Salmon CFEC permits were issued for the gill net fishery in the Lower Yukon. The total number of CFEC permits and permit holders varied between 2000 and 2010. Crab CFEC permits were only held in 2002 and 2010, and none of the crab CFEC permits were reported as fished in either of those years. The total number of herring permits and permit holders remained relatively stable

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<sup>39</sup> Clark, J. H. et al. (2006). *The Commercial Salmon Fishery in Alaska*. Retrieved July 10, 2012 from: <http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1.pdf>.

<sup>40</sup> 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.

during this period, though the number of herring CFEC permits reported as fished varied considerably from year to year. The number of salmon CFEC permits and permit holders decreased slightly between 2000 and 2010, and the number of salmon CFEC permits reported as fished varied from year to year. Information about commercial fishing permits and permit holders by species between 2000 and 2010 is presented in Table 4.

There were nine crew license holders in Stebbins in 2010, a decrease from 16 in 2000 and a high of 19 in 2005. Between 2000 and 2010 there were no fish buyers or shore-side processing facilities located in Stebbins. Both the number of vessels owned primarily by Stebbins residents and the number of vessels homeported in Stebbins decreased between 2000 and 2010. Also between 2000 and 2010, there were no commercial fishing vessels landing catch in Stebbins and therefore no associated landings or ex-vessel revenue to report. Information on the characteristics of the commercial fishing sector in Stebbins is provided in Table 5.

There were no individuals holding quota share accounts for halibut (Table 6), sablefish (Table 7) or crab (Table 8) between 2000 and 2010. As previously stated, there were no landings or associated ex-vessel revenue in Stebbins between 2000 and 2010 as there were no vessels landing catch in the community during this period (Table 9). For landings by vessel owner residence, all landings and ex-vessel revenue for all species were considered confidential between 2000 and 2010 due to a small number of participants, with the exception of landings and ex-vessel revenue for herring in 2001. Information on landed pounds and ex-vessel revenue by community residents is presented in Table 10.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	\$276	100	n/a	n/a	n/a	n/a	\$270	\$270	n/a	n/a	n/a
Shared Fisheries Business Tax <sup>1</sup>	\$76	\$154	\$223	\$106	\$90	\$223	\$270	\$210	\$115	\$84	\$101
Fisheries Resource Landing Tax <sup>1</sup>	n/a										
Fuel transfer tax <sup>2</sup>	n/a										
Extraterritorial fish tax <sup>2</sup>	n/a										
Bulk fuel transfers <sup>1</sup>	n/a										
Boat hauls <sup>2</sup>	n/a										
Harbor usage <sup>2</sup>	n/a										
Port/dock usage <sup>2</sup>	n/a										
Fishing gear storage on public land <sup>3</sup>	n/a										
Marine fuel sales tax <sup>3</sup>	n/a										
<b>Total fisheries-related revenue<sup>4</sup></b>	<b>\$352</b>	<b>\$254</b>	<b>\$223</b>	<b>\$106</b>	<b>\$90</b>	<b>\$223</b>	<b>\$540</b>	<b>\$480</b>	<b>\$115</b>	<b>\$84</b>	<b>\$101</b>
<b>Total municipal revenue<sup>5</sup></b>	<b>\$478,462</b>	<b>\$507,549</b>	<b>\$559,617</b>	<b>\$710,809</b>	<b>\$680,946</b>	<b>\$675,017</b>	<b>\$628,186</b>	<b>\$606,729</b>	<b>\$981,520</b>	<b>\$744,663</b>	<b>\$848,826</b>

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

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

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

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Table 4. Permits and Permit Holders by Species, Stebbins: 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	3	0	0	0	0	0	0	0	7
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	3	0	0	0	0	0	0	0	7
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	12	13	13	12	11	10	10	10	11	11	12
	Fished permits	1	6	3	1	0	3	0	0	0	0	2
	% of permits fished	8%	46%	23%	8%	-	30%	-	-	-	-	17%
	Total permit holders	12	13	14	13	12	10	11	10	11	11	13

Table 4 cont'd. Permits and Permit Holders by Species, Stebbins: 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	11	10	11	9	10	9	9	9	9	10	10
	Fished permits	3	0	7	6	4	6	6	3	2	1	3
	% of permits fished	27%	-	64%	67%	40%	67%	67%	33%	22%	10%	30%
	Total permit holders	12	10	11	9	10	9	10	9	9	10	10
<i>Total CFEC Permits<sup>2</sup></i>	<i>Permits</i>	<i>23</i>	<i>23</i>	<i>27</i>	<i>21</i>	<i>21</i>	<i>19</i>	<i>19</i>	<i>19</i>	<i>20</i>	<i>21</i>	<i>29</i>
	<i>Fished permits</i>	<i>4</i>	<i>6</i>	<i>10</i>	<i>7</i>	<i>4</i>	<i>9</i>	<i>6</i>	<i>3</i>	<i>2</i>	<i>1</i>	<i>5</i>
	<i>% of permits fished</i>	<i>17%</i>	<i>26%</i>	<i>37%</i>	<i>33%</i>	<i>19%</i>	<i>47%</i>	<i>32%</i>	<i>16%</i>	<i>10%</i>	<i>5%</i>	<i>17%</i>
	<i>Permit holders</i>	<i>20</i>	<i>19</i>	<i>23</i>	<i>19</i>	<i>19</i>	<i>16</i>	<i>18</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>24</i>

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

<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 Stebbins: 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 Stebbins <sup>2</sup>	Total Net Pounds Landed In Stebbins <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Stebbins <sup>2,5</sup>
2000	16	0	0	12	12	0	0	\$0
2001	17	0	0	13	13	0	0	\$0
2002	17	0	0	14	14	0	0	\$0
2003	12	0	0	8	8	0	0	\$0
2004	9	0	0	5	5	0	0	\$0
2005	19	0	0	10	10	0	0	\$0
2006	10	0	0	8	9	0	0	\$0
2007	11	0	0	5	4	0	0	\$0
2008	5	0	0	6	5	0	0	\$0
2009	2	0	0	3	4	0	0	\$0
2010	9	0	0	8	8	0	0	\$0

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

<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 by Residents of Stebbins: 2000-2010.

<b>Year</b>	<b>Number of Halibut Quota Share Account Holders</b>	<b>Halibut Quota Shares Held</b>	<b>Halibut IFQ Allotment (Pounds)</b>
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 Stebbins: 2000-2010.

<b>Year</b>	<b>Number of Sablefish Quota Share Account Holders</b>	<b>Sablefish Quota Shares Held</b>	<b>Sablefish IFQ Allotment (Pounds)</b>
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 Stebbins: 2000-2010.

<b>Year</b>	<b>Number of Crab Quota Share Account Holders</b>	<b>Crab Quota Shares Held</b>	<b>Crab IFQ Allotment (Pounds)</b>
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 Stebbins: 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>

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 pounds 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 Stebbins Residents: 2000-2010.

	<i>Total Net Pounds<sup>1</sup></i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	117,523	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total<sup>2</sup></i>	--	117,523	--	--	--	--	--	--	--	--	--
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	\$ 9,754	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	--	--	--	--	--	--	--	--	--	--
<i>Total<sup>2</sup></i>	--	\$ 9,754	--	--	--	--	--	--	--	--	--

*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 pounds refers to the landed weight recorded in fish tickets.

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

*Recreational Fishing*

One active sport fish guide business was present in Stebbins in two years during the 2000-2010 period, and one licensed sport fish guide was present in four years of the period. The number of sport fishing licenses sold in the City varied between 0 and 50 per year. The number sold to residents was very similar, ranging from 13 to 41 per year (irrespective of point of sale). In some years, a greater number of sport fishing licenses was sold in the community than the total sold to residents. This indicates that a small number of visitors may come to Stebbins and engage in sport fishing activity.

Stebbins is located within Alaska Sport Fishing Survey Area W – Seward Peninsula – Norton Sound. Information is available about both saltwater and freshwater sport fishing activity at this regional scale. Between 2000 and 2010, there was significant sport fishing activity in both saltwater and freshwater, although freshwater sport fishing was more important in the region. Alaska resident anglers consistently fished more angler days in both freshwater and saltwater (34 – 2,663 saltwater and 6,199 to 17,579 freshwater angler days) than non-Alaska residents (0 – 204 saltwater and 2,087 – 8,307 freshwater angler days) during the period. This information about the sport fishing sector in and near Stebbins is displayed in Table 11.

Although no data were available from the ADF&G Statewide Harvest Survey regarding species targeted by sport fishermen in Stebbins between 2000 and 2010, information was available regarding species targeted by private anglers in nearby Saint Michael. They included coho salmon, chum salmon, whitefish, Arctic grayling, and northern pike.<sup>41</sup> In a survey conducted by the AFSC in 2011, community leaders reported that the following species are targeted by recreational fishermen that use boats based in Stebbins: all five species of salmon, herring, and tomcod. In the same survey, community leaders also noted that recreational fishing in Stebbins primarily takes place from private boats owned by local residents.

Table 11. Sport Fishing Trends, Stebbins: 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 Stebbins <sup>2</sup>
2000	0	0	38	0
2001	0	1	23	0
2002	0	1	39	39
2003	1	1	41	47
2004	1	1	33	39
2005	0	0	25	15
2006	0	0	13	14
2007	0	0	23	22
2008	0	0	19	17
2009	0	0	21	27
2010	0	0	32	50

<sup>41</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).

Table 11 cont'd. Sport Fishing Trends, Stebbins: 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	196	2,663	3,789	11,795
2001	64	988	2,087	7,816
2002	94	1,650	4,321	12,260
2003	30	1,530	3,632	7,211
2004	204	497	4,183	8,439
2005	56	1,940	8,307	6,764
2006	90	1,400	3,547	12,535
2007	49	530	3,688	12,400
2008	0	655	3,761	17,579
2009	133	897	4,198	11,995
2010	43	34	4,334	6,199

<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/sport\\_fishingsurvey/](http://www.adfg.alaska.gov/sf/sport_fishingsurvey/) (Accessed September 2011).

### *Subsistence Fishing*

The Stebbins economy is based on subsistence harvests supplemented by part-time wage earnings. Residents subsist upon fish, seal, walrus, reindeer, and beluga whale.<sup>42</sup> In a survey conducted by the AFSC in 2011, community leaders reported that subsistence is much more common than commercial or recreational use of marine resources in Stebbins, and that the three most important local subsistence marine or aquatic resources are fish and marine mammals. Seals are of particular importance. In the same survey, community leaders noted that the annual peak in population in Stebbins is entirely driven by subsistence fishing.

Data were not available regarding subsistence participation by household and species between 2000 and 2010, or per capita subsistence harvest (Table 12). However, data were available regarding total salmon and marine mammals harvests.

In years for which data were reported regarding subsistence salmon permits between 2000 and 2010, an average of 126 permits were issued to Stebbins households. The most heavily harvested salmon species shifted from year to year, between chum, coho, and pink salmon. Chinook salmon and sockeye salmon were also harvested for subsistence during this period,

<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).

although in much lower quantities. Data were not available regarding the subsistence harvest of marine invertebrates or non-salmon fish during this period. Information about subsistence harvest of salmon, marine invertebrates, and non-salmon fish (not including halibut) is presented in Table 13. Although data were available during the 2000-2010 period regarding subsistence harvest of non-salmon fish in Stebbins, an earlier subsistence survey conducted by the ADF&G Division of Subsistence provides additional insight into subsistence harvest patterns in Stebbins. In 1980, the following species of non-salmon fish were reported to have been harvested for subsistence purposes by Stebbins households: saffron cod (92% of households harvested), herring (83%), cisco (75%), sheefish (33%), broad whitefish (8%), and sculpin (8%).<sup>43</sup> No data were reported regarding subsistence halibut fishing participation in Stebbins during the 2000-2010 period (Table 14).

Although community leaders report heavy use of seal by Stebbins residents, no information was reported by ADF&G regarding harvest of spotted seal or harbor seal during the 2000-2010 period. This discrepancy is likely due in part to the fact that not all seal species are represented in Table 15. According to a 1980 subsistence survey conducted by ADF&G in Stebbins, the primary species of seal harvested by Stebbins households were ringed seal (100% of households reported harvest) and bearded seal (75%), along with a smaller percentage that harvested spotted seal (33%).<sup>44</sup> Likewise, no information was reported regarding the harvest of sea otters, walrus, polar bear, or Steller sea lion during this period. The only marine mammal for which data are available between 2000 and 2010 was beluga whale. From 2000 to 2006, the number of beluga harvested by Stebbins residents varied between 9 and 21. Information about subsistence harvest of marine mammals is presented in Table 15.

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<sup>43</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).

<sup>44</sup> Ibid.

Table 12. Subsistence Participation by Household and Species, Stebbins: 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, Stebbins: 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	128	111	294	2,876	2,398	360	337	n/a	n/a
2001	124	107	570	3,999	2,759	202	n/a	n/a	n/a
2002	122	108	469	3,586	2,324	7,459	300	n/a	n/a
2003	122	98	265	2,399	1,215	2,685	171	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	133	128	425	4,519	2,364	3,809	52	n/a	n/a
2006	132	126	318	3,804	4,360	3,880	126	n/a	n/a
2007	136	117	742	4,980	2,006	1,881	n/a	n/a	n/a
2008	113	103	709	4,407	2,949	3,854	17	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, Stebbins: 2003-2010.

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

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

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

Table 15. Subsistence Harvests of Marine Mammal Resources, Stebbins: 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	15	n/a	n/a	n/a	n/a	n/a	n/a
2001	18	n/a	n/a	n/a	n/a	n/a	n/a
2002	21	n/a	n/a	n/a	n/a	n/a	n/a
2003	20	n/a	n/a	n/a	n/a	n/a	n/a
2004	8	n/a	n/a	n/a	n/a	n/a	n/a
2005	9	n/a	n/a	n/a	n/a	n/a	n/a
2006	9	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.