

## **Eek (EEK)**



### **People and Place**

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

Eek lies on the south bank of the Eek River, 12 mi east of the mouth of the Kuskokwim River. It is 35 air mi south of Bethel and 420 mi west of Anchorage. The area encompasses 0.9 sq mi of land and 0.1 sq mi of water. Eek was incorporated as a Second-class city in 1970, is located in the Bethel Census Area, and is not under the jurisdiction of a borough.

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

In 2010, there were 296 residents ranking Eek 165<sup>th</sup> of 352 communities in terms of population size. Overall, between 1990 and 2010 the population grew by 16.5%. Between 2000 and 2009, the population grew by 0.71% with an average annual growth rate of -0.58, which was less than the statewide average of 0.75% and indicative of a fairly consistent population size. Information regarding population trends can be found in Table 1.

Eek's population is predominately Yup'ik Eskimo. In 2010, 97.6% of residents identified themselves as American Indian or Alaska Native, compared to 95.7% in 2000. Also in that year, 2.4% of residents identified themselves as White, compared to 3.2% in 2000. In addition, 1% of residents identified themselves as Hispanic or Latino in 2010, compared to 0.4% in 2000. Information regarding Eek's racial and ethnic composition can be found in Figure 1.

In 2010, the average household size was 3.25, compared to 3.50 in 1990 and 3.68 in 2000. In that year, there were a total of 101 housing units, compared to 80 in 1990 and 83 in 2000. Of the households surveyed in 2010, 64% were owner occupied, compared to 80% in 2000; 26% were renter-occupied, compared to 12% in 2000; 7% were vacant, compared to 8% in 2000; and 3% were occupied seasonally, compared to 0% in 2000. Since 1990, there have been no reports of residents living in group quarters.

The gender distribution in Eek was slightly skewed in 2010 at 53.0% male and 47.0% female, and was similar the distribution statewide (52.0% male, 48.0% female) and slightly more even than the distribution in 2000 (54.6% male, 45.4% female). The median age in 2010 was 27.5 years, which was younger than the statewide median of 33.8 years and slightly older than the 2000 median of 24 years.

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<sup>1</sup> Alaska Department of Community 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>.

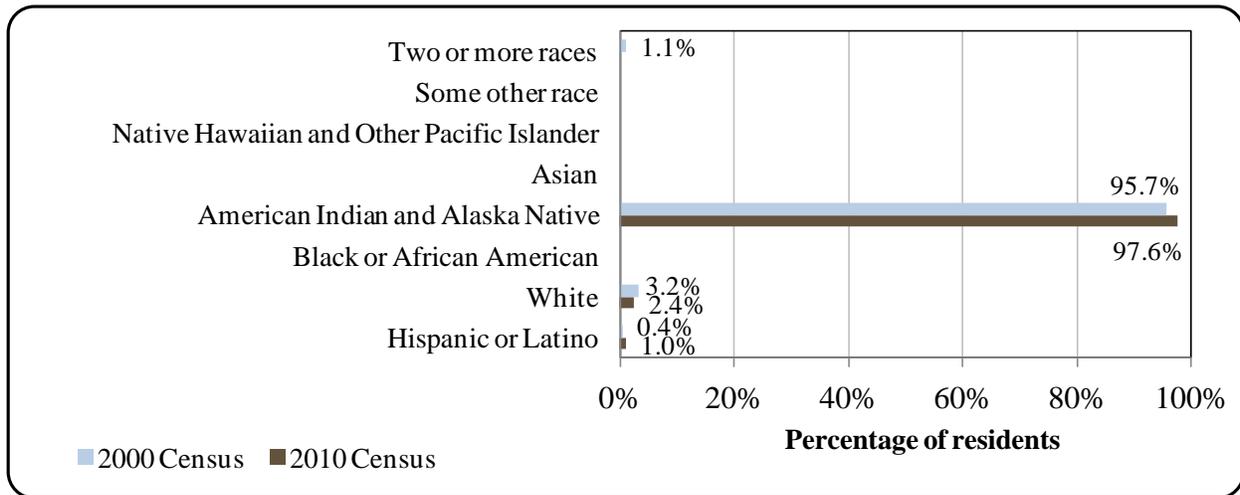
Table 1. Population in Eek from 1990 to 2010 by Source.

Year	U.S. Decennial Census <sup>1</sup>	Alaska Department of Labor Estimate of Permanent Residents <sup>2</sup>
1990	254	-
2000	280	-
2001	-	271
2002	-	290
2003	-	290
2004	-	292
2005	-	292
2006	-	287
2007	-	284
2008	-	271
2009	-	282
2010	296	-

<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>.

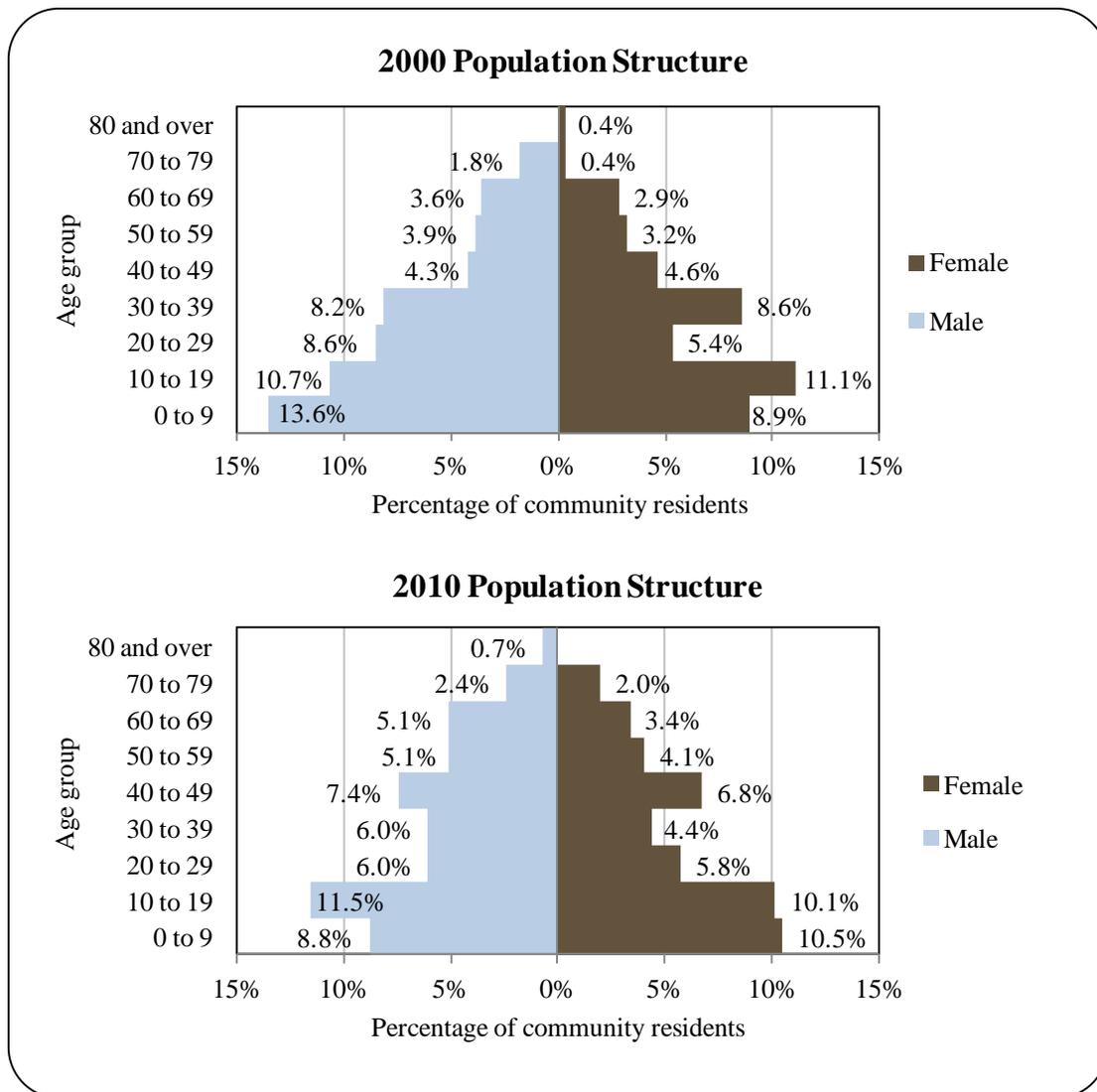
Figure 1. Racial and Ethnic Composition, Eek: 2000-2010 (U.S. Census).



Compared with 2000, the population structure in 2010 was slightly less expansive, indicating a shift towards a more aged population. In that year, 40.9% of residents were under the age of 20, compared to 44.3% in 2000; 13.6% were over the age of 59, compared to 9.1% in 2000; 33.8% were between the ages of 30 and 59, compared to 32.8% in 2000; and 11.8% were between the ages of 20 and 29, compared to 14% in 2000.

Overall, gender distribution by age cohort was more even in 2010 than in 2000, with slight male biases along most age ranges. The greatest absolute gender difference occurred in the 60 to 69 range (5.1% male, 3.4% female), followed by the 0 to 9 range (10.5% female, 8.8% male) and 30 to 39 range (6% male, 4.4% female). Of those three, the greatest relative gender difference occurred within the 60 to 69 range. Information regarding trends in Eek’s population structure can be found in Figure 2.

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



In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)<sup>3</sup> estimated that 57% of residents aged 25 and older held a high school diploma or higher degree, compared to an estimated 90.7% of Alaska residents overall. Also in that year, an estimated 26.4% of residents had less than a ninth grade education, compared to an estimated 3.5% of Alaska residents overall; an estimated 16.5% had a ninth to twelfth grade education but no diploma, compared to an estimated 5.8% of Alaska residents overall; an estimated 12.4% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; an estimated 3.3% held a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall; and an estimated 4.1% held a graduate or professional degree, compared to an estimated 9.6% of Alaska residents overall. No residents were estimated to hold an Associate's degree in 2010.

### *History, Traditional Knowledge, and Culture*<sup>4</sup>

The area around what is now Eek was originally occupied by Yup'ik Eskimos around 2,000 years ago. At that time, the area provided a strategic trading route along the Yukon-Kuskokwim (Y-K) Delta region, connecting many communities located on the two rivers. The village was originally located on the Apokok River. It moved to its present location in the 1930s when constant flooding and erosion forced relocation. A U.S. Bureau of Indian Affairs (BIA) school and a Moravian church were constructed at the new site. A post office was established in 1949. The city was incorporated in 1970.

### **Natural Resources and Environment**<sup>5</sup>

Eek is located in a marine climate. Annual precipitation averages 22 inches, with an annual average of 43 inches of snowfall. Summer temperatures average 41 to 57 °F (5 to 14 °C); winter temperatures average 6 to 24 °F (-14 to -4 °C).

The community is located in the Yukon Delta National Wildlife Refuge (YDNWR) which covers 19 million acres of the upper and lower Yukon Delta region.<sup>6</sup> Eek itself is located on lowland alluvial deposits comprised of mud, silt, sand, gravel, and various organics; similar to conditions found on coastal plains found in much of western Alaska. The landscape in these lowland areas is populated with shallow circular lakes, streams, and sloughs. Vegetation in the area is characteristic of poorly drained, moist tundra. Vegetation types include dwarf shrubs, mosses, lichen forbs, grasses, and herbs. In areas along the Eek River, thickets of alder, willow, and birch can be found. In terms of wildlife, the area is probably best known for the abundant species of waterfowl. Many migratory birds make use of the wetlands for nesting. Terrestrial mammals in the YDNWR include moose, wolves, red and arctic fox, snowshoe hare, beaver, muskrat, and caribou. Marine and freshwater fish include all five species of Pacific salmon,

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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> See footnote 1.

<sup>5</sup> Ibid.

<sup>6</sup> U.S. Fish and Wildlife Service. (n.d.). *Yukon Delta National Wildlife Refuge*. Retrieved January 6, 2012 from: <http://www.fws.gov/refuges/profiles/index.cfm?id=74540>.

sheefish, smelt, whitefish, burbot, northern pike, Dolly Varden char, rainbow trout, arctic grayling, herring, halibut, tomcod, and flounder. Marine mammals include Pacific walrus, spotted seals, ringed seals, Pacific bearded seals, porpoise, fur and harbor seals, and beluga, fin, gray, killer, and minke whales.<sup>7</sup>

Natural resources present in the area consist of fish and wildlife resources and the ecosystems that sustain them within the YDNWR. Eek's position on a wetland delta coupled with the area's designation as a national wildlife refuge precludes mineral and oil development outside Alaska Native Claims Settlement Act (ANCSA) and Alaska National Interest Lands Conservation Act (ANILCA) Native selected lands. Most historic mineral claims were located in the Kilbuck Mountains, southeast of Eek. In addition, several "grandfathered" oil lease applications are on file with the U.S. Bureau of Land Management (BLM), and they have yet to be released.<sup>8</sup>

Environmental hazards present in Eek include flood, wildfire, earthquake, tsunami, severe weather, and erosion. Of those hazards, flooding and severe weather have the highest probability of occurrence.<sup>9</sup>

According to the Alaska Department of Environmental Conservation (DEC), there were no significant environmental remediation sites active within Eek in 2010.<sup>10</sup>

## Current Economy<sup>11</sup>

Eek's economy is heavily subsistence based since year round wage employment is limited. A few full-time positions are available at the school, city, and village office. Commercial fishing is a large contributor to the seasonal wage economy. Top employers<sup>12</sup> in 2010 included: Lower Kuskokwim School District, City of Eek, Iqfijouaq Company Inc., Eek Traditional Council, Yukon Kuskokwim Health Corporation, Association of Village Council Presidents (AVCP) Housing Authority, Costal Villages Region Fund, Association of Village Council Presidents, and Ridge Contracting Inc.

In 2010,<sup>13</sup> the estimated per capita income was \$10,626 and the estimated median household income was \$17,350, compared to \$8,957 and \$17,500 in 2000, respectively. However, after accounting for inflation by converting 2000 values into 2010 dollars,<sup>14</sup> the real per capita income (\$11,778) and real median household income (\$23,012) indicate declines in both individual and household earnings. In 2010, Eek ranked 263<sup>rd</sup> of 305 communities from which per capita income was estimated, and 285<sup>th</sup> of 299 communities from which median household income was estimated.

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<sup>7</sup> U.S. Fish and Wildlife Service. (2004). *Land Conservation Plan for Yukon Delta National Wildlife Refuge*. Retrieved April 11, 2012 from: [http://alaska.fws.gov/nwr/planning/pdf/YD\\_LCP.pdf](http://alaska.fws.gov/nwr/planning/pdf/YD_LCP.pdf).

<sup>8</sup> Ibid.

<sup>9</sup> U.S. Division of Homeland Security and Emergency Management. (2010). *State of Alaska Hazard Mitigation Plan 2010*. Retrieved April 11, 2012 from: [http://www.ready.alaska.gov/plans/documents/SHMP\\_2010\\_UPDATE\\_ENTIRE\\_FINAL\\_COMPLETE.pdf](http://www.ready.alaska.gov/plans/documents/SHMP_2010_UPDATE_ENTIRE_FINAL_COMPLETE.pdf).

<sup>10</sup> Alaska Department of Environmental Conservation. (n.d.). *Contaminated Sites Program*. Retrieved April 11, 2012 from: <http://dec.alaska.gov/spar/csp/>.

<sup>11</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>12</sup> Alaska Department of Labor (n.d.). *Alaska Local and Regional Information Network*. Retrieved January 20, 2012 from: <http://live.laborstats.alaska.gov/alari/>.

<sup>13</sup> U.S. Census American Community Survey 2006-2010 estimates.

<sup>14</sup> Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

Although Eek's small population size may have prevented the ACS from accurately portraying economic conditions, this decrease in per capita income is confirmed by economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). According to the ALARI database, residents earned \$2.29 million in total wages in 2010.<sup>15</sup> When matched with the population in 2010, the per capita income equals \$7,721, which is somewhat similar to the ACS estimate for 2010. In addition, the community was recognized as "distressed" by the Denali Commission indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010.<sup>16</sup> However, it should be noted that ACS and DOLWD data are based on wage earnings and does not take into account the value of subsistence within the local economy.

According to 2006-2010 ACS estimates,<sup>17</sup> 51.2% of residents aged 16 and older were part of the civilian labor force in 2010. In that year, an unemployment was estimated at 15.9%, compared to an estimated 5.9% statewide; and an estimated 27.9% of residents lived below the poverty line, compared to an estimated 9.5% of Alaska residents overall. Of those employed, an estimated 31% worked in the private sector while an estimated 69% worked in the public sector.

By industry, most (34.5%) employed residents were estimated to work in education service, health care, or social assistance sectors in 2010; followed by retail trade sectors (25.9%); transportation, warehousing, and utilities sectors (17.2%); and public administration sectors (17.2%) (Figure 3). By occupation type, most (34.5%) employed residents were estimated to hold management or professional positions; followed by sales or office positions (34.5%); service positions (20.7%); production, transportation or material moving positions (5.2%); and natural resources, construction, or maintenance positions (5.2%) (Figure 4). Between 2000 and 2010 there were significant shifts in industry representation in those years. Notable declines occurred in arts, entertainment, recreation, accommodations, food services, and private service sectors; while significant gains occurred in transportation, warehousing, utilities, and retail trade sectors. However, it should be noted that sampling techniques may not have captured the true scope of industry representation.<sup>18</sup> According to 2010 ALARI estimates, most (52.7%) employed residents worked in local government sectors; followed by trade, transportation, and utilities sectors (17.6%); and financial service sectors (8.4%).<sup>19</sup>

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<sup>15</sup> ALARI estimates are based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.

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

<sup>17</sup> See footnote 3.

<sup>18</sup> Ibid.

<sup>19</sup> See footnote 12.

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

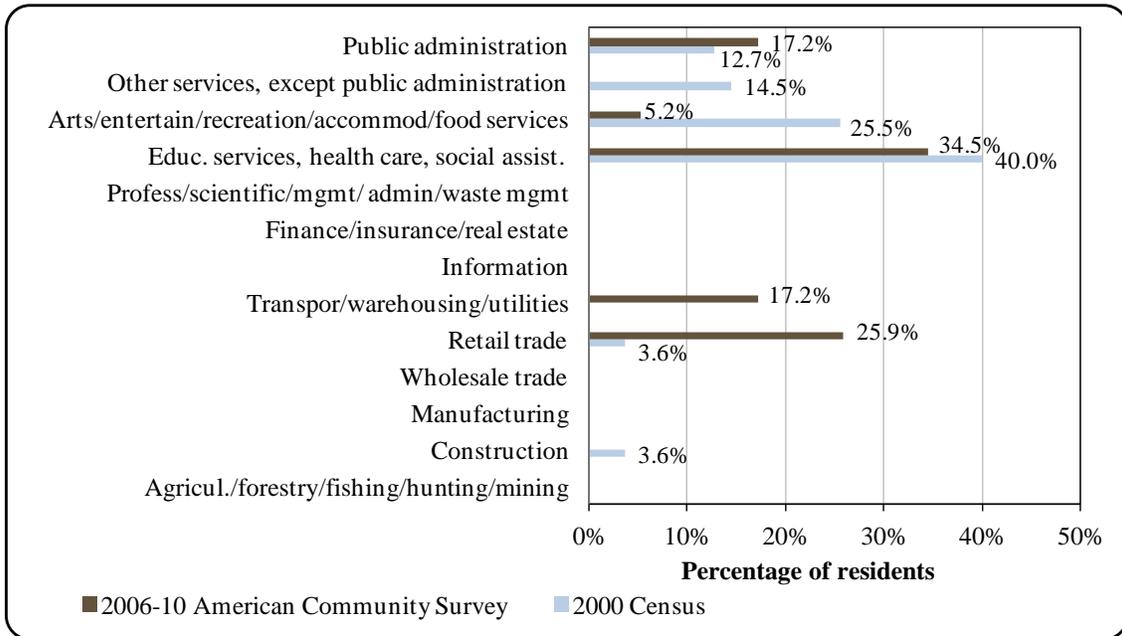
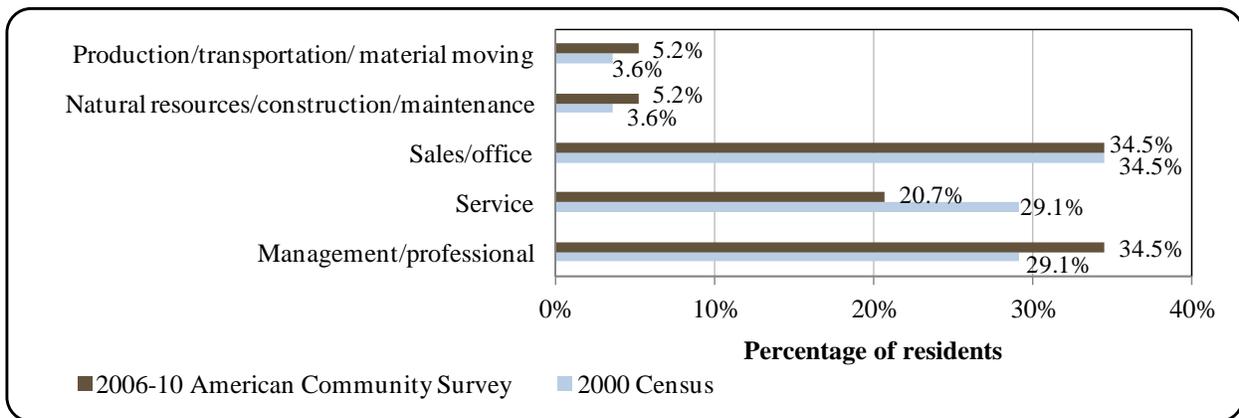


Figure 4. Local Employment by Occupation in 2000-2010, Eek (U.S. Census).



No individuals characterized themselves as working in natural resource based occupations or industries that include fishing. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in the farming, fishing, and forestry industries may be underestimated by census statistics as fishermen may hold another job and characterize their employment accordingly. Further information regarding employment trends can be found in Figures 3 and 4.

## Governance

Eek is a Second-class city with a mayoral form of government. There is a Bureau of Indian Affairs recognized Tribal council and Iqfijouaq Company is the local ANCSA Native village corporation. Calista Corporation is the regional ANCSA Native corporation. The closest Alaska Department of Fish and Game (ADF&G) and National Marine Fisheries Service (NMFS) offices are located in Bethel, 35 mi north. The closest U.S. Bureau of Citizenship and Immigration Services office is located in Anchorage, 420 mi east.

In 2010, Eek administered a 2% sales tax. When adjusted for inflation,<sup>20</sup> total municipal revenues declined by 34.4% between 2000 and 2010 from \$442,367 to \$375,342. Inflation adjusted revenues peaked in 2001 at \$458,952 (Table 2). In 2010, most locally generated revenues were collected from utility rents, followed by Alaska Village Electric Cooperative reimbursements, sales taxes, and gaming. Most outside revenues were collected from Community Revenue Sharing and payments in lieu of taxes.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Eek 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	\$442,367	\$17,200	\$27,159	n/a
2001	\$458,952	\$19,200	\$26,142	n/a
2002	\$405,435	\$20,813	\$26,142	n/a
2003	\$427,087	\$21,400	\$26,317	n/a
2004	\$438,069	\$23,850	-	n/a
2005	\$430,135	\$22,234	-	n/a
2006	\$394,665	\$24,000	-	n/a
2007	\$490,737	\$24,000	-	n/a
2008	\$559,214	\$27,500	-	n/a
2009	\$351,401	\$28,000	\$109,876	n/a
2010	\$375,342	\$32,700	\$110,143	n/a

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

<sup>3</sup> Alaska Department of Revenue (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 Department of Community 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).

<sup>20</sup> Inflation calculated using the 2010 Anchorage CPI from Alaska DOL: <http://labor.alaska.gov/research/cpi/cpi.htm>.

In 2010, sales tax revenue accounted for 8.7% of the municipal budget, compared to 3.9% in 2000. State allocated Community Revenue Sharing accounted for 29.3% of the total municipal budget in 2010, compared to 6.1% in 2000 from State Revenue Sharing. Information regarding municipal finances can be found in Table 2.

## **Infrastructure**

### *Connectivity and Transportation*<sup>21</sup>

A state-owned 3,243-ft long by 60-ft wide gravel airstrip provides chartered and private air access. A dock is available. Roundtrip airfare between Anchorage and Bethel in June 2012 was \$360.<sup>22</sup> Charter flights to Eek are available by appointment. A seaplane base is also available on the Eek River. Fishing boats, skiffs, and snowmobiles machines are used for local transportation to Bethel and other villages. There is a one-mile gravel road in the city. Winter trails are marked to Quinhagak (39 mi), Eek Island (15 mi), and the Kwethluk River (45 mi). Barges deliver fuel and supplies during the summer months.

### *Facilities*<sup>23</sup>

The City and Village have formed a joint utility commission. Water is derived from Eek River and is treated and stored in a tank at the “washeteria.” A few homes have tanks that provide running water to the kitchen, but houses do not have additional plumbing. Rain catchment systems and ice melt are also used for drinking water. “Honeybuckets” are collected by the city and sewage is disposed of in a sewage lagoon. Public safety services are provided by Village Public Safety Office (VPSO) and state troopers in Bethel. Fire and rescue services are provided by VPSO and city volunteer fire department. Electricity is provided by diesel generator. Other public facilities include a community hall and gym. Communications services available include local and long distance telephone, local and cable television, and internet.

### *Medical Services*<sup>24</sup>

Eek Health Clinic provides basic health care and is a Community Health Aid Program (CHAP) site. The nearest hospital is located in Bethel.

### *Educational Opportunities*<sup>25</sup>

Eek School provides preschool through 12<sup>th</sup> grade instruction. As of 2011, there were 89 students enrolled and 9 teachers employed.

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<sup>21</sup> Alaska Department of Community 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>22</sup> Airfare was calculated using lowest fare from [www.travelocity.com](http://www.travelocity.com). (Retrieved November 22, 2011).

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

<sup>24</sup> Ibid.

<sup>25</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

## Involvement in North Pacific Fisheries

### *History and Evolution of Fisheries*

Fisheries participation in the Lower Kuskokwim Delta dates back thousands of years to the original Central Yup'ik occupants. Commercial harvest of salmon first took place in the Kuskokwim area in 1913, although in the early years it was a quasi-commercial fishery with limited distribution. During early years, local salmon were cured and salted and by 1920, the largest commercial season to-date took place on the Kuskokwim, with five operators processing approximately 35,000 Chinook salmon that year. In 1922, there were four salteries operating near the mouth of the Kuskokwim, processing Chinook and sockeye salmon. The Kuskokwim area was closed to all fishing for export from 1926 through 1929. In 1930, regulations were modified to allow commercial fishing in part of Kuskokwim Bay. A floating cannery operated for that year, and by 1932, three companies engaged in commercial fishing. Catch was dried and sold as food for sled dogs during the 1930s when dog teams were the primary means of hauling freight to villages in Western Alaska. Information on commercial fishing during the late 1930s through the 1950s is limited. However in 1952, poor salmon runs prompted the closure of the Kuskokwim River and Bay. Management was finally shifted to the State of Alaska in 1960, and commercial fishing resumed.<sup>26</sup>

At the time of statehood in 1959, commercial fishing districts were defined along the Kuskokwim River. In the 1960s and 1970s commercial salmon fisheries in the Kuskokwim were still considered experimental, and management efforts focused on increasing commercial use while ensuring continued supply for subsistence use. Harvest levels continued to increase until the mid-1990s, after which time fishing effort, harvest levels and salmon prices decreased. Current management is focused on sustainability of salmon runs, ensuring subsistence needs are met, and with a precautionary approach, providing opportunity for commercial harvest of available surpluses.<sup>27</sup> Harvest levels continued to increase until the mid-1990s, after which time fishing effort, harvest levels and salmon prices decreased. Current management is focused on sustainability of salmon runs, ensuring subsistence needs are met, and with a precautionary approach, providing opportunity for commercial harvest of available surpluses.<sup>28</sup>

Commercial catch of herring for bait began in Alaska around 1900, and herring sac roe fisheries developed in the late 1970s. Along the Yukon/Kuskokwim coast there are six commercial gillnet sac roe districts: Security Cove, Goodnews Bay, Cape Avinof, Nelson Island, Nunivak Island and Cape Romanzof. Harvests in these areas have been declining in recent years, in part due to lack of processing capacity in the region.<sup>29</sup>

On the lower Kuskokwim, subsistence sockeye, chum, and Chinook harvesting typically begins by June 1<sup>st</sup>, and is concluded by mid-July. Coho and pink salmon are harvested in August and September. Fishing effort is based from either a fish camp or from a home village. Drift gill

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<sup>26</sup> Pennoyer, S.; Middleton, K. R.; & Morris, M. E. (1968). *Arctic-Yukon-Kuskokwim Area Salmon Fishing History*. Retrieved April 11, 2012 from: <http://www.sf.ADFG.state.ak.us/fedaidpdfs/afrbIL.070.pdf>.

<sup>27</sup> Clark, McGregor, Mecum, Krasnowski and Carroll (2006). "Kuskokwim Commercial Salmon Fishery." In *The Commercial Salmon Fishery in Alaska*. Alaska Department 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>28</sup> Ibid.

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

nets, fish wheels, and rods and reels are used for harvesting. Soon after river ice breaks up in May, smelt move into the lower Kuskokwim area. Residents use fine-meshed nets to catch smelt, and thread them through willow sticks before drying and smoking them. Whitefish, sheefish, Arctic grayling, and northern pike are harvested year-round. Blackfish and burbot are harvested during fall and winter months. Dolly Varden are typically harvested from June through December; while trout are typically harvested in the early spring and summer, and again in the late summer and early fall. Spotted seal, bearded seal, ringed seal, and walrus are harvested in the late spring.<sup>30,31</sup>

Eek is located in Federal Reporting Area 514, International Pacific Halibut Commission Regulatory Area 4E, and the Bering Sea Sablefish Regulatory District. Eek is eligible to participate in the Community Development Quota program and is represented by the Coastal Villages Region Fund.

### *Processing Plants*

According to ADF&G's 2010 Intent to Operate list, Eek does not have a registered processing plant. The nearest shoreside seafood processors are located in Quinhagak and Bethel.

### *Fisheries-Related Revenue*

Between 2000 and 2010, Eek received fisheries-related revenue from raw fish taxes, Shared Fisheries Business Taxes, and Fisheries Resource Landing Taxes. In 2010, \$196 was collected, compared to \$1,249 in 2000. Information regarding fisheries-related revenue trends can be found in Table 3.

It should be noted that a direct comparison between fisheries-related revenue and total municipal revenue cannot reliably be made as not all fisheries-related revenue sources are included in the municipal budget.

### *Commercial Fishing*

In 2010, 43 residents, or 14.5% of the population, held 49 permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 47 residents held 55 CFEC permits. Of the CFEC permits held in 2010, 87% were for salmon, compared to 80% in 2000 and 13% were for herring, compared to 13% in 2000. Between 2000 and 2010, no residents held License Limitation Program (LLP) groundfish or crab permits or Federal Fisheries Permits (FFP). In addition, no residents held halibut, sablefish, or crab quota shares between 2000 and 2010.

Residents held 49 commercial crew licenses in 2010 (16.6% of the total population), compared to 51 in 2000. Also in that year, residents held majority ownership of 27 vessels, compared to 31 in 2000. Of the CFEC permits issued in 2010, 80% were actively fished, compared to 82% in 2000. This varied by fishery from 91% of salmon permits being actively fished to 0% of herring permits. Fisheries prosecuted by Eek residents in 2010 included Bristol

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<sup>30</sup> Coffing, M. (1991). *Kwethluk Subsistence: Contemporary Land Use Patterns, Wild Resource Harvest and Use, and the Subsistence Economy of the Lower Kuskokwim River*. Retrieved July 12, 2012 from: <http://www.subsistence.ADFG.state.ak.us/TechPap/tp157.pdf>

<sup>31</sup> Andrews, E.; and Coffing, M. (1986). *Kuskokwim River Subsistence Chinook Fisheries: An Overview*. Retrieved July 12, 2012 from: <http://www.nativeknowledge.org/db/files/tp146.htm>.

Bay drift gillnet and Kuskokwim gillnet salmon. Between 2000 and 2010, no landings were made in Eek. However, landings were made by residents of Eek in other locations. In 2010, residents landed 98,461 lb of salmon valued at \$87,481, compared to 152,599 lb valued at \$85,469; an increase of \$0.12 per pound after accounting for inflation<sup>32</sup> and without considering the species composition of landings. Salmon landings by residents peaked in 2009 at 223,980 lb valued at \$140,147. Information regarding commercial fishing trends can be found in Tables 4 through 10.

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<sup>32</sup> Inflation calculated using the 2010 Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics, <http://www.bls.gov/ppi/#data>.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	\$624	\$474	\$224	\$183	\$180	\$85	\$255	\$180	\$180	\$170	n/a
Shared Fisheries Business Tax <sup>1</sup>	\$625	\$475	\$93	\$121	\$97	\$241	\$275	\$146	\$105	\$88	\$92
Fisheries Resource Landing Tax <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	\$316	\$103
Fuel transfer tax <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Extraterritorial fish tax <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulk fuel transfers <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Port/dock usage <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fishing gear storage on public land <sup>3</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marine fuel sales tax <sup>3</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Total fisheries-related revenue<sup>4</sup></b>	<b>\$1,249</b>	<b>\$949</b>	<b>\$317</b>	<b>\$304</b>	<b>\$277</b>	<b>\$326</b>	<b>\$530</b>	<b>\$326</b>	<b>\$285</b>	<b>\$574</b>	<b>\$196</b>
<b>Total municipal revenue<sup>5</sup></b>	<b>\$442,367</b>	<b>\$458,9527</b>	<b>\$405,435</b>	<b>\$427,087</b>	<b>\$438,069</b>	<b>\$430,135</b>	<b>\$394,665</b>	<b>\$490,737</b>	<b>\$559,214</b>	<b>\$351,401</b>	<b>\$375,342</b>

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

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

<sup>2</sup> Alaska Department of Community 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 municipal budget. Alaska Department of Community 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).

Table 4. Permits and Permit Holders by Species, Eek: 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	n/a										
	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	n/a										
	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	n/a										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (CFEC) <sup>2</sup>	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a										
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) <sup>2</sup>	Total permits	4	5	6	4	4	3	1	2	0	0	0
	Fished permits	0	1	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	20%	0%	0%	0%	0%	0%	0%	n/a	n/a	n/a
	Total permit holders	4	5	5	3	3	3	1	2	0	0	0
Herring (CFEC) <sup>2</sup>	Total permits	7	7	6	6	6	6	6	6	6	6	6
	Fished permits	3	0	0	0	0	0	0	0	0	0	0
	% of permits fished	43%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	7	7	6	6	6	6	6	6	6	6	6

Table 4 cont'd. Permits and Permit Holders by Species, Eek: 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	n/a										
	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	n/a										
	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	1	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	0%	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	1	0	0	0	0
Salmon (CFEC) <sup>2</sup>	Total permits	44	42	42	41	39	39	41	41	40	41	43
	Fished permits	42	28	30	33	30	30	34	34	36	37	39
	% of permits fished	95%	67%	71%	80%	77%	77%	83%	83%	90%	90%	91%
	Total permit holders	46	45	45	42	39	39	42	42	43	42	43
<i>Total CFEC Permits<sup>2</sup></i>	<i>Permits</i>	<i>55</i>	<i>54</i>	<i>54</i>	<i>51</i>	<i>49</i>	<i>48</i>	<i>49</i>	<i>49</i>	<i>46</i>	<i>47</i>	<i>49</i>
	<i>Fished permits</i>	<i>45</i>	<i>29</i>	<i>30</i>	<i>33</i>	<i>30</i>	<i>30</i>	<i>34</i>	<i>34</i>	<i>36</i>	<i>37</i>	<i>39</i>
	<i>% of permits fished</i>	<i>82%</i>	<i>54%</i>	<i>56%</i>	<i>65%</i>	<i>61%</i>	<i>63%</i>	<i>69%</i>	<i>69%</i>	<i>78%</i>	<i>79%</i>	<i>80%</i>
	<i>Permit holders</i>	<i>47</i>	<i>46</i>	<i>46</i>	<i>42</i>	<i>39</i>	<i>39</i>	<i>42</i>	<i>43</i>	<i>43</i>	<i>42</i>	<i>43</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 Eek: 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 Eek <sup>2</sup>	Total Net Lb Landed In Eek <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Eek <sup>2,5</sup>
2000	51	0	0	31	28	0	0	\$0
2001	6	0	0	30	26	0	0	\$0
2002	24	0	0	30	29	0	0	\$0
2003	1	0	0	22	22	0	0	\$0
2004	25	0	0	23	23	0	0	\$0
2005	5	0	0	25	25	0	0	\$0
2006	32	0	0	27	27	0	0	\$0
2007	34	0	0	25	25	0	0	\$0
2008	6	0	0	25	24	0	0	\$0
2009	46	0	0	27	26	0	0	\$0
2010	49	0	0	27	26	0	0	\$0

<sup>1</sup> Alaska Department of Fish and Game. 2011. Alaska sport fish and crew license holders, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

<sup>2</sup> Alaska Department of Fish and Game, and Alaska Commercial Fisheries Entry Commission. 2011. Alaska fish ticket data. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

<sup>3</sup> Alaska Department of Fish and Game. (2011). Data on Alaska fish processors. ADF&G Division of Commercial Fisheries. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

<sup>4</sup> Alaska Commercial Fisheries Entry Commission. 2011. Alaska commercial fishing permits, permit holders, and vessel licenses, 2000 – 2010. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

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

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

	<i>Total Net Pounds<sup>1</sup></i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	0	0	0	0	0	0	0	0	0	0	0
Halibut	0	0	0	0	0	0	0	0	0	0	0
Herring	0	0	0	0	0	0	0	0	0	0	0
Other Groundfish	0	0	0	0	0	0	0	0	0	0	0
Other Shellfish	0	0	0	0	0	0	0	0	0	0	0
Pacific Cod	0	0	0	0	0	0	0	0	0	0	0
Pollock	0	0	0	0	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0	0	0	0	0
Salmon	0	0	0	0	0	0	0	0	0	0	0
<i>Total<sup>2</sup></i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Finfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Halibut	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Herring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Groundfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Shellfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pacific Cod	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pollock	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sablefish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Salmon	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Total<sup>2</sup></i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>

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

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

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

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

	<i>Total Net Pounds<sup>1</sup></i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	152,599	101,303	--	--	73,440	67,407	179,062	171,173	189,197	223,980	98,461
<i>Total<sup>2</sup></i>	<i>152,599</i>	<i>101,303</i>	--	--	<i>73,440</i>	<i>67,407</i>	<i>179,062</i>	<i>171,173</i>	<i>189,197</i>	<i>223,980</i>	<i>98,461</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	\$85,469	\$35,835	--	--	\$23,722	\$28,321	\$95,111	\$86,815	\$110,586	\$140,147	\$87,481
<i>Total<sup>2</sup></i>	<i>\$85,469</i>	<i>\$35,835</i>	--	--	<i>\$23,722</i>	<i>\$28,321</i>	<i>\$95,111</i>	<i>\$86,815</i>	<i>\$110,586</i>	<i>\$140,147</i>	<i>\$87,481</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 lb refers to the landed weight recorded in fish tickets.

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

### *Recreational Fishing*

Due to Eek's remote location and lack of sportfishing and visitor infrastructure, non-Alaska resident recreational fishing is limited. Between 2000 and 2010, there were no sport fish guide businesses operating in Eek between 2000 and 2010. In 2010, 76 sportfishing licenses were sold to residents and 86 were sold in the community, compared to 34 and 26 in 2000, respectively.

Eek is located in the Kuskokwim River and Bay drainages ADF&G Harvest Survey Area which includes the Kuskokwim River drainage and all waters following into Kuskokwim Bay, as well as adjacent waters north from Cape Newenham to the Naskonat Peninsula. In 2010, there were a total of 19,455 freshwater angler days fished, compared to 19,990 in 2000. In that year, non-Alaska residents accounted for 72.1% of angler days fished, compared to 67.0% in 2000. Survey data for saltwater angler days fished is not available for 2010. No kept/released charter information is available for Eek. Information regarding sportfishing trends can be found in Table 11.

### *Subsistence Fishing*

Subsistence activities are practiced widely in Eek and are an important aspect of daily life in the community. According to 2009 ADF&G estimates, 77% of overall subsistence salmon harvests on the Kuskokwim River occurred in the lower Kuskokwim area, which includes Eek.<sup>33</sup> According to a 2005 ADF&G survey<sup>34</sup>, an estimated 18% of households participated in halibut subsistence activities while an estimated 60% participated in non-salmon fish subsistence activities. Per capita subsistence harvest that year was estimated at 550.5 lb. According to ADF&G's *Community Subsistence Information System*,<sup>35</sup> species which residents of Eek harvest or use include Arctic char, Bering cisco, blackfish, broad whitefish, burbot, Dolly Varden, grayling, herring, humpback whitefish, lamprey, least cisco, Pacific tom cod, rainbow trout, rockfish, round whitefish, sheefish, smelt, stickleback, and sucker.

Of the species documented by ADF&G in Table 13, Chinook salmon were harvested most often, although there was a significant decline in reported harvests in 2006 and 2007. In 2007, residents reported harvesting 256 salmon, compared to 4,114 in 2000. Reported salmon harvests peaked in 2002 at 5,343 fish. This decline may be attributed to a sharp drop in returned subsistence salmon permits in 2006 and 2007.

In 2010, 6 residents held Subsistence Halibut Registration Certificates (SHARC), compared to 21 in 2003. In that year, an estimated 80 lb of halibut was harvested on two SHARC, compared to an estimated 608 lb on eight SHARC cards in 2003. Subsistence halibut harvests peaked in 2004 at an estimated 3,780 lb. No information on sea mammal harvests is available for Eek. Information regarding subsistence trends can be found in Tables 12 through 15.

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<sup>33</sup> Brazil, C.; Bue D.; Carroll, H.; & Elison, T. (2011). *2010 Kuskokwim Area Management Report*. FMR No. 11-67. Retrieved April 12, 2012 from: <http://www.adfg.alaska.gov/FedAidpdfs/FMR11-67.pdf>.

<sup>34</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>35</sup> Ibid.

Table 11. Sport Fishing Trends, Eek: 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 Eek <sup>2</sup>
2000	0	0	34	36
2001	0	0	11	7
2002	0	0	49	49
2003	0	0	44	50
2004	0	0	39	52
2005	0	0	30	43
2006	0	0	34	42
2007	0	0	46	40
2008	0	0	49	48
2009	0	0	73	83
2010	0	0	76	86

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

<sup>1</sup> Alaska Department of Fish and Game. 2011. Alaska sport fish guide licenses and businesses, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

<sup>2</sup> Alaska Department of Fish and Game. 2011. Alaska sport fish and crew license holders, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

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

Table 12. Subsistence Participation by Household and Species, Eek: 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	18%	n/a	n/a	60%	550.5
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, Eek: 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	67	59	2,112	636	488	n/a	878	n/a	n/a
2001	71	59	1,728	347	207	n/a	923	n/a	n/a
2002	73	54	2,432	1,259	904	n/a	748	n/a	n/a
2003	78	58	2,364	621	1,493	n/a	714	n/a	n/a
2004	81	61	2,636	587	764	n/a	472	n/a	n/a
2005	80	51	2,899	764	346	28	893	n/a	43,027
2006	78	5	272	169	11	n/a	119	n/a	n/a
2007	78	2	110	130	n/a	n/a	16	n/a	n/a
2008	85	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).

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

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	21	8	608
2004	21	7	3,780
2005	21	10	2,857
2006	20	8	1,398
2007	20	4	243
2008	6	4	n/a
2009	6	4	100
2010	6	2	80

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, Eek: 2000-2010.

Year	# of Beluga Whales <sup>1</sup>	# of Sea Otters <sup>2</sup>	# of Walrus <sup>2</sup>	# of Polar Bears <sup>2</sup>	# of Steller Sea Lions <sup>3</sup>	# of Harbor Seals <sup>3</sup>	# of Spotted Seals <sup>3</sup>
2000	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

<sup>1</sup> Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. *J. Cetacean Res. Manage.* 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

<sup>2</sup> U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

<sup>3</sup> Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.