# Saint Paul

# **People and Place**

# Location <sup>1,2</sup>



The community of Saint Paul is located on a narrow peninsula on the southern tip of Saint Paul Island, the largest of the four Pribilof Islands. It lies 47 miles north of Saint George Island, 240 miles north of the Aleutian Islands, 300 miles west of the Alaska mainland, and 750 air miles west of Anchorage. Saint Paul is located in the Aleutian Islands Recording District. The community encompasses 40.3 square miles of land and 255.2 square miles of water.

# Demographic Profile<sup>3</sup>

In 2010, the U.S. Census determined that there were 479 residents in Saint Paul, making it the 122<sup>nd</sup> largest of 352 total Alaskan communities with recorded populations that year. However, the 2006-2010 American Community Survey (ACS) estimated that Saint Paul had 1,065 residents in 2010. The difference between the two population figures is likely due to the presence of seasonal workers, which play an important role in the economy of Saint Paul, and the timing of when the U.S. Census surveys were done in the community. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that an estimated 300 seasonal workers or transients live in Saint Paul for part of the year, mostly working in the construction, tour guide, and fishing industries (e.g., snow crab, halibut, and king crab). They also indicated that the population of Saint Paul reaches an annual peak in January when transient processors are present, and that the population peak is entirely driven by fisheries-related employment.

Based on the Alaska Department of Labor estimate of permanent residents, the average annual growth rate for Saint Paul between 2000 and 2009 was -1.64%, indicating slow population decline. Overall between 2000 and 2009, the population of Saint Paul decreased by 13.72%. The change in population from 1990 to 2010 is detailed in Table 1.

A majority of residents of Saint Paul in 2010 identified themselves as American Indian or Alaska Native (82.3%), while 11.1% identified themselves as White, 0.6% as Asian, 0.6% as 'some other race', 0.4% as Black or African American, 0.4% as Native Hawaiian or other Pacific Islander, and 4.8% identified as two or more races. In addition, 3.5% identified themselves as Hispanic or Latino in 2010. Compared to 2000, the percentage of the population identifying themselves as American Indian or Alaska Natives was 3.6% lower in 2010, and the percentages

<sup>&</sup>lt;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.

<sup>&</sup>lt;sup>2</sup> City of Saint Paul, Alaska, WH Pacific, and Bechtol Planning and Development. November 17, 2008. *City of Saint Paul, Alaska Local Multi-Hazard Mitigation Plan DRAFT*. Retrieved August 20, 2012 from

http://www.commerce.state.ak.us/dca/planning/nfip/Hazard\_Mitigation\_Plans/St\_Paul\_LHMP.pdf.

<sup>&</sup>lt;sup>3</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.

of the population identifying themselves as White and Native Hawaiian or other Pacific Islander also decreased over this period (by 1.9% and 0.4%, respectively). During the same period, the population of Saint Paul experienced corresponding increases in the percentage of the population identifying themselves as Asian, Hispanic or Latino, Black or African American, and two or more races. Changes in racial and ethnic composition from 2000 to 2010 are s in Figure 1.

In 2010, the average household size in Saint Paul was 2.81, a slight decrease from 3.6 in 1990 and 2.88 in 2000. However, there has been an overall increase in the total number of occupied households since 1990, from 154 in 1990 to 177 in 2000 to 162 in 2010. Of the 190 housing units surveyed for the 2010 Decennial Census, 91 were owner-occupied, 71 were renter-occupied, and 28 were vacant. There were 24 Saint Paul residents reported as living in group quarters in 2010.

The gender makeup in Saint Paul was slightly skewed in 2010, at 53% male and 47% female, similar to the state as a whole (52% male, 48% female). The population between 20 and 69 was slightly male biased both in 2000 and 2010. The median age in Saint Paul was 34.4 years, lower than the U.S. national average of 36.8 years and higher than the median age for Alaska, 33.8 years. The greatest percentage of residents fell within the age category 0-19 years old, with the next largest percentage for the category 40-59 years old. Relatively few people were 70 or older (Figure 2).

Year	U.S. Decennial Census <sup>1</sup>	Alaska Dept. of Labor Estimate of Permanent Residents <sup>2</sup>
1990	763	-
2000	532	-
2001	-	527
2002	-	533
2003	-	539
2004	-	496
2005	-	492
2006	-	470
2007	-	446
2008	-	449
2009	-	459
2010	479	-

Table 1. Population in Saint Paul from 1990 to 2010 by Source.

<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,

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







In terms of educational attainment, according to the 2006-2010 ACS,<sup>4</sup> 74% of Saint Paul residents age 25 and over were estimated to hold a high school diploma or higher, compared with 90.7% of Alaska residents overall. Also in 2009, 11.9% of the population had less than a ninth grade education, compared to 3.5% of Alaska residents overall; 14.1% had a 9<sup>th</sup> to 12<sup>th</sup> grade education but no diploma, compared with 5.8% of Alaska residents overall; 45.4% had a high school diploma or equivalent, compared with 27.4% of Alaska residents overall; 7% had some college but no degree, compared with 28.3% of Alaska residents overall; 10.2% held an Associate's degree, compared with 8% of Alaska residents overall; 11.1% held a Bachelor's degree, compared with 17.4% of Alaska residents overall; and 0.3% held a graduate or professional degree, compared with 9.6% of Alaska residents overall.

## History, Traditional Knowledge, and Culture

Saint Paul's population is predominantly Unangan Aleut.<sup>5</sup> Historically, the Aleuts traveled to the Pribilof Islands seasonally for hunting. Inspired by traditional Aleut stories, Gavriff Pribilof of the Russian fur trading company, Lebedov Lastochkin Co., went on a search for the legendary "Seal Islands." After three years, Pribilof landed on Saint George Island in 1786, and named the island after his vessel. The following year, Pribilof and his party landed on the larger island to the north, which was named 'Saint Peter and Saint Paul Island' in honor of the day they made landfall – the Feast of Saints Peter and Paul. It is now known simply as Saint Paul Island.<sup>6</sup> In 1788, the Russian American Company enslaved and relocated Aleuts from Siberia, Atka, and Unalaska to the Pribilofs to hunt fur seals. Their descendants continue to live on these two islands today.<sup>7</sup>

The United States' purchase of Alaska from Russia in 1867 included the Pribilof Islands. Soon after the purchase, in 1868, the Islands were declared a special Federal Reserve with the purpose of managing fur seals and other fur-bearing species, and the federal government began to contract seal harvest to private companies.<sup>8</sup> In 1870, the U.S. government awarded the Alaska Commercial Company a 20-year sealing lease, and they provided housing, food, and medical care to the Aleuts in exchange for seal harvesting. In 1890, a second 20-year lease was awarded to the North American Commercial Company. However, fur seals were severely over-harvested, and poverty ensued. The 1910 Fur Seal Act ended private leasing on the Islands and placed the community and fur seals under the U.S. Bureau of Fisheries. Food and clothing were scarce, social and racial segregation was practiced, and working conditions were poor.<sup>9</sup>

http://docs.lib.noaa.gov/noaa\_documents/NOS/ORR/TM\_NOS\_ORR/TM\_NOS-

ORR\_17/HTML/Pribilof\_html/Pages/history\_Russian\_period.htm.

<sup>&</sup>lt;sup>4</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>&</sup>lt;sup>5</sup> Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.

<sup>&</sup>lt;sup>6</sup> NOAA Office of Response and Restoration. 2008. Pribilof Islands: A Historical Perspective – Island History: The Russian Period. Retrieved January 7, 2013 from

<sup>&</sup>lt;sup>7</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.

<sup>&</sup>lt;sup>8</sup> 106<sup>th</sup> U.S. Congress. April 11, 2000. *Pribilof Islands Transition Act*. Retrieved August 21, 2012 from http://www.gpo.gov/fdsys/pkg/CRPT-106hrpt569/html/CRPT-106hrpt569.htm.

<sup>&</sup>lt;sup>9</sup> See footnote 7.

During World War II, the Pribilof Aleuts were moved to Funter Bay on Admiralty Island in Southeast Alaska as part of the emergency evacuation of residents from the Bering Sea. Unlike other Aleutian residents, they were confined in an abandoned cannery and mine camp at Funter Bay. Conditions were poor, with crowded quarters and inadequate heat and sanitation, leading to high rates of illness. Many elderly and young people died during this period. Later, in 1979, the Aleut Islanders received \$8.5 million in partial compensation for the unfair and unjust treatment the federal administration subjected them to from 1870 to 1946.<sup>10,11</sup>

In 1983, Congress passed the Fur Seal Act Amendments, which brought government control of the commercial seal harvest and the federal presence in the Pribilof Islands to an end. Responsibility for providing community services and management of the fur seals was left to local entities. To help develop and diversify the local economy, \$12 million was provided to Saint Paul by the federal government. Commercial harvesting of fur seals on Saint Paul ceased in 1985.<sup>12</sup> Today, the Marine Mammal Protection Act provides that marine mammals may be taken by Native Alaskans living in Alaska if such taking is 1) for subsistence purposes; or 2) is done for the purpose of creating and selling authentic native articles of handicrafts and clothing; and 3) in each case, is not accomplished in a wasteful manner.<sup>13</sup> Residents of Saint Paul harvest fur seals for the purpose of both subsistence and Native arts and crafts.<sup>14,15</sup>

Although subsistence has not historically been the focus of the local culture, today seal – and other resources such as halibut – are shared and exchanged with relatives living in other communities for salted or smoked salmon.<sup>16</sup> The American Orthodox Church<sup>17</sup> historically played a strong role in community cohesiveness. The sale of alcohol is limited to the tribal-owned package store and the tavern.<sup>18</sup>

# **Natural Resources and Environment**

The climate of Saint Paul is sub-arctic maritime. The location in the Bering Sea results in cool weather year-round and a narrow range of mean temperatures, varying from 19 to 51 °F (-7.2 to 10.6 °C). Average annual precipitation is 25 inches, with snowfall of 56 inches. Heavy fog is common during summer months.<sup>19</sup> Saint Paul is the largest of the four Pribilof Islands and lies the furthest north. It is approximately 16 miles long and 9 miles wide, with a maximum elevation of 655 ft. The Island is of volcanic origin, and the topography is characterized by lava flows,

ORR\_17/HTML/Pribilof\_html/Pages/pribilof\_documents\_snp.htm.

<sup>16</sup> See footnote 7.

<sup>&</sup>lt;sup>10</sup> Ibid.

<sup>&</sup>lt;sup>11</sup> City of St. George. 1988. Comprehensive Development Plan. Retrieved January 4, 2013 from

http://www.commerce.state.ak.us/dca/plans/SaintGeorge-CP-1988.pdf.

<sup>&</sup>lt;sup>12</sup> Ibid.

<sup>&</sup>lt;sup>13</sup> Marine Mammal Protection Act of 1972, as amended 2007. *Section 101(b) - Exemptions for Alaska natives*. Retrieved August 20, 2012 from http://www.nmfs.noaa.gov/pr/pdfs/laws/mmpa.pdf.

<sup>&</sup>lt;sup>14</sup> NOAA Fisheries. 2008. *Pribilof Islands, A Historical Perspective - Document Library*. Retrieved August 20, 2012 from http://docs.lib.noaa.gov/noaa\_documents/NOS/ORR/TM\_NOS\_ORR/TM\_NOS-

<sup>&</sup>lt;sup>15</sup> City of Saint Paul, Alaska, WH Pacific, and Bechtol Planning and Development. November 17, 2008. *City of Saint Paul, Alaska Local Multi-Hazard Mitigation Plan DRAFT*. Retrieved August 20, 2012 from

http://www.commerce.state.ak.us/dca/planning/nfip/Hazard\_Mitigation\_Plans/St\_Paul\_LHMP.pdf.

<sup>&</sup>lt;sup>17</sup> Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.

<sup>&</sup>lt;sup>18</sup> See footnote 7.

<sup>&</sup>lt;sup>19</sup> Ibid.

volcanic cones, and volcanic debris. Inland, a tundra complex overlies the volcanic soil, made up of lichens, mosses, wildflowers, rock jasmine, Chickweed, and low-lying willows and scrubs. Along some stretches of the coastline, the volcanic rock is covered by coastal dunes and marine deposits inside shallow bays. In other coastal areas, headlands rise above sheer cliffs.<sup>20,21</sup>

Wildlife present on Saint Paul Island includes over 248 species of migratory birds, blue fox (a sub-species of Arctic fox), and reindeer (descendants of a domesticated herd from the early 1900s).<sup>22</sup> A majority of the northern fur seal in the Pribilof Islands have their rookeries on Saint Paul Island. Most of the Island is owned by the village Native corporation, Tanadgusix Corporation (TDX), which provides wildlife viewing tours.<sup>23</sup> In 1982, a portion of Saint Paul Island known as the 'seabird cliffs' was purchased by the federal government to be added to the Pribilof Unit of the Alaska Maritime National Wildlife Refuge (NWR).<sup>24</sup> Including all of its units, the Alaska Maritime NWR spans four time zones,<sup>25</sup> stretching from the Aleutian Islands to the Chuckchi Sea Coast to the Southeast Alaska Panhandle. It was created in part to promote a program of scientific research on marine ecosystems. The Alaska Maritime NWR "protects breeding habitat for seabirds, marine mammals, and other wildlife on more than 2,500 islands, spires, rocks, and coastal headlands."<sup>26</sup>

Natural hazards with the potential to impact the community of Saint Paul include earthquakes, tsunamis, severe weather, flooding, and erosion. The primary flooding risk in Saint Paul is from storm surges, which occur when ocean water is driven onshore by high winds during storms. Flooding events and coastal storms are the primary causes of coastal erosion on Saint Paul Island. Severe weather events that are likely to affect Saint Paul include severe winds, winter storms, heavy snow, and ice storms. Severe winds are a regular occurrence, resulting in extensive damage to structures in the community. Extreme cold temperatures are also common in the region. The probability of an earthquake in the area is considered low to moderate. There is minimal risk of tsunami damage to Saint Paul.<sup>27</sup>

According to the Alaska Department of Environmental Conservation (DEC), petroleum contamination has been identified at a number of properties on Saint Paul Island currently or previously owned by NOAA and its predecessor agencies. Restoration activities have been conducted according to an agreement between NOAA and the DEC, and currently no further remedial action is planned. Contaminated soil has been excavated and long-term soil and groundwater monitoring is in place. Residents of Saint Paul obtain drinking water from a clean source located two miles north of the City.

<sup>26</sup> USFWS (n.d.). *Alaska Maritime National Wildlife Refuge*. Retrieved January 4, 2012 from http://alaskamaritime.fws.gov/.

<sup>27</sup> See footnote 15.

<sup>&</sup>lt;sup>20</sup> See footnote 15.

<sup>&</sup>lt;sup>21</sup> Jordan, D.S. (1898). *The Fur Seals and Fur-seal Islands of the North Pacific Ocean*. Washington, D.C.: U.S. Department of the Treasury: Government Printing Office. p. 31.

<sup>&</sup>lt;sup>22</sup> See footnote 15.

<sup>&</sup>lt;sup>23</sup> U.S. Fish and Wildlife Service. 2008. *Alaska Maritime National Wildlife Refuge: Pribilof Islands – Wildlife Viewing*. Retrieved January 7, 2013 from http://alaskamaritime.fws.gov/visitors-

educators/wildlifeviewing/pribilofs.htm.

<sup>&</sup>lt;sup>24</sup> U.S. Fish and Wildlife Service. 2008. *Alaska Maritime National Wildlife Refuge: Refuge Units – St. George Island, Pribilofs.* Retrieved January 7, 2013 from http://alaskamaritime.fws.gov/units/StGeorge.htm.

<sup>&</sup>lt;sup>25</sup> "Technically, the Alaska Maritime Refuge spans 4 time zones (Pacific, Yukon, Alaska, and Bering). In 1983 almost all the state was consolidated under Alaska Time (standard and daylight) - one hour behind Pacific Time of the West Coast. Only the central and western Aleutian Islands observe Hawaii-Aleutian Time, two hours behind Pacific Time." Quote retrieved June 11, 2012 from http://alaskamaritime.fws.gov/howbig.htm.

# Current Economy<sup>28</sup>

The federally-controlled fur seal industry dominated the economy of the Pribilofs until 1985, when commercial fur seal harvest came to an end.<sup>29</sup> According to a survey conducted by the AFSC in 2011, Saint Paul community leaders indicated that the local economy has transitioned from fur-seal harvest to servicing the commercial fishing industry. They reported that fisheries are the primary economic driver in Saint Paul, and emphasized the importance of fish and crab processing to the local economy. Saint Paul is a port for the Central Bering Sea fishing fleet, and major harbor improvements have fueled economic growth. Several offshore processors are serviced out of Saint Paul, and shore-side plants process cod, crab, and halibut.<sup>30</sup> The Central Bering Sea Fishermen's Association (CBSFA) operates a cooperative in conjunction with the F/V Saint Paul, Trident Seafoods, and American Seafoods. Trident Seafoods is one of the top local employers.<sup>31</sup> A number of local residents are also involved in commercial fisheries as vessel owners, permit and quota share account holders, and crew license holders (see *Commercial Fisheries* section).

In addition to fisheries and seafood processing, top employers in Saint Paul in 2010 included the City of Saint Paul, the Tribal Government of Saint Paul, the local Native village corporation, Tanadgusix Corp., the Aleutian Pribilof Islands Association Inc., the Pribilof School District, local retailers, dredging and marine construction, and Peninsula Airways, Inc.<sup>32</sup> In addition, fur seal rookeries and more than 210 species of nesting sea birds attract several hundred visitors to this remote location each year. Subsistence is also important to the local economy. Residents utilize halibut, fur seals (1,645 may be taken each year), reindeer, ducks, seabirds, marine invertebrates, plants, and berries for subsistence purposes.<sup>33</sup>

Based on the 2006-2010 ACS,<sup>34</sup> the estimated per capita income in Saint Paul in 2010 was \$26,198, and the estimated median household income in 2010 was \$38,125, compared to \$18,408 and \$50,750 in 2000, respectively. However, after accounting for inflation by converting the 2000 values to 2010 dollars,<sup>35</sup> the real per capita income (\$24,206) increased between 2000 and 2010, while the real median household income (\$66,736) decreased substantially during the same period. In 2010, Saint Paul ranked 93<sup>rd</sup> of 305 Alaskan communities with per capita income that year, and 200<sup>th</sup> of 299 Alaskan communities with household income data.

<sup>&</sup>lt;sup>28</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>&</sup>lt;sup>29</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.

<sup>&</sup>lt;sup>30</sup> Ibid.

<sup>&</sup>lt;sup>31</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>&</sup>lt;sup>32</sup> Ibid.

<sup>&</sup>lt;sup>33</sup> See footnote 29.

<sup>&</sup>lt;sup>34</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>&</sup>lt;sup>35</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).

However, Saint Paul's small population size may have prevented the ACS from accurately portraying economic conditions.<sup>36</sup> An alternative estimate of per capita income is provided by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Saint Paul in 2010 is \$13,628.<sup>37</sup> This estimate is lower than both reported per capita income in 2000 and the 2010 ACS estimate, suggesting that caution is warranted when citing a real increase in per capita income in Saint Paul based on ACS estimates. Saint Paul did not meet the Denali Commission's primary criteria as a "distressed community" in 2010.<sup>38</sup> It should be noted that both ACS and DOLWD data are based on wage earnings, and these income statistics do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a much higher percentage of Saint Paul residents was estimated to be in the civilian labor force (91.4%) than in the civilian labor force statewide (68.8%). In the same year, 17.7% of local residents were estimated to be living below the poverty line, almost double the rate of Alaska residents overall (9.5%), and the unemployment rate was estimated to be 1.5%, much lower than the statewide unemployment rate of 5.9%. An additional estimate of unemployment is based on the ALARI database, which indicates that the unemployment rate in 2010 was 15.5%, compared to a statewide unemployment rate estimate of 11.5%.<sup>39</sup>

Based on the 2006-2010 ACS, the greatest number of workers was estimated to be employed in the private sector (96.1%), while 3.8% worked in the public sector, and 0.1% of workers were self-employed. Out of 866 people age 16 or older that were estimated by the 2006-2010 ACS to be in the civilian labor force, a majority worked in manufacturing industries (90.2%). Only small percentages of the population were estimated to work in other industries. Compared to 2000, the distribution of employment was much more concentrated in manufacturing in 2010, and a number of industries were no longer represented in employment estimates. It is important to keep in mind that the small population of Saint Paul may affect the representativeness of 2006-2010 ACS estimates, which could explain the dramatic shift in employment statistics between 2000 and 2010.<sup>40</sup> This information about employment by industry is presented in Figure 3.

Employment statistics by occupation show similar trends, with a large increase in production, transportation, and material moving occupations between 2000 and 2010, and a dramatic reduction in employment in natural resource, construction, and maintenance, service, and management and professional occupations. The percentage of the workforce estimated to be employed in sales and office occupations remained stable between 2000 and 2010. Employment is broken down by occupation in Figure 4.

<sup>&</sup>lt;sup>36</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>&</sup>lt;sup>37</sup> See footnotes 31 and 34.

<sup>&</sup>lt;sup>38</sup> Denali Commission. 2011. *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from www.denali.gov.

<sup>&</sup>lt;sup>39</sup> See footnote 31.

<sup>&</sup>lt;sup>40</sup> See footnote 36.

It is important to note that the number of individuals employed in fishing-related occupations and industries is probably underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly.



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Figure 3. Local Em	nlovment by Industr	v in 2000-2010	Saint Paul (	[I] S (Census)
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# Figure 4. Local Employment by Occupation in 2000-2010, Saint Paul (U.S. Census).



An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 230 employed residents in Saint Paul in 2010, of which 47.4% were employed in local government, 11.3% in financial activities, 9.6% in trade, transportation, and utilities, 8.7% in education and health services, 8.3% in manufacturing, 5.7% in construction, 2.2% in professional and business services, 0.9% in state government, 0.4% in leisure and hospitality, and 5.7% in other industries.<sup>41</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.

## Governance

Saint Paul is a 2<sup>nd</sup> Class City governed by a mayor and a city council and is not located within an organized borough. The City has a "Strong Mayor" form of government, with a sevenperson city council including the mayor, a five-person school board, five-person planning commission, and several municipal employees. As of 2010, the City administered a 3% sales tax and a raw fish tax, and did not administer a property tax.<sup>42,43</sup> In addition to sales tax revenues, other locally-generated revenue sources in Saint Paul during the 2000-2010 period included local raw fish tax revenue, and charges for services such as day care, building rentals, equipment rental and repairs, emergency medical services, and financial services. Outside revenue sources included shared funds from the State of Alaska, a contract for maintenance of the airport, and a variety of capital and special project grants. Sources of shared revenue included the State Revenue Sharing program from 2000 to 2003 (between \$30,000 and \$40,000 per year), the state Community Revenue Sharing program in 2009 and 2010 (just under \$120,000 each year), and the state fish tax refunds, among others. Grants were received from state and federal agencies for capital projects, including a number of fisheries-related grants. These U.S. Army Corps of Engineers funding for harbor upgrades, a local boat basin project, improvements to the Saint Paul small boat harbor, harbor improvements (processor space), and construction of a small boat harbor (Phases I, II, and III), and U.S. Economic Development Agency funding for harbor dredging. Other grants included a Bureau of Indian Affairs (BIA) funding for a road project and state funds for remodel and repair of buildings, renovation of the local boat basin, and fire and public safety upgrades. Information about select aspects of revenue sources in Saint Paul is presented in Table 2. Also see the Fisheries-Related Revenue section for more information about local and state fish tax revenues.

Saint Paul 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 BIA, is the Aleut Community of Saint Paul Island. The Tribe is combined with Saint George as the 'Pribilof Islands Aleut Communities of Saint Paul and Saint George Islands'. The Native village corporation for the Aleut Community of Saint Paul Island is the Tanadgusix Corporation (TDX), which manages 154,376 acres of land.<sup>44</sup> The TDX Corporation owns several subsidiary

<sup>&</sup>lt;sup>41</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>&</sup>lt;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.

<sup>&</sup>lt;sup>43</sup> Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.

<sup>&</sup>lt;sup>44</sup> See footnote 42.

companies that provide services to commercial, industrial, and public sectors.<sup>45</sup> Many members of the Aleut Community of Saint Paul Island are also shareholders in the Aleut Corporation, the regional Native corporation of the eastern Alaska Peninsula, Aleutian Islands, and Pribilof Islands.<sup>46</sup>

Year	Total Municipal	Sales Tax	State/Community	<b>Fisheries-Related</b>
	<b>Revenue</b> <sup>1</sup>	<b>Revenue</b> <sup>2</sup>	Revenue	Grants (State and
			Sharing <sup>3,4</sup>	Federal) <sup>5</sup>
2000	\$4,667,354	\$328,695	\$42,789	\$82,000
2001	\$1,923,734	\$289,323	\$43,856	\$51,080
2002	\$2,027,097	\$295,654	\$29,472	\$116,393
2003	\$1,895,355	\$282,483	\$29,503	\$20,191,279
2004	\$2,041,007	\$317,580	n/a	\$117,000
2005	\$2,304,279	\$367,281	n/a	\$473,277
2006	\$2,035,136	\$321,610	n/a	\$259,740
2007	\$3,496,630	\$351,610	n/a	\$2,162,440
2008	\$7,732,471	\$459,921	n/a	\$35,000
2009	\$4,747,988	\$466,700	\$118,956	\$620,000
2010	\$5,327,029	\$466,925	\$119,020	n/a

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

<sup>1</sup> Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011from 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.

<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, 2011from http://www.commerce.state.ak.us/dca/commdb/CF\_Grants.htm.

The Aleut Community of Saint Paul Island is also part of the Aleutian Pribilof Islands Association (APIA). The mission of APIA is to promote self-sufficiency and independence of the Unangax by advocacy, training, technical assistance, and economic enhancement, as well as to assist in meeting health, safety, and well-being of each Unangax community; and to promote, strengthen, and preserve the Unangax cultural heritage.<sup>47</sup>

A field station of the National Marine Fisheries Service (NMFS) is located on Saint Paul Island, and the nearest larger NMFS office is located in Dutch Harbor, along with an office of the Alaska Department of Fish and Game (ADF&G). The nearest office of the Alaska Department of Commerce, Community, and Economic Development is located in Dillingham. The nearest offices of the U.S. Bureau of Citizenship and Immigration Services, and Alaska Department of Natural Resources are located in Anchorage.

<sup>&</sup>lt;sup>45</sup> Tanadgusix Corporation (n.d.). *About TDX*. Retrieved on May 10, 2012 from http://www.tanadgusix.com/index.html.

<sup>&</sup>lt;sup>46</sup> Aleut Corporation 2008. *Homepage*. Retrieved February 9, 2012 from http://www.aleutcorp.com.

<sup>&</sup>lt;sup>47</sup> Aleutian Pribilof Islands Association (n.d.). *About Us.* Retrieved January 26, 2012 from http://www.apiai.com/about.asp?page=about.

# Infrastructure

# Connectivity and Transportation

Saint Paul is accessible by sea and air only. Most supplies and freight arrive by ship. There is a breakwater, 700 ft of dock space, and a barge off-loading area. Regularly scheduled flights are also available. The state-owned asphalt runway is 6,500 ft long and 150 ft wide.<sup>48</sup> Round-trip airfare to Anchorage for travel during June 2012 was \$797.<sup>49</sup>

# Facilities

Water is supplied by wells and an aquifer and is treated. There are two wooden tanks; one is 500,000 gallons, and the other is 300,000 gallons. All 175 homes and facilities are connected to the piped water and sewer system and are fully plumbed. The City provides refuse collection services. A landfill, burn box, and sludge and used oil disposal site are available.<sup>50</sup> In the 2011 AFSC survey, community leaders reported that a water treatment facility is in use, improvements to water and sewer pipelines are expected in 2013, and a new landfill is expected to be in use by 2020. Electricity in Saint Paul is provided by a diesel powerhouse. A small wind turbine has been erected and currently provides power and hot water to the village corporation's airport facility and hotel, but it is not yet connected to the municipality's electric grid. Police services are provided in Saint Paul by the City Police Department, and fire and rescue services are provided by Saint Paul Emergency Medical Services (EMS) Rescue Squad. Other community facilities include a youth center sponsored by the village corporation, a city auditorium, a school gymnasium and school library, and a public library. In addition, the APIA sponsors a senior center meals program.<sup>51</sup> In the 2011 AFSC survey, community leaders also noted the presence of a food bank, a small recreation center, and a limited publicly subsidized housing program. Community leaders also noted that many public social services are primarily accessible to permanent residents, which some services, such as the library and medical facilities, are also available for seasonal processing workers.

With regard to fisheries-related infrastructure, community leaders reported in the 2011 AFSC survey that Saint Paul has four docks. Since the late 1980s, the city dock has been served by electricity and water, and has been connected to the road system since 1984. A breakwater was completed at the city dock in 1990, and fuel tanks have been available since 1994; Trident's dock has had a breakwater and been connected to these various amenities since 1994; other local docks are expected to receive electricity and water, as well as a breakwater, within the next 10 years. In addition, a fish cleaning station and haul out facilities are expected to be available within the next 10 years. A barge landing area has also been in place in Saint Paul since before 2000. In total, community leaders reported that 450 ft of dock space is available for transient vessel moorage at Saint Paul harbor facilities, but no dock space is available for permanent vessel moorage. Vessels up to 200 ft long may use moorage in Saint Paul, though those vessels

<sup>&</sup>lt;sup>48</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.

<sup>&</sup>lt;sup>49</sup> Airfare was obtained on the Peninsula Airways website at http://www.penair.com for a round-trip ticket for travel from June 1 to June 8, 2012. Retrieved on December 1, 2011.

<sup>&</sup>lt;sup>50</sup> See footnote 48.

<sup>&</sup>lt;sup>51</sup> Ibid.

must have a shallow draft. They also indicated that Saint Paul facilities are capable of handling small rescue boats, small cruise ships, and fuel barges.

Community leaders also reported in the 2011 AFSC survey that a variety of fisheriesrelated businesses and services are available in Saint Paul. These include fish processing plants and commercial cold storage, fishing gear storage, gear repair (for halibut longline gear only), moorage of small recreational vessels, haulout facilities for small boats (less than 60 tons), sale of bait, boat fuel, and ice, and very limited sale of fishing gear. For those fisheries-related businesses and services not available in Saint Paul, community leaders indicated that local residents most frequently travel to Unalaska, Anchorage, or Seattle.

## Medical Services

Medical services are provided to the community by the Saint Paul Health Center, which is owned by the Regional Health Corporation and operated by the APIA. The health center is a Community Health Aid Program site. The clinic is a qualified Emergency Care Center, and emergency services have coastal and air access. Alternate health care is provided by the Saint Paul Emergency Medical Services Rescue Squad. Emergency service is provided by 911 telephone service volunteers and a health aide.<sup>52</sup> The nearest hospital is located in Dillingham, but most local residents travel to Anchorage to access medical facilities there.<sup>53</sup>

### Educational Opportunities

The Saint Paul School provides instruction for students from pre-school through 12<sup>th</sup> grade. In 2011 the school had 78 students and 10 teachers.<sup>54</sup> Online distance learning classes are also available for through the University of Alaska.<sup>55</sup>

# **Involvement in North Pacific Fisheries**

#### History and Evolution of Fisheries

The Pribilof Islands were historically used by Aleut people as a seasonal fishing and hunting site. Since the Aleuts were brought to Saint George Island by the Russians in the late 1700s, and permanent year-round settlements were established there, subsistence harvest of fur seal meat has remained fundamental to the local diet. Commercial fur seal harvest was also the basis of the wage economy in Saint Paul until 1983, when the U.S. government ended the commercial seal harvest. Subsistence harvest of fur seals is governed by the Fur Seal Act of 1966 and the Marine Mammal Protection Act of 1972. Amendments were added to these Acts in 1985 and 1986, respectively, with the purpose "to limit the take of fur seals to a level providing for the subsistence needs of the Pribilof Aleuts using humane harvesting methods, and to restrict taking

<sup>&</sup>lt;sup>52</sup> Ibid.

<sup>&</sup>lt;sup>53</sup> Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.

<sup>&</sup>lt;sup>54</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.

<sup>&</sup>lt;sup>55</sup> University of Alaska. (n.d.). *Distance Learning*. Retrieved August 21, 2012 from http://www.alaska.edu/distance/.

by sex, age, and season for herd management purposes.<sup>56</sup> Fur seal harvest is permitted for both subsistence purposes and for native handicrafts and clothing.<sup>57</sup> Residents of Saint Paul utilize fur seals for both purposes today.<sup>58,59</sup> In addition to fur seal, residents of Saint Paul have historically harvested seal, sea lion, and halibut for subsistence purposes.<sup>60</sup>

Saint Paul is located within Pacific Halibut Fishery Regulatory Area 4C, Federal Statistical and Reporting Area 513, and the Bering Sea Sablefish Regulatory Area. Today, the greatest number of Saint Paul residents participates in the commercial halibut fishery, while a smaller number of residents are also involved in fisheries for groundfish, crab, and salmon.

Commercial exploitation of halibut and groundfish first extended into the Bering Sea region in the late 1920s after development of diesel engines, which allowed fishing vessels to undertake longer trips.<sup>61</sup> Today, Pacific halibut fisheries are managed under the International Pacific Halibut Commission. In 1995, management of the Pacific halibut and sablefish fisheries shifted from limited entry to a catch share program. The program includes allocation of the annual Total Allowable Catch (TAC) of halibut and sablefish via Individual Fishing Quota (IFQ). In the Bering Sea – Aleutian Islands (BSAI) region, quota shares are also allocated to six Community Development Quota (CDQ) non-profit organizations representing 65 communities in Western Alaska.<sup>62</sup> The CDQ non-profit representing the tribal community of Saint Paul is the Central Bering Sea Fishermen's Association (CBSFA). In 2010, The CBSFA received an allocation of 690,625 lbs of CDQ halibut quota, all of which was allocated for harvest within Area 4C, the Subarea within which the Pribilof Islands are located.<sup>63</sup> However, a halibut Catch Sharing Plan developed for Areas 4C, 4D, and 4E provides that Area 4C allocations can be harvested in either Area 4C or 4D to provide additional harvesting opportunities to fishermen in Area 4C.<sup>64</sup> Total BSAI sablefish CDQ allocations in 2009 and 2011 was 1.3 million lbs in each year. No sablefish CDO report was available from NOAA for the 2010 season.<sup>65</sup> Managers of CDQ organizations authorize individual fishermen and fishing vessels to harvest a certain

http://www.fakr.noaa.gov/protectedresources/seals/fur/eis/final0505.pdf.

ORR\_17/HTML/Pribilof\_html/Pages/pribilof\_documents\_snp.htm.

<sup>60</sup> Alaska Dept. of Fish and Game. 1985. *Alaska Habitat Management Guide, Southwest Region Volume II: Human Use of Fish and Wildlife*. Retrieved July 9, 2012 from http://www.arlis.org/docs/vol1/C/AHMG/13907847v2.pdf.

Fisheries Commission. Number 5. Retrieved June 1, 2012 from

<sup>&</sup>lt;sup>56</sup> NOAA NMFS, Alaska Region. 2005. Setting the Annual Subsistence Harvest of Northern Fur Seals on the Pribilof Islands: Final Environmental Impact Statement. Retrieved July 9, 2012 from

<sup>&</sup>lt;sup>57</sup> Marine Mammal Protection Act of 1972, as amended 2007. *Section 101(b) - Exemptions for Alaska natives*. Retrieved August 20, 2012 from http://www.nmfs.noaa.gov/pr/pdfs/laws/mmpa.pdf.

<sup>&</sup>lt;sup>58</sup> NOAA Fisheries. 2008. Pri*bilof Islands, A Historical Perspective - Document Library*. Retrieved August 20, 2012 from http://docs.lib.noaa.gov/noaa\_documents/NOS/ORR/TM\_NOS\_ORR/TM\_NOS-

<sup>&</sup>lt;sup>59</sup> City of Saint Paul, Alaska, WH Pacific, and Bechtol Planning and Development. November 17, 2008. *City of Saint Paul, Alaska Local Multi-Hazard Mitigation Plan DRAFT*. Retrieved August 20, 2012 from

http://www.commerce.state.ak.us/dca/planning/nfip/Hazard\_Mitigation\_Plans/St\_Paul\_LHMP.pdf.

<sup>&</sup>lt;sup>61</sup> Thompson, W.F. and N.L. Freeman. 1930. *History of the Pacific Halibut Fishery*. Report of the International

http://ww.iphc.int/publications/scirep/Report0005.pdf.

<sup>&</sup>lt;sup>62</sup> Fina, Mark. 2011. Evolution of Catch Share Management: Lessons from Catch Share Management in the North Pacific. *Fisheries*, Vol. 36(4). Retrieved September 12, 2012 from

http://www.fakr.noaa.gov/npfmc/PDFdocuments/catch\_shares/Fina\_CatchShare\_411.pdf.

<sup>&</sup>lt;sup>63</sup> NOAA National Marine Fisheries Service. 2010. *Memorandum: 2010 Community Development Quota (CDQ) Halibut Allocations.* Retrieved January 8, 2013 from http://www.fakr.noaa.gov/ram/10ifqcdqtac.pdf.

<sup>&</sup>lt;sup>64</sup> North Pacific Fishery Management Council. (n.d.). *Pacific Halibut Catch Sharing Plan for Area 4*. Retrieved January 8, 2013 from http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/halibut/Area4CSP605.pdf.

<sup>&</sup>lt;sup>65</sup> NOAA National Marine Fisheries Service. (n.d.). *IFQ Halibut/Sablefish Reports and CDQ Halibut Program Reports*. Retrieved February 22, 2013 from http://www.fakr.noaa.gov/ram/ifqreports.htm.

portion of the CDQ allocations.<sup>66</sup> Saint Paul is not eligible to participate in the Community Quota Entity program.

Bering Sea crab fisheries also play an important role in the local economy in Saint Paul, which is the location of one of the largest crab processing plants in the region.<sup>67</sup> Large scale commercial exploitation of crab in the Bering Sea began in the 1950s with the development of king crab fisheries. The Pribilof Islands were an historical center of the red king crab fishery, and also one of the few sites where larger concentrations of blue king crab are found.<sup>68</sup> In the 1960s, a fishery for hair crab also developed in the Pribilof Islands, originally pioneered by the Japanese, and taken over by American vessels beginning in 1979.<sup>69</sup> Other commercial crab species that are distributed in the Bering Sea include golden king crab, Tanner crab, snow crab, grooved Tanner crab, triangle Tanner crab, and scarlet king crab.<sup>70</sup> A number of these crab stocks are in depressed condition. Low stock abundance has led to the closure of the Pribilof Island red and blue king crab fisheries<sup>71,72</sup> and the Bering Sea hair crab fishery<sup>73</sup> through the last decade. Bering Sea and Aleutian Islands crab stocks are jointly managed by the North Pacific Fishery Management Council (NPFMC) and ADF&G.<sup>74</sup>

Most BSAI king, Tanner, and snow crab fisheries were included under a 2005 rationalization program. The program was proposed in response to overcapitalization and very short seasons in these fisheries. The crab rationalization program allocated harvest shares to historical license holders as well as to CDQ non-profit entities. In addition, processors were issued processing shares, and community interests were protected through community landing requirements. Regional landing requirements have been particularly important in maintaining landings in remote communities such as Saint Paul. The crab rationalization program has been credited with improving safety and fuel savings in BSAI crab fisheries, and also resulted in a significant reduction of the total number of vessels involved in the fishery. For many communities, a problematic result of the program has been a dramatic reduction in employment for crew members.<sup>75</sup>

In the 2011 AFSC survey, community leaders indicated that the community of Saint Paul participates in the fisheries management process in Alaska through a variety of mechanisms. The Mayor and many other residents of Saint Paul<sup>76</sup> attend North Pacific Fisheries Management Council meetings and/or Board of Fisheries meetings, and a representative of Saint Paul

<sup>&</sup>lt;sup>66</sup> International Pacific Halibut Commission. 2012. *Pacific Halibut Fishery Regulations 2012*. Retrieved October 16, 2012 from http://www.iphc.int/publications/regs/2012iphcregs.pdf.

<sup>&</sup>lt;sup>67</sup> See footnote 62.

<sup>&</sup>lt;sup>68</sup> Woodby, D, D. Carlile, S. Siddeek, F. Funk, J.H. Clark, and L. 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.

<sup>&</sup>lt;sup>69</sup> Tide, C. 2007. A Brief Overview of the Bering Sea Hair Crab Fishery and the Vessel Limited Entry Program. Prepared for the State of Alaska Commercial Fisheries Entry Commission. Retrieved January 8, 2013 from http://www.cfec.state.ak.us/RESEARCH/07-1N/Rpt07-1N.pdf.

<sup>&</sup>lt;sup>70</sup> See footnote 68.

<sup>&</sup>lt;sup>71</sup> Alaska Dept. of Fish and Game. 2013. *Red King Crab Species Profile*. Retrieved January 8, 2013 from http://www.adfg.alaska.gov/index.cfm?adfg=redkingcrab.printerfriendly.

<sup>&</sup>lt;sup>72</sup> NOAA National Marine Fisheries Service. 2012. *Crab Fishery Seasons and TAC*. Retrieved January 8, 2013 from https://alaskafisheries.noaa.gov/sustainablefisheries/crab/crfaq.htm#tac.

<sup>&</sup>lt;sup>73</sup> See footnotes 68 and 69.

<sup>&</sup>lt;sup>74</sup> See footnotes 68 and 71.

<sup>&</sup>lt;sup>75</sup> See footnote 62.

<sup>&</sup>lt;sup>76</sup> Information updated by a representative of the Aleut Community of Saint Paul Island during community review of this document, July 2012.

participates in North Pacific Fisheries Management Council committees or advisory groups. In addition, Saint Paul relies on regional organizations to provide information on fisheries management issues. Saint Paul also supports research organizations, industry coalitions, and trade associations, such as the CBSFA.

When asked to comment on challenges facing Saint Paul's fisheries economy, community leaders indicated that reduced government funding threatens continued maintenance of the breakwater, harbor dredging and other continuous infrastructure maintenance needs, as the fishing industry itself cannot fully finance these efforts. In addition, CDQ quota allocations were identified as a primary issue affecting the community. Community leaders reported that the community protections component of the crab rationalization program has been critical for Saint Paul. They reported that the CDQ program is a major contributor to the community through the CBSFA's outreach and social programs. When asked to comment on past or future fisheries management actions that affect Saint Paul, community leaders emphasized the importance of fishery management to prevent stock collapse. Specifically, potential future management actions of concern to the community of Saint Paul include the right of first refusal, emergency relief, and crab stock research. These issues have the potential to affect Saint Paul positively or negatively, depending on their outcomes.

#### **Processing Plants**

According to ADF&G's 2010 Intent to Operate list, there were three shore-side processors in Saint Paul, and nine fish buyers, including Peter Pan Seafoods, Inc., Trident Seafoods Corporation, Royal Aleutian Seafoods, Inc., 57 Degrees North/Central Bering Sea Fishermen's Association, Aleutia, and Aleutian Pribilof Island Community Development Association (APICDA) Joint Venture, Inc.

57 Degrees North is a subsidiary of CBSFA and began operations in 1990.<sup>77</sup> CBSFA's mission in Saint Paul is "to develop a viable, self-sustaining, independent fisheries development organization," and the company has purchased a large amount of CDQ crab quota shares.<sup>78</sup> 57 Degrees North does not actually own and operate a seafood processing facility. The plant contracts with Saint Paul's Trident Seafoods Corporation to use Trident's actual physical processing facility.

Trident Seafoods was founded in 1973, and by the year 2000 was employing 4,000 people annually throughout Alaska and the Pacific Northwest. Trident's Saint Paul operation, which began in 1995, is the largest crab production facility in the world.<sup>79</sup> In addition to show and hair crab, it processes Chinook salmon, halibut, sablefish, Pacific cod, and pollock.<sup>80</sup> In 2010, the plant employed between three and 260 workers, with the largest number of workers employed between January and March.<sup>81</sup> Trident provides room and board at a nominal cost for processing plant workers as well as free air transportation to Saint Paul from Seattle and back.

<sup>&</sup>lt;sup>77</sup> This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

<sup>&</sup>lt;sup>78</sup> Central Bering Sea Fishermen's Association (n.d.). *Homepage*. Retrieved on May 10, 2012 from http://cbsfa.com/index1.html.

<sup>&</sup>lt;sup>79</sup> This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

<sup>&</sup>lt;sup>80</sup> Trident Seafoods Corporation (n.d.). *Homepage*. Retrieved on May 10, 2012 from http://tridentseafoods.com/.

<sup>&</sup>lt;sup>81</sup> This information is based on the results of a survey of processing plant managers conducted by the Alaska Fisheries Science Center in 2011.

## Fisheries-Related Revenue

Saint Paul receives fisheries-related revenue from a local raw fish tax, the Shared Fisheries Business Tax, the Fisheries Resources Landing Tax, harbor usage fees, and, in 2010, fees from leasing of land for storage, marine fuel sales tax, and wharfage (Table 3). The amount of fisheries-related revenue received by Saint Paul from these sources varied widely between 2000 and 2010, with a high of almost \$3 million in 2010.<sup>82</sup>

In the 2011 AFSC survey, community leaders reported that revenue from fisheries-related sources at least partially supported or funded harbor maintenance, roads, police, enforcement, fire protection, and general administration. In addition, community leaders reported that the Aleut Community of Saint Paul received \$23 million in funding or grants from their CDQ non-profit, the CBSFA, in 2010. They indicated that funding from the CBSFA pays for services to the local halibut fleet, such as dock launch and retrieval, crane operation and maintenance, special processing equipment, dock security, refuse removal, and dock lighting.

## Commercial Fishing

The community of Saint Paul is highly engaged in processing these species. In 2010, Saint Paul Island ranked 18<sup>th</sup> in landings and 13<sup>th</sup> in ex-vessel revenue out of 67 Alaskan ports that received landings in 2010. That year, nine fish buyers were present locally, and three shore-side processing facilities were in operation. In total, 19,417,036 net lbs were landed at Saint Paul Island processing facilities in 2010, generating a total of \$33,480,688 in ex-vessel revenue (Table 5). The higher ranking with respect to ex-vessel revenue reflects the relatively high value of species landed and processed on Saint Paul Island. In the 2011 AFSC survey, community leaders indicated that the most important fishing seasons in Saint Paul include opilio crab from January through April, Bristol Bay king crab from October through November, halibut from June through September, and Saint Matthews Island blue king crab between in September and October.

In addition to processing, Saint Paul residents were also involved in commercial fisheries between 2000 and 2010 as permit and quota share account holders, vessel owners, and crew license holders. Over this period, the total number of state-issued Commercial Fisheries Entry Commission (CFEC) permits held in Saint Paul decreased from 43 in 2000 to between 23 and 26 held between 2004 and 2010. The total number or permit holders also decreased, from approximately 30 in 2000 and 2001 to 21 in 2010. In all years during this period, a majority of CFEC permits were held for halibut. Early in the decade, Saint Paul residents also held several CFEC permits for sablefish, groundfish, and 'other shellfish.' The groundfish permits were held for 'miscellaneous saltwater finfish', and the 'other shellfish' permit was held for octopi/squid. Of these, two groundfish permits were actively fished in 2000 only. In addition, one salmon CFEC permit was held in all years during the 2000-2010 period in the Atka/Amlia Islands set gillnet fishery, but was not actively fished in 2007, and one Bristol Bay drift gillnet permit was held in 2009 and 2010, and actively fished in 2009.

In all years between 2000 and 2010, a majority of halibut CFEC permits held in Saint Paul were associated with longline gear for use on vessels under 60 ft in length, while a small number were also associated with hand troll gear or longline gear on vessels over 60 ft in length.

<sup>&</sup>lt;sup>82</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.

A high percentage of halibut permits were actively fished each year by Saint Paul residents. Information about CFEC permits is presented in Table 4.

In addition to CFEC permits, Saint Paul residents held federal License Limitation Program (LLP) permits in groundfish and crab fisheries as well as Federal Fisheries Permits (FFP). A higher number of LLP permits were held in 2003 and 2004. In both of these years 100% of the 5 crab LLP permits were actively fished, while 71% (five out of seven) groundfish LLPs were actively fished. A smaller number of LLP permits were held in other years during the 2000-2010 period. FFP were held in from 2008 to 2010 only, and one FFP was actively fished in each of these years (Table 4).

In 2010, 16 Saint Paul residents held quota share accounts in the federal catch share fishery for halibut and were allocated individual fishing quota (IFQ). While the number of halibut IFQ shareholders decreased between 2000 and 2010, the overall number of halibut quota shares held increased slightly during the same period. Despite this increase, the overall halibut IFQ allotment (in lbs) decreased between 2000 and 2010 (Table 6). No residents of Saint Paul held quota share accounts in the federal sablefish catch share fishery between 2000 and 2010 (Table 7). One resident of Saint Paul held a quota share account in a federal crab catch share fishery in 2009 and 2010, although no crab quota share accounts holders were present in Saint Paul from 2005 to 2008. In 2009 and 2010, the number of crab quota shares held remained stable and the annual IFQ allotment increased slightly (Table 8).

Between 2000 and 2010, there was an overall decrease in the number of Saint Paul residents who held crew licenses, as well as the number of vessels owned primarily by Saint Paul residents and vessels homeported in Saint Paul. In a survey conducted by the AFSC in 2011, community leaders reported that only halibut vessels under 60 ft using long line and jig line (by hand or by fishing pole) use Saint Paul as their base of operations during the fishing season, since all the crab vessels that land catch in Saint Paul are transient vessels. Community leaders also noted that there are fewer crab boats in Saint Paul since the 1999 snow crab population crash and subsequent crab rationalization, fewer local halibut boats as the population has declined, fewer cod as prices have dropped, and fewer pollock (trans-shipping) as quota allocations dropped or as fishing grounds moved.

While the number of fish buyers and shore-side processing facilities in Saint Paul remained stable between 2000 and 2010, the number of vessels landing catch in Saint Paul increased substantially, from 68 to 119. Corresponding with this increase in vessels landing catch in Saint Paul, total net lbs landed and ex-vessel value of those landings also increased between 2000 and 2010. Overall landings and revenue data are reported for all years in the 2000-2010 period except 2002 and 2005-2007; data for these four years are considered confidential due to the small number of fish buyers present (Table 5).

At the level of individual fisheries, landings and ex-vessel value information in for landings in Saint Paul is considered confidential for most years due to a small number of participants (Table 9). When considering landings and ex-vessel value generated by Saint Paul vessel owners between 2000 and 2010, including deliveries in multiple ports, most data were also confidential, with the exception of halibut landings (and Pacific cod in the year 2000 only). Landings and ex-vessel value of halibut between 2000 and 2010 varied considerably with no discernible trend (Table 10).

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>2</sup>	\$448,081	\$442,391	\$621,291	\$601,253	\$507,446	\$562,490	\$575,397	\$685,607	\$1,349,981	\$1,154,002	\$1,146,552
Shared Fisheries											
Business Tax <sup>1</sup>	\$97,195	\$1,812,387	\$292,437	\$216,321	\$317,557	\$331,633	\$367,781	\$308,914	\$442,125	\$586,561	\$979,528
Fisheries Resource											
Landing Tax <sup>1</sup>	\$33,987	\$75,253	\$18,000	\$21,472	\$20,726	\$30,477	\$14,405	\$21,995	\$45,660	\$205,006	\$270,208
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>	\$397,057	\$375,589	\$387,589	\$292,500	\$293,000	\$309,000	\$309,000	\$402,000	\$407,200	\$359,000	\$437,500
Port/dock usage <sup>2,3</sup>	n/a	\$71,285									
Land lease											
(storage) <sup>3</sup>	n/a	\$4,373									
Marine fuel sales											
tax <sup>3</sup>	n/a	\$20,000									
Wharfage <sup>3</sup>	n/a	\$52,229									
Total fisheries-											
related revenue <sup>4</sup>	\$976,320	\$2,705,620	\$1,319,317	\$1,131,546	\$1,138,729	\$1,233,600	\$1,266,584	\$1,418,516	\$2,244,966	\$2,304,569	\$2,981,675
Total municipal											
revenue <sup>5</sup>	\$4,667,354	\$1,923,734	\$2,027,097	\$1,895,355	\$2,041,007	\$2,304,279	\$2,035,136	\$3,496,630	\$7,732,471	\$4,747,988	\$5,327,029

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

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.

<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.

<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.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) <sup>1</sup>	Total permits	1	1	1	7	7	1	1	1	2	2	2
	Active permits	0	0	0	5	5	0	0	0	1	1	1
	% of permits fished	-	-	-	71%	71%	-	-	-	50%	50%	50%
	Total permit holders	1	1	1	2	2	1	1	1	2	2	2
Crab (LLP) <sup>1</sup>	Total permits	0	0	0	5	5	0	0	0	0	4	3
	Active permits	0	0	0	5	5	0	0	0	0	0	0
	% of permits fished	-	-	-	100%	100%	-	-	-	-	-	-
	Total permit holders	0	0	0	1	1	0	0	0	0	1	1
Federal Fisheries	Total permits	5	5	5	4	4	4	5	6	7	6	6
Permits <sup>1</sup>	Fished permits	0	0	0	0	0	0	0	0	1	1	1
	% of permits fished	-	-	-	-	-	-	-	-	14%	17%	17%
	Total permit holders	5	5	5	4	4	4	4	5	6	5	5
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	1	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	1	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) <sup>2</sup>	Total permits	35	36	32	28	22	21	22	22	24	24	22
	Fished permits	25	26	24	21	16	17	17	18	22	20	21
	% of permits fished	71%	72%	75%	75%	73%	81%	77%	82%	92%	83%	95%
	Total permit holders	30	31	29	25	20	20	21	21	23	23	21
Herring (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

# Table 4. Permits and Permit Holders by Species, Saint Paul: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	Total permits	1	1	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	1	1	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) <sup>2</sup>	Total permits	5	3	0	0	0	0	0	0	0	0	0
	Fished permits	2	0	0	0	0	0	0	0	0	0	0
	% of permits fished	40%	-	-	-	-	-	-	-	-	-	-
	Total permit holders	4	2	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	1	1	1	1	1	1	1	2	1	2	2
	Fished permits	0	0	0	0	0	0	0	1	0	1	0
	% of permits fished	-	-	-	-	-	-	-	50%	-	50%	-
	Total permit holders	1	1	1	1	1	1	1	2	1	2	2
Total CFEC Permits <sup>2</sup>	Permits	43	41	33	29	23	22	23	24	25	26	24
	Fished permits	27	26	24	21	16	17	17	19	22	21	21
	% of permits fished	63%	63%	73%	72%	70%	77%	74%	79%	88%	81%	88%
	Permit holders	30	31	29	25	20	20	21	22	23	23	21

## Table 4. Cont. Permits and Permit Holders by Species, Saint Paul: 2000-2010.

<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.]

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 Saint Paul <sup>2</sup>	Total Net Pounds Landed In Saint Paul <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Saint Paul <sup>2,5</sup>
2000	65	6	3	28	26	68	6,338,010	\$11,626,508
2001	59	7	2	27	26	92	11,139,143	\$13,004,125
2002	52	3	1	25	23	99		
2003	52	5	2	24	22	79	9,038,330	\$15,196,985
2004	33	4	2	16	16	77	7,970,216	\$13,584,756
2005	36	3	2	15	15	72		
2006	36	3	2	16	16	76		
2007	41	3	2	17	17	35		
2008	50	9	2	18	18	99	27,253,018	\$48,433,767
2009	46	8	3	18	19	90	24,865,462	\$36,408,108
2010	53	9	3	19	20	119	19,417,036	\$33,480,688

Table 5. Characteristics of the Commercial Fishing Sector in Saint Paul: 2000-2010.

*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> Total only represent non-confidential data.

Year	Number of Halibut Quota Share	Halibut Quota	Halibut IFQ Allotment (Pounds)
	Account Holders	Shares Held	
2000	22	1,479,229	373,105
2001	21	1,318,888	331,941
2002	21	1,318,888	331,996
2003	20	1,318,888	328,171
2004	20	1,318,888	279,714
2005	20	1,267,175	283,167
2006	20	1,439,061	288,351
2007	20	1,458,438	327,982
2008	18	1,149,628	251,219
2009	17	1,479,524	283,333
2010	16	1,602,974	311,753

Table 6. Halibut Catch Share Program Participation by Residents of Saint Paul: 2000-2010.

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 Saint Paul: 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 byResidents of Saint Paul: 2000-2010.

Year	Number of Crab Quota	Crab Quota Shares	Crab IFQ
	Share Account Holders	Held	Allotment (Pounds)
2005	0	0	0
2006	0	0	0
2007	0	0	0
2008	0	0	0
2009	1	35,569,158	1,300,720
2010	1	35,569,158	1,388,538

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.]

Total Net Lbs <sup>1</sup>											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	0	0		0	0				0	0	0
Finfish											
Halibut	1,155,322	1,387,455		1,098,754							
Herring											
Other Groundfish											
Other Shellfish											
Pacific Cod											154,897
Pollock											
Sablefish											
Salmon											
$Total^2$	1,155,322	1,387,455	0	1,098,754	0				0	0	154,897
Ex-vessel Value (nominal U.S. dollars)											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab	\$0	\$0	\$0	\$0	\$0				\$0	\$0	\$0
Finfish											
Halibut	\$2,095,179	\$2,419,022		\$2,051,404							
Herring											
Other Groundfish											
Other Shellfish											
Pacific Cod											\$5,544
Pollock											
Sablefish											
~ .											
Salmon											

# Table 9. Landed Pounds and Ex-vessel Revenue, by Species, in Saint Paul: 2000-2010.

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

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

	Total Net Lbs <sup>1</sup>											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Crab												
Finfish												
Halibut	1,107,956	1,075,644	657,357	427,757	377,163	437,595	495,665	563,316	1,036,896	638,456	771,832	
Herring												
Other Groundfish												
Other Shellfish												
Pacific Cod	54,418											
Pollock												
Sablefish												
Salmon												
$Total^2$	1,162,374	1,075,644	657,357	427,757	377,163	437,595	495,665	563,316	1,036,896	638,456	771,832	
Ex-vessel Value (nominal U.S. dollars)												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Crab												
Finfish												
Halibut	\$2,009,399	\$1,874,911	\$839,927	\$798,653	\$996,133	\$1,006,469	\$1,750,193	\$1,983,999	\$3,730,680	\$1,328,169	\$2,983,980	
Herring												
Other Groundfish												
Other Shellfish												
Pacific Cod	\$14,989											
Pollock												
Sablefish												
Salmon												
$Total^2$	\$2,024,388	\$1,874,911	\$839,927	\$798,653	\$996,133	\$1,006,469	\$1,750,193	\$1,983,999	\$3,730,680	\$1,328,169	\$2,983,980	

# Table 10. Landed Pounds and Ex-vessel Revenue, by Species, by Saint Paul Residents: 2000-2010.

*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 lbs refers to the landed weight recorded in fish tickets. <sup>2</sup> Totals only represent non-confidential data.

# Recreational Fishing

The ADF&G Statewide Harvest Survey does not include the Pribilof Islands (including Saint Paul) in their survey regions; therefore, there are no data available on sportfishing by private anglers from the Statewide Harvest Survey for this area. The nearest survey region is the Alaska Peninsula/Aleutian Islands area. According to a survey conducted by the AFSC in 2011, community leaders indicated that halibut are targeted by recreational fishermen using private boats owned by local residents. The ADF&G reports that Chinook salmon, coho salmon, sockeye salmon, Dolly Varden char, northern pike, halibut, rockfish, Pacific cod, razor clams, and hardshell clams are targeted by recreational anglers in Saint Paul.

In 2010, there were no sport fish guide businesses or sport fish guide licenses held by residents of Saint Paul. Also in 2010, there were seven sportfishing licenses sold to residents of Saint Paul (irrespective of the location of the point of sale) and no sportfishing licenses sold within the community. The number of sportfishing licenses sold to Saint Paul residents decreased overall between 2000 and 2010. A small number of licenses were sold in Saint Paul in some years during this period (Table 11).

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 Saint Paul <sup>2</sup>	Saltwater Angler Days Fished – Non- Residents <sup>3</sup>	Saltwater Angler Days Fished – Alaska Residents <sup>3</sup>
2000	0	0	23	2	n/a	n/a
2001	0	0	18	2	n/a	n/a
2002	0	0	8	5	n/a	n/a
2003	0	0	9	4	n/a	n/a
2004	0	0	14	0	n/a	n/a
2005	0	0	10	0	n/a	n/a
2006	0	0	14	6	n/a	n/a
2007	0	0	10	6	n/a	n/a
2008	0	0	12	1	n/a	n/a
2009	0	0	10	0	n/a	n/a
2010	0	0	7	0	n/a	n/a

Table 11. Sport Fishing Trends, Saint Paul: 2000-2010.

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

<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>&</sup>lt;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

Long before the permanent settlement of the Pribilof Islands, Aleut people began traveling here seasonally to hunt. Following the establishment of permanent villages, subsistence has remained central to local culture. Today, halibut and seal are shared and exchanged with relatives living in other communities for salted or smoked salmon.<sup>83</sup> In a survey conducted by the AFSC in 2011, community leaders reported that halibut, reindeer, fur seals, and sea lions are some of the most important subsistence resources utilized by residents of Saint Paul. Although information about fur seals is not reported in the Tables below, it is important to emphasize that fur seals are an important component of local subsistence harvest. Saint Paul residents are permitted to harvest up to 1,645 fur seals per year in Saint Paul for subsistence purposes.<sup>84</sup>

No information is available from ADF&G regarding per capita subsistence harvest or the percentage of households utilizing various marine resources for subsistence purposes between 2000 and 2010 (Table 12). However, data were available regarding annual subsistence fishing participation for salmon and halibut. Between 2000 and 2008, one or two households held subsistence salmon permits in some years, and no details were reported regarding the total number or species of salmon harvested (Table 13). More detailed information is available regarding halibut subsistence harvest during this period. Between 2003 and 2010, the number of Saint Paul residents holding a valid Subsistence Halibut Registration Certificate (SHARC) issued by NMFS declined from 250 to 41 (Table 14). The data show that the number of SHARC cards fished and the amount of halibut harvested (in lbs) also decreased between 2003 and 2010.

Limited information was reported by management agencies regarding subsistence harvest of marine mammal species between 2000 and 2010. According to ADF&G, between 2000 and 2008, 17 Steller sea lions were harvested on average each year for subsistence purposes. No information was available from NMFS regarding beluga whale harvest, from the U.S. Fish and Wildlife Service regarding sea otter, walrus, or polar bear harvest, or from ADF&G regarding harvest of harbor seal or spotted seal (Table 15).

In addition to the data reported in Tables 12 through 15, an early 1990s survey conducted by the ADF&G provides additional information regarding species of marine invertebrates, marine mammals, and non-salmon fish harvested by Saint Paul residents. According to the survey, in 1994, marine invertebrate species harvested by Saint Paul households included blue king crab, blue mussels, butter clams, hair crab, limpets, octopus, Pacific littleneck clams, razor clams, sea cucumber, sea urchin, snails, Tanner crab, snow crab, unknown king crab, and unknown Tanner crab. Marine mammals reported as harvested for subsistence use included fur seal (communal), fur seal (other), harbor seal, Steller sea lion, unknown seal, and unknown whale. Non-salmon fish species reported as harvested for subsistence use included: Dolly Varden, lake trout, Pacific cod, pike, rainbow trout, sablefish, sheefish, flounder, greenling, rockfish, and sculpin.<sup>85</sup>

 <sup>&</sup>lt;sup>83</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.
<sup>84</sup> Ibid.

<sup>&</sup>lt;sup>85</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).

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 (Lbs)
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-<br/>Salmon Fish, Saint Paul: 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	1	n/a	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	n/a	n/a
2002	n/a	n/a	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	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	2	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	1	n/a	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	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).

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	250	82	19,744
2004	249	36	10,683
2005	218	24	7,738
2006	244	29	5,971
2007	246	17	11,342
2008	42	15	4,607
2009	44	16	7,280
2010	41	6	4,425

Table 14. Subsistence Halibut Fishing Participation, Saint Paul: 2003-2010.

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, Saint Paul: 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	17	n/a	n/a
2001	n/a	n/a	n/a	n/a	12	n/a	n/a
2002	n/a	n/a	n/a	n/a	18	n/a	n/a
2003	n/a	n/a	n/a	n/a	13	n/a	n/a
2004	n/a	n/a	n/a	n/a	9	n/a	n/a
2005	n/a	n/a	n/a	n/a	19	n/a	n/a
2006	n/a	n/a	n/a	n/a	20	n/a	n/a
2007	n/a	n/a	n/a	n/a	22	n/a	n/a
2008	n/a	n/a	n/a	n/a	20	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.