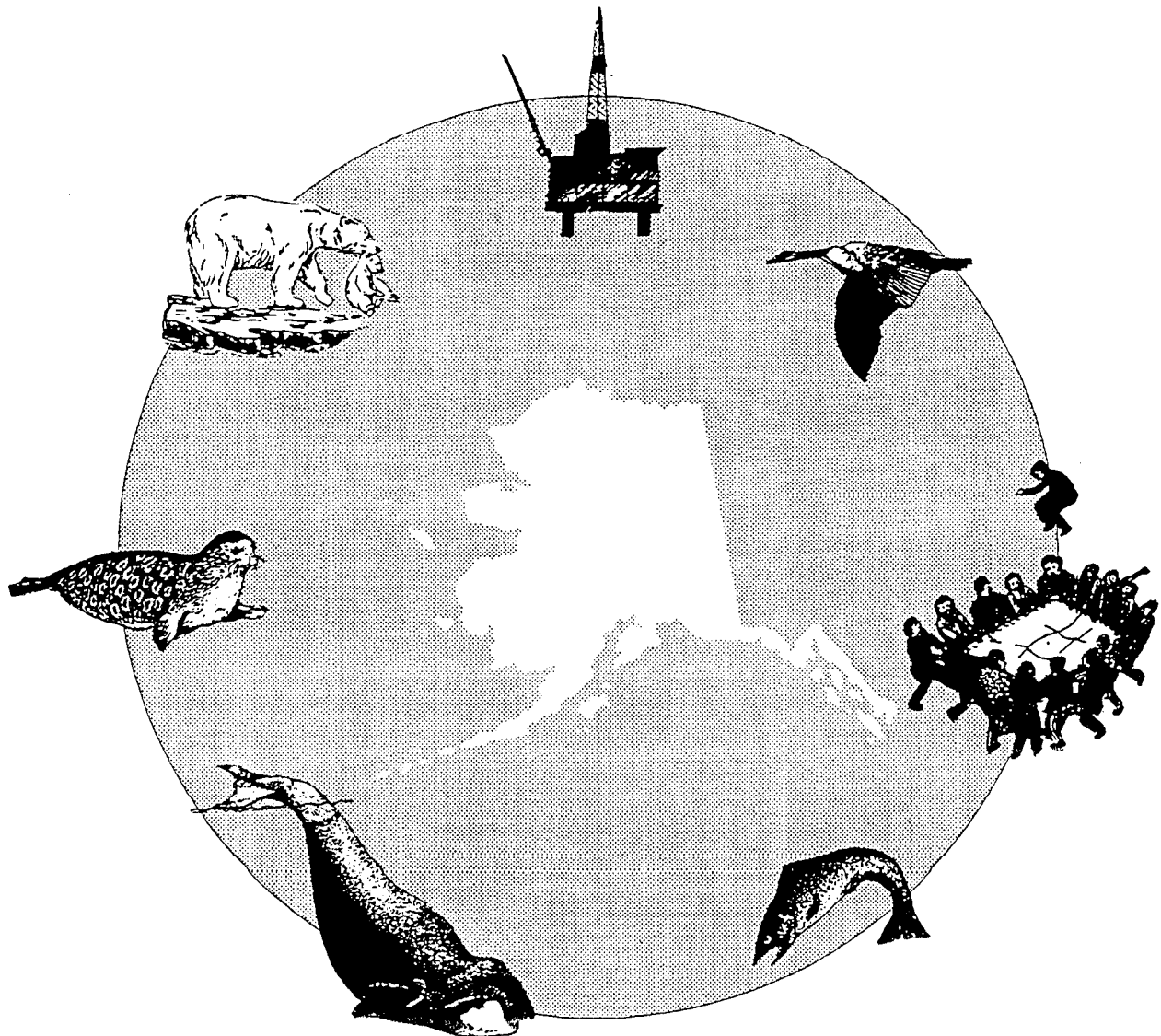


An Investigation of the Sociocultural Consequences of Outer Continental Shelf Development in Alaska

III. Lower Cook Inlet



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Development in Alaska**

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Alaska OCS Environmental Studies Program

An Investigation of the Sociocultural Consequences of Outer Continental Shelf Development in Alaska

I. Introduction

Division of Subsistence
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March 1995

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EXECUTIVE SUMMARY

This report provides selected findings from a three-year study entitled "An Investigation of the Sociocultural Consequences of Outer Continental Shelf Development in Alaska." The findings are primarily organized by study community, and the report consists of 24 chapters in six volumes. The project was conducted by the Division of Subsistence of the Alaska Department of Fish and Game (the division) under a cooperative agreement (No. 14-35-0001-30622) with the U.S. Department of the Interior, Minerals Management Service (MMS). The primary purpose of the research was to investigate the long-term social and cultural consequences of the development of the resources of Alaska's Outer Continental Shelf (OCS), especially as these affect the subsistence uses of fish and wildlife. Investigation of the consequences of the *Exxon Valdez* oil spill of March 1989 was a major focus of the research.

Most data were collected through voluntary face-to-face interviews using two instruments. The first, the "harvest survey questionnaire," modeled after the division's standard survey instrument, collected data on household demography, involvement in the cash economy, resource harvests and uses, and assessments of changes in subsistence harvest and use patterns. The second instrument, the "Social Effects Questionnaire" was based in part on questionnaires and interview protocols used in prior Social Indicators research funded by MMS. It addressed changes in social and community organization which could be affected by OCS development.

Three rounds of fieldwork took place, in 1992, 1993, and 1994. Study communities in the area affected by the *Exxon Valdez* oil spill included Chenega Bay, Cordova, Tatitlek, and Valdez in the Prince William Sound area; Kenai, Nanwalek, Port Graham, and Seldovia in the Cook Inlet area; Akhiok, Karluk, Kodiak, Larsen Bay, Old Harbor, Ouzinkie, and Port Lions in the Kodiak Island Borough; and Chignik Bay and Chignik Lake in the Lake and Peninsula Borough (Alaska Peninsula). Additionally, the study added control or reference communities in the Arctic region which will strengthen the application of the findings to broad questions of sociocultural change which are related to development of the resources of the Outer Continental Shelf. These were Kotzebue, Kaktovik, Kivalina, and Nuiqsut.

Earlier research by the division found that the *Exxon Valdez* oil spill caused major impacts on subsistence uses and the sociocultural systems which they support. There was a definite geographic pattern to these spill effects which reflects the relative degree of oiling and the persistence of oil in the environment. Impacts were greatest on communities closest to the spill -- particularly Tatitlek and Chenega Bay -- and lessened with distance from Prince William Sound.

Over the three years of this study, further evidence of this geographic pattern developed, with communities closer to the spill in Prince William Sound and lower Cook Inlet, as well as Ouzinkie, reporting higher levels of spill impacts than more distant communities. A relatively high percentage of respondents in Chenega Bay, Nanwalek, and Tatitlek in all three study years said there was less sharing of wild foods

since the spill. Similarly, of all study communities, the largest percentages in Ouzinkie, Port Graham, Chenega Bay, Nanwalek, and Tattilek said that the spill had a negative effect on children's participation in subsistence activities. Households in Prince William Sound communities, and especially Cordova and Chenega Bay, were most likely to say that they liked living in their community less during the study years than before the spill.

Subsistence harvest levels in all the communities of the oil spill area appear to be rebounding from the low levels of the first and second post-spill years. Pre-spill levels of harvests have been approached or matched in most affected communities, such as Nanwalek, Port Graham, Port Lions, Larsen Bay, Old Harbor, and Akhiok. However, in the severely impacted communities of Tattilek, Chenega Bay, and Ouzinkie, harvest levels remain below pre-spill averages. In Tattilek and Chenega Bay, harvests appear to have declined in the third year of this project from estimated levels for the first and second years. There also continues to be an important shift in the composition of subsistence harvests in Chenega Bay and Tattilek, with much lower takes of marine mammals than before the spill and a larger portion of the harvests composed of fish.

In many study communities, a significant proportion of households reported that subsistence uses have not recovered to earlier levels. This position is expressed strongly in the Prince William Sound villages, in Nanwalek, and in Ouzinkie. In all four villages, a larger percentage of households reported lowered levels of resource harvests compared to before the spill in 1993 than did so in 1991. Thus the perception appears to be not only one of lowered subsistence uses, but that uses continue to decline.

There has been an important shift in the explanations people offer concerning why the spill's impacts reduced their resource uses. In 1989, a majority of households with spill-caused reductions in resource uses cited fear of oil contamination as the reason for the decline. By 1993, the vast majority of households who still said that the spill's effects were impacting their subsistence uses cited reduced resource populations as the cause of the decline. This viewpoint was especially strong in Prince William Sound. A large majority of respondents in Chenega Bay in all three years said that populations of deer, harbor seals, sea lions, sea ducks, and clams were down since the spill. In the second and third years an increasing majority said that salmon stocks were down as well. At Tattilek, a majority of respondents said there were less deer, seals, sea lions, sea ducks, salmon, halibut, clams, bidarkies, and octopus.

Contamination concerns about specific resources, while substantially reduced from the levels expressed in the first few years after the spill, persist among many households, especially in Chenega Bay, Tattilek, Port Graham, and Nanwalek. Substantial percentages of households reported that they had not received adequate information about the safety of subsistence foods. This illustrates an important finding that many households in the spill area returned to using subsistence foods despite lingering contamination fears. The economic and cultural necessities of using subsistence foods have compelled Alaska Natives of the spill area to resume subsistence harvests even at increased costs of time, money, and health concerns.

In Tatitlek and Chenega Bay, subsistence harvesters' observations of reduced wildlife populations and diseased animals (such as a viral infection in Prince William Sound herring), created substantial doubts about the overall health of the natural environment. In 1989, the spill's immediate effects caused subsistence users to distrust the safety of subsistence foods. Direct observations of dead and injured wildlife, interpreted through traditional systems of knowledge, strongly suggested to subsistence users that resources might be unsafe for humans. The spill also created conditions very unfamiliar to subsistence users which experience and training were ill-equipped to explain. Under these circumstances, many households acted with caution. By 1993, traditional knowledge about food safety and edibility continued to inform people's decisions about subsistence uses. In addition, public health advisories had been disseminated in villages through the work of the Oil Spill Health Task Force. But doubts persisted that traditional and scientific knowledge were not enough to answer questions about what the spill had done. In the view of many of the people interviewed as part of this project, and especially in Prince William Sound and among Alaska Native people, the spill had caused fundamental changes to natural resource populations and the natural environment overall that have yet to be adequately explained. This uncertainty has had profound effects on the outlook for the future that people expressed in several communities, such as Tatitlek, Chenega Bay, and Cordova. This remains an important long-term impact of the spill.

Finally, one additional social effect of the *Exxon Valdez* oil spill has been the prolonged litigation over damage claims. Rulings in federal court which ruled ineligible claims by the Alaska Native Class concerning injuries to their way of life were especially disheartening to the people whose subsistence uses had suffered following the spill. In some cases, these rulings discouraged people from participating in this research. They concluded that additional studies were pointless. The settlement with Exxon regarding the replacement value of lost subsistence harvests was viewed by subsistence users as, at best, only a partial compensation of the Native Class claims. A view persisted that the cultural importance of subsistence to the Alaska Native communities of the spill area and the injury that this culture suffered had not yet been acknowledged by the judicial process. Appeals of these rulings were in preparation as this report was being completed. This continuing litigation remains another long-term impact of the spill, and should be considered in impact assessments for future Outer Continental Shelf development.

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CHAPTER VI: KENAI

by

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COMMUNITY BACKGROUND

On the eastern shore of Cook Inlet, at the mouth of the Kenai River lies the city of Kenai, the largest community on the Kenai Peninsula. This city of 6,327 persons in 1990 (Alaska Department of Labor 1991) occupies some of the broad glaciated lowland that borders the Kenai Mountain Range, 40 miles inland. Typical summer temperatures range between 42 degrees F. and 62 degrees F. while winter temperatures range between 4 degrees F. and 43 degrees F. Average annual rainfall is 20 inches and snowfall is 69 inches (Selkregg 1974).

Eskimos inhabited the Kenai area 200 to 300 years ago followed by the Tanaina Athabaskans who had many settlements along the Kenai River in the 19th century (Georgette 1983). The Russian period in Kenai's history began with the establishment of Fort St. Nicholas in 1791. Just shortly after the United States purchased Russian America in 1867, the fort was abandoned. Commercial fishing became Kenai's main industry with the opening of the first of several canneries in the 1880's along the Kenai River. During World War II, the airport was built and in 1951 Kenai was connected by road to Anchorage by the Sterling Highway. The Swanson River oil field was discovered in 1957, which marked the addition of oil and gas development as another major industry in Kenai. Many onshore and offshore oil wells were developed during this time. In 1960, Kenai became a first class city and in 1963, a home rule charter was adopted.

Since the discovery of oil in the area, the population of the city has increased markedly, from 778 people in 1960 to 3,533 people in 1970 (Fig. VI-1). By 1980 it had reached 4,324 people (Reed 1985). In 1990, of the 6,327 persons living in Kenai, 89 percent were white, 8 percent were Alaska Native, and the remaining 3 percent were Black/Asian/Pacific Islander or of another race not listed (Alaska Department of Labor 1991).

Kenai is connected by road to most of the peninsula communities and Anchorage (140 miles overland). The largest airport on the peninsula is located in Kenai and offers many daily flights to other Alaskan communities. Kenai is home to a variety of services and facilities including a local police station, two elementary schools, a junior high, a high school, court system, a library, a post office, a senior citizens' center, a recreational facility, and a city dock. There are a number of health centers in Kenai in addition to the hospital located 12 miles away in Soldotna. Many large retail and restaurant chains also have outlets in Kenai which has made Kenai a popular shopping spot for people living in other peninsula communities. Many of the respondents in Seldovia indicated that they traveled to Kenai to do their grocery shopping, for example.

Today, the oil and gas industry and commercial fishing still remain important industries to the economy of Kenai and the Kenai Peninsula Borough. Government is also a large employer of the Kenai labor force accounting for 19 percent of the employed labor in 1989 (U.S. Bureau of the Census 1992a,b). Along with those industries, the visitor industry is growing in its importance (DeVito 1992). The Kenai Peninsula Borough Economic Development District, Inc. (1992a,b,c), estimates that around 40 percent of the total employment of the borough is in the oil and gas industry. Commercial fishing accounts for about 20 percent of the total employment during the peak season (July) and the visitor industry accounts for 14 percent. Although this is a projection for the entire borough, it is a fair indication of the economic situation in its largest community. Household incomes in Kenai in 1989 ranged from less than \$5,000 to over \$150,000. (U.S. Bureau of the Census 1992a). The median household income was found to be \$42,889, very close to the average for Alaska overall at \$41,408.

RESEARCH METHODS

Fieldwork occurred in Kenai in all three study years.¹ The "study year" for which data were collected ran for the calendar year (January through December). Hence, the first year covered 1991, the second year was for 1992, and the third year included 1993 household harvest and other information. In year one of this project, the goal was to interview 100 households within the city limits of Kenai including random households and a panel of households previously interviewed as part of the MMS-sponsored social indicators project. In year two, the social indicators panel was retired and the first year random households became the social effects panel. There were 45 households in this panel, and the researchers attempted to contact and interview only these households in year two. In 1993, the goal was to complete 100 household interviews, by re-interviewing as many of the 45 social effects panel members, and then randomly selecting the remaining households from the updated list of Kenai housing stock.

The 1991 Study Year

In 1991, the goal as mentioned above for Kenai was achieved, representing 4.7 percent of the estimated year-round households in the community (Table I-4). To complete the goal of 100 households, 186 households were contacted. Of the 86 additional households contacted, 32 declined to be interviewed, 43 were unavailable, six were vacant, and five were non-Alaska resident households. Interviewing began on March 24 and ended on April 16, 1992. Fish and Game researchers conducting the interviews were Brad Palach, Susan McNeil, Lisa Tomrdle, Neil Shishido, and Ronald Stanek. The average harvest interview took 0.53 hours (32 minutes) to complete, with the longest taking three hours (Table I-7).

¹For more detail on sampling methods and the conduct of fieldwork, see the series of interim reports prepared at the close of each field season (Fall and Utermohle 1992, 1993 and, 1994).

The social effects questionnaire took about the same amount of time per household at an average of 36 minutes (Table I-8). These were the shortest averages for any of the 16 study communities.

The 1992 Study Year

Field work for the second year in Kenai began March 2, 1993, and was completed March 12, 1993. Three researchers for the Division of Subsistence conducted the surveys, Susan McNeil, Brad Palach, and Lisa Tomrdle. As stated above, for year two the social indicators panel was retired and the first year random households became the social effects panel. There were 45 households in this panel and the researchers attempted to contact and interview only these households in year two. Of the 45 potential respondents, 37 were interviewed, one refused, six were unavailable (or could not be contacted), and one household had moved to an unknown location (probably out of the Kenai area from what neighbors told the interviewers) (Table I-5, Table VI-1). The one refusal was due to the respondent just being too busy with work-related things; he seemed willing to be approached the next year. The harvest survey for the 1992 study year took an average of 0.22 hours (13.2 minutes) per household to complete (Table I-7), while the social effects survey took 0.49 hours (29.4 minutes) on average (Table I-8).

The 1993 Study Year

Year three of the study for the city of Kenai took place from February 25 through March 22, 1994. All of Kenai's surveys for the 1993 study year were conducted by division researchers Dave Andersen, Susan McNeil, Brad Palach, and Lisa Scarbrough. The goal of 100 household surveys (both harvest surveys and social effects questionnaire) was achieved. The community was divided into two strata: up to 45 social effects panel members and a balance of randomly selected households. Since the field crew was only able to locate and interview 30 of the 45 panel members, the newly drawn second stratum included a goal of 70 households in order to reach the goal of 100 interviews.

A summary of sample achievement in Kenai is provided in Table VI-1. A total of 101 surveys were completed, with 30 being social effects panel members and the remaining 71 randomly selected households. Of the 15 panel members not surveyed, 3 refused, 4 were unavailable, and 8 had moved away from the Kenai region. In order to complete the remaining 71 household surveys, it was necessary to contact 194 households. Of those not participating, 42 households were unavailable after three attempts, 32 households refused, 3 households were not living in Kenai during 1993, and 16 households were unoccupied (Table I-6). Average length of the household surveys for the 1993 study year in Kenai was 22.2 minutes (Table I-7) and the social effects survey took an average of 31.2 minutes (Table I-8).

DEMOGRAPHY

The 1991 Study Year

The estimated population of Kenai as derived from the 1991 survey was slightly higher at 6,796 people (2,137 households) than that of the 1990 U.S. Census figure of 6,327 people. This population figure was reached by computing the mean number of residents in the 100 surveyed households (3.2 persons) and expanding this mean to the estimated total number of households (Table VI-2). The 1991 estimated population was 28 percent higher than the 1982 population of 5,231 persons, when the last harvest survey was conducted in Kenai by the division (Reed 1985:8). Hill (1992:26) reported that during the early 1980s, the Kenai Peninsula Borough was the second-fastest growing borough in the nation. The population increased from 25,282 to almost 41,000 between 1980 and 1990. Reed (1985:19) described the increase in the population in the first half of the 1980s as mainly occurring on the road-connected communities of the western Kenai lowlands. During this time, the general population of Alaska was growing with increasing employment and housing opportunities on the Kenai Peninsula. Reed also points to the oil production on the North Slope since it is not uncommon for Prudhoe Bay workers to reside in the Kenai Peninsula area (at least eight jobs out of 257 reported by the 1991 sample were on the North Slope).

Figure VI-2 and Tables VI-1 through VI-3 show a profile of Kenai's population during the 1991 study year. The population was 52.2 percent male and 47.8 percent female. Kenai was found to have a fairly young population with an average age of 30.3 years. The average length of residency for Kenai household heads was 14.8 years. An estimated six percent of the population was found to be Alaska Native.

The 1992 Study Year

Basically, there were no major changes in the demographic profile of Kenai in 1992 (Fig. VI-3, Table VI-1, Table VI-2, Table VI-4). Any minor deviations from the previous year's levels are probably due to the smaller size of the 1993 sample. The population of Kenai in 1992 was estimated at 6,642 with 55.7 percent male and 44.4 percent female, with an average age of 27.6 years. The average length of residency for Kenai household heads was 12.3 years. The Alaska Native population represented 8.7 percent of the population.

The 1993 Study Year

Again, little change occurred from the 1992 to 1993 study years in regards to the demographic profile of Kenai (Fig. VI-4, Table VI-1, Table VI-2, Table VI-5). A list of new residential housing units built since the 1991 study was obtained from the city of Kenai planning department in March 1993. These were added to the list bringing the estimated total permanent households in Kenai to 2,274. The estimated population of Kenai, however, showed a slight decrease to 6,372 persons, since the 1991 and 1992 studies

were conducted. The estimated percentage of Alaska Native households also declined, representing only 5.0 percent of Kenai's total households, or 4.2 percent of the population. In 1993, Kenai continued to have slightly more males representing 52.3 percent than females at 47.7 percent.

CASH ECONOMY

The 1992 Study Year

Similar to 1982, most Kenai surveyed adults (60.4 percent) worked year-round in 1991 (Table VI-6). Among all adults, 71.6 percent were employed in 1991. The average number of months employed for all jobs was 9.8 months. On the average, households held 2.3 jobs and had at least one adult who was employed for cash during some part of the study year. Household heads were found to be employed almost 10 months (9.8 percent) on the average.

Employment by industry for Kenai (Fig. VI-5) showed the largest job category to be services (such as hospitals) (19.0 percent). Retail trade with 11.0 percent was the second largest, while commercial fishing at 10.0 percent and mining (which includes mostly the oil and gas industry) with 10.0 percent tied for third for number of 1991 Kenai jobs. The industries that drive the economy of Kenai are similar to those found in 1982: the oil industry, commercial fishing, tourism, and government (Reed 1985:18; Hill 1992:14). Although there has been a decline in oil prices and the exploration for new fields in the last few years, ARCO and Phillips Petroleum discovered oil in Cook Inlet 30 miles northwest of Kenai in October 1991, the first reported oil strike in the area since 1965 (Kenai Peninsula Borough Economic Development District, Inc. 1992b).

Tables VI-7 and VI-8 summarize community, household, and per capita incomes for Kenai in 1991. The average total (earned and other) household income was \$49,815.81 for the study year as compared to an estimated average range of \$35,000 - \$39,000 for 1982 (Reed 1985:21). Per capita total income in 1991 was \$15,665.35. Even though mining did not provide the largest percentage of Kenai's jobs, it contributed the largest share (\$9,573.29) to the average household income. The second highest contributor was the government (schools, local, state, federal) adding \$7,522.00 to each average household income. The majority of government income came from local education (\$3,737.00). Manufacturing (which includes logging and canneries) contributed \$7,294.18 to Kenai's average household incomes in 1991.

Average community, household, and per capita other income is summarized in Table VI-8. Average other income was \$7,634.42 per household and \$2,400.76 per capita. Most of the other income came from Alaska Permanent Fund Dividends (\$2,598.42 per household), retirement pensions (\$2,105.80 per household), and social security (\$876.26 per household).

The estimated average expenditure on food for the sampled Kenai households in 1991 was \$441 per month. The household median monthly food expense was \$400. The latter represents 9.5 percent of the estimated total average household income in Kenai in 1991 (Table I-101).

Almost half the sampled Kenai households (49 households; 49.0 percent) said that their financial situation in 1991 was about the same as before the *Exxon Valdez* oil spill of March 1989. On the other hand, 21 percent said their financial situation had improved and 21 percent said it had gotten worse. Nine households (9.0 percent) provided no assessment (Table I-103).

The 1992 Study Year

In 1992, there were slightly more adults employed (4.1 percent) than in 1991 (Table VI-6), and 34 more jobs overall. The number of jobs held per individual did not change, but the mean number of months employed rose a fraction (0.7 month). A modest (6.9 percent) rise in the number of households employed was accompanied by a slight drop in the mean number of jobs per household and per person.

There were only slight changes in proportions of jobs held by the various employment sectors. There was a 2.0 percent decline in the number of jobs in the mining sector. The appearance of two new job sectors, agriculture, forestry, fishing and wholesale trade may have influenced the proportions of each sector. The manufacturing sector, showed 6.0 percent gain in jobs which may be due to an increase in jobs at local canneries resulting from an exceptionally large commercial harvest of salmon during the 1992 season (Fig. VI-5, Fig. VI-6, Fig. VI-7, Fig. VI-10).

The average amount of earned and unearned household income (\$60,737.98) to the community of Kenai during 1992 (Table VI-10, Table VI-11) increased by 21.8 percent (\$10,877.17) from 1991. This was a substantial gain with the majority of the increase occurring in the manufacturing, trade (stores), and unearned income sources. The agriculture sector increased by 100 percent, only because it was not reported the previous year. Several earned income sources lost substantially compared to 1991. For example, household incomes from services lost nearly 44 percent, commercial fish decreased 20 percent, which is surprising considering the large harvest. Construction jobs did not contribute much toward total community income in 1991 and provided even less, with a 73 percent decline from 1991 to 1992.

The 1993 Study Year

Kenai showed very little change over the three study years in regards to employment. In 1993, 71.1 percent of all adults were employed at least one month and 65.7 percent worked jobs year-round. The average number of months adults were employed was 10.3 months. Of all households, 86.2 percent had at least one person employed during at least part of 1993. On the average, households held 2.2 jobs with 1.6 employed adults per household (Table VI-6).

Employment by industry for Kenai in 1993 (Fig. VI-7) showed the largest job categories to be retail trade and services (17 percent each). Retail trade employment for Kenai residents has risen over the three years. This is likely due to the opening of a new K-Mart store and a Carrs "super" grocery store in Kenai as well as a large Fred Meyer store in nearby Soldotna. Mining (oil and gas) and manufacturing provided 10 percent and eight percent of the jobs respectively. The fishing industry only provided 5 percent of Kenai's jobs which was down from the other two study years.

Tables VI-12 and VI-13 summarize community, household, and per capita incomes for Kenai in 1993. The average total (earned and other) household income was \$55,035.23 for the study year; a decline from 1992 by 9.4 percent. But, the per capita total income in 1993 was \$19,641.55, which was nearly equivalent to 1992's per capita income. Contributing the largest share to the household income was once again the category of mining (oil and gas), providing on average per household, \$11,458.75 (20.8 percent) with a community total of \$26,057,188.12. Commercial fishing contributed \$441,291.09 to Kenai's total estimated income in 1993, just 0.4 percent of all income. This was a notable drop from 5.2 percent in 1991 and 2.0 percent in 1992.

Kenai's 1993 average community, household, and per capita other income is summarized in Table VI-13. As with earned income, money earned from other income was almost the same as in the other two study years with average other incomes of \$7,643.36 per household and \$2,727.84 per capita. As in the other two study years, most of the other income came from Alaska Permanent Fund Dividends, adding on average \$2,453.47 to every household's income in 1993.

The estimated average expenditure on food in 1993 for the sampled Kenai households was \$428 per month, just slightly less than 1991's average. The household median monthly food expense was \$400, the same as in 1991. The latter represents 8.7 percent of the estimated total average household income in Kenai in 1993 (Table I-102).

RESOURCE HARVESTS AND USES: 1991

Participation in Hunting, Fishing, and Gathering Activities: 1991

Kenai households used 64 types of resources, including three groups of edible plants plus wood, during the 1991 study year (Table VI-19). Used were 27 kinds of fish, 10 species of land mammals, 1 species of marine mammal, 10 species of birds, and 12 species of marine invertebrates. Households used an average of 6.2 different kinds of resources and harvested 4.2 different kinds of resources (Table VI-14). An average of 2.7 resources were received and 1.8 resources given away by any one household. The number of resources used is very similar to Reed's (1985:35) 1982 survey of Kenai which showed an average of 5.1 resources used and 3.2 harvested. The small differences, may be due to the less detailed list of resources used in the earlier survey instrument.

Of all Kenai households surveyed, 98.0 percent reported using at least one wild resource (Table VI-14). A smaller percentage of 87.0 percent attempted to harvest resources and 81.0 percent were successful. While only 66.0 percent of the households gave away wild resources, 84.0 percent reported receiving wild resources, indicating sharing in the community. Overall, 73.3 percent of the sampled population engaged in resource harvest activities, with 20.1 percent hunting, 65.7 percent fishing and/or gathering marine invertebrates, 1.3 percent trapping, and 39.3 percent gathering plants (Table VI-15). Also, 63.8 percent of the total sampled population processed wild resources during the 1991 study year.

Kenai households were involved in resource exchanges with residents of at least 19 other Alaska communities in 1991 (Table VI-16). They most frequently gave resources to fellow Kenai residents (48 percent of all households) followed by people living outside of Alaska in other states (29.0 percent). It was most common for Kenai households to receive resources from people living in Kenai (71.0), Soldotna (15.0 percent), Homer (8.0 percent), and Anchorage (7.0 percent).

Resource Harvest Quantities: 1991

Of the sixteen study communities in 1991, Kenai had the lowest mean per capita harvest at 74.5 pounds edible weight (Fig. VI-8, Table VI-17), which was similar to the community of Valdez at 88.1 pounds per capita (see Chapter III). The mean household harvest for Kenai was 237.0 pounds (Table VI-19). This 1991 amount of wild resource harvest for home use is almost a 97 percent increase from the estimated 1982 harvest (Fig. VI-8). Kenai households harvested an average of 90.4 pounds of salmon (38.1 percent of total harvest), 79.1 pounds of other fish (33.4 percent), 17.8 pounds of marine invertebrates (7.5 percent), 42.7 pounds of land mammals (18.0 percent), 2.3 pounds of birds (1.0 percent), and 4.8 pounds of plants and berries (2.0 percent) (Fig. VI-10, Fig. VI-14, Table VI-19). The household harvest composition is similar to the 1982 estimates of salmon at 40.9 percent, other fish at 30.8 percent, marine invertebrates at 9.1 percent, game, including birds, at 17.5 percent, and plants at 1.7 percent (Reed 1985:39; Table VI-18).

A large majority of the sampled Kenai households (74.0 percent) estimated that between 1 percent to 25 percent of their annual supply of meat, fish, and poultry came from wild foods (Table I-104). Eleven percent provided an estimate of 26 to 50 percent, four percent estimated 51 to 75 percent, and seven percent said that 76 to 99 percent of their meat, fish, and poultry was from wild resource harvests. Additionally, three households used no wild foods and one household said that all its meat, fish, and poultry supply was from wild harvests.

Of the sampled Kenai households, 51.0 percent reported that their 1991 use and harvest of wild resources was about the same as the previous year, 1990 (Table I-57). Another 15.3 percent reported an increase in harvest and use and 33.7 percent reported a decrease. When asked to compare 1991 with the year before the *Exxon Valdez* oil spill (1988), 51.1 percent said their 1991 harvest and use was about the same, 11.4 percent said it was higher and 37.5 percent said it was lower. The assessment of change

question for 1988 was only asked for all the resources as a whole and not asked of each specific group of resources as was done in Seldovia for the same year (Table I-58).

A significant portion of the Kenai household harvest in 1991 was made up of salmon and other fish at 71.5 percent (Fig. VI-10). Per capita, each resident harvested an average of 28.4 pounds of salmon in 1991, a 13 pound per person increase over the 1982 harvest (Figure VI-9). Over half of this harvest by weight (55.2 percent) was sockeyes and another 33.8 percent was cohos. Chinooks made up 8.9 percent; chums and pinks were taken in very small quantities (0.7 percent) (Table VI-21). By gear type, 4.7 pounds of salmon per household (5.2 percent) were removed from commercial catches; 15.3 pounds (16.9 percent) were taken with subsistence set gillnets; 11.8 pounds (13.1 percent) were taken with dip nets; and 58.5 pounds (64.8 percent) were taken by rod and reel (Table VI-20, Table VI-21, Table VI-22). This represents a notable change from the 1982 data which indicated that 7.0 percent of the salmon harvest was taken with commercial gear, 3.0 was taken with subsistence gillnets, 1.0 percent was taken with dip nets, and a full 89.0 percent was taken with rod and reel (Reed 1985:186). The most significant changes were in the increased use of subsistence nets and dip nets in 1991 (Table VI-23). These changes will be discussed under the regulations portion of this chapter.

About half of the sampled households (53.1 percent) reported that their 1991 harvest and use of salmon was comparable to 1990; 15.6 percent said it was higher and 31.3 percent said it was lower (Table I-9)

On average, Kenai households used 1.7 methods to preserve their salmon harvests (Table I-106). The most households (67.0 percent) froze portions of their salmon catch, followed by canning (43.0 percent of all households), smoking (41.0 percent), pickling (8.0 percent), salting (5.0 percent), and kippering (2.0 percent).

Halibut, at 21.7 pounds per capita, represented 87.1 percent of the 24.9 pounds of other fish harvested per capita (Table VI-19). Trout and char (rainbow trout, steelhead, Dolly Varden, Arctic char, and lake trout) accounted for 7.2 percent of the per capita harvest. Cod, grayling, flounder, rockfish, eulachon, shark, skates, and black rockfish were also harvested in small quantities. By gear type, 0.3 pounds of other fish per household (0.4 percent of the total non-salmon finfish harvest) were removed from commercial catches, 0.9 pounds (1.2 percent) were taken with subsistence gear, 0.4 pounds (0.5 percent) were taken by ice fishing, and 77.4 pounds (97.9 percent) were caught by rod and reel (Table VI-24, Table VI-25). As shown in Table VI-26, most Kenai households (53.0 percent) harvested fish other than salmon with rod and reel gear. Also, 4.0 percent harvested these fish through the ice with hook and line, 7.0 percent used subsistence methods, and 1.0 percent removed non-salmon fish from commercial catches.

A majority of Kenai households interviewed, 59.8 percent, reported that in 1991, their fish other than salmon harvest and use the same as that in 1990. Higher use and harvest was reported by 14.4 percent of the households and lower use and harvest was reported by 25.8 percent (Table I-15).

In 1991, marine invertebrates accounted for 5.6 pounds of the per capita harvest. As shown in Table VI-19, 4.4 pounds (78.6 percent of the marine invertebrate harvest) were razor clams, reflecting the easy access to clamming beds at Clam Gulch and Ninilchik, both just a few miles south of Kenai. Reed (1985:51) found almost one-fourth of Kenai households participated in clam digging in 1983, slightly lower than the 40.0 percent of households that attempted to harvest clams in 1991. Other marine invertebrates harvested in lesser quantities included butter, steamer, and littleneck clams; Dungeness and Tanner crab; mussels; and shrimp.

Most Kenai households, 73.2 percent, interviewed in 1991 said that their 1990 harvest and use of marine invertebrates was the same (Table I-45). More households reported decreased harvests and uses (21.6 percent of the households) than higher harvests and uses (5.2 percent).

The per capita big game harvest was 13.4 pounds divided among black bear, caribou, deer, moose, and sheep (Table VI-19). Moose, at 8.5 pounds, was the largest contributor to the big game harvest (63.3 percent). Reed (1985:51) found that moose hunting in 1982 among Kenai households generated a high participation rate with one-third of the households attempting to harvest moose. A similar situation was found in 1991: almost one third (34.0 percent) of the Kenai households attempted to harvest moose.

Almost three-quarters of the sampled households (74.0 percent) found no difference in their 1991 and 1990 use and harvest of large game; 8.3 percent felt their use and harvest was higher in 1991 and 17.7 percent felt it was lower (Table I-21).

Small land mammals were of little significance in the harvests of Kenai residents, with less than one pound harvested per capita (Table VI-19). Hares, martens, coyotes, and squirrels made up the entire harvest with only one household actually using each resource. The martens were taken by one household for their fur only.

Since most sampled households have no consistent use or harvest of small land mammals, it is not unusual that 94.8 percent reported their 1991 use and harvest as the same as the previous year (Table I-27). Only 2.1 percent reported an increase and 3.1 percent reported a decrease.

Marine mammals played the smallest role in Kenai's per capita harvest with none harvested and only one household using harbor seal (Table VI-18, Table VI-19). This finding is almost the same as in the 1982 survey when one household reported using marine mammals other than seal (other specific species were not asked about) (Reed 1985:37).

Every sampled household (100.0 percent) reported their 1991 use and harvest of marine mammals the same as 1990 (Table I-33). Most of the interviewed households have never used or tried to harvest marine mammals except maybe to try a piece of seal meat, for example.

There was some interest in the use and harvesting of birds by some Kenai households with 28.0 percent using birds and 23.0 percent harvesting, although the per capita harvest of birds was fairly low at 0.7 pounds, or less than one percent of the total per capita harvest (Fig. VI-9, Table VI-17, Table VI-19).

Grouse, at 0.5 pounds per capita (65.3 percent of the bird harvest), were the most sought after birds in 1991. Also contributing to the bird harvest at 0.2 pounds (26.4 percent) were ducks, including mergansers, mallards, pintails, widgeons, and teals. A few ptarmigan and sandhill cranes were also harvested.

Bird and egg use in 1991 was the same as 1990 for 86.3 percent of the sampled households (Table I-39). Higher use and harvest were reported by 5.3 percent of the sampled households and lower use and harvest by 8.4 percent.

Although plants and berries only account for 1.5 pounds of the 1991 per capita harvest (2.0 percent of the total harvest) (Fig. VI-10), 61.0 percent of surveyed Kenai households reported using them and 45.0 percent harvested them (Table VI-19). Berries were the main plant harvested at 1.4 pounds per capita (93.0 percent of the plant harvest). There are many species of wild berries available in the Kenai area, including highbush cranberry, red raspberry, currants, and lowbush cranberry. Only two of the sampled households (2.0 percent) used plants for medicinal purposes. These included fireweed and rosehips for unspecified treatments (Table I-108, Table I-109).

Most interviewed households (82.5 percent) said that their 1991 use and harvest of plants and berries was virtually the same as in 1990 (Table I-51). A small number of 4.1 percent said it was higher and 13.4 percent said it was lower.

Three Kenai households (3.0 percent) discarded portions of wild resource harvests because of perceived abnormalities (Table I-107). These cases involved salmon (one household), other fish (one household), and an unspecified resource (one household). The respondents offered no explanations for the causes of these abnormalities; one said he had observed such conditions before the *Exxon Valdez* oil spill (during the *Glacier Bay* oil spill in 1987 he observed the same thing), the other two said they had not.

As summarized in Table VI-9, on average, Kenai households owned equipment that was used at least in part for subsistence activities valued at \$29,073. On average, households spent \$469 per year on fuel for this equipment and spent an additional \$827 on maintenance, repairs, and supplies. Households estimated that overall about 51.9 percent of the value of these equipment, supplies, and fuel were used for subsistence purposes.

RESOURCE HARVESTS AND USES: 1992

Participation in Hunting, Fishing, and Gathering Activities: 1992

From 1991 to 1992 the percentage of people participating in hunting and processing activities remained almost exactly the same (Table VI-15). Participation in activities within individual resources categories also changed only slightly for some resources. For example, people attempting game harvests declined by 18.0 percent, and those gathering berries and plants declined by 13.2 percent from 1991 to 1992. These were the largest changes in all of the categories between the two years.

Resource Harvest Quantities: 1992

In 1992, Kenai households on average, harvested 73.9 pounds per person of total wild resources for home use. As shown in Figure VI-8, this is only a 0.6 pound decrease from their 1991 estimated harvests.

Estimated harvests for individual resource categories changed substantially for some resources and remained largely the same for others in 1992. Compared to 1991, salmon increased by 6.8 pounds per capita and became 47.7 percent of the total harvest, up 9.6 percent in 1992 (Fig. VI-9, Fig. VI-10, Fig. VI-12, Table VI-17, Table VI-18). Quantities of all species of salmon harvested, except pinks, increased. Non-salmon fish, on the other hand, declined by 5.2 percent, with the greatest share of the decline occurring in the halibut harvest (Table VI-19, Table VI-27). Evidently, owing to the very large run of red salmon into the Kenai River, a high success rate among rod and reel fishermen, and a popular setnet fishery on Kenai Peninsula beaches and dipnet fisheries at mouth of Kenai and Kasilof Rivers, fishermen focused more attention on salmon than non-salmon species. This change was also reflected by increases in percentages of households harvesting salmon with rods and reels, subsistence setnets, and removal from commercial catches (Table VI-28 through Table VI-31). Per capita game harvests decreased by 41.0 percent from 1991 with moose and caribou 100 percent and 66.2 percent respectively, and the deer harvest was up by 80.2 percent. Other resources categories including plants, marine invertebrates, and birds and eggs remained unchanged in 1992 (Fig. VI-10, Fig. VI-12, Table VI-17, Table VI-18, Table VI-19, Table VI-27).

RESOURCE HARVESTS AND USES: 1993

Participation in Hunting, Fishing, and Gathering Activities: 1993

Wild resource use and harvest patterns in Kenai did not vary much over the three-year study period (Table VI-14). In 1993, households used an average of 7.1 different kinds of resources and harvested 4.5 different kinds of resources. An average of 3.2 resources were received and 2.3 resources given away per household. Of all households surveyed, 98.0 percent reported using at least one wild

resource, 89.1 percent attempted to harvest resources, and 86.1 percent were successful. Sharing of subsistence foods by Kenai residents was demonstrated in all three years of the study. An estimated 81.2 percent of Kenai's 1993 households received wild resources from another household while a smaller percentage (62.4 percent) gave away some of their resources.

Overall, 77.0 percent of the sampled population engaged in noncommercial harvest activities in 1993, which was just a slight increase than the previous two years. Of the total population, it is estimated that in 1993, 77.0 percent at least attempted to harvest at least one wild resource (Table VI-15). An average of 21.9 percent of Kenai's 1993 population hunted game, birds, or marine mammals, 67.5 percent fished, 3.5 percent trapped or hunted furbearers, and 40.6 percent gathered plants and berries.

Resource Harvest Quantities: 1993

The majority of Kenai households (60.0 percent) estimated between 1 percent to 25 percent of their annual supply of meat, fish, and poultry came from wild foods (Table I-105). Eleven percent provided an estimate of 26 to 50 percent, 10 percent estimated 51 to 75 percent, and 10 percent of households said that 76 to 99 percent, and nine percent said none of their meat, fish, and poultry was from wild resource harvests.

Kenai's per capita harvest of all wild resources in 1993 totaled 83.8 pounds of edible weight, which had increased by 10 pounds per person since the two previous study years (Fig. VI-8). The mean household harvest for Kenai was 234.7 pounds. The increase in per capita harvests was due in part to more salmon (3.5 pounds), land mammals (9.0 pounds), wild plants and berries (3.9 pounds), and marine mammals (0.6 pounds) harvested in 1993 (Fig. VI-9, Fig. VI-14, Table VI-17, Table VI-35). Other fish such as halibut was down in 1993 at 4.9 pounds per person, as well as marine invertebrates (2.8 pounds). Bird and egg use was essentially the same as in 1992 at 0.9 pounds per person harvested. Just as the previous years, salmon made up the largest percentage (46.2 percent) of the total edible pounds of wild resources harvested (Fig. VI-9, Fig. VI-10, Fig. VI-12, Fig. VI-13, Fig. VI-14, Table VI-18). However, game harvests in 1993 represented the second highest portion (20.2 percent) exceeding that of non-salmon fish (19.4 percent) which in the prior two years was the second highest harvest category.

The interviewed households were asked to assess if their levels of uses of wild resources was less, more, or the same than in 1988, the year before the *Exxon Valdez* oil spill (Fig. VI-11). In 1991, 37.5 percent thought that overall resource was less than in 1988, and nearly the same percentage felt their 1993 uses were less (35.9 percent). In 1993, half of the respondents felt small game harvests (50.0 percent) were less, while approximately one third of the respondents felt the other resource categories were less with the exception of marine mammals.

As with the other study years, a significant portion of the Kenai household harvest in 1993 was made up of salmon and other fish at 65.6 percent (Fig. VI-14, Table VI-17, Table VI-18). Per capita, each resident harvested an average of 38.7 pounds of salmon in 1993, a 23.2 pound per person increase over

the 1982 harvest. Of all households, 89.1 percent said they used salmon during the 1993 study year (Table VI-35). Sockeye salmon were the most popular salmon harvested providing 20.8 pounds per person. By gear type, in 1993, salmon were taken with set nets, floating nets, dip nets, removed from commercial catches, taken with rods and reels, harvested by ice fishing, and even with pots (Table VI-37). Sockeye salmon were most commonly harvested with rods and reels (16,819.59 individual), however 10,491.92 sockeyes were harvested with various subsistence gear types including set nets and dip nets (Table VI-38). Rod and reel fishing was again the most common harvest method overall (Table VI-39).

Kenai households were asked to compare their harvest and use of salmon to that of the previous year and to 1988, the year before the oil spill. The majority felt their harvests were less (42.6 percent) in 1993 than in 1992, and 42.9 percent thought their harvests were less than in 1988. Only 18.2 percent thought their harvests and uses of salmon had increased since 1988 (Table I-63), despite a subsistence fishery open in 1992 and not 1988. Their feelings about decrease in harvest do not match the four years of harvest data showing Kenai's harvest has increased since 1982 (Table VI-17). Harvest surveys, however, were not conducted in Kenai in 1988.

When asked why they felt their harvests had decreased since the oil spill, 30.3 percent said they did not have as much time to get out and harvest the salmon as they did in 1988. Other reasons provided by 21.2 percent were fewer salmon available for harvest in 1993, 21.2 percent gave economic reasons (such as they had less money available to get out and harvest salmon than in 1988), 21.2 percent said they did not try as hard or had less interest to harvest salmon in 1993 than in 1988, and 15.2 percent said there salmon harvest areas were harder to get to than in 1988 (Table I-65).

Of those feeling their salmon harvests had decreased since 1988, only 7 of 101 respondents thought the oil spill played a factor in their decrease in harvest in 1993 (Table I-66). Of these, 57.1 percent blamed the spill for fewer fish available. The others (28.6 percent) thought the spill damaged them economically and therefore they could not pay the cost of getting the fish (boats, gas, fishing line). One person said because of the spill, they have less interest in harvesting salmon, and another said the spill caused limitations on access to salmon harvest areas.

Non-salmon fish harvested in 1993 by Kenai households provided an average of 45.6 pounds per household (Table VI-40). Halibut was harvested the most of all non-salmon fish providing 13.2 pounds per person in 1993; which was less than in the 1991 (21.7 pounds) and 1992 (18.2 pounds) (Table VI-19, Table VI-27, Table VI 35). Per capita pounds of trout and char totaled 2.6 pounds, which had increased from 1991 and 1992. Rockfish in 1993 provided 0.3 pounds per capita. Trout and char levels are generally high in Kenai due to area lakes that are stocked for sport fisheries. One of the randomly selected households in 1993 reported a large harvest of trout. They said that they provide food to many families in need, and trout fishing in the nearby lakes is a fun and easy way to get food for others.

Households took most of their non-salmon fish using rods and reels, however, subsistence gear (dipnets) were used for eulachon fishing, lake trout were caught by ice fishing, and halibut was in part

removed from commercial catches (Table VI-40). Rod and reel fishing also produced the most in terms of pounds (96.6) of non-salmon fish harvested (Table VI-41). Of all households, 1.0 percent harvested non-salmon fish using subsistence gear, 2.0 percent removed them from commercial fish catches, 60.4 percent used rods and reels to get their fish, and 1.0 percent got them by ice fishing (Table VI-42).

Almost half (46.5 percent) of Kenai households interviewed reported that in 1991 their other fish harvest and use was the same as that in 1988. Slightly fewer (35.2 percent) thought their uses were less and 18.3 percent thought more than in 1988 (Table I-67). Of those saying their harvest had declined, 16 percent blamed the *Exxon Valdez* oil spill. Of these, 75 percent thought the 1989 oil spill depleted the fish (Table I-70).

Marine invertebrates accounted for 5.1 pounds of the per capita harvest, which was down slightly from the 1991 and 1992 harvest estimates (Table VI-17). Just as the other study years, razor clams were the most popular clam harvested by 1993 Kenai households. They provided per capita harvests of 4.2 pounds. Other marine invertebrates harvested in lesser quantities included butter, and steamer clams, Dungeness and Tanner crab, mussels, shrimp, and scallops (Table VI-35).

Table I-87 shows that the majority (47.1 percent) of Kenai households in 1993, said that their 1988 harvest and use of marine invertebrates was the same. More households reported decreased harvests and uses (35.3 percent of the households) than higher harvests and uses (17.6 percent). The harvest data show a slight increase since 1982, however shellfish harvest levels have declined since 1991 and 1992 (Fig. VI-14, Table VI-17). Of those reporting less, the majority (75.0 percent) thought the oil spill was responsible for fewer clams in Kenai's harvest areas (Table I-90).

As mentioned above, the per capita big game harvest in 1993 increased from the previous year's with 16.7 pounds divided among black bear (0.2 pounds), caribou (2.1 pounds), deer (0.8 pounds), moose (13.4 pounds), and goat (0.3 pounds) (Table VI-17, Table VI-35). Moose has provided the most poundage of meat for Kenai residents throughout the study years. In 1993, 51.5 percent of all households used moose meat.

Despite the increase in harvest levels of big game since 1992, only 25.4 percent of Kenai's 1993 households thought their harvest and use had increased since the previous year (Table I-71). Compared to 1988, only 19.3 percent thought their harvest had increased, with the majority, 49.1 percent, feeling little change, and 31.6 percent seeing a decrease in harvest. Only two households blamed the oil spill on their decrease in harvest of large mammals since 1988. Reasons they provided were access, economic, and luck (Table I-74).

Small land mammals such as fox, beaver and hare were once again insignificant for Kenai residents in 1993. Only 3.0 percent of Kenai's households reported using furbearers during the study year (Table VI-17, Table VI-18, Table VI-35).

Just as in 1991, most of Kenai's households (75.0 percent) saw little change from the previous year's harvest and use of small land mammals (Table I-75). However, when asked to compare their use

and harvest of 1993 with 1988, half (50.0 percent) thought their harvests were less. Of those, only one person thought the oil spill played a factor, but did not give a reason (Table I-78).

Marine mammal harvests in 1993 had increased since the previous two years. While only one percent of Kenai's households reported using marine mammals (harbor seal), when expanded to represent the population, an average of 0.6 pounds per household of meat was harvested or 135.1 seals (Table VI-17, Table VI-18, Table VI-35). This estimate is believed to be high for Kenai, because during a separate study in 1992 and 1993 by the Division of Subsistence specifically for harbor seals and sea lions, Alaska Native marine mammal hunters were identified and interviewed (Mishler and Wolfe 1992; Mishler and Wolfe 1993). From the 1992 study, of eight identified hunting households in Kenai, approximately 33.3 harbor seals were harvested. No sea lions were taken, however, some sea lion meat was received from other communities. In 1993, only two of these households were interviewed with 20.0 seals harvested and no sea lions.

The only household in Kenai in 1993 reporting use and harvest of marine mammals said their use and harvest did not change from the previous year, but had increased since 1988 (Table I-79). The reason given for the increase was they had more interest and put in more effort in 1993 than in 1988 (Table I-80).

Bird harvests remained virtually the same throughout the study years (Table VI-17, Table VI-18, Table VI-35). Of all Kenai households in 1993, 25.7 percent used birds and 23.8 percent harvested them. The per capita harvest of birds remained fairly low at 0.94 pounds, or 1.1 percent of the total per capita harvest. Grouse, at 0.56 pounds per capita, were the most sought after birds in 1993, just as was in 1991 and 1992. A variety of ducks was harvested totaling 0.2 pounds per capita.

Bird harvests in 1993 were reported by a slight majority to be less (38.2 percent) than the previous year, with 35.3 percent feeling there was little change. Compared to 1988, 42.9 percent thought there was little change, 32.1 percent saw a decrease, and 25.0 percent used and harvested more birds than in 1988 (Table I-83). No one thought the oil spill was a reason for their decrease in harvests of birds since 1988 (Table I-86); however, less time and money were the main explanations provided for the decrease (Table I-85).

Wild plants and berry harvests in 1993 were higher than the other study years at 5.2 pounds per person, or 6.2 percent of the total subsistence harvest (Table VI-17, Table VI-18). An estimated 51.5 percent of Kenai's 1993 households reported using wild berries and plants with 41.6 percent harvesting them (Table VI-35). Some households reported that 1993 was a good berry year, which might explain the increase in harvest over the other years. In addition, one household said they harvested a very large supply of berries because they donate much of their wild food to families in need.

Despite the increase in wild berry and plant use for Kenai households in 1993, only 16.4 percent felt their harvests and uses of this resource had increased since the previous year (Table I-91), and even fewer (10.2 percent) thought there was an increase since 1988. The majority (52.1 percent) saw little change from 1993 compared to 1992 and also from 1988 (55.9 percent). Of households feeling there was an

increase, most said they put out more effort to gather berries and plants from the previous year and in 1988 (Table I-92).

DISCUSSION

Subsistence Salmon Regulations and Changes in Harvest Levels: 1991, 1992 and 1993

This section will discuss regulatory changes that influenced salmon harvesting patterns in Kenai during 1991, 1992, and 1993 compared with 1982, the last year of a division study. Sport fishing regulations in 1991, 1992, and 1993 for rod and reel fishing in the Kenai and Russian rivers were very similar to those in 1982 with the exception of emergency orders that increased since the 1980's causing considerable variations in where and when anglers could fish and what they could keep (ADF&G 1982,1991,1992,1993). More substantial differences between the two years occurred when examining the subsistence and personal use fishing regulations.

The 1991 subsistence and personal use regulations for the Kenai area contrasted sharply with the 1982 regulations (the year of the earlier division survey), when no subsistence fisheries were available to central Kenai Peninsula residents (Reed 1985:23). Concern over uncontrolled growth of the subsistence fishery led the Board of Fisheries in the late 1970's and early 1980's to reduce the open season, allowable gear length, available beach space, bag limits, and permit qualifications. For most of the 1980's, the majority of the Kenai Peninsula was classified as a non-rural area by the Joint Board of Fisheries and Game. Subsistence fisheries were not allowed in non-rural areas.

The Board of Fisheries created a "personal use" fishery beginning in 1982, which opened river mouths to dipnet and selected beaches to setnet salmon fishing by emergency order, when certain escapement goals had been met and following uses by commercial and recreational fisheries (except the Kasilof River setnet fishery which opened in June). Reed (1985:23) concluded that many Kenai Peninsula residents found these regulations inconvenient and uneconomical for obtaining fish for home use. In 1989, an Alaska Supreme Court decision in the *McDowell* Case invalidated the rural subsistence preference to state law, opening areas such as the Kenai Peninsula for consideration for subsistence fisheries.

In November 1990, the Alaska Board of Fisheries passed regulations for subsistence fisheries for Upper Cook Inlet for 1991. Under these regulations, subsistence fishing was allowed with 10-fathom set gillnets in most marine water areas of Upper Cook Inlet normally open to commercial set gillnet fishing. In addition, subsistence setnet fisheries were created in the Knik Arm as well as dipnet fisheries in the mouths of the Kenai and Kasilof rivers. Subsistence periods were scheduled on certain Wednesdays and Saturdays from 8:00 a.m. to 8:00 p.m. by regulation. On August 9, a Kenai Superior Court judge invalidated the Upper Cook Inlet Subsistence Salmon Management Plan, eliminating any further subsistence fisheries in Upper Cook Inlet in 1991. A total of five days of subsistence fishing were conducted under the plan in 1991, although not all areas were open each of these periods. In total, the

7,065 holders of Upper Cook Inlet subsistence permits issued under the newly-adopted regulation, reported harvesting 550 chinook, 32,230 sockeye, 3,520 coho, 537 pink, and 1,598 chum salmon (Ruesch and Fox 1992:15-16,46).

Tables VI-53 and VI-54 illustrate the differences in permits issued and salmon taken in the subsistence and personal use fisheries for the study years of 1982, 1991, 1992 and 1993. These regulatory changes account in part for the increase in home use salmon harvests by Kenai residents in the 1990's over 1982, and the wider participation in subsistence salmon fisheries.

In 1991, the harvest survey found 16.9 percent of the average Kenai household salmon harvest in pounds was taken by subsistence set gillnets, and 13.1 percent were taken by dipnets, an increase from the 5.7 percent harvested with subsistence methods in 1982 (Table VI-21, Table VI-53). As shown in Tables VI-23 and VI-53, 25.0 percent of the sampled Kenai households used subsistence methods to harvest salmon in 1991; 12.0 percent used setnets and 14.0 percent used dipnets. This compares with 58.0 percent of the households that used rod and reel, and 4.0 percent that removed salmon from commercial catches in the same year.

A similar plan for Cook Inlet subsistence fishing was in place for 1992, and there was no court-ordered closure. A total of 9,500 permits were issued. All thirty-five scheduled fishing periods remained open, and as a result more subsistence fish were caught. The 1992 reported subsistence harvests for Upper Cook Inlet (not including Tyonek or the personal use fisheries) was almost twice that of 1991 with a total of 1,139 chinook, 46,419 sockeye, 10,320 coho, 1,818 pinks and 1,827 chums (Ruesch and Fox 1993:16-18,45) (Table VI-54).

In 1992, the harvest survey found that 24.1 percent of salmon harvested by Kenai households in pounds was taken with subsistence set gillnets, and 13.4 percent were taken by dipnets (Table VI-29). Also in 1992, 27.0 percent of the sampled Kenai households harvested salmon using subsistence methods. Of these households, 13.5 percent used gill nets and an equal number (13.5 percent) used dip nets to get their salmon. This compares to 70.3 percent that used rod and reel, and 2.7 percent removing salmon from commercial fish catches (Table VI-31, Table VI-53).

The Upper Cook Inlet subsistence fishery was eliminated for the 1993 season when the Joint Board of Fisheries and Game established that most of Upper Cook Inlet was a non-subsistence area. The personal use setnet fisheries on the Kasilof River were reinstated as well as dipnet fisheries at the mouths of the Kenai and Kasilof Rivers (Ruesch and Fox 1994:15-18). In addition, the Kenaitze tribal and Tyonek subsistence fisheries were open in 1993.

In 1993, the division subsistence survey found that 23.5 percent of the salmon harvest in pounds by Kenai households were taken using subsistence/ personal use methods (Table VI-37). Of salmon taken with subsistence gear in pounds, 1.1 percent came from setnets, 0.7 were harvested with floating nets, 17.0 percent from dipnets, and 0.1 percent from pots. As shown in Tables VI-39 and VI-53, 16.8 percent of Kenai households used subsistence gear to harvest their 1993 salmon, while 59.4 percent used rod and

reel, 4.0 percent removed them from commercial fish catches, and 1.0 percent got them by ice fishing.

The Exxon Valdez Oil Spill and Kenai: the Social Effects Questionnaire

The following will discuss some of the study findings from the social effects survey that was administered in Kenai along with the harvest survey discussed above. This questionnaire was designed to try to determine some of the possible long-term effects of the *Exxon Valdez* oil spill (EVOS) on Kenai, focusing primarily on patterns of wild resource use. Selected findings from all three study years for Kenai are summarized in Tables VI-43 through VI-52. For a review of the oil spill-related events in Kenai in 1989, see the "oiled mayors" study by Impact Assessment Inc. (IAI) (1990c:124-134). In addition, for further discussion of the effects of the EVOS on Kenai, see Robbins' (1993:445-511) summary of key respondent interviews conducted as part of the MMS-sponsored social indicators study.

As found in both of the above studies as well as this study, the effects of the *Exxon Valdez* oil spill on Kenai were more subtle than in small Alaska Native villages with subsistence economies, such as Chenega Bay or Nanwalek. Kenai residents did not experience oil on their beaches like most of the other communities in the study, yet there were economic effects. Numerous businesses lost employees who left their jobs for higher paying clean-up jobs. The commercial driftnet fishery was closed which affected the incomes of fisherman and canneries, and the municipality lost revenue generally brought in by the fishermen to support the dock. The municipality and visitor bureau were flooded with an influx of paperwork, phone calls, faxes, and visitors. Exxon compensated some of the fishermen and city for lost revenue; however, anxiety levels grew for some people as well as reported cases of violence.

Of total earned income for Kenai during the study years, approximately 25 percent came from oil industry jobs. It is perhaps not surprising therefore that the majority of those responding to the study questions felt the oil spill did not have much effect on natural resources, or on other social functions in the community.

Summary of Findings of the Social Effects Questionnaire: Kenai 1991, 1992 and 1993

The social effects questionnaire asked respondents questions to try to assess the importance of living in the community to the people, such as why they live there (Table VI-49). The most popular reasons given by Kenai respondents throughout the three study years were: hunting and fishing opportunities, the beauty of the area, the size of the community, necessary personal freedoms, recreational opportunities, and job opportunities.

When asked why or how they came to Kenai, the majority of responses in all three study years said they came because of employment or job opportunities (47.0 percent in 1991, 35.1 percent in 1992, and 46.5 percent in 1993) (Table VI-49). Respondents that were born or reared in Kenai represented a small percentage of responses (4.0 percent in 1991, 10.8 percent in 1992, and 11.9 percent in 1993).

The majority of households over the three year study also said that employment was the main reason they choose to stay in Kenai (29.0 percent in 1991, 29.7 percent in 1992 and 27.7 percent in 1993).

When asked if they like living in Kenai more, the same, or less since the EVOS, in all three study years, the majority said the same (84.8 percent in 1991, 87.5 percent in 1992 and 76.2 percent in 1993) (Fig. I-8, Table VI-49). One reason given by respondents as to why they like Kenai more since the spill was that the spill increased their appreciation of their area. On the other hand, others said because of the oil spill, they are now uncertain about the future of the environment surrounding their own community. Respondents appeared divided whether they were confident that they would be able to continue to hunt, fish, and gather in the places they currently do. Most, however, said they would continue to live in Kenai if wild foods were not available (75.0 percent in 1991, 73.0 percent in 1992, and 65.0 percent in 1993). Those content with life in Kenai outnumbered those who were not, with 67.0 percent in 1991, 70.3 percent in 1992, and 77.2 percent in 1993. Additional evidence of satisfaction with the community was the finding that in all three study years approximately 60 percent of the respondents expected to be living in the region when they were old, while under 30 percent said probably not.

The social effects questionnaire also tried to determine the significance of wild foods to Kenai residents (Table VI-43). Responses did not vary much from year to year. The majority of Kenai respondents in all three study years said they did not eat any wild foods the day before the interview (1991, 80.0 percent; 1992, 81.1 percent, 1993, 77.2 percent). Of those eating wild foods, only 16.0 percent in 1991, 16.2 percent in 1992, and 20.8 percent in 1993 said these wild foods were a major part of one of their meals the day before the interview. This information is not surprising considering at least 60 percent of all households in Kenai work year-round jobs that provide them with money to buy food from the city's stores. Full time employment also cuts down on the amount of time a person has to look for, harvest, and process their own foods. This contrasts with the community of Chignik Lake (for example), one of the study communities which is isolated, with no grocery stores, and seasonal employment opportunities. In 1991 of their total households, 72.7 percent said they had eaten wild foods the day before their survey was conducted and 59.1 percent had this wild food as a major meal the day prior to their interview (Fig. I-3).

Most of Kenai's respondents in 1992 (86.5 percent), and in 1993 (71.3 percent), said they eat clams. Also, in all three study years, over 82 percent of the respondents thought clams taken from their harvest areas were safe for children to eat (Table VI-44). There were only one household in 1991 and 1992 that thought clams were unsafe because of oil pollution. Comparing Kenai to the other study communities, Figure I-4 demonstrates that Kenai households showed some concern about the safety of clams in their area, but were not as fearful as many of the other communities situated closer to the path of the oil from the EVOS. Seals and chitons were found to be unimportant to Kenai residents each year of the study (Fig. I-5).

The respondents were asked to compare their observations of the availability of various resources in their region with the year before the spill (Table VI-45). Those answering "do not know" or

"the same" were the majority of Kenai responses in all three study years for most of the resource categories. Resources where 25 to 55 percent of the respondents felt the resources had increased or declined included: moose (decline 1992); harbor seal (decline 1992) sea ducks (decline 1992 and 1993); salmon (decline 1991, 1992, and 1993); and halibut (decline 1991 and 1993).

In 1992 (89.2 percent), and 1993 (84.2 percent), the majority of Kenai households said they processed wild foods (Table VI-46) (this question was not asked in 1991). Eighteen percent to 27.0 percent of Kenai's households that processed wild foods during the three study years said children helped. As displayed in Figure I-6, the oil spill had little effect for Kenai households regarding the participation of children with subsistence activities. These effects as shown, were much greater for Prince William Sound communities.

The social effects questionnaire also addressed the spill's possible impact on the distribution and exchange of subsistence foods, hunting and fishing gear, money and labor (Table VI-47). Of all Kenai respondents, most interviewed in 1991, (66.7 percent); 1992 (86.5 percent), and in 1993 (74.3 percent), said they share subsistence foods, labor, and equipment with others. When asked to compare sharing of wild resources with the year before the spill in 1988, at least half of the respondents in all three study years saw little change in their sharing patterns. As demonstrated in Figure I-7, the spill, however, may have had some impact on the sharing of wild resources with Kenai residents during the first two years of the study. By 1993, the data suggest that sharing patterns had returned to more normal levels.

In 1991, 57.1 percent, in 1992, 43.2 percent, and 1993, 31.7 percent of all Kenai respondents felt the influence of elders in politics and guidance in Kenai had increased since the spill (Table VI-48). Reasons provided for this increase by 1993 respondents included: elders are more aware of the power they hold (20.0 percent of answers), a new senior citizens center built in Kenai has brought elders together (power in numbers) (10.0 percent), and elders' knowledge is more appreciated or recognized (8.3 percent). Most Kenai respondents in 1991 (84.5 percent), 1992 (97.3 percent), and 1993 (89.6 percent) said their view of what makes a good leader did not change as a result of the oil spill.

Table VI-50 present the results of questions asked about the effectiveness of various services in dealing with problems that resulted from the *Exxon Valdez* oil spill. Because Kenai's beaches were not significantly oiled, many of the respondents were uncertain what each of these groups had to do with the clean-up, and as a result, they responded with "I do not know." An interesting finding was that, with much of Kenai's population employed by the oil industry, the only three groups rated "not effective" by the majority of respondents in most of the study years were Exxon, Veco, and Alyeska Pipeline Service Company. To give them some credit, however; with the exception of the U.S. Coast Guard (USCG) and Alaska Department of Environmental Conservation (ADEC), none of the groups that were rated, received a "somewhat" or "effective" rating by the majority of Kenai's respondents in any of the study years. The USCG was rated "somewhat effective" in 1992 by 35.1 percent, and "effective" in 1993 by 31.3 percent of the respondents. Also ADEC was given a "somewhat" effective rating in 1991 by 30.3 percent as well as in 1992 by 32.4 percent of Kenai's respondents.

Concerning the safety of wild foods following the Exxon oil spill, Kenai respondents claimed to be informed, ranking high compared to most other study communities (Fig. I-9). Percentages of respondents that felt adequately informed about the safety of eating these foods were in 1991, 63.6 percent, 71.4 percent in 1992, and 60.0 percent in 1993 (Table VI-51). Those that said they were not adequately informed, said they did not receive any information or only incomplete information about the safety of eating these foods.

The last section of the social effects survey asked about outer continental shelf (OCS) development and tried to determine how people felt about off-shore oil exploration and development, and how it might affect various wild resources in the region (Table VI-52). As demonstrated in Figures I-10 through I-14, Kenai residents were, for most study years, the most certain of all 18 study communities that off-shore oil development would have little effect on the populations of these resources. Only 8.1 to 28.0 percent of Kenai's households predicted OCS activities would lower populations of fish, marine invertebrates, marine mammals, land mammals, or birds if it were to occur in their region. Much of this optimism was based on a good safety track record with the off-shore oil platforms in Cook Inlet, according to many of the respondents.

When Kenai respondents were asked if they thought OCS activities would provide more jobs to residents of their community, most said "yes" (1991, 88.0 percent; 1992, 97.3 percent; 1993, 85.1 percent) (Fig. I-15, Table VI-52). When asked if a small oil spill could be contained and cleaned up in their region most respondents in 1991 said "yes" (56.0 percent), while most of 1992 (83.8 percent) and 1993 (60.4 percent) thought "maybe". However, at least 48.6 percent of all respondents said they did not think a large oil spill if it were to occur in their region could be contained and cleaned up. Weather conditions were often given as reasons for their evaluations.

Overall, Kenai residents in 1992 (86.5 percent), and 1993 (82.2 percent), were in favor of search for oil in their region (this question was not asked in 1991). Those in support thought that the search for oil would create more jobs in the community, and be beneficial to the economy. Again, the majority of 1992 (89.2 percent) and 1993 (83.2 percent) respondents were also in favor of the development of oil in their region. Of those in favor, however, about 14 percent were in support of development if done carefully. They thought oil exploration in addition to the reasons provided above would also reduce the United States dependency on foreign oil and thus enhance national security. Of the 11.9 percent of 1992 households not in support of exploration and development of oil in their region, some were concerned about pollution and other environmental impacts it might cause. Others did not trust the oil industry and were in favor of exploration of alternative and renewable resources (Table VI-52).

CONCLUSION

There was an overall feeling among those interviewed in Kenai that the *Exxon Valdez* oil spill (EVOS) of 1989 did not have any direct impact on the community of Kenai. Many were not even aware that

oil from the spill had made its way into Upper Cook Inlet, forcing the closure of many commercial fishing activities in the area. As mentioned earlier, the oil and gas industry has made a significant impact on the economic and social development of Kenai. Those employed in this sector felt that the oil and gas industry was being unnecessarily persecuted for the EVOS. It was pointed out by a few people that they believe the oil and gas industry has done many good things for Kenai and Alaska such as boosting the state economy and in turn facilitating the building of much needed schools. One person made the comment that "people only miss the water when the well dries up," indicating her belief that many in the state take the oil and gas industry for granted and should be more aware of the good as well as the bad that may be directly or indirectly caused by the oil and gas industry.

On the other hand, Kenai commercial fishermen interviewed in 1991 were all too aware of the impacts caused by the EVOS. Many Upper Cook Inlet fishermen were still waiting for compensation from the *Glacier Bay* Oil Spill of the summer of 1987 which restricted commercial fishing that year as well. One commercial salmon and halibut fisherman said, "Since the oil spill [EVOS], our income has dwindled. The oil spill has just about done us in." Another commercial fisherman was concerned about rumors he heard that the fish resources were going to be scarce in 1994 as an indirect impact of the EVOS. It is a concern among biologists as well; the restrictions on commercial fishing allowed three times the desirable level of sockeye salmon to spawn up the Kenai River system in 1989. Overescapement has been linked to lowered adult production in other Alaskan systems, and ADF&G biologists predicted a 90 percent decline in Kenai adult returns in at least 1994 and 1995, based on a high 1990/91 winter mortality of juvenile salmon (Koenings et al. 1993:25). As it turned out, the total run of sockeye salmon in 1994 for Upper Cook Inlet (including the Kenai River) while below the last ten year average, was much greater than the pre-season forecast (Tarbox 1995, personal communication).

Overall, the concerns expressed reflect the diversity of the community of Kenai. This diversity was highlighted by one respondent:

I am concerned about the balance between industry and nature and don't want industry to ruin natural resources. Industry can be promoted if the effects are minimal. I see an importance of having a diversified economy. Industry shouldn't be so regulated that they cannot stay in business; just need to see that they are trying.

The concern expressed in Kenai over resources seemed to be based upon factors having to do with the cash economy and to a lesser extent recreation rather than subsistence. In other words, many people felt that they could live without wild resources if they were just harvested for food purposes; however, respondents felt that wild fish and game were very important to the economy of Kenai since this is what drives the commercial fishing industry and is a large factor in the tourism industry. This is not to say that there are not people in Kenai that rely greatly on wild fish and game for food (see Reed 1985). Further, there are many people in Kenai that take great pleasures in their hunting, fishing, and gathering

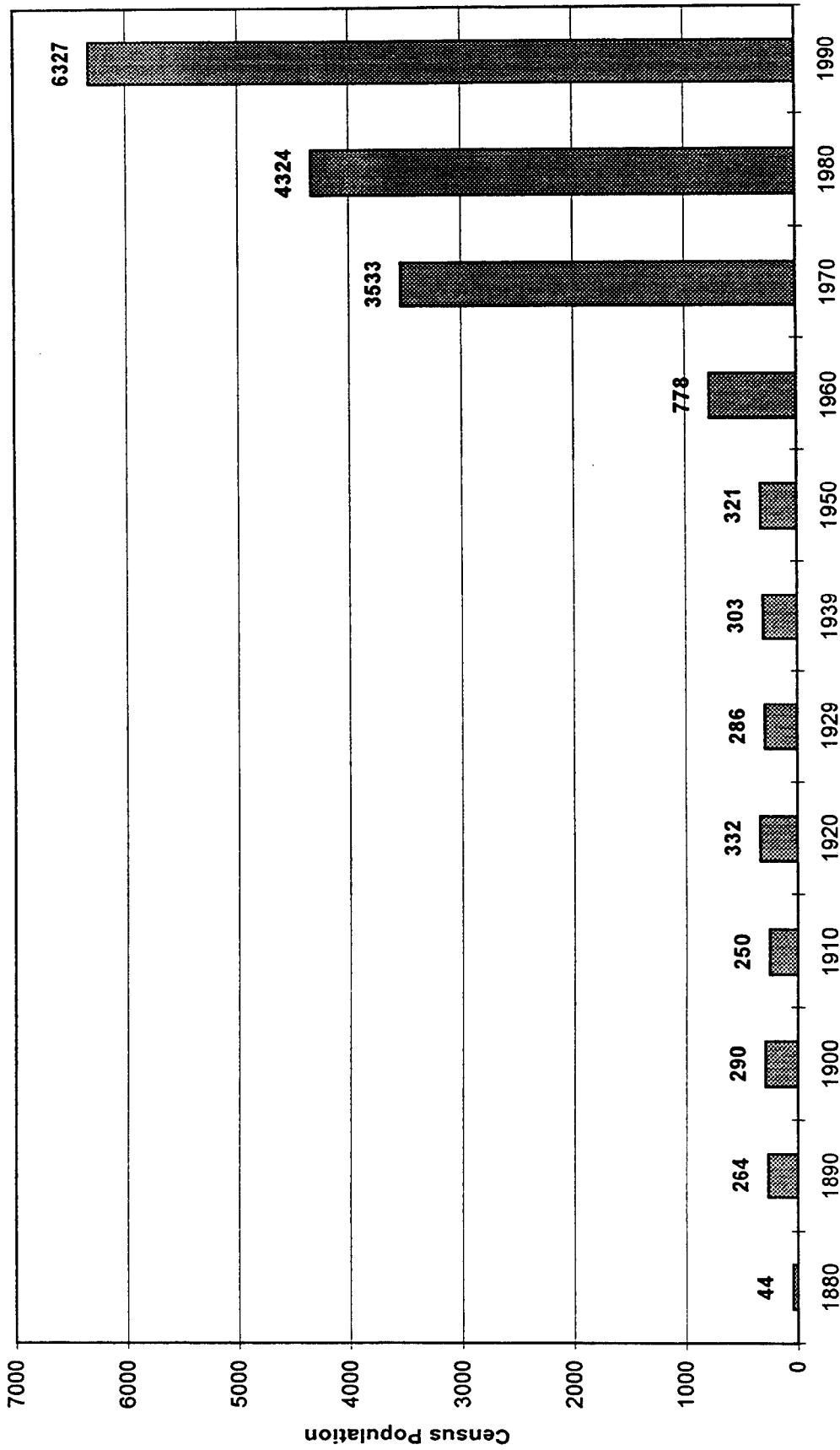
pursuits and place a high value on wild fish and game for recreational purposes. Many of these same people also set the value of preserving Kenai's economic base of which the oil industry is a major part.

A few respondents, discussed other kinds of spill impacts. One respondent spoke about a large amount of spill impact money that was funneled through the city government in 1989 and 1990. Another respondent who does counseling stated that numerous clients went through divorce, became physically abusive, and developed drinking and drug problems as a result of making lots of money on the spill clean-up and coming into contact with unlawful people. One mentioned that there were precautionary shut-downs of oil platforms in Cook Inlet during the time of the *Exxon Valdez* oil spill. Others mentioned that the local governments and tourism industry had to deal with calls from people wondering if Kenai Peninsula was still a safe vacation destination.

In summary, overall, interviewed households in Kenai throughout the three-year study, seemed to be relatively unaffected by the *Exxon Valdez* oil spill and unaware of the spill impacts to the area. Most responded that they were in favor of the oil industry in their community, favored future off-shore or on-shore oil exploration and development and thought the industry was safe in Cook Inlet. It appeared that households that were commercial fisherman, worked in the fisheries business, or contained Alaska Natives claimed they were impacted by the spill, primarily economically. However, in 1993 for example, only 10 percent of the selected households interviewed in Kenai were employed as commercial fisherman, and 7 percent contained Alaska Natives.

A final observation is that by the third year of the study, even though people were aware that much of the social effects survey was directed at oil spill impacts, when it came time for them to express their own comments or concerns, many chose to comment on local resource issues such as sport fishing regulations on the Kenai River, and not about the oil spill or future oil development possibilities.

Figure VI-1. Kenai Census Population, 1880 - 1990



Sources: Rollins 1978; Alaska Department of Labor 1991

Table VI-1. Sampling and Participation: Kenai, 1992, 1993, 1994

VARIABLE	1992		1993		1994		TOTAL HOUSEHOLDS
	Social Indicators		Social Effects		Social Effects		
	Panel	Non-Panel*	Panel	Panel	Panel	Non-Panel*	
Estimated Household Structures	97	2384	2481	2137	45	2601	2646
Non-Residential Structures	NA	56	56	NA	NA	56	56
Estimated Households	97	2328	2425	2137	37	2545	2582
Total Social Indicator Sample	124	NA	NA	45	45	NA	NA
Interview Goal...	50	50	100	45	45	55	100
Households Interviewed	55	45	100	37	30	71	101
Failed to Contact/Unavailable	30	13	43	6	4	38	42
Refused	12	20	32	1	3	29	32
Vacant Residential Structures	NA	6	6	NA	NA	16	16
Seasonal Households**	0	0	0	0	0	0	0
Non-Resident Household***	0	5	5	0	0	3	3
Invalid Households and Vacancies	0	11	11	0	0	19	19
Failed to Contact: HH Interviewed	0	NA	NA	0	0	NA	NA
Refused: HH Interviewed	0	NA	NA	0	0	NA	NA
Panel Household Moved	18	NA	NA	1	8	NA	NA
Panel Respondent Deceased	0	NA	NA	0	0	NA	NA
Panel Disposition	115	NA	NA	45	45	NA	NA
Total Households Attempted:	97	89	186	44	37	157	194
Refusal Rate:	17.91%	30.77%	24.24%	2.63%	9.09%	29.00%	24.06%
Non-Perm. HH Rate ("Vacancy Rate"):	0.0%	12.4%	5.9%	0.0%	0.0%	12.1%	9.8%
Interview Goal (Percentage)	110.0%	90.0%	100.0%	82.2%	66.7%	129.1%	101.0%
Social Effects Surveys Completed	55	45	100	37	30	71	101
Total Permanent Households	97	2040	2137	2137	37	2237	2274
Percentage Interviewed	56.70%	2.21%	4.68%	1.73%	81.08%	3.17%	4.44%
Percentage of Total Households	4.54%	95.46%	100.00%	100.00%	1.63%	98.37%	100.00%
Interview Weighting Factor	1.764	45.333	21.370	57.757	1.233	31.507	22.515

NOTES:

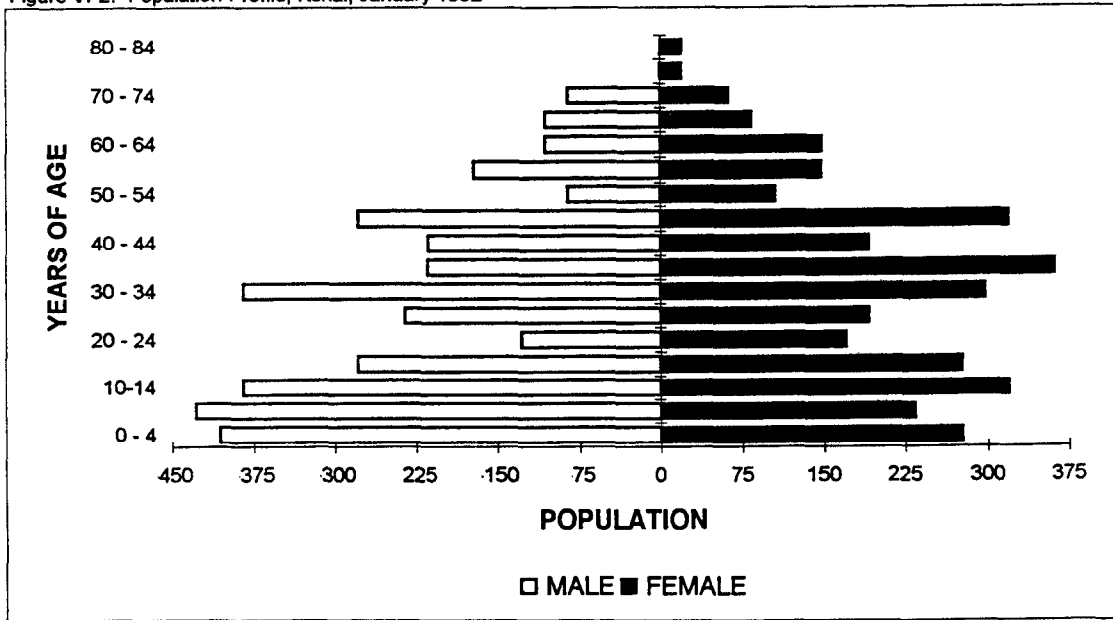
- Shaded areas are computed fields.
- * Includes panel members who were not attempted to contact.
- ** Seasonal households are households which maintain a permanent domicile elsewhere where they spend the majority of their time.
- *** Non-resident households are households which were not present during the study year or which were resident less than the required number of months.

Table VI-2 . Demographic Characteristics of Households, Kenai,
January 1992, January 1993, and January 1994

Characteristics	1991	1992	1993
Sampled Households	100	37	101
Number of Households in the Community	2,137	2,137	2,274
Percentage of Households Sampled	4.68	1.73	4.44
Household Size			
Mean	3.18	3.11	2.80
Minimum	1	1	1
Maximum	8	8	8
Sample Population	318	115	283
Estimated Community Population	6,795.66	6,642.03	6,371.70
Age			
Mean	30.34	27.59	31.77
Minimum	0.10	0.05	0.01
Maximum	81.11	71.82	81.11
Median	30.24	30.26	33.73
Length of Residency - Population			
Mean	11.62	10.25	11.07
Minimum	0.10	0.05	0.01
Maximum	61.05	31.00	45.00
Length of Residency - Household Heads			
Mean	14.80	12.31	12.96
Minimum	0.5	3	0.5
Maximum	61.05	31	45.00
Sex			
Males			
Number	3,547.42	3,696.43	3,332.20
Percentage	52.20	55.65	52.30
Females			
Number	3,248.24	2,945.59	3,039.50
Percentage	47.80	44.35	47.70
Alaska Native			
Households (Either Head)			
Number	128.22	173.27	112.57
Percentage	6.00	8.11	4.95
Estimated Population			
Number	406.03	577.57	270.18
Percentage	5.97	8.70	4.24

SOURCE: Alaska Department of Fish and Game, Division of Subsistence,
Household Survey, 1992, 1993, and 1994.

Figure VI-2. Population Profile, Kenai, January 1992



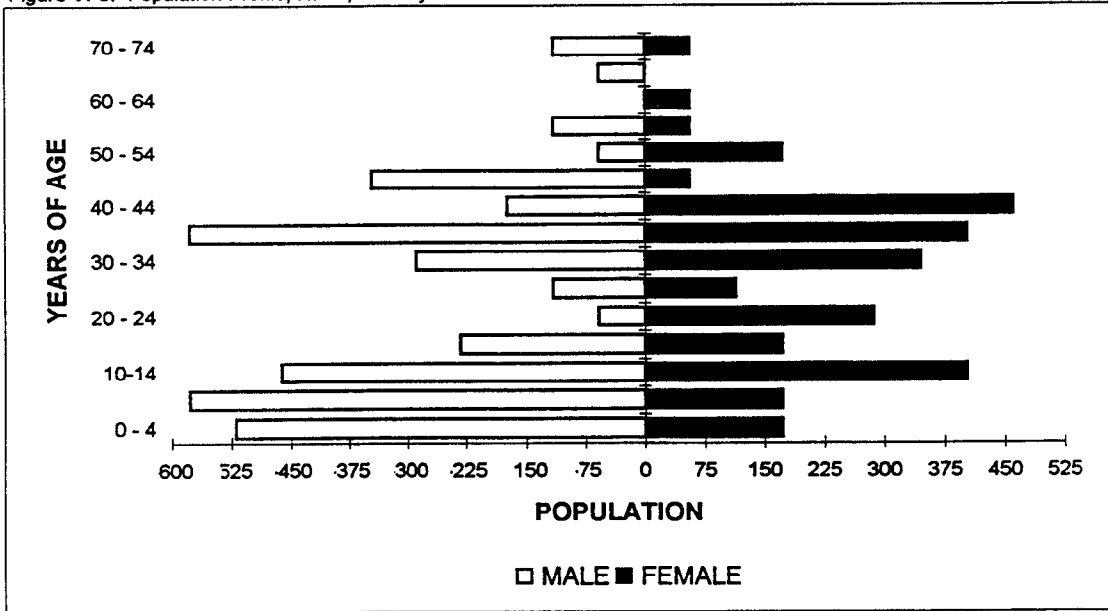
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VI-3. Population Profile, Kenai, April 1992

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	406.03	11.45%	11.45%	277.81	8.55%	8.55%	683.84	10.06%	10.06%
5 - 9	427.40	12.05%	23.49%	235.07	7.24%	15.79%	662.47	9.75%	19.81%
10 - 14	384.66	10.84%	34.34%	320.55	9.87%	25.66%	705.21	10.38%	30.19%
15 - 19	277.81	7.83%	42.17%	277.81	8.55%	34.21%	555.62	8.18%	38.36%
20 - 24	128.22	3.61%	45.78%	170.96	5.26%	39.47%	299.18	4.40%	42.77%
25 - 29	235.07	6.63%	52.41%	192.33	5.92%	45.39%	427.40	6.29%	49.06%
30 - 34	384.66	10.84%	63.25%	299.18	9.21%	54.61%	683.84	10.06%	59.12%
35 - 39	213.70	6.02%	69.28%	363.29	11.18%	65.79%	576.99	8.49%	67.61%
40 - 44	213.70	6.02%	75.30%	192.33	5.92%	71.71%	406.03	5.97%	73.58%
45 - 49	277.81	7.83%	83.13%	320.55	9.87%	81.58%	598.36	8.81%	82.39%
50 - 54	85.48	2.41%	85.54%	106.85	3.29%	84.87%	192.33	2.83%	85.22%
55 - 59	170.96	4.82%	90.36%	149.59	4.61%	89.47%	320.55	4.72%	89.94%
60 - 64	106.85	3.01%	93.37%	149.59	4.61%	94.08%	256.44	3.77%	93.71%
65 - 69	106.85	3.01%	96.39%	85.48	2.63%	96.71%	192.33	2.83%	96.54%
70 - 74	85.48	2.41%	98.80%	64.11	1.97%	98.68%	149.59	2.20%	98.74%
75 - 79	0.00	0.00%	98.80%	21.37	0.66%	99.34%	21.37	0.31%	99.06%
80 - 84	0.00	0.00%	98.80%	21.37	0.66%	100.00%	21.37	0.31%	99.37%
85 - 89	0.00	0.00%	98.80%	0.00	0.00%	100.00%	0.00	0.00%	99.37%
90 - 94	0.00	0.00%	98.80%	0.00	0.00%	100.00%	0.00	0.00%	99.37%
95 - 99	0.00	0.00%	98.80%	0.00	0.00%	100.00%	0.00	0.00%	99.37%
100 - 104	0.00	0.00%	98.80%	0.00	0.00%	100.00%	0.00	0.00%	99.37%
Missing	42.74	1.20%	100.00%	0.00	0.00%	100.00%	42.74	0.63%	100.00%
TOTAL	3,547.42	52.20%		3,248.24	47.80%		6,795.66	100.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure VI-3. Population Profile, Kenai, January 1993



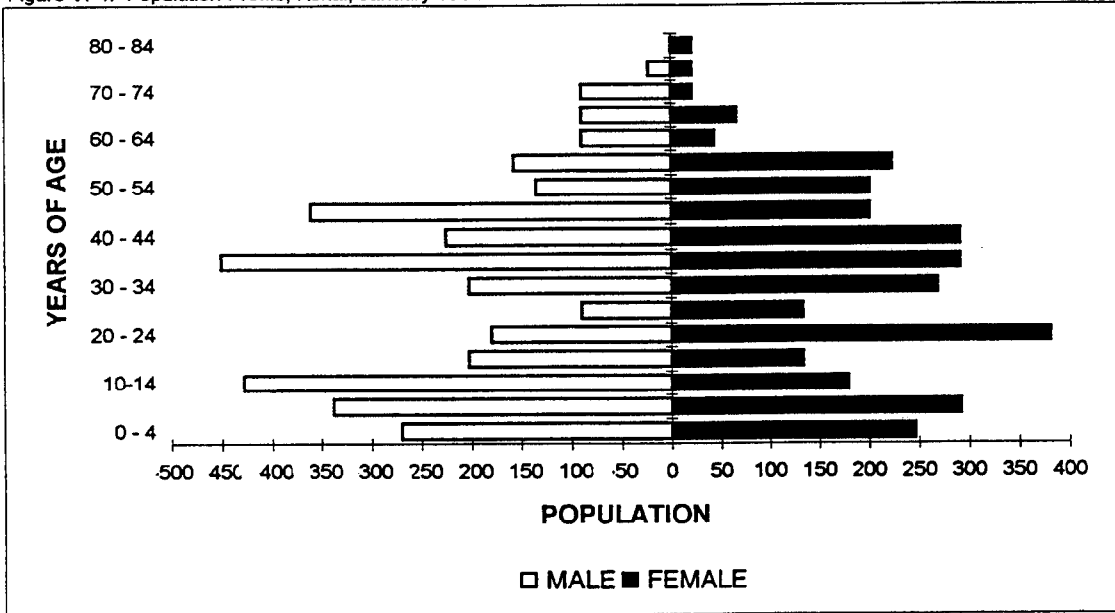
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VI-4. Population Profile, Kenai, January 1993

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	519.81	14.06%	14.06%	173.27	5.88%	5.88%	693.08	10.43%	10.43%
5-9	577.57	15.63%	29.69%	173.27	5.88%	11.76%	750.84	11.30%	21.74%
10-14	462.05	12.50%	42.19%	404.30	13.73%	25.49%	866.35	13.04%	34.78%
15 - 19	231.03	6.25%	48.44%	173.27	5.88%	31.37%	404.30	6.09%	40.87%
20 - 24	57.76	1.56%	50.00%	288.78	9.80%	41.18%	346.54	5.22%	46.09%
25 - 29	115.51	3.13%	53.13%	115.51	3.92%	45.10%	231.03	3.48%	49.57%
30 - 34	288.78	7.81%	60.94%	346.54	11.76%	56.86%	635.32	9.57%	59.13%
35 - 39	577.57	15.63%	76.56%	404.30	13.73%	70.59%	981.86	14.78%	73.91%
40 - 44	173.27	4.69%	81.25%	462.05	15.69%	86.27%	635.32	9.57%	83.48%
45 - 49	346.54	9.38%	90.63%	57.76	1.96%	88.24%	404.30	6.09%	89.57%
50 - 54	57.76	1.56%	92.19%	173.27	5.88%	94.12%	231.03	3.48%	93.04%
55 - 59	115.51	3.13%	95.31%	57.76	1.96%	96.08%	173.27	2.61%	95.65%
60 - 64	0.00	0.00%	95.31%	57.76	1.96%	98.04%	57.76	0.87%	96.52%
65 - 69	57.76	1.56%	96.88%	0.00	0.00%	98.04%	57.76	0.87%	97.39%
70 - 74	115.51	3.13%	100.00%	57.76	1.96%	100.00%	173.27	2.61%	100.00%
75 - 79	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
80 - 84	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
85 - 89	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
90 - 94	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
95 - 99	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
100 - 104	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
Missing	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
TOTAL	3,696.43	55.65%		2,945.59	44.35%		6,642.03	100.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure VI-4. Population Profile, Kenai, January 1994



SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-5. Population Profile, Kenai, January 1994

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	270.18	8.11%	8.11%	247.66	8.15%	8.15%	517.84	8.13%	8.13%
5-9	337.72	10.14%	18.24%	292.69	9.63%	17.78%	630.42	9.89%	18.02%
10-14	427.78	12.84%	31.08%	180.12	5.93%	23.70%	607.90	9.54%	27.56%
15 - 19	202.63	6.08%	37.16%	135.09	4.44%	28.15%	337.72	5.30%	32.86%
20 - 24	180.12	5.41%	42.57%	382.75	12.59%	40.74%	562.87	8.83%	41.70%
25 - 29	90.06	2.70%	45.27%	135.09	4.44%	45.19%	225.15	3.53%	45.23%
30 - 34	202.63	6.08%	51.35%	270.18	8.89%	54.07%	472.81	7.42%	52.65%
35 - 39	450.30	13.51%	64.86%	292.69	9.63%	63.70%	742.99	11.66%	64.31%
40 - 44	225.15	6.76%	71.62%	292.69	9.63%	73.33%	517.84	8.13%	72.44%
45 - 49	360.24	10.81%	82.43%	202.63	6.67%	80.00%	562.87	8.83%	81.27%
50 - 54	135.09	4.05%	86.49%	202.63	6.67%	86.67%	337.72	5.30%	86.57%
55 - 59	157.60	4.73%	91.22%	225.15	7.41%	94.07%	382.75	6.01%	92.58%
60 - 64	90.06	2.70%	93.92%	45.03	1.48%	95.56%	135.09	2.12%	94.70%
65 - 69	90.06	2.70%	96.62%	67.54	2.22%	97.78%	157.60	2.47%	97.17%
70 - 74	90.06	2.70%	99.32%	22.51	0.74%	98.52%	112.57	1.77%	98.94%
75 - 79	22.51	0.68%	100.00%	22.51	0.74%	99.26%	45.03	0.71%	99.65%
80 - 84	0.00	0.00%	100.00%	22.51	0.74%	100.00%	22.51	0.35%	100.00%
85 - 89	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
90 - 94	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
95 - 99	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
100 - 104	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
Missing	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
TOTAL	3,332.20	52.30%		3,039.50	47.70%		6,371.70	100.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-6. Employment Characteristics, Kenai, 1991, 1992, and 1993

Characteristics		1991	1992	1993
ADULTS				
Total		4,594.55	4,274.00	4,525.49
Employed				
	Number	3,290.98	3,234.38	3,219.62
	Percentage	71.63	75.68	71.14
Jobs				
	Number	4,124.41	4,158.49	4,345.37
	Mean	1.25	1.29	1.35
	Minimum	1	1	1
	Maximum	3	3	5
Months Employed				
	Mean	9.77	10.46	10.31
	Minimum	1	1	1
	Maximum	12	12	12
	Year-Round	60.39	64.29	65.73
HOUSEHOLDS				
Total		2,137.00	2,137.00	2,274.00
Employed				
	Number	1,816.45	1,963.73	1,958.79
	Percentage	85.00	91.89	86.14
Jobs per Employed Household				
	Mean	2.27	2.12	2.22
	Minimum	1	1	1
	Maximum	7	4	8
Employed Adults				
	Mean	1.81	1.65	1.64
	Minimum	1	1	1
	Maximum	4	3	4

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994.

Table VI-7. Community, Household, and Per Capita Incomes, All Sources and by Employer Type, Kenai, 1991

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$106,456,377.13	\$49,815.81	\$15,665.35
Earned Income	\$90,141,624.09	\$42,181.39	\$13,264.59
Agriculture, Forestry, and Fishing	6,619,940.32	3,097.77	974.14
Agriculture	0.00	0.00	0.00
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	6,619,940.32	3,097.77	974.14
Hatchery/Enhancement	1,089,870.00	510.00	160.38
Commercial Fishing	5,530,070.32	2,587.77	813.77
Hunting/Trapping	0.00	0.00	0.00
Mining	20,458,111.57	9,573.29	3,010.47
Construction	3,048,074.33	1,426.33	448.53
Manufacturing	15,587,662.66	7,294.18	2,293.77
Cannery	3,294,570.16	1,541.68	484.81
Other Manufacturing	12,293,092.50	5,752.50	1,808.96
Logging/Timber	0.00	0.00	0.00
Transportation, Communications, and Utilities	5,635,269.00	2,637.00	829.25
Trade	6,707,483.82	3,138.74	987.02
Wholesale	AMT UNK	AMT UNK	AMT UNK
Retail	6,707,483.82	3,138.74	987.02
Finance, Insurance, and Real Estate	2,605,003.00	1,219.00	383.33
Services	13,405,565.38	6,273.08	1,972.67
Government	16,074,514.00	7,522.00	2,365.41
Federal	0.00	0.00	0.00
State	7,597,035.00	3,555.00	1,117.92
Local	8,477,479.00	3,967.00	1,247.48
Local Government	491,510.00	230.00	72.33
Local Education	7,985,969.00	3,737.00	1,175.16
Unknown	AMT UNK	AMT UNK	AMT UNK
Other Income	\$16,314,753.05	\$7,634.42	\$2,400.76

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VI-8. Community, Household, and Per Capita Other Income by Source, Kenai, 1991

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$16,314,753.05	\$7,634.42	\$2,400.76
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	3.00	529,805.04	247.92	77.96
Adult Public Assistance	0.00	0.00	0.00	0.00
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	13.00	4,500,094.60	2,105.80	662.20
Longevity Bonus	11.00	784,279.00	367.00	115.41
Social Security	15.00	1,872,567.62	876.26	275.55
Workman's Comp./Insurance	3.00	284,221.00	133.00	41.82
Energy Assistance	4.00	23,357.41	10.93	3.44
Supplemental Security Income	2.00	313,348.31	146.63	46.11
Food Stamps	3.00	134,631.00	63.00	19.81
Unemployment	11.00	480,436.07	224.82	70.70
Native Corporation Dividend	4.00	113,261.00	53.00	16.67
Dividend/Interest	11.00	859,337.56	402.12	126.45
Child Support	0.00	0.00	0.00	0.00
Rental Income	0.00	0.00	0.00	0.00
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	92.00	5,552,823.54	2,598.42	817.11
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	0.00	0.00	0.00	0.00
Housing Allowances/Off-Base Allowances	0.00	0.00	0.00	0.00
Women, Infants, and Children Program	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Other	9.00	866,590.90	405.52	127.52

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure VI-5. Employment by Industry, Kenai, 1991

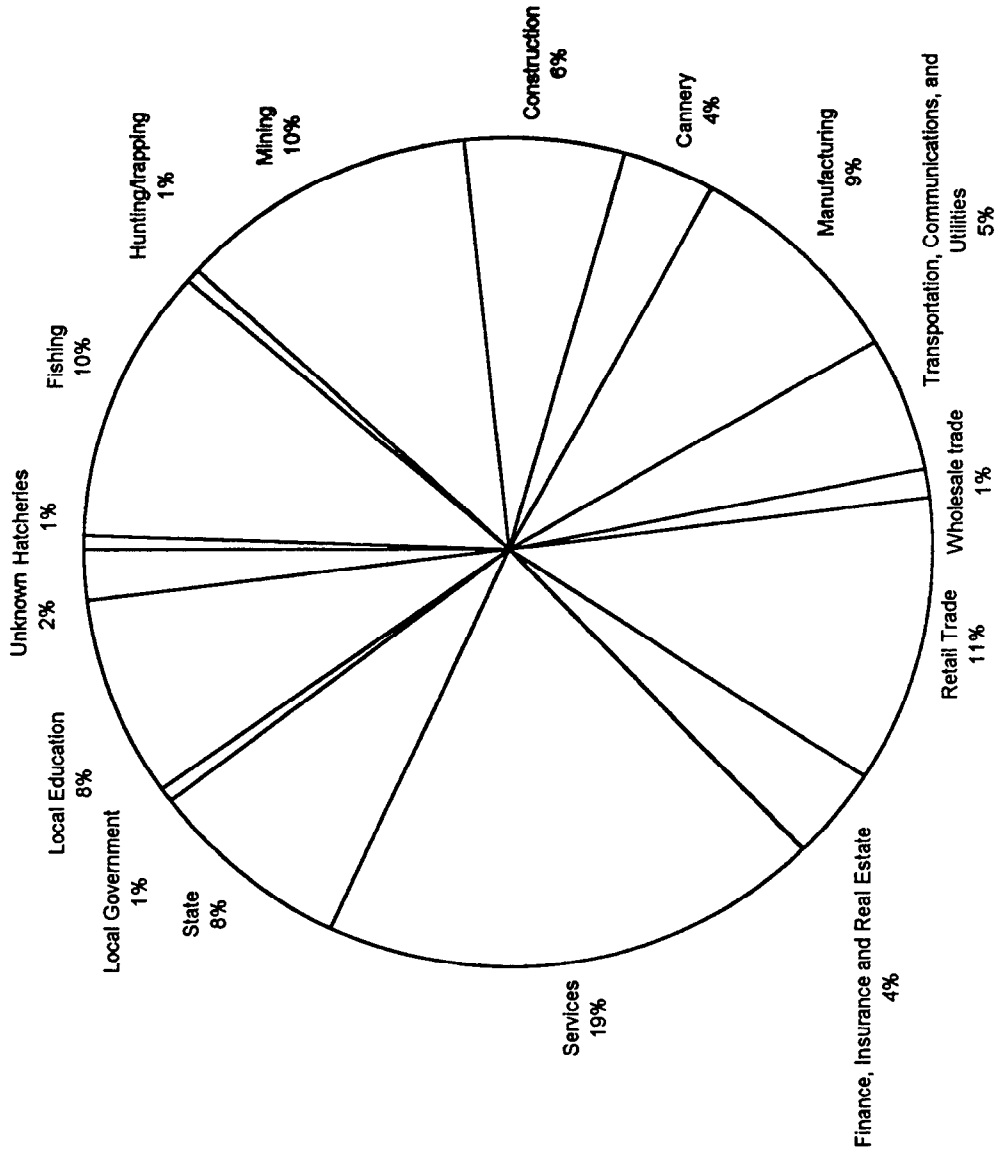


Table VI-9. Subsistence Equipment Expenses and Use, Kenai, 1991

Sampled Households = 100
Community Households = 2137

Equipment Type	Equipment Count		Equipment Cost		Use of Equipment for Subsistence		HH Sharing of Equipment			
	Total	HH Mean	Replacement HH Mean	Annual Fuel HH Mean	Annual Cost HH Mean	% of Cost	Total Cost	HH Mean Cost	% Borrowing	% Lending
All Equipment	470.14	0.22	\$29,072.58	\$469.31	\$826.66	51.85	\$33,651,964.96	\$15,747.29	76.00	62.00
Skiff with outboard	341.92	0.16	\$1,508.10		\$72.86	80.06	\$2,704,852.80	\$1,265.72	26.00	4.00
Outboard Motor	213.70	0.10	\$73.33	\$8.17	\$8.40	78.65	\$151,107.27	\$70.71	4.00	3.00
Boats with inboard	427.40	0.20	\$8,645.63	\$51.00	\$109.50	95.72	\$18,013,846.84	\$8,429.50	32.00	3.00
Skiff, manually-propelled	192.33	0.09	\$229.95	\$9.45	\$5.00	88.33	\$443,518.32	\$207.54	10.00	10.00
ATV/Motorcycle	213.70	0.10	\$283.38	\$13.50	\$15.50	47.58	\$293,194.40	\$137.20	2.00	3.00
Snowmachine/snowmobile	0.00	0.00	\$306.67		\$26.00	66.24	\$489,999.85	\$229.29	3.00	3.00
Sled	21.37	0.01	\$0.00	\$23.08	\$0.00	0.00	\$0.00	\$0.00	0.00	0.00
Airplane	1,709.60	0.80	\$10,571.42	\$358.49	\$381.06	19.63	\$4,744,801.02	\$2,220.31	24.00	15.00
Highway vehicle	683.84	0.32	\$737.31		\$51.83	91.53	\$1,545,720.81	\$723.31	31.00	37.00
Tackle	1,346.31	0.63	\$3.00		\$1.50	100.00	\$9,616.50	\$4.50	2.00	2.00
Pots	6,888.81	3.13	\$36.40		\$1.26	100.00	\$81,329.47	\$38.06	19.00	14.00
Fishing Nets	14,681.19	6.87	\$1,172.59		\$43.70		\$2,514,381.99	\$1,176.59	9.00	13.00
Guns			\$36.00		\$0.00		\$76,932.00	\$36.00	1.00	0.00
Traps							\$331,387.91	\$155.07	1.00	2.00
Ammunition							\$4,333,836.00	\$2,028.00	14.00	6.00
Cabins	128.22	0.06	\$2,508.00		\$0.00	80.86	\$4,200,366.99	\$1,965.54	17.00	21.00
Miscellaneous Camping Equipment	1,068.50	0.50	\$1,985.54				\$182,440.48	\$85.37	11.00	12.00
Fishing/Hunting Camps	1,624.12	0.76	\$414.79				\$886,404.32	\$414.79	29.00	33.00
Freezer					\$30.56		\$73,250.82	\$34.28	4.00	2.00
Miscellaneous freezing supplies	1,111.24	0.52	\$51.63				\$110,341.08	\$51.63	18.00	20.00
Canner					\$18.41		\$44,053.91	\$20.61	4.00	1.00
Miscellaneous canning supplies	341.92	0.16	\$31.99				\$68,368.74	\$31.99	17.00	7.00
Vacuum sealer/Sealer					\$9.98		\$21,316.58	\$9.98	8.00	1.00
Miscellaneous sealer supplies	1,282.20	0.60	\$34.59				\$73,912.80	\$34.59	19.00	17.00
Smoke house/dry rack					\$16.42		\$39,154.46	\$16.42	4.00	1.00
Miscellaneous smoker supplies										

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992.

Table VI-10. Community, Household, and Per Capita Incomes, All Sources and by Employer Type, Kenai, 1992

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$129,797,067.50	\$60,737.98	\$19,541.79
Earned Income	\$109,579,873.11	\$51,277.43	\$16,497.96
Agriculture, Forestry, and Fishing	5,375,710.14	2,515.54	809.35
Agriculture	98,186.49	45.95	14.78
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	5,277,523.65	2,469.59	794.57
Hatchery/Enhancement	2,714,567.57	1,270.27	408.70
Commercial Fishing	2,562,956.08	1,199.32	385.87
Hunting/Trapping	0.00	0.00	0.00
Mining	23,275,972.97	10,891.89	3,504.35
Construction	823,033.78	385.14	123.91
Manufacturing	42,740,000.00	20,000.00	6,434.78
Cannery	7,623,891.89	3,567.57	1,147.83
Other Manufacturing	35,116,108.11	16,432.43	5,286.96
Logging/Timber	0.00	0.00	0.00
Transportation, Communications, and Utilities	5,995,151.35	2,805.41	902.61
Trade	9,433,988.65	4,414.59	1,420.35
Wholesale	5,775,675.68	2,702.70	869.57
Retail	3,658,312.97	1,711.89	550.78
Finance, Insurance, and Real Estate	1,178,237.84	551.35	177.39
Services	7,508,378.38	3,513.51	1,130.43
Government	13,249,400.00	6,200.00	1,994.78
Federal	0.00	0.00	0.00
State	6,179,972.97	2,891.89	930.43
Local	7,069,427.03	3,308.11	1,064.35
Local Government	2,368,027.03	1,108.11	356.52
Local Education	4,701,400.00	2,200.00	707.83
Unknown	AMT UNK	AMT UNK	AMT UNK
Other Income	\$20,217,194.39	\$9,460.55	\$3,043.83

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VI-11. Community, Household, and Per Capita Other Income by Source, Kenai, 1992

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$20,217,194.39	\$9,460.55	\$3,043.83
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	0.00	0.00	0.00	0.00
Adult Public Assistance	5.41	596,049.73	278.92	89.74
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	8.11	3,118,864.86	1,459.46	469.57
Longevity Bonus	8.11	693,081.08	324.32	104.35
Social Security	13.51	1,862,828.68	871.70	280.46
Workman's Comp./Insurance	2.70	115,513.51	54.05	17.39
Energy Assistance	5.41	23,680.27	11.08	3.57
Supplemental Security Income	2.70	128,913.08	60.32	19.41
Food Stamps	0.00	0.00	0.00	0.00
Unemployment	10.81	610,219.39	285.55	91.87
Native Corporation Dividend	2.70	219,475.68	102.70	33.04
Dividend/Interest	21.62	3,031,074.59	1,418.38	456.35
Child Support	0.00	0.00	0.00	0.00
Rental Income	0.00	0.00	0.00	0.00
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	94.59	5,555,044.86	2,599.46	836.35
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	5.41	3,003,351.35	1,405.41	452.17
Bureau of Indian Affairs Grants	0.00	0.00	0.00	0.00
Housing Allowances/Off-Base Allowances	0.00	0.00	0.00	0.00
Women, Infants, and Children Program	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Other	5.41	1,259,097.30	589.19	189.57

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure VI-6. Employment by Industry, Kenai, 1992

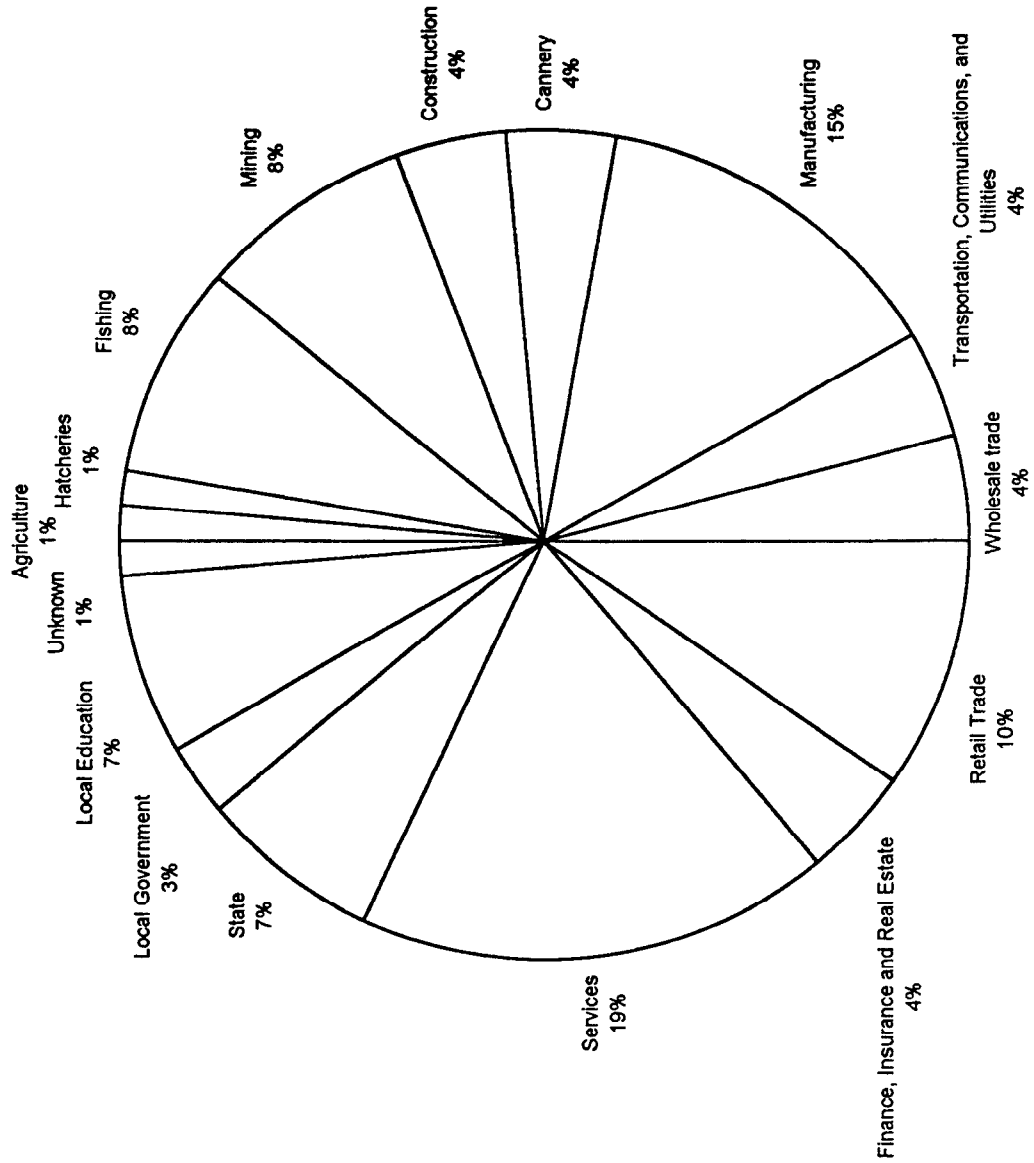


Table VI-12. Community, Household, and Per Capita Incomes, All Sources and by Employer Type, Kenai, 1993

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$125,150,120.52	\$55,035.23	\$19,641.55
Earned Income	\$107,769,117.50	\$47,391.87	\$16,913.71
Agriculture, Forestry, and Fishing	1,747,152.48	768.32	274.20
Agriculture	180,118.81	79.21	28.27
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	1,567,033.66	689.11	245.94
Hatchery/Enhancement	1,125,742.57	495.05	176.68
Commercial Fishing	441,291.09	194.06	69.26
Hunting/Trapping	0.00	0.00	0.00
Mining	26,057,188.12	11,458.75	4,089.52
Construction	5,172,411.88	2,274.59	811.78
Manufacturing	19,917,865.71	8,758.96	3,125.99
Cannery	3,489,801.98	1,534.65	547.70
Other Manufacturing	16,428,063.73	7,224.30	2,578.28
Logging/Timber	0.00	0.00	0.00
Transportation, Communications, and Utilities	9,665,625.74	4,250.50	1,516.96
Trade	10,292,543.74	4,526.18	1,615.35
Wholesale	2,926,930.69	1,287.13	459.36
Retail	7,365,613.05	3,239.06	1,155.99
Finance, Insurance, and Real Estate	2,622,980.20	1,153.47	411.66
Services	13,556,168.59	5,961.38	2,127.56
Government	18,737,181.05	8,239.75	2,940.69
Federal	2,138,910.89	940.59	335.69
State	8,785,616.69	3,863.51	1,378.85
Local	7,812,653.47	3,435.64	1,226.15
Local Government	3,850,039.60	1,693.07	604.24
Local Education	3,962,613.86	1,742.57	621.91
Unknown	0.00	0.00	0.00
Other Income	\$17,381,003.03	\$7,643.36	\$2,727.84

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-13. Community, Household, and Per Capita Other Income by Source, Kenai, 1993

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOL	PER CAPITA
All Sources		\$17,381,003.03	\$7,643.36	\$2,727.84
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	6.93	2,026,913.01	891.34	318.11
Adult Public Assistance	1.98	188,044.04	82.69	29.51
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	9.90	2,483,863.43	1,092.29	389.83
Longevity Bonus	11.88	933,342.93	410.44	146.48
Social Security	18.81	3,170,578.91	1,394.27	497.60
Workman's Comp./Insurance	0.99	AMT UNK	AMT UNK	AMT UNK
Energy Assistance	5.94	31,529.80	13.87	4.95
Supplemental Security Income	2.97	474,973.31	208.87	74.54
Food Stamps	5.94	223,977.74	98.50	35.15
Unemployment	9.90	371,881.02	163.54	58.36
Native Corporation Dividend	2.97	12,901.01	5.67	2.02
Dividend/Interest	13.86	516,940.99	227.33	81.13
Child Support	1.98	162,106.93	71.29	25.44
Rental Income	1.98	319,710.89	140.59	50.18
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	1.98	135,314.26	59.50	21.24
Alaska Permanent Fund Dividend	96.04	5,579,180.20	2,453.47	875.62
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.99	450,297.03	198.02	70.67
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Supplemental Union Benefits	0.00	0.00	0.00	0.00
Gifts	0.00	0.00	0.00	0.00
Medicare/Medicaid	0.00	0.00	0.00	0.00
Other	3.96	299,447.52	131.68	47.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Figure VI-7. Employment by Industry, Kenai, 1993

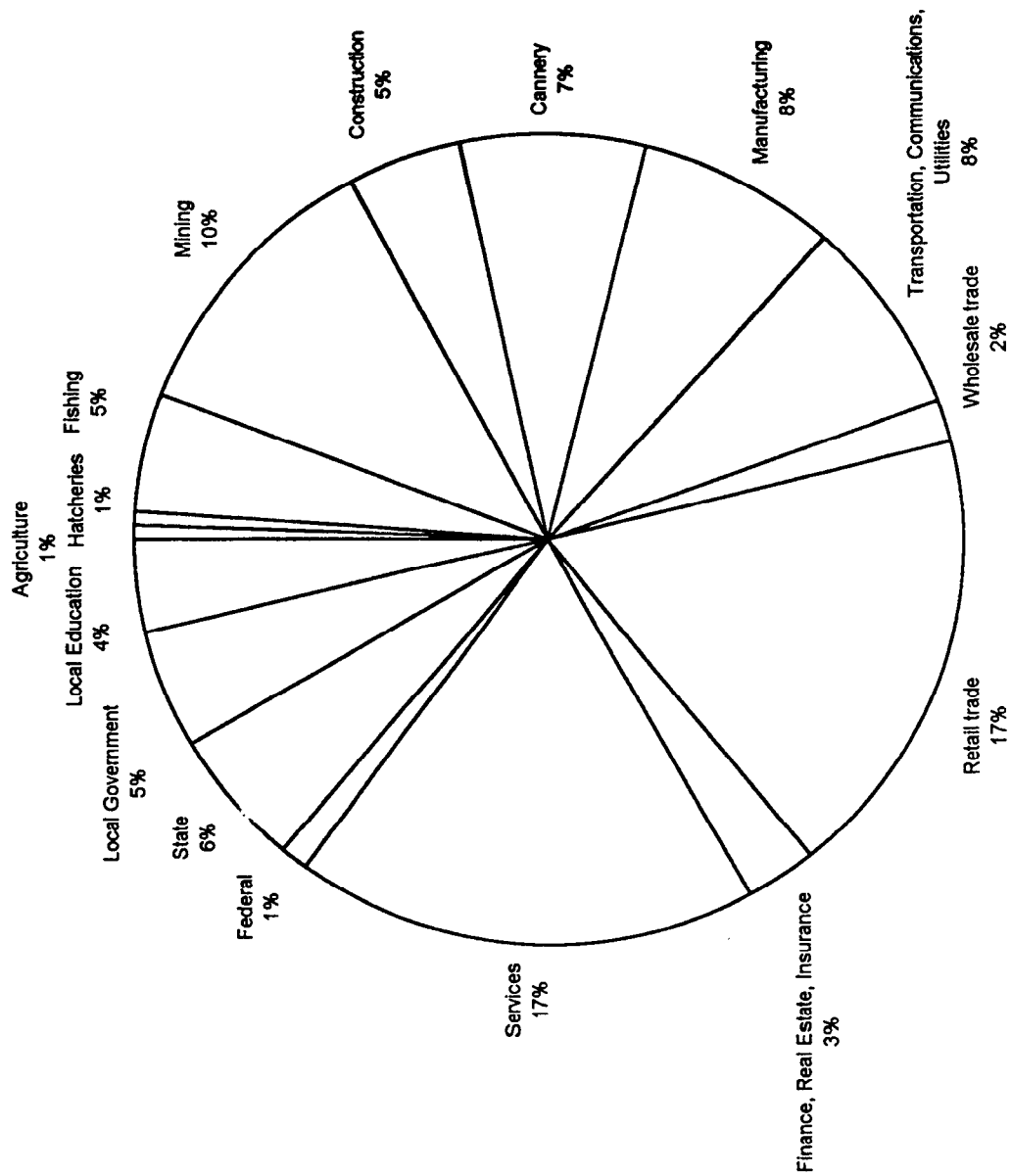


Table VI-14. Characteristics of Resource Harvest and Use, Kenai, 1991, 1992, and 1993

Study Year	1991	1992	1993
Mean Number Of Resources Used Per Household	6.21	6.76	7.14
Minimum	0	0	0
Maximum	18	32	29
95 % Confidence Limit (+/-)	11.99	28.86	13.77
Median	6	6	6
Mean Number Of Resources Attempted To Harvest Per Household	5.20	5.73	5.43
Minimum	0	0	0
Maximum	20	31	25
95 % Confidence Limit (+/-)	15.61	32.39	16.81
Median	5	5	4
Mean Number Of Resources Harvested Per Household	4.17	4.70	4.49
Minimum	0	0	0
Maximum	15	29	19
95 % Confidence Limit (+/-)	16.39	36.33	17.42
Median	4	4	3
Mean Number Of Resources Received Per Household	2.69	2.70	3.16
Minimum	0	0	0
Maximum	10	15	15
95 % Confidence Limit (+/-)	15.58	35.05	18.99
Median	2	2	2
Mean Number Of Resources Given Away Per Household	1.84	2.49	2.27
Minimum	0	0	0
Maximum	9	17	16
95 % Confidence Limit (+/-)	22.73	50.77	24.99
Median	1	1	1
Mean Household Harvest, Pounds	237.01	229.60	234.70
Minimum	0.00	0.00	0.00
Maximum	1,956.55	933.82	1,968.74
Total Pounds Harvested	506,485.67	490,663.01	533,715.00
Community Per Capita Harvest, Pounds	74.53	73.87	83.76
Percent Using Any Resource	98.00	94.59	98.02
Percent Attempting To Harvest Any Resource	87.00	89.19	89.11
Percent Harvesting Any Resource	81.00	83.78	86.14
Percent Receiving Any Resource	84.00	78.38	81.19
Percent Giving Away Any Resource	66.00	72.97	62.38
Number Of Households In Sample	100	37	101
Number of Resources Available	123	133	146

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994

Table VI-15. Participation in the Harvest and Processing of Wild Resources, Kenai, 1991, 1992, and 1993

Study Year			1991	1992	1993
Total Number of People			6,795.66	6,642.03	6,371.70
GAME	Hunt	Number	1,367.68	1,097.38	1,395.92
		Percentage	20.13	16.52	21.91
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	1,346.31	1,501.68	1,485.98
		Percentage	19.81	22.61	23.32
Missing		0.00	0.00	0.00	
Missing %		0.00	0.00	0.00	
FISH	Fish	Number	4,466.33	4,389.51	4,300.34
		Percentage	65.72	66.09	67.49
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	3,974.82	3,696.43	4,097.70
		Percentage	58.49	55.65	64.31
Missing		0.00	0.00	0.00	
Missing %		0.00	0.00	0.00	
FURBEARERS	Hunt or Trap	Number	85.48	115.51	225.15
		Percentage	1.26	1.74	3.53
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	42.74	0.00	45.03
		Percentage	0.63	0.00	0.71
Missing		0.00	0.00	0.00	
Missing %		0.00	0.00	0.00	
PLANTS	Gather	Number	2,671.25	2,310.27	2,589.21
		Percentage	39.31	34.78	40.64
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	2,179.74	1,848.22	2,454.12
		Percentage	32.08	27.83	38.52
Missing		0.00	0.00	0.00	
Missing %		0.00	0.00	0.00	
ANY RESOURCE	Attempt	Number	4,979.21	4,793.81	4,908.24
		Percent	73.27	72.17	77.03
	Process	Number	4,338.11	4,389.51	4,705.60
		Percent	63.84	66.09	73.85

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994.

Table VI-16. Percentage of Households Sharing Resources by Community, Kenai, 1991

Community	Salmon		Non-salmon Fish		Marine Invertebrates		Game		Marine Mammals		Birds and Eggs		Plants and Berries*		Any Resource	
	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave
All Communities	43.00	38.00	54.00	40.00	32.00	15.00	41.00	12.00	1.00	0.00	6.00	4.00	28.00	17.00	85.00	66.00
Adak Station	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Anchor Point	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Anchorage	0.00	4.00	4.00	1.00	2.00	0.00	0.00	2.00	0.00	0.00	1.00	0.00	1.00	1.00	7.00	8.00
Craig	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Fairbanks	0.00	1.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00
Homer	3.00	0.00	4.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	8.00	1.00
Kasilof	0.00	0.00	3.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
Kenai	31.00	22.00	34.00	28.00	17.00	10.00	30.00	5.00	1.00	0.00	3.00	3.00	20.00	12.00	71.00	48.00
Kodiak City	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00
Nikishka	0.00	0.00	2.00	1.00	2.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	5.00	1.00
Ninichik	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00
Nome	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	2.00	0.00
Palmer	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Port Alsworth	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Seward	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
Sitka	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Soldotna	3.00	1.00	4.00	4.00	3.00	3.00	6.00	1.00	0.00	0.00	0.00	0.00	2.00	3.00	15.00	7.00
Sterling	3.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00
Wasilla	1.00	2.00	1.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00
Eagle River	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Other U.S.	2.00	19.00	2.00	17.00	0.00	2.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	29.00
Foreign	0.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Community Unknown	7.00	2.00	5.00	0.00	3.00	0.00	5.00	2.00	0.00	0.00	0.00	1.00	1.00	0.00	19.00	5.00

* Plants and Berries includes sharing of wood and help for fertilizer.

Note: Percentages are based upon valid responses.

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992.

Table VI-17. Subsistence Harvests in Pounds Usable Weight per Person by Resource Category, Kenai 1982, 1991, 1992, and 1993

	Pounds Usable Weight per Person			
	1982	1991	1992	1993
Salmon	15.5	28.4	35.2	38.7
Other Fish	11.7	24.9	20.5	16.3
Marine Invertebrates	3.4	5.6	7.9	5.1
Land Mammals	6.2	13.4	7.9	16.9
Marine Mammals	0.0	0.0	0.0	0.6
Birds and Eggs	0.4	0.7	1.0	0.9
Wild Plants	0.7	1.5	1.3	5.2
All Resources	37.9	74.5	73.9	83.8

Table VI-18. Composition of Resource Harvests by Resource Category, Kenai, 1982, 1991, 1992, and 1993

	Percentage of Total Harvest			
	1982	1991	1992	1993
Salmon	40.9%	38.1%	47.7%	46.2%
Other Fish	30.8%	33.4%	27.8%	19.4%
Marine Invertebrates	9.1%	7.5%	10.7%	6.1%
Land Mammals	16.4%	18.0%	10.7%	20.2%
Marine Mammals	0.0%	0.0%	0.0%	0.7%
Birds and Eggs	1.1%	1.0%	1.4%	1.1%
Wild Plants	1.7%	2.0%	1.7%	6.2%

Figure VI-8. Harvests of Wild Resources for Home Use, Pounds Usable Weight per Capita, Kenai, 1982, 1991, 1992, and 1993

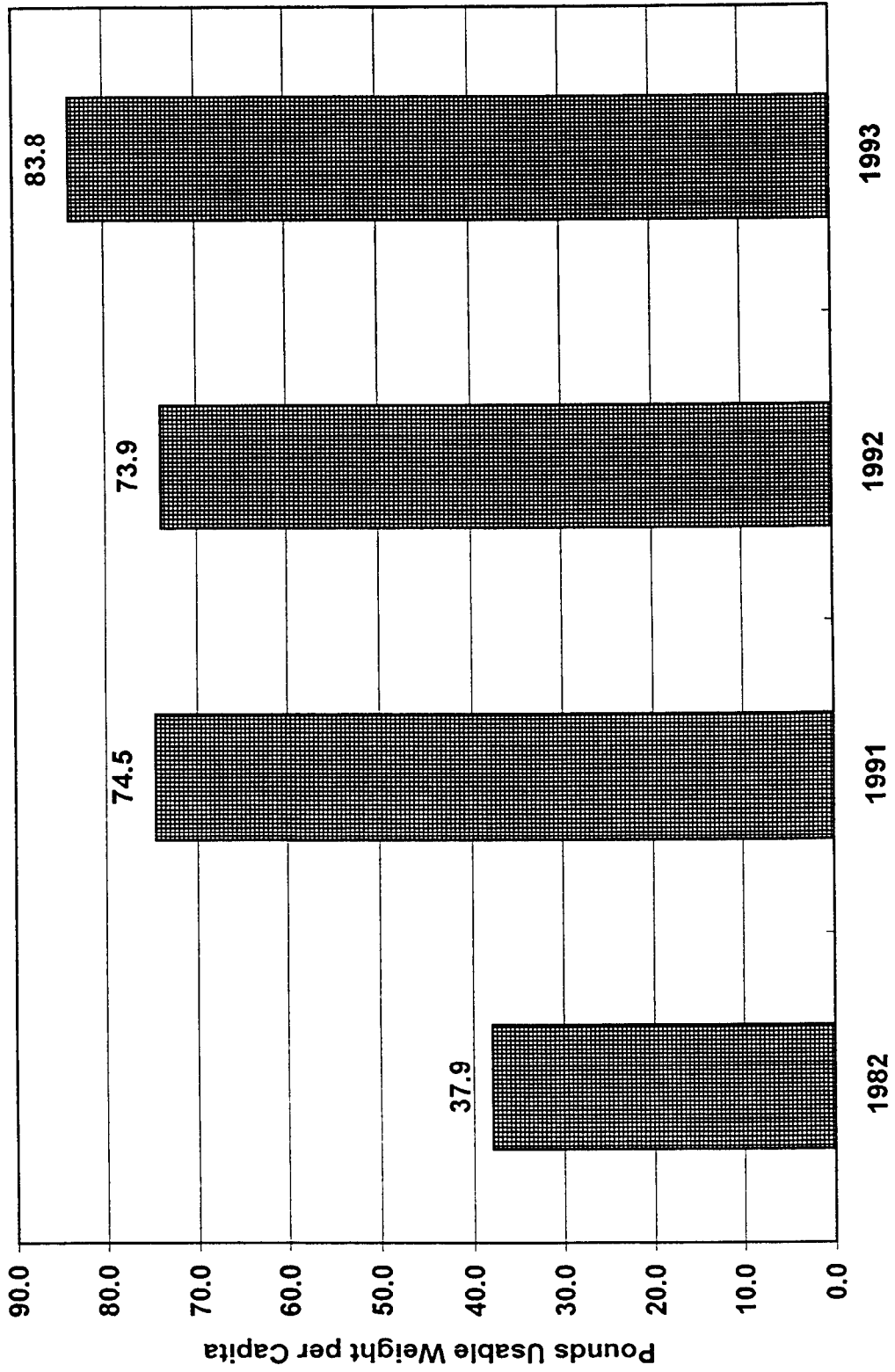


Figure VI-9. Per Capita Harvests of Wild Resources by Resource Category, Kenai, 1982, 1991, 1992, and 1993

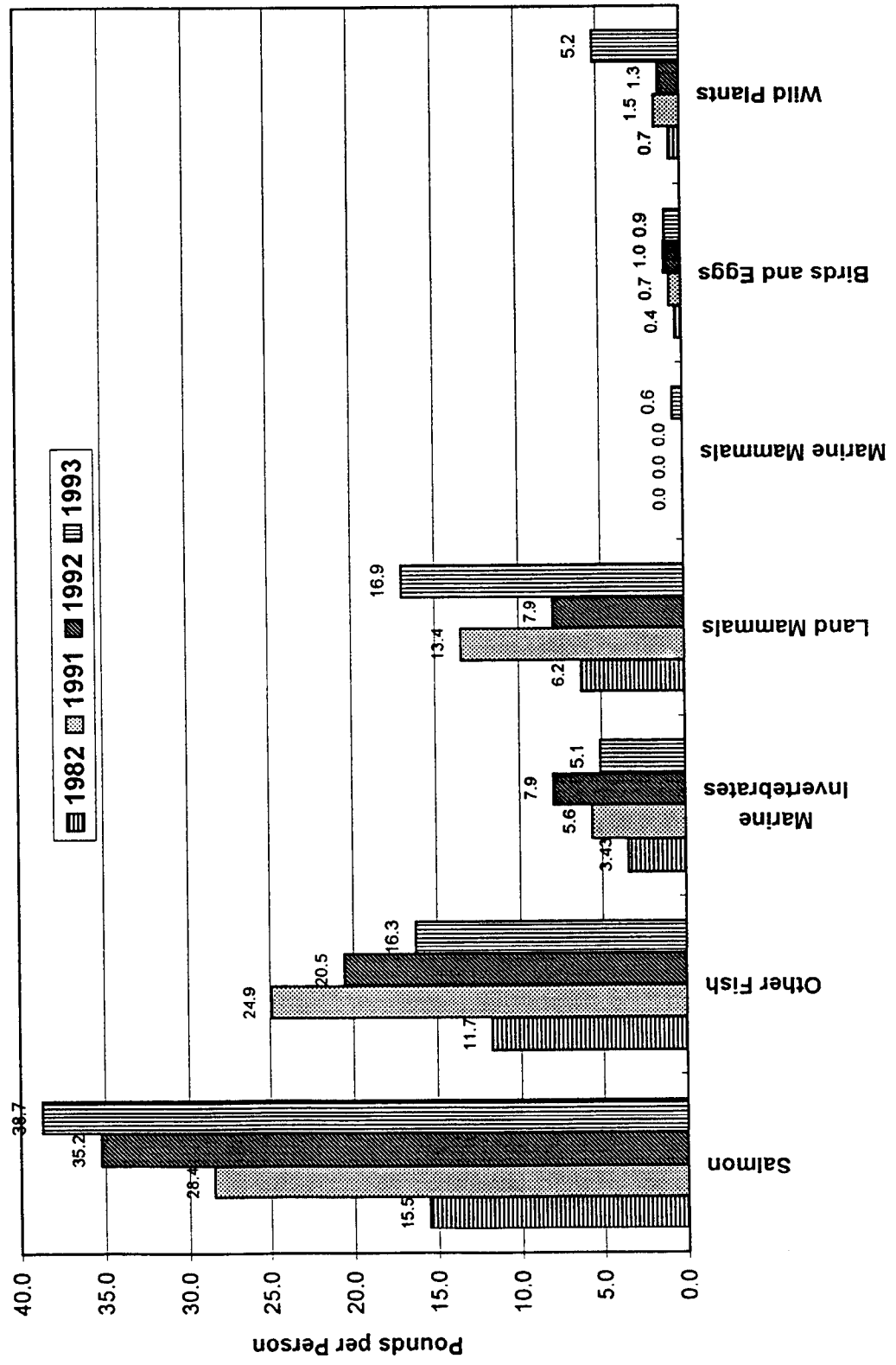


Figure VI-10. Composition of wild Resource Harvests by Resource Category, Kenai, 1991

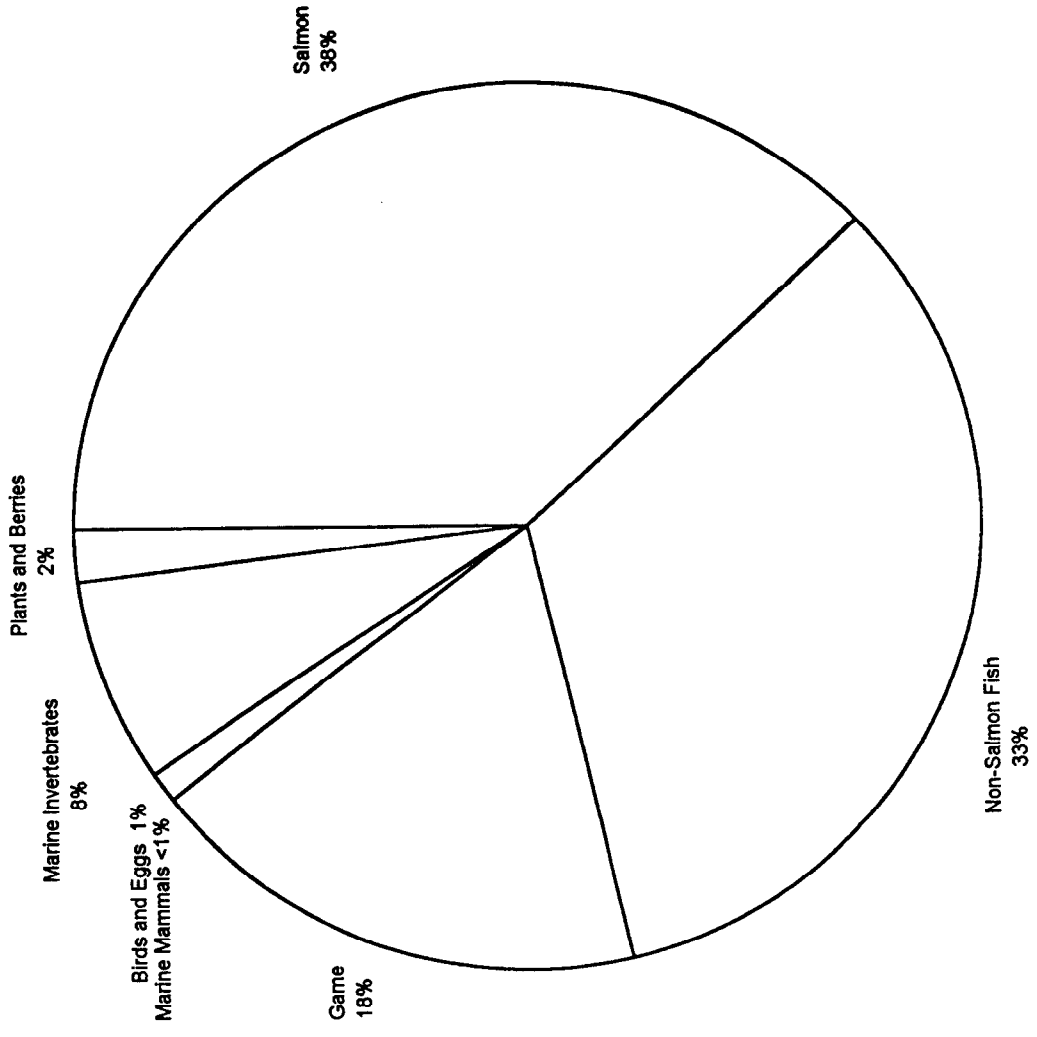


Figure VI-11. Percentage of Kenai Households Reporting Lower Levels of Uses of Wild Resources Compared to 1988, the Year Before the Exxon Valdez Oil Spill

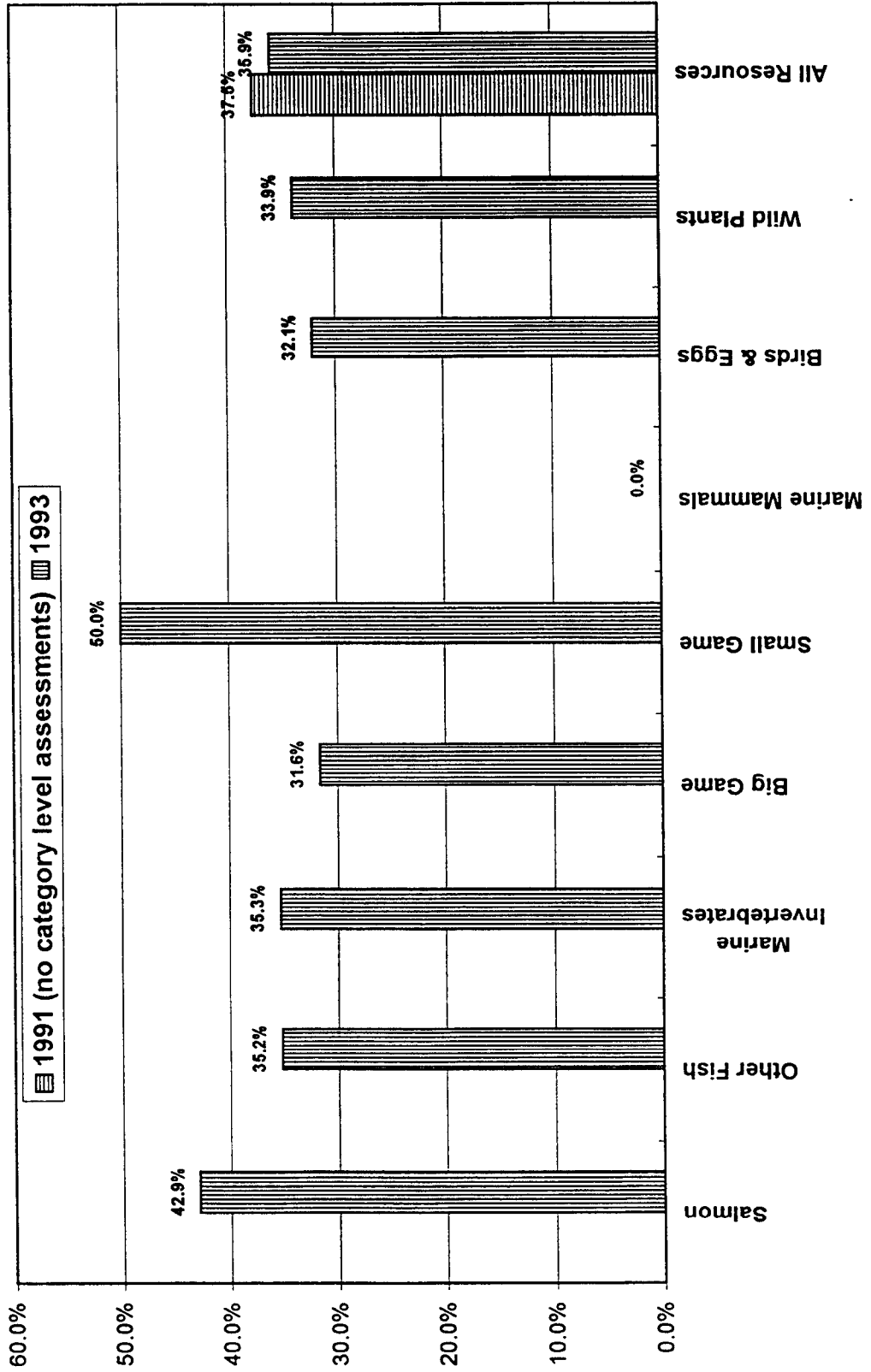


Table VI-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1991

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Alt	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	98.0	87.0	81.0	84.0	66.0	506,485.67	237.01	74.53			26.41%	27.69%
Fish	94.0	83.0	78.0	65.0	56.0	362,066.57	169.43	53.28			26.38%	27.38%
Salmon	87.0	79.0	72.0	43.0	38.0	193,105.43	90.36	28.42	42,412.40	19.85	28.87%	29.32%
Chum Salmon	2.0	3.0	2.0	0.0	1.0	1,249.95	0.58	0.18	257.72	0.12	163.68%	162.77%
Coho Salmon	59.0	53.0	49.0	20.0	23.0	65,335.14	30.57	9.61	14,296.53	6.69	41.74%	42.95%
Chinook Salmon	31.0	42.0	24.0	10.0	14.0	17,168.66	8.03	2.53	1,111.24	0.52	46.31%	47.21%
Pink Salmon	7.0	7.0	6.0	2.0	2.0	2,610.32	1.22	0.38	1,149.92	0.54	100.38%	100.42%
Sockeye Salmon	73.0	62.0	59.0	28.0	33.0	106,650.32	49.91	15.69	25,575.62	11.97	34.11%	34.51%
Unknown Salmon	3.0	2.0	1.0	2.0	1.0	91.04	0.04	0.01	21.37	0.01	193.72%	192.85%
Non-Salmon Fish	83.0	60.0	55.0	53.0	40.0	168,961.14	79.06	24.86			38.19%	38.87%
Cod	6.0	3.0	3.0	3.0	0.0	1,230.91	0.58	0.18	384.66	0.18	119.84%	119.76%
Pacific Tomcod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Pacific Cod (Gray)	5.0	3.0	3.0	2.0	0.0	1,230.91	0.58	0.18	384.66	0.18	119.84%	119.76%
Unknown Cod	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	4.0	2.0	2.0	2.0	1.0	331.24	0.16	0.05	106.85	0.05	159.37%	159.35%
Greenling	3.0	1.0	1.0	2.0	0.0	2,051.52	0.96	0.30	512.88	0.24	193.72%	192.85%
Lingcod	3.0	1.0	1.0	2.0	0.0	2,051.52	0.96	0.30	512.88	0.24	193.72%	192.85%
Unknown Greenling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Flounder	1.0	1.0	1.0	0.0	0.0	256.44	0.12	0.04	85.48	0.04	193.72%	193.47%
Unknown Flounder	1.0	1.0	1.0	0.0	0.0	256.44	0.12	0.04	85.48	0.04	193.72%	193.47%
Sole	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sole, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Hailbut	80.0	49.0	45.0	48.0	34.0	147,330.22	68.94	21.68	9,049.77	4.23	41.13%	41.91%
Herring	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Herring Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	5.0	3.0	3.0	1.0	1.0	1,303.57	0.61	0.19			131.44%	132.63%
Black Rockfish (black bass)	1.0	1.0	1.0	0.0	0.0	641.10	0.30	0.09	427.40	0.20	193.72%	194.69%
Red Rockfish	4.0	2.0	2.0	1.0	1.0	341.92	0.16	0.05	85.48	0.04	136.29%	136.80%
Unknown Rockfish	1.0	1.0	1.0	0.0	0.0	320.55	0.15	0.05			193.72%	194.69%
Sculpin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Irish Lord	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Smelt	9.0	8.0	8.0	1.0	6.0	3,380.95	1.58	0.50	1,040.29 gal	0.49	94.69%	95.37%
Eulachon (Hooligan, Candlefish)	8.0	8.0	8.0	0.0	5.0	3,380.95	1.58	0.50	1,040.29 gal	0.49	94.69%	95.37%
Unknown Smell	1.0	0.0	0.0	1.0	1.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Wolf Eel (Wolfish)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VI-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1991

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Aft	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	
Shark	1.0	1.0	1.0	0.0	1.0	641.10	0.30	0.09	0.00	0.00	193.72%	193.47%	
Walleye Pollock (Whiting)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Skates	1.0	1.0	1.0	0.0	1.0	213.70	0.10	0.03	42.74	0.02	193.72%	194.69%	
Tuna/Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Grayling	2.0	1.0	1.0	1.0	0.0	14.96	0.01	0.00	21.37	0.01	193.72%	194.69%	
Trout and Char	27.0	29.0	23.0	9.0	8.0	12,206.54	5.71	1.80	8,718.96	4.08	62.19%	61.56%	
Char	12.0	11.0	10.0	4.0	3.0	4,876.63	2.28	0.72	3,483.31	1.63	122.49%	122.56%	
Arclic Char	1.0	1.0	1.0	1.0	0.0	29.92	0.01	0.00	21.37	0.01	193.72%	193.47%	
Dolly Varden	11.0	11.0	10.0	2.0	3.0	4,756.96	2.23	0.70	3,397.83	1.59	125.20%	125.25%	
Lake Trout	3.0	2.0	2.0	1.0	0.0	89.75	0.04	0.01	64.11	0.03	143.81%	144.84%	
Trout	19.0	23.0	17.0	6.0	5.0	7,329.91	3.43	1.08	5,235.65	2.45	63.67%	62.58%	
Rainbow Trout	17.0	20.0	16.0	4.0	5.0	7,180.32	3.36	1.06	5,128.80	2.40	62.97%	61.86%	
Steelhead	3.0	3.0	2.0	2.0	0.0	149.59	0.07	0.02	106.85	0.05	159.37%	159.21%	
Unknown Trout	1.0	2.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Game	49.0	34.0	13.0	41.0	12.0	91,147.32	42.65	13.41	2,158.37	1.01	144.27%	63.83%	
Big Game	48.0	32.0	10.0	41.0	11.0	91,104.58	42.63	13.41	448.77	0.21	70.97%	63.85%	
Blison	1.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Black Bear	3.0	4.0	1.0	2.0	1.0	0.00	0.00	0.00	21.37	0.01	193.72%	0.00%	
Brown Bear	0.0	2.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Caribou	21.0	7.0	4.0	17.0	2.0	25,644.00	12.00	3.77	170.96	0.08	112.48%	112.44%	
Deer	9.0	3.0	2.0	7.0	3.0	5,539.10	2.59	0.82	128.22	0.06	164.31%	164.61%	
Elk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Goat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Moose	36.0	30.0	5.0	31.0	7.0	57,699.00	27.00	8.49	106.85	0.05	84.87%	86.24%	
Sheep, Dall	4.0	3.0	1.0	3.0	0.0	2,222.48	1.04	0.33	21.37	0.01	193.72%	193.47%	
Small Game/Furbearer	4.0	8.0	4.0	0.0	2.0	42.74	0.02	0.01	1,709.60	0.80	181.67%	193.47%	
Fox	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Red Fox	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Beaver	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Coyote	1.0	2.0	1.0	0.0	1.0	0.00	0.00	0.00	21.37	0.01	193.72%	0.00%	
Hare	1.0	5.0	1.0	0.0	1.0	42.74	0.02	0.01	21.37	0.01	193.72%	193.47%	
Snowshoe Hare	1.0	5.0	1.0	0.0	1.0	42.74	0.02	0.01	21.37	0.01	193.72%	193.47%	
Unknown Hare	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Land Otter	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Lynx	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Marmot	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	

Table VI-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1991

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Marten	1.0	2.0	1.0	0.0	0.0	0.00	0.00	0.00	1,602.75	0.75	193.72%	0.00%
Mink	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Muskrat	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Weasel	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolf	0.0	2.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	1.0	2.0	1.0	0.0	0.0	0.00	0.00	0.00	64.11	0.03	193.72%	0.00%
Tree Squirrel	1.0	2.0	1.0	0.0	0.0	0.00	0.00	0.00	64.11	0.03	193.72%	0.00%
Marine Mammals	1.0	1.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	1.0	1.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harbor Seal	1.0	1.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Sea Lion	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sea Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Birds and Eggs	28.0	25.0	23.0	6.0	4.0	4,924.93	2.30	0.72	6,517.85	3.05	49.52%	49.09%
Birds	28.0	25.0	23.0	6.0	4.0	4,924.93	2.30	0.72	6,517.85	3.05	49.52%	49.09%
Upland Game Birds	22.0	19.0	18.0	4.0	3.0	3,485.45	1.63	0.51	4,979.21	2.33	54.96%	55.46%
Grouse	19.0	17.0	17.0	2.0	3.0	3,201.23	1.50	0.47	4,573.18	2.14	57.84%	58.14%
Ptarmigan	7.0	6.0	5.0	2.0	1.0	284.22	0.13	0.04	406.03	0.19	101.13%	102.55%
Migratory Birds	9.0	8.0	7.0	2.0	1.0	1,439.48	0.67	0.21	1,538.64	0.72	82.12%	83.61%
Waterfowl	9.0	8.0	7.0	2.0	1.0	1,259.98	0.59	0.19	1,517.27	0.71	82.20%	82.29%
Ducks	8.0	8.0	7.0	1.0	1.0	1,259.98	0.59	0.19	1,517.27	0.71	82.20%	82.29%
Eider	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, White-winged	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Black	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Surf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harlequin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goldeneye	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Bufflehead	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Merganser	1.0	1.0	1.0	0.0	0.0	38.47	0.02	0.01	42.74	0.02	193.72%	192.85%
Scaup	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VI-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1991

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Mallard	6.0	5.0	5.0	1.0	1.0	769.32	0.36	0.11	769.32	0.36	101.04%	100.65%
Pintail	3.0	3.0	3.0	0.0	0.0	85.48	0.04	0.01	106.85	0.05	115.18%	115.58%
Wigeon	2.0	2.0	2.0	0.0	1.0	89.75	0.04	0.01	128.22	0.06	143.81%	144.57%
Teal	3.0	3.0	3.0	0.0	0.0	64.11	0.03	0.01	213.70	0.10	118.43%	118.11%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Ducks: Unknown	2.0	3.0	2.0	0.0	0.0	212.85	0.10	0.03	256.44	0.12	143.81%	143.18%
Geese	1.0	2.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Brant	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	1.0	2.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Unknown	1.0	2.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	1.0	1.0	1.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	1.0	1.0	1.0	0.0	1.0	179.51	0.08	0.03	21.37	0.01	193.72%	194.69%
Sandhill Crane	1.0	1.0	1.0	0.0	1.0	179.51	0.08	0.03	21.37	0.01	193.72%	194.69%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffins	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gull Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Invertebrates	55.0	40.0	38.0	30.0	15.0	38,089.25	17.82	5.60	11,625.07 gal	5.44	45.06%	45.58%
Clams	49.0	38.0	37.0	20.0	15.0	34,875.20	16.32	5.13	397.48 gal	0.19	117.28%	118.43%
Butter Clams	8.0	6.0	6.0	2.0	2.0	1,192.45	0.56	0.18	9,890.89 gal	4.63	45.42%	45.74%
Razor Clams	42.0	33.0	32.0	17.0	11.0	29,672.67	13.89	4.37	1,336.69 gal	0.63	88.99%	88.76%
Pacific Littleneck Clams (Steamers)	12.0	9.0	9.0	4.0	5.0	4,010.08	1.88	0.59	0.00 gal	0.00	0.00%	0.00%
Unknown Clams	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Cockles	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%

Table VI-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1991

Resource Name	Percentage of Households				Pounds Harvested				Amount Harvested		95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Geoducks	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Scallops	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mussels	2.0	1.0	1.0	1.0	0.0	160.28	0.08	0.02	106.85 gal	0.05	193.72%	192.85%
Crabs	11.0	4.0	3.0	8.0	0.0	1,557.87	0.73	0.23	1,538.64	0.72	140.31%	155.58%
Dungeness Crab	8.0	4.0	3.0	5.0	0.0	703.07	0.33	0.10	1,004.39	0.47	120.55%	121.21%
King Crab	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tanner Crab	3.0	1.0	1.0	2.0	0.0	854.80	0.40	0.13	534.25	0.25	193.72%	194.08%
Tanner Crab, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Crabs	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Chitons (bidarkis)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Chitons (large)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Chitons (small)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Octopus	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sea Urchin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Shrimp	6.0	2.0	1.0	5.0	1.0	1,495.90	0.70	0.22	747.95 gal	0.35	193.72%	194.69%
Snails	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Whelk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Limpets	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Plants and Berries	61.0	45.0	45.0	27.0	11.0	10,257.60	4.80	1.51	2,564.40 gal	1.20	56.57%	56.57%
Berries	60.0	44.0	44.0	27.0	10.0	9,531.02	4.46	1.40	2,382.76 gal	1.12	58.79%	58.66%
Plants/Greens/Mushrooms	9.0	7.0	7.0	2.0	1.0	726.58	0.34	0.11	181.65 gal	0.09	91.34%	92.41%
Seaweed/Kelp (Food)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Wood	18.0	18.0	18.0	1.0	6.0	0.00	0.00	0.00	801.38 crd	0.38	68.10%	0.00%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VI-20. Estimated Amount of Resources Removed From Commercial Harvest, Kenai, 1991

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		12,218.03	3.05	2.41
Fish		10,722.13	2.96	2.12
Salmon	2,222.48	10,061.51	5.22	1.99
Chum Salmon	213.70	1,036.45	82.92	0.20
Coho Salmon	1,068.50	4,883.05	7.47	0.96
Chinook Salmon	21.37	330.17	1.92	0.07
Sockeye Salmon	918.91	3,831.85	3.59	0.76
Non-Salmon Fish		640.62	0.38	0.13
Halibut	19.66	320.07	0.22	0.06
Rockfish		320.55	24.59	0.06
Unknown Rockfish		320.55	100.00	0.06
Marine Invertebrates		1,495.90	3.93	0.30
Shrimp	747.95 gal	1,495.90	100.00	0.30

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VI-21. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Kenai, 1991

Resource	Percent Base	Subsistence Methods										Removed from Commercial Catch	Rod and Reel	Any Method
		Net			Dip Net			Subsistence Gear						
		No.	Lbs.	%	No.	Lbs.	%	No.	Lbs.	%	Any Method			
Salmon	total	17.79	16.93	14.16	13.09	31.94	30.02	5.24	5.22	62.81	64.76	0.61	0.65	
Chum Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00	9.62	10.28	0.17	0.17	0.61	0.65	
	resource	0.00	0.00	0.00	0.00	0.00	0.00	82.92	82.92	17.08	17.08	0.61	0.65	
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.54	0.10	0.11	0.61	0.65	
Coho Salmon	gear type	16.71	17.63	9.96	10.82	13.72	14.66	48.08	48.44	42.67	41.54	33.71	33.83	
	resource	8.82	8.82	4.19	4.19	13.00	13.00	7.47	7.47	79.52	79.52	33.71	33.83	
	total	2.97	2.98	1.41	1.42	4.38	4.40	2.52	2.53	26.81	26.91	33.71	33.83	
Chinook Salmon	gear type	0.85	3.03	0.00	0.00	0.47	1.71	0.96	3.27	3.85	12.67	2.62	8.89	
	resource	5.77	5.77	0.00	0.00	5.77	5.77	1.92	1.92	92.31	92.31	2.62	8.89	
	total	0.15	0.51	0.00	0.00	0.15	0.51	0.05	0.17	2.42	8.21	2.62	8.89	
Pink Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.32	2.09	2.71	1.35	
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	2.71	1.35	
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	1.35	2.71	1.35	
Sockeye Salmon	gear type	82.44	79.34	90.04	89.18	85.80	83.63	41.35	38.01	48.91	43.45	60.30	55.23	
	resource	24.31	24.31	21.14	21.14	45.45	45.45	3.59	3.59	50.95	50.95	60.30	55.23	
	total	14.66	13.43	12.75	11.68	27.41	25.10	2.17	1.98	30.73	28.14	60.30	55.23	
Unknown Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.07	0.05	0.05	
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	0.05	0.05	
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.05	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VI-22. Estimated Salmon Harvest by Gear Type and Species, Kenai, 1991

Harvest Units	Subsistence Methods												Removed from Commercial Catch			Rod and Reel			Any Method		
	Net			Dip Net			Subsistence Gear Any Method			Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH			
	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH												
Salmon	7,543.61	3.53	6,004.97	2.81	13,548.58	6.34	2,222.48	1.04	26,641.34	12.47	42,412.40	19.85	10,081.51	4.72	125,059.50	58.52	193,105.43	90.36			
Chum Salmon	0.00	0.00	0.00	0.00	0.00	0.00	213.70	0.10	44.02	0.02	257.72	0.12	1,036.45	0.49	213.51	0.10	1,249.95	0.58			
Coho Salmon	1,260.83	0.59	598.36	0.28	1,859.19	0.87	1,068.50	0.50	11,388.84	5.32	14,296.53	6.69	4,883.05	2.29	51,955.60	24.31	65,335.14	30.57			
Chinook Salmon	64.11	0.03	0.00	0.00	64.11	0.03	21.37	0.01	1,025.76	0.48	1,111.24	0.52	330.17	0.15	15,847.99	7.42	17,168.66	8.03			
Pink Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,149.92	0.54	1,149.92	0.54	0.00	0.00	2,610.32	1.22	2,610.32	1.22			
Sockeye Salmon	6,218.67	2.91	5,406.61	2.53	11,625.28	5.44	918.91	0.43	13,031.43	6.10	25,575.62	11.97	3,831.85	1.79	54,341.05	25.43	106,650.32	49.91			
Unknown Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.37	0.01	21.37	0.01	0.00	0.00	91.04	0.04	91.04	0.04			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VI-23. Percentage of Households Harvesting Salmon by Gear Type and Species, Kenai, 1991

Resource	Subsistence Methods			Removed from Commercial Catch	Rod and Reel	Any Method
	Net	Dip Net	Any Subsistence Gear			
Salmon	12.00	14.00	25.00	4.00	58.00	72.00
Chum Salmon	0.00	0.00	0.00	1.00	1.00	2.00
Coho Salmon	4.00	2.00	6.00	2.00	41.00	49.00
Chinook Salmon	2.00	0.00	2.00	1.00	22.00	24.00
Pink Salmon	0.00	0.00	0.00	0.00	6.00	6.00
Sockeye Salmon	11.00	14.00	25.00	4.00	35.00	59.00
Unknown Salmon	0.00	0.00	0.00	0.00	1.00	1.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VI-24. Estimated Harvest of Fish Other than Salmon by Gear Type, Kenai, 1991

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	1,991.90	0.93	640.62	0.30	165,431.09	77.41	897.54	0.42	168,961.14	79.06
Grayingling	0.00	0.00	0.00	0.00	14.96	0.01	0.00	0.00	14.96	0.01
Lingcod	0.00	0.00	0.00	0.00	2,051.52	0.96	0.00	0.00	2,051.52	0.96
Pacific Cod (Gray)	0.00	0.00	0.00	0.00	1,230.91	0.58	0.00	0.00	1,230.91	0.58
Sablefish (Black Cod)	0.00	0.00	0.00	0.00	331.24	0.16	0.00	0.00	331.24	0.16
Unknown Flounder	0.00	0.00	0.00	0.00	256.44	0.12	0.00	0.00	256.44	0.12
Halibut	0.00	0.00	320.07	0.15	147,010.15	68.79	0.00	0.00	147,330.22	68.94
Black Rockfish (black bass)	0.00	0.00	0.00	0.00	641.10	0.30	0.00	0.00	641.10	0.30
Red Rockfish	0.00	0.00	0.00	0.00	341.92	0.16	0.00	0.00	341.92	0.16
Unknown Rockfish	0.00	0.00	320.55	0.15	0.00	0.00	0.00	0.00	320.55	0.15
Eulachon (Hooligan, Candlefish)	1,991.90	0.93	0.00	0.00	1,389.05	0.65	0.00	0.00	3,380.95	1.58
Shark	0.00	0.00	0.00	0.00	641.10	0.30	0.00	0.00	641.10	0.30
Skates	0.00	0.00	0.00	0.00	213.70	0.10	0.00	0.00	213.70	0.10
Arctic Char	0.00	0.00	0.00	0.00	29.92	0.01	0.00	0.00	29.92	0.01
Dolly Varden	0.00	0.00	0.00	0.00	4,487.70	2.10	269.26	0.13	4,756.96	2.23
Lake Trout	0.00	0.00	0.00	0.00	59.84	0.03	29.92	0.01	89.75	0.04
Rainbow Trout	0.00	0.00	0.00	0.00	6,581.96	3.08	598.36	0.28	7,180.32	3.36
Steelhead	0.00	0.00	0.00	0.00	149.59	0.07	0.00	0.00	149.59	0.07

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VI-25. Percentage of Fish Other Than Salmon Harvested by Gear Type, Kenai, 1991

Resource	Percent Base	Subsistence Gear Lbs.	Removed from Commercial Catch Lbs.	Rod and Reel Lbs.	Ice Fishing Lbs.
Non-Salmon Fish	resource	1.18	0.38	97.91	0.53
Grayling	resource	0.00	0.00	100.00	0.00
Lingcod	resource	0.00	0.00	100.00	0.00
Pacific Cod (Gray)	resource	0.00	0.00	100.00	0.00
Sablefish (Black Cod)	resource	0.00	0.00	100.00	0.00
Unknown Flounder	resource	0.00	0.00	100.00	0.00
Hallbut	resource	0.00	0.22	99.78	0.00
Black Rockfish (black bass)	resource	0.00	0.00	100.00	0.00
Red Rockfish	resource	0.00	0.00	100.00	0.00
Unknown Rockfish	resource	0.00	100.00	0.00	0.00
Eulachon (Hooligan, Candlefish)	resource	58.92	0.00	41.08	0.00
Shark	resource	0.00	0.00	100.00	0.00
Skates	resource	0.00	0.00	100.00	0.00
Arctic Char	resource	0.00	0.00	100.00	0.00
Dolly Varden	resource	0.00	0.00	94.34	5.66
Lake Trout	resource	0.00	0.00	66.67	33.33
Rainbow Trout	resource	0.00	0.00	91.67	8.33
Steelhead	resource	0.00	0.00	100.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VI-26. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Kenai, 1991

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	7.00	1.00	53.00	4.00	55.00
Grayling	0.00	0.00	1.00	0.00	1.00
Lingcod	0.00	0.00	1.00	0.00	1.00
Pacific Cod (Gray)	0.00	0.00	3.00	0.00	3.00
Sablefish (Black Cod)	0.00	0.00	2.00	0.00	2.00
Unknown Flounder	0.00	0.00	1.00	0.00	1.00
Hillbut	0.00	1.00	44.00	0.00	45.00
Black Rockfish (black bass)	0.00	0.00	1.00	0.00	1.00
Red Rockfish	0.00	0.00	2.00	0.00	2.00
Unknown Rockfish	0.00	1.00	0.00	0.00	1.00
Eulachon (Hooligan, Candlefish)	7.00	0.00	1.00	0.00	8.00
Shark	0.00	0.00	1.00	0.00	1.00
Skates	0.00	0.00	1.00	0.00	1.00
Arctic Char	0.00	0.00	1.00	0.00	1.00
Dolly Varden	0.00	0.00	8.00	2.00	10.00
Lake Trout	0.00	0.00	1.00	1.00	2.00
Rainbow Trout	0.00	0.00	13.00	3.00	16.00
Steelhead	0.00	0.00	2.00	0.00	2.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure VI-12. Composition of Wild Resource Harvests by Resource Category, Kenai, 1992

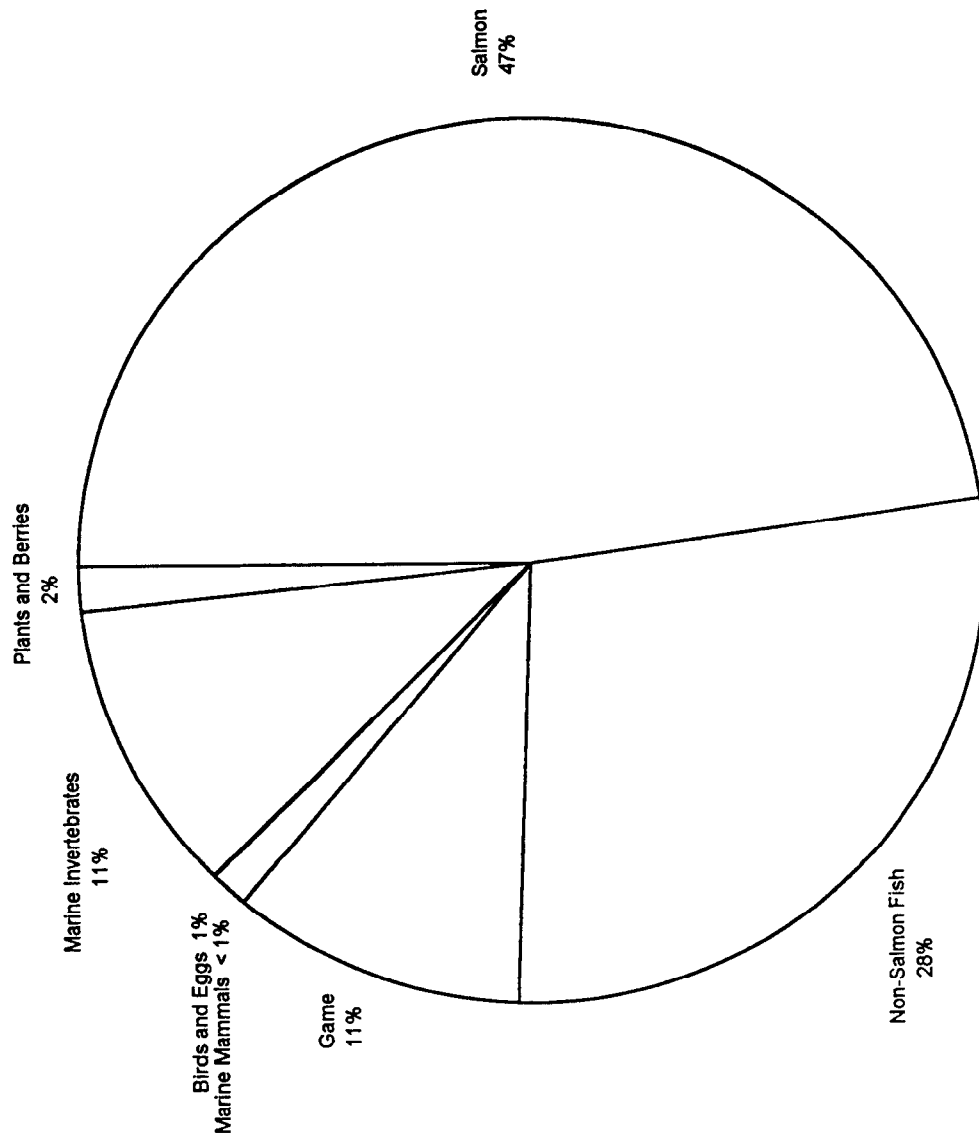


Table VI-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1992

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	94.6	89.2	83.8	78.4	73.0	490,663.01	229.60	73.87			34.73%	37.21%
Fish	94.6	81.1	78.4	62.2	54.1	370,448.96	173.35	55.77			35.39%	36.50%
Salmon	78.4	78.4	70.3	40.5	40.5	234,001.50	109.50	35.23	44,819.24	20.97	43.83%	42.81%
Chum Salmon	2.7	2.7	2.7	0.0	2.7	4,620.54	2.16	0.70	924.11	0.43	201.05%	198.33%
Coho Salmon	45.9	48.6	43.2	13.5	18.9	59,853.33	28.01	9.01	12,417.70	5.81	63.01%	63.65%
Chinook Salmon	35.1	45.9	27.0	10.8	5.4	24,576.66	11.50	3.70	1,386.16	0.65	67.10%	65.96%
Pink Salmon	10.8	10.8	10.8	0.0	5.4	2,615.23	1.22	0.39	924.11	0.43	104.33%	107.10%
Sockeye Salmon	70.3	67.6	62.2	27.0	32.4	142,335.75	66.61	21.43	29,167.16	13.65	46.56%	46.43%
Landlocked Salmon	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Non-Salmon Fish	86.5	75.7	67.6	35.1	35.1	136,447.46	63.85	20.54			42.43%	45.25%
Pike	2.7	2.7	2.7	0.0	0.0	173.27	0.08	0.03	57.76	0.03	201.05%	200.14%
Cod	2.7	2.7	2.7	0.0	0.0	1,293.75	0.61	0.19	404.30	0.19	201.05%	203.72%
Pacific Tomcod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Pacific Cod (Gray)	2.7	2.7	2.7	0.0	0.0	1,293.75	0.61	0.19	404.30	0.19	201.05%	203.72%
Unknown Cod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	5.4	2.7	2.7	2.7	2.7	358.09	0.17	0.05	115.51	0.05	201.05%	203.72%
Greenling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Lingcod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Greenling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Flounder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Flounder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sole	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sole, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Halibut	75.7	59.5	54.1	29.7	32.4	120,675.54	56.47	18.17	7,412.50	3.47	44.59%	46.73%
Herring	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Herring Roe	2.7	0.0	0.0	2.7	2.7	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	2.7	2.7	2.7	0.0	0.0	2,714.57	1.27	0.41	1,328.41	0.62	201.05%	203.72%
Black Rockfish (black bass)	2.7	2.7	2.7	0.0	0.0	1,559.43	0.73	0.23	1,039.62	0.49	201.05%	203.72%
Red Rockfish	2.7	2.7	2.7	0.0	0.0	1,155.14	0.54	0.17	288.78	0.14	201.05%	203.72%
Yellow Eye Rockfish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sculpin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Irish Lord	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Sculpin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Smelt	5.4	2.7	2.7	2.7	5.4	1,220.11	0.57	0.18	375.42 gal	0.18	201.05%	203.72%
Eulachon (Hooligan, Candlefish)	5.4	2.7	2.7	2.7	5.4	1,220.11	0.57	0.18	375.42 gal	0.18	201.05%	203.72%
Unknown Smelt	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%

Table VI-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1992

Resource Name	Percentage of Households			Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Wolf Eel (Wolffish)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shark	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Walleye Pollock (Whiting)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Skates	2.7	2.7	2.7	2.7	2.7	288.78	0.14	0.04	57.76	0.03	201.05%	198.33%
Tuna/Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Grayling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sheefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Whitefish	2.7	2.7	2.7	2.7	2.7	101.07	0.05	0.02	57.76	0.03	201.05%	203.72%
Unknown Whitefish	2.7	2.7	2.7	2.7	2.7	101.07	0.05	0.02	57.76	0.03	201.05%	203.72%
Trout and Char	35.1	37.8	32.4	5.4	10.8	9,622.28	4.50	1.45	6,873.05	3.22	75.17%	78.11%
Char	18.9	21.6	18.9	2.7	2.7	4,204.69	1.97	0.63	3,003.35	1.41	82.68%	86.36%
Arctic Char	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Dolly Varden	18.9	21.6	18.9	2.7	2.7	4,204.69	1.97	0.63	3,003.35	1.41	82.68%	86.36%
Lake Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Trout	32.4	32.4	29.7	5.4	10.8	5,417.58	2.54	0.82	3,869.70	1.81	79.77%	81.73%
Rainbow Trout	29.7	27.0	27.0	5.4	10.8	5,094.15	2.38	0.77	3,638.68	1.70	77.76%	79.61%
Steelhead	5.4	5.4	5.4	0.0	2.7	323.44	0.15	0.05	231.03	0.11	157.61%	159.88%
Unknown Trout	0.0	2.7	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Game	54.1	29.7	10.8	45.9	24.3	52,287.19	24.47	7.87	519.81	0.24	103.31%	119.65%
Big Game	54.1	27.0	10.8	45.9	24.3	52,171.68	24.41	7.85	462.05	0.22	102.77%	119.84%
Bison	2.7	2.7	2.7	0.0	2.7	25,990.54	12.16	3.91	57.76	0.03	201.05%	203.72%
Black Bear	5.4	5.4	2.7	2.7	2.7	3,349.89	1.57	0.50	57.76	0.03	201.05%	203.72%
Brown Bear	0.0	2.7	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Caribou	32.4	5.4	2.7	27.0	8.1	8,663.51	4.05	1.30	57.76	0.03	201.05%	203.72%
Deer	10.8	5.4	5.4	8.1	2.7	9,980.37	4.67	1.50	231.03	0.11	140.17%	143.98%
Elk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goat	2.7	2.7	2.7	0.0	2.7	4,187.36	1.96	0.63	57.76	0.03	201.05%	203.72%
Moose	43.2	16.2	0.0	43.2	16.2	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sheep, Dall	5.4	13.5	0.0	5.4	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Small Game/Furbearer	2.7	5.4	2.7	0.0	0.0	115.51	0.05	0.02	57.76	0.03	201.05%	203.72%
Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Beaver	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Coyote	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Hare	2.7	5.4	2.7	0.0	0.0	115.51	0.05	0.02	57.76	0.03	201.05%	203.72%
Snowshoe Hare	2.7	5.4	2.7	0.0	0.0	115.51	0.05	0.02	57.76	0.03	201.05%	203.72%
Land Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VI-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1972

Resource Name	Percentage of Households			Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mink	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Muskrat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Weasel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tree Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Feral Animals	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Reindeer - Feral	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Mammals	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harbor Seal	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Seal	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Sea Lion	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sea Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Birds and Eggs	27.0	35.1	24.3	2.7	10.8	6,826.85	3.19	1.03	9,356.59	4.38	103.56%	105.80%
Birds	27.0	35.1	24.3	2.7	10.8	6,826.85	3.19	1.03	9,356.59	4.38	103.56%	105.80%
Upland Game Birds	27.0	32.4	24.3	2.7	10.8	4,406.84	2.06	0.66	6,295.49	2.95	94.87%	97.22%
Grouse	27.0	27.0	24.3	2.7	10.8	4,164.26	1.95	0.63	5,948.95	2.78	94.41%	96.73%
Pheasant	5.4	16.2	5.4	0.0	2.7	242.58	0.11	0.04	346.54	0.16	148.18%	150.19%
Migratory Birds	8.1	10.8	8.1	0.0	5.4	2,420.01	1.13	0.36	3,061.11	1.43	142.50%	142.84%
Waterfowl	8.1	10.8	8.1	0.0	5.4	2,420.01	1.13	0.36	3,061.11	1.43	142.50%	142.84%
Ducks	8.1	10.8	8.1	0.0	5.4	2,350.70	1.10	0.35	3,003.35	1.41	143.64%	144.67%
Eider	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Large	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	2.7	2.7	2.7	0.0	2.7	415.85	0.19	0.06	462.05	0.22	201.05%	203.72%
Scoter, White-winged	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Black	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Surf	2.7	2.7	2.7	0.0	2.7	415.85	0.19	0.06	462.05	0.22	201.05%	203.72%

Table VI-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1992

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Alt	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Harlequin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goldeneye	2.7	2.7	2.7	0.0	0.0	46.21	0.02	0.01	57.76	0.03	201.05%	203.72%
Bufflehead	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Merganser	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scaup	2.7	2.7	2.7	0.0	2.7	519.81	0.24	0.08	577.57	0.27	201.05%	200.14%
Mallard	8.1	10.8	8.1	0.0	2.7	808.59	0.38	0.12	808.59	0.38	147.54%	147.36%
Pintail	2.7	2.7	2.7	0.0	2.7	231.03	0.11	0.03	288.78	0.14	201.05%	200.14%
Wigeon	2.7	2.7	2.7	0.0	2.7	121.29	0.06	0.02	173.27	0.08	201.05%	200.14%
Teal	5.4	5.4	5.4	0.0	5.4	173.27	0.08	0.03	577.57	0.27	140.17%	141.45%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	2.7	2.7	2.7	0.0	0.0	34.65	0.02	0.01	57.76	0.03	201.05%	200.14%
Ducks, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese	2.7	5.4	2.7	0.0	0.0	69.31	0.03	0.01	57.76	0.03	201.05%	203.72%
Brant	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	2.7	5.4	2.7	0.0	0.0	69.31	0.03	0.01	57.76	0.03	201.05%	203.72%
Canada Geese, Lesser	2.7	2.7	2.7	0.0	0.0	69.31	0.03	0.01	57.76	0.03	201.05%	203.72%
Canada Geese, Unknown	0.0	2.7	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	0.0	2.7	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sandhill Crane	0.0	2.7	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffins	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gull Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Invertebrates	51.4	27.0	27.0	35.1	21.6	52,586.66	24.61	7.92	16,684.19 gal	7.81	86.50%	86.62%
Clams	48.6	27.0	27.0	27.0	21.6	50,052.58	23.42	7.54	490.93 gal	0.23	90.72%	90.93%
Butter Clams	8.1	5.4	5.4	2.7	5.4	1,472.80	0.69	0.22			189.26%	192.10%

Table VI-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1992

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Per capita	Total	Mean HH	Per capita	Total	Mean HH	Harvest	Per capita		
														24.3	24.3
Razor Clams	45.9	24.3	24.3	24.3	18.9	7.17	47,592.15	22.27	0.45	0.15	0.15	140.78%	142.29%		
Pacific Littleneck Clams (Steamers)	5.4	5.4	5.4	0.0	2.7	0.14	952.99	0.00	0.00	0.00	0.00	0.00%	0.00%		
Softshell Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Pinkneck Clams	2.7	2.7	2.7	0.0	0.0	0.01	34.65	0.02	0.00	0.01	0.01	201.05%	203.72%		
Horse Clams (Gaper)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Unknown Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Cockles	2.7	2.7	2.7	0.0	2.7	0.01	86.64	0.04	0.00	0.01	0.01	201.05%	203.72%		
Scallops	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Mussels	2.7	2.7	2.7	0.0	2.7	0.01	21.66	0.01	0.00	0.01	0.01	201.05%	203.72%		
Crabs	13.5	2.7	2.7	10.8	0.0	0.37	2,425.78	1.14	0.00	1.62	1.62	201.05%	200.14%		
Dungeness Crab	10.8	2.7	2.7	8.1	0.0	0.37	2,425.78	1.14	0.00	1.62	1.62	201.05%	200.14%		
King Crab	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Tanner Crab	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Tanner Crab, Unknown	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Unknown Crabs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Chitons (bidarkis)	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Chitons (large)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Chitons (small)	2.7	0.0	0.0	2.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Octopus	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Sea Urchin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Shrimp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Snails	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Whelk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Limpets	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Oyster	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Plants and Berries	48.6	40.5	40.5	16.2	13.5	1.28	8,513.35	3.98	0.00	1.00	1.00	87.56%	86.14%		
Berries	48.6	37.8	37.8	16.2	8.1	0.84	5,602.41	2.62	0.00	0.66	0.66	64.58%	64.66%		
Plants/Greens/Mushrooms	10.8	10.8	10.8	2.7	8.1	0.43	2,887.84	1.35	0.00	0.34	0.34	169.38%	167.18%		
Seaweed/Kelp (Food)	2.7	2.7	2.7	2.7	0.0	0.00	23.10	0.01	0.00	0.00	0.00	201.05%	196.33%		
Wood	24.3	18.9	18.9	8.1	5.4	0.00	620.89 crd	0.00	0.00	0.29	0.29	80.86%	0.00%		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VI-28. Estimated Amount of Resources Removed From Commercial Harvest, Kenai, 1992

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		16,101.15	3.81	3.28
Fish		16,101.15	4.35	3.28
Salmon	2,541.30	12,384.20	5.29	2.52
Chum Salmon	577.57	2,887.84	62.50	0.59
Coho Salmon	1,443.92	6,959.69	11.63	1.42
Sockeye Salmon	519.81	2,536.68	1.78	0.52
Non-Salmon Fish		3,716.95	2.72	0.76
Cod	404.30	1,293.75	100.00	0.26
Pacific Cod (Gray)	404.30	1,293.75	100.00	0.26
Halibut	106.27	1,730.12	1.43	0.35
Rockfish	173.27	693.08	25.53	0.14
Red Rockfish	173.27	693.08	60.00	0.14

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VI-29. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Kenai, 1992

Resource	Percent Base	Subsistence Methods										Removed from Commercial Catch	Rod and Reel		Any Method		
		Net		Dip Net		Subsistence Gear		No.	Lbs.	No.	Lbs.		No.	Lbs.	No.	Lbs.	
		No.	Lbs.	No.	Lbs.	No.	Lbs.										No.
Salmon	total	25.13	24.07	14.30	13.37	39.43	37.44					5.67	5.29	54.90	57.27		
Chum Salmon	gear type	3.08	3.08	0.00	0.00	1.96	1.98					22.73	23.32	0.00	0.00		
	resource total	37.50	37.50	0.00	0.00	37.50	37.50					62.50	62.50	0.00	0.00		
Coho Salmon	gear type	0.77	0.74	0.00	0.00	0.77	0.74					1.29	1.23	0.00	0.00		
	resource total	24.10	23.23	0.00	0.00	15.36	14.93					56.82	56.20	33.57	29.71		
Chinook Salmon	gear type	21.86	21.86	0.00	0.00	21.86	21.86					11.63	11.63	66.51	66.51		
	resource total	6.06	5.59	0.00	0.00	6.06	5.59					3.22	2.97	18.43	17.01	27.71	25.58
Pink Salmon	gear type	1.03	3.64	0.00	0.00	0.65	2.34					0.00	0.00	5.16	16.81		
	resource total	8.33	8.33	0.00	0.00	8.33	8.33					0.00	0.00	91.67	91.67		
Sockeye Salmon	gear type	0.26	0.88	0.00	0.00	0.26	0.88					0.00	0.00	2.84	9.63		
	resource total	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	3.76	1.95		
Landlocked Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	100.00	100.00		
	resource total	71.79	70.06	100.00	100.00	82.03	80.75					20.45	20.48	57.51	51.53		
Total	gear type	27.72	27.72	21.98	21.98	49.70	49.70					1.78	1.78	48.51	48.51		
	resource total	18.04	16.86	14.30	13.37	32.35	30.23					1.16	1.08	31.57	29.51	65.08	60.83
Total	gear type	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00		
	resource total	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VI-30. Estimated Salmon Harvest by Gear Type and Species, Kenai, 1992

Harvest Units	Subsistence Methods												Removed from Commercial Catch			Rod and Reel			Any Method		
	Net				Dip Net				Subsistence Gear Any Method				Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	
	Total	HH Mean	HH Mean	HH Mean	Total	HH Mean	HH Mean	HH Mean	Total	HH Mean	HH Mean	Total									HH Mean
Salmon	11,262.57	5.27	6,411.00	3.00	17,673.57	8.27	2,541.30	1.19	24,804.38	11.51	44,819.24	20.97	2,384.20	5.80	134,007.23	62.71	234,001.50	109.50			
	56,324.39	26.36	31,285.68	14.64	87,610.07	41.00	12,384.20	5.80	134,007.23	62.71	234,001.50	109.50	12,384.20	5.80	134,007.23	62.71	234,001.50	109.50			
Chum Salmon	346.54	0.16	0.00	0.00	346.54	0.16	577.57	0.27	0.00	0.00	924.11	0.43	2,887.84	1.35	0.00	0.00	4,620.54	2.16			
	1,732.70	0.81	0.00	0.00	1,732.70	0.81	2,887.84	1.35	0.00	0.00	924.11	0.43	2,887.84	1.35	0.00	0.00	4,620.54	2.16			
Coho Salmon	2,714.57	1.27	0.00	0.00	2,714.57	1.27	1,443.92	0.68	8,259.22	3.86	12,417.70	5.81	6,959.69	3.26	39,809.42	18.63	59,853.33	28.01			
	13,084.22	6.12	0.00	0.00	13,084.22	6.12	1,443.92	0.68	8,259.22	3.86	12,417.70	5.81	6,959.69	3.26	39,809.42	18.63	59,853.33	28.01			
Chinook Salmon	115.51	0.05	0.00	0.00	115.51	0.05	0.00	0.00	1,270.65	0.59	1,386.16	0.65	0.00	0.00	1,270.65	0.59	1,386.16	0.65			
	2,048.05	0.96	0.00	0.00	2,048.05	0.96	0.00	0.00	1,270.65	0.59	1,386.16	0.65	0.00	0.00	1,270.65	0.59	1,386.16	0.65			
Pink Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	924.11	0.43	924.11	0.43	0.00	0.00	924.11	0.43	924.11	0.43			
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	924.11	0.43	924.11	0.43	0.00	0.00	924.11	0.43	924.11	0.43			
Sockeye Salmon	8,085.95	3.78	6,411.00	3.00	14,496.95	6.78	519.81	0.24	14,150.41	6.62	29,167.16	13.65	2,536.68	1.19	69,053.98	32.31	142,335.75	66.61			
	39,459.42	18.46	31,285.68	14.64	70,745.10	33.10	2,536.68	1.19	69,053.98	32.31	142,335.75	66.61	2,536.68	1.19	69,053.98	32.31	142,335.75	66.61			
Landlocked Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VI-31. Percentage of Households Harvesting Salmon by Gear Type and Species, Kenai, 1992

Resource	Net Dip Net		Any Subsistence Gear		Removed from Commercial Catch		Rod and Reel		Any Method	
	13.51	13.51	27.03	27.03	2.70	2.70	70.27	70.27	70.27	70.27
Salmon										
Chum Salmon	2.70	0.00	2.70	2.70	2.70	2.70	0.00	0.00	2.70	2.70
Coho Salmon	8.11	0.00	8.11	8.11	2.70	2.70	40.54	40.54	43.24	43.24
Chinook Salmon	2.70	0.00	2.70	2.70	0.00	0.00	27.03	27.03	27.03	27.03
Pink Salmon	0.00	0.00	0.00	0.00	0.00	0.00	10.81	10.81	10.81	10.81
Sockeye Salmon	8.11	13.51	21.62	21.62	2.70	2.70	51.35	51.35	62.16	62.16
Landlocked Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VI-32. Estimated Harvest of Fish Other than Salmon by Gear Type, Kenai, 1992

	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	1,220.11	0.57	3,716.95	1.74	131,510.40	61.54	0.00	0.00	136,447.46	63.85
Pike	0.00	0.00	0.00	0.00	173.27	0.08	0.00	0.00	173.27	0.08
Unknown Whitefish	0.00	0.00	0.00	0.00	101.07	0.05	0.00	0.00	101.07	0.05
Pacific Cod (Gray)	0.00	0.00	1,293.75	0.61	0.00	0.00	0.00	0.00	1,293.75	0.61
Sablefish (Black Cod)	0.00	0.00	0.00	0.00	358.09	0.17	0.00	0.00	358.09	0.17
Haitbut	0.00	0.00	1,730.12	0.81	118,945.42	55.66	0.00	0.00	120,675.54	56.47
Black Rockfish (black bass)	0.00	0.00	0.00	0.00	1,559.43	0.73	0.00	0.00	1,559.43	0.73
Red Rockfish	0.00	0.00	693.08	0.32	462.05	0.22	0.00	0.00	1,155.14	0.54
Eulachon (Hooligan, Candlefish)	1,220.11	0.57	0.00	0.00	0.00	0.00	0.00	0.00	1,220.11	0.57
Skates	0.00	0.00	0.00	0.00	288.78	0.14	0.00	0.00	288.78	0.14
Dolly Varden	0.00	0.00	0.00	0.00	4,204.69	1.97	0.00	0.00	4,204.69	1.97
Rainbow Trout	0.00	0.00	0.00	0.00	5,094.15	2.38	0.00	0.00	5,094.15	2.38
Steelhead	0.00	0.00	0.00	0.00	323.44	0.15	0.00	0.00	323.44	0.15

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VI-33. Percentage of Fish Other Than Salmon Harvested by Gear Type, Kenai, 1992

Resource	Percent Base	Subsistence Gear Lbs.	Removed from Commercial Catch Lbs.	Rod and Reel Lbs.	Ice Fishing Lbs.
Non-Salmon Fish	resource	0.89	2.72	96.38	0.00
Pike	resource	0.00	0.00	100.00	0.00
Unknown Whitefish	resource	0.00	0.00	100.00	0.00
Pacific Cod (Gray)	resource	0.00	100.00	0.00	0.00
Sablefish (Black Cod)	resource	0.00	0.00	100.00	0.00
Hallbut	resource	0.00	1.43	98.57	0.00
Black Rockfish (black bass)	resource	0.00	0.00	100.00	0.00
Red Rockfish	resource	0.00	60.00	40.00	0.00
Eulachon (Hooligan, Candlefish)	resource	100.00	0.00	0.00	0.00
Skates	resource	0.00	0.00	100.00	0.00
Dolly Varden	resource	0.00	0.00	100.00	0.00
Rainbow Trout	resource	0.00	0.00	100.00	0.00
Steelhead	resource	0.00	0.00	100.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VI-34. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Kenai, 1992

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	2.70	2.70	67.57	0.00	67.57
Pike	0.00	0.00	2.70	0.00	2.70
Unknown Whitefish	0.00	0.00	2.70	0.00	2.70
Pacific Cod (Gray)	0.00	2.70	0.00	0.00	2.70
Sablefish (Black Cod)	0.00	0.00	2.70	0.00	2.70
Hallbut	0.00	2.70	54.05	0.00	54.05
Black Rockfish (black bass)	0.00	0.00	2.70	0.00	2.70
Red Rockfish	0.00	2.70	2.70	0.00	2.70
Eulachon (Hooligan, Candlefish)	2.70	0.00	0.00	0.00	2.70
Skates	0.00	0.00	2.70	0.00	2.70
Dolly Varden	0.00	0.00	18.92	0.00	18.92
Rainbow Trout	0.00	0.00	27.03	0.00	27.03
Steelhead	0.00	0.00	5.41	0.00	5.41

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure VI-13. Composition of Wild Resource Harvests by Resource Category, Kenai, 1993

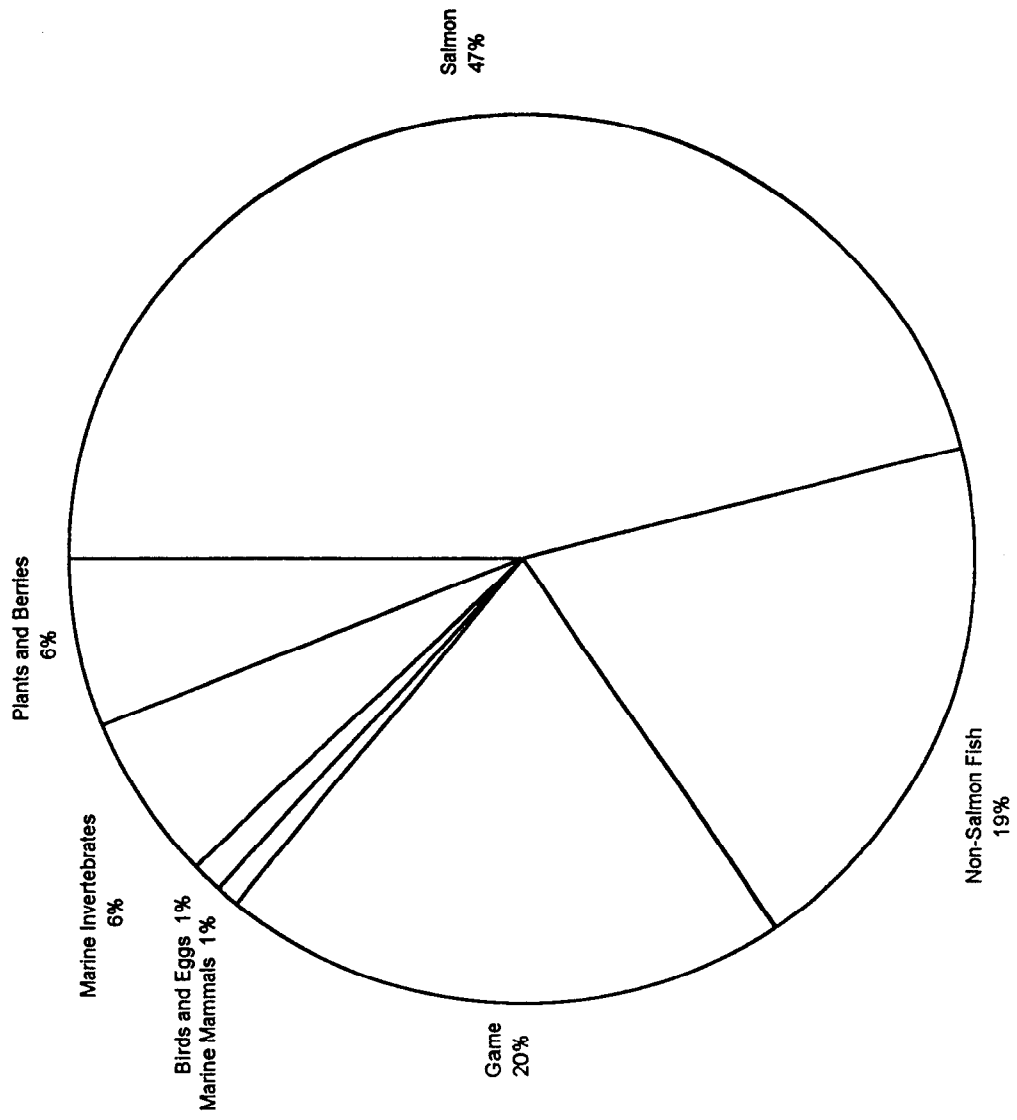


Table VI-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1993

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)			
	Use	Att	Harv	Recv	Give	Total	Mean	HH	Total	Mean	HH	Harvest	Percapita
All Resources	98.0	89.1	86.1	81.2	62.4	533,715.00	234.70	83.76				28.44%	29.40%
Fish	95.0	82.2	79.2	66.3	56.4	350,379.95	154.08	54.99				27.99%	29.57%
Salmon	89.1	75.2	66.3	44.6	45.5	246,786.86	108.53	38.73	47,438.79	20.86		35.04%	34.83%
Chum Salmon	3.0	4.0	3.0	0.0	1.0	3,373.85	1.48	0.53	607.90	0.27		148.26%	148.92%
Coho Salmon	54.5	50.5	41.6	18.8	23.8	62,635.42	27.54	9.83	13,103.64	5.76		66.18%	67.30%
Chinook Salmon	47.5	47.5	30.7	22.8	19.8	41,207.58	18.12	6.47	2,093.88	0.92		37.34%	39.37%
Pink Salmon	8.9	6.9	5.0	4.0	1.0	2,594.61	1.14	0.41	968.14	0.43		109.79%	109.24%
Sockeye Salmon	67.3	59.4	50.5	21.8	33.7	132,219.37	58.14	20.75	27,603.21	12.14		38.81%	38.62%
Landlocked Salmon	5.9	4.0	4.0	3.0	3.0	4,457.94	1.96	0.70	2,971.96	1.31		125.05%	125.81%
Unknown Salmon	5.0	2.0	2.0	3.0	0.0	298.10	0.13	0.05	90.06	0.04		152.87%	152.14%
Non-Salmon Fish	81.2	67.3	61.4	47.5	36.6	103,593.08	45.56	16.26				29.87%	32.48%
Pike	1.0	1.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Sturgeon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Cod	3.0	0.0	0.0	3.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Pacific Tomcod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Pacific Cod (Gray)	2.0	0.0	0.0	2.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Unknown Cod	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Sablefish (Black Cod)	4.0	2.0	2.0	2.0	1.0	279.18	0.12	0.04	90.06	0.04		136.45%	138.09%
Greenling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Kelp Greenling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Lingcod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Unknown Greenling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Flounder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Unknown Flounder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Sole	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Sole, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Hallbut	72.3	46.5	42.6	40.6	27.7	84,295.60	37.07	13.23	5,177.86	2.28		33.41%	35.94%
Herring	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00		0.00%	0.00%
Herring Roe	2.0	0.0	0.0	2.0	0.0	0.00	0.00	0.00	0.00 gal	0.00		0.00%	0.00%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00		0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00		0.00%	0.00%
Rockfish	5.9	3.0	3.0	3.0	1.0	1,767.42	0.78	0.28	878.08	0.39		137.59%	125.92%
Black Rockfish (black bass)	3.0	2.0	2.0	1.0	1.0	1,046.94	0.46	0.16	697.96	0.31		160.48%	161.62%
Red Rockfish	4.0	2.0	2.0	2.0	0.0	720.48	0.32	0.11	180.12	0.08		152.87%	154.76%
Unknown Rockfish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%
Sea Bass	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00		0.00%	0.00%

Table VI-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1993

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Alt	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	
Sculpin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Irish Lord	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Unknown Sculpin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Smelt	3.0	2.0	1.0	3.0	1.0	292.69	0.13	0.05	90.06 gal	0.04	193.94%	192.68%	
Eulachon (Hooligan, Candlefish)	2.0	2.0	1.0	2.0	1.0	292.69	0.13	0.05	0.00	0.00	0.00%	0.00%	
Unknown Smelt	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Wolf Eel (Wolffish)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Shark	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Walleye Pollock (Whiting)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Skates	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Graying	1.0	1.0	1.0	0.0	1.0	315.21	0.14	0.05	450.30	0.20	193.94%	194.75%	
Sheefish	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Whitefish	1.0	1.0	1.0	0.0	0.0	157.60	0.07	0.02	90.06	0.04	193.94%	194.75%	
Unknown Whitefish	1.0	1.0	1.0	0.0	0.0	157.60	0.07	0.02	90.06	0.04	193.94%	194.75%	
Trout and Char	38.6	42.6	34.7	8.9	11.9	16,485.37	7.25	2.59	11,775.27	5.18	61.51%	62.06%	
Char	19.8	20.8	19.8	3.0	4.0	5,831.35	2.56	0.92	4,165.25	1.83	62.19%	63.20%	
Arctic Char	1.0	1.0	1.0	0.0	0.0	63.04	0.03	0.01	45.03	0.02	193.94%	194.06%	
Dolly Varden	17.8	17.8	17.8	3.0	4.0	4,948.76	2.18	0.78	3,534.83	1.55	60.76%	62.37%	
Lake Trout	5.0	5.0	4.0	1.0	0.0	819.54	0.36	0.13	585.39	0.26	150.92%	149.91%	
Trout	31.7	33.7	26.7	6.9	10.9	10,654.03	4.69	1.67	7,610.02	3.35	74.49%	74.74%	
Rainbow Trout	28.7	30.7	25.7	5.0	9.9	10,149.70	4.46	1.59	7,249.78	3.19	77.61%	77.85%	
Steelhead	6.9	6.9	5.9	1.0	3.0	472.81	0.21	0.07	337.72	0.15	82.97%	83.25%	
Unknown Trout	2.0	2.0	1.0	1.0	0.0	31.52	0.01	0.00	22.51	0.01	193.94%	193.37%	
Game	62.4	30.7	13.9	56.4	17.8	107,913.68	47.46	16.94	562.87	0.25	58.76%	67.19%	
Big Game	61.4	28.7	11.9	56.4	16.8	106,416.45	46.80	16.70	427.78	0.19	66.03%	68.10%	
Bison	1.0	0.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Black Bear	7.9	5.9	1.0	6.9	0.0	1,305.86	0.57	0.20	45.03	0.02	193.94%	193.37%	
Brown Bear	1.0	1.0	0.0	1.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Caribou	26.7	5.9	4.0	23.8	3.0	13,508.91	5.94	2.12	90.06	0.04	95.51%	96.80%	
Deer	11.9	4.0	3.0	9.9	4.0	4,863.21	2.14	0.76	112.57	0.05	127.83%	127.17%	
Elk	4.0	0.0	0.0	4.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Goat	1.0	1.0	1.0	0.0	1.0	1,632.33	0.72	0.26	22.51	0.01	193.94%	194.75%	
Moose	51.5	25.7	5.9	44.6	12.9	85,106.14	37.43	13.36	157.60	0.07	81.25%	79.63%	
Sheep, Dall	2.0	0.0	0.0	2.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Small Game/Furbearer	3.0	7.9	2.0	1.0	1.0	90.06	0.04	0.01	112.57	0.05	139.21%	194.06%	
Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	

Table VI-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1993

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita		
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Beaver	1.0	1.0	1.0	0.0	1.0	0.00	0.00	0.00	67.54	0.03	193.94%	0.00%		
Coyote	0.0	2.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Hare	2.0	5.9	1.0	1.0	0.0	90.06	0.04	0.01	45.03	0.02	193.94%	194.06%		
Snowshoe Hare	2.0	5.9	1.0	1.0	0.0	90.06	0.04	0.01	45.03	0.02	193.94%	194.06%		
Land Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Mink	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Muskrat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Porcupine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Weasel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Wolf	0.0	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Wolverine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Tree Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Feral Animals	3.0	1.0	1.0	2.0	0.0	1,407.18	0.62	0.22	22.51	0.01	193.94%	194.75%		
Reindeer - Feral	3.0	1.0	1.0	2.0	0.0	1,407.18	0.62	0.22	22.51	0.01	193.94%	194.75%		
Marine Mammals	1.0	1.0	1.0	0.0	0.0	3,782.50	1.66	0.59	135.09	0.06	193.94%	194.75%		
Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Unknown Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Seal	1.0	1.0	1.0	0.0	0.0	3,782.50	1.66	0.59	135.09	0.06	193.94%	194.75%		
Harbor Seal	1.0	1.0	1.0	0.0	0.0	3,782.50	1.66	0.59	135.09	0.06	193.94%	194.75%		
Unknown Seal	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Steller Sea Lion	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Sea Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Birds and Eggs	25.7	25.7	23.8	3.0	9.9	5,982.20	2.63	0.94	8,420.55	3.70	47.97%	51.43%		
Birds	25.7	25.7	23.8	3.0	9.9	5,982.20	2.63	0.94	8,420.55	3.70	47.97%	51.43%		
Upland Game Birds	21.8	21.8	20.8	1.0	7.9	4,397.15	1.93	0.69	6,281.64	2.76	51.31%	53.73%		
Grouse	18.8	19.8	18.8	0.0	7.9	3,577.61	1.57	0.56	5,110.87	2.25	53.68%	55.80%		
Ptarmigan	9.9	9.9	8.9	1.0	1.0	819.54	0.36	0.13	1,170.77	0.51	91.14%	93.05%		
Migratory Birds	8.9	8.9	7.9	2.0	3.0	1,585.05	0.70	0.25	2,138.91	0.94	79.29%	78.31%		
Waterfowl	8.9	8.9	7.9	2.0	3.0	1,585.05	0.70	0.25	2,138.91	0.94	79.29%	78.31%		
Ducks	8.9	8.9	7.9	2.0	3.0	1,531.01	0.67	0.24	2,093.88	0.92	79.57%	78.93%		

Table VI-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1993

Resource Name	Percentage of Households			Pounds Harvested		Amount Harvested		95% Conf Limit (+/-)				
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Elder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elder, Small	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Spectacled Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elder, Large	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
King Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elder, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, White-winged	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Black	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Surf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harlequin	1.0	1.0	1.0	0.0	0.0	45.03	0.02	0.01	90.06	0.04	193.94%	193.37%
Goldeneye	1.0	1.0	1.0	0.0	1.0	18.01	0.01	0.00	22.51	0.01	193.94%	193.37%
Bufflehead	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Merganser	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scaup	1.0	1.0	1.0	0.0	0.0	121.58	0.05	0.02	135.09	0.06	193.94%	194.75%
Mallard	6.9	8.9	5.9	1.0	2.0	697.96	0.31	0.11	697.96	0.31	93.99%	95.02%
Pintail	5.9	5.9	5.9	0.0	0.0	342.23	0.15	0.05	427.78	0.19	86.70%	88.74%
Wigeon	3.0	3.0	3.0	0.0	0.0	126.08	0.06	0.02	180.12	0.08	112.62%	113.42%
Teal	3.0	3.0	3.0	0.0	0.0	155.35	0.07	0.02	517.84	0.23	123.32%	124.59%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canvasback	1.0	1.0	1.0	0.0	0.0	24.77	0.01	0.00	22.51	0.01	193.94%	194.75%
Ducks, Unknown	1.0	0.0	0.0	1.0	1.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese	3.0	2.0	2.0	1.0	2.0	54.04	0.02	0.01	45.03	0.02	136.45%	137.60%
Brant	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	1.0	1.0	1.0	0.0	0.0	27.02	0.01	0.00	22.51	0.01	193.94%	194.75%
Canada Geese, Lesser	1.0	1.0	1.0	0.0	0.0	27.02	0.01	0.00	22.51	0.01	193.94%	194.75%
Canada Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese, Unknown	2.0	1.0	1.0	1.0	2.0	27.02	0.01	0.00	22.51	0.01	193.94%	194.75%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VI-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1993

Resource Name	Percentage of Households			Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)			
	Use	Att	Harv	Recv	Give	Total	Mean	HH	Total	Mean	HH	Harvest	Percapita
Sandhill Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffins	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gull Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Waterfowl Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Duck Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Duck Eggs, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Maine Invertebrates	54.5	37.6	36.6	33.7	23.8	32,374.10	14.24	5.08				39.39%	42.14%
Abalone	1.0	1.0	1.0	0.0	1.0	28.14	0.01	0.00	225.15	0.10	0.00	193.94%	194.06%
Clams	45.5	36.6	35.6	18.8	19.8	28,775.11	12.65	4.52	9,591.70 gal	4.22	0.00	40.34%	42.85%
Butter Clams	11.9	5.0	5.0	7.9	0.0	878.08	0.39	0.14	292.69 gal	0.13	0.00	107.42%	108.40%
Razor Clams	40.6	33.7	32.7	11.9	17.8	26,411.05	11.61	4.15	8,803.68 gal	3.87	0.00	40.68%	43.07%
Pacific Littleneck Clams (Steamers)	7.9	5.9	5.9	3.0	2.0	1,418.44	0.62	0.22	472.81 gal	0.21	0.00	87.38%	89.52%
Softshell Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Pinkneck Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Horse Clams (Gaper)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Unknown Clams	1.0	1.0	1.0	0.0	1.0	67.54	0.03	0.01	22.51 gal	0.01	0.00	193.94%	193.37%
Cockles	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Scallops	5.9	1.0	1.0	5.0	1.0	337.72	0.15	0.05	337.72 gal	0.15	0.00	193.94%	194.06%
Mussels	5.0	4.0	4.0	1.0	2.0	168.86	0.07	0.03	112.57 gal	0.05	0.00	124.82%	125.97%
Crabs	18.8	5.0	5.0	15.8	5.0	1,893.50	0.83	0.30	1,846.22	0.81	0.00	117.88%	111.76%
Dungeness Crab	12.9	3.0	3.0	10.9	2.0	898.34	0.40	0.14	1,283.35	0.56	0.00	144.95%	146.24%
King Crab	7.9	1.0	1.0	6.9	1.0	310.70	0.14	0.05	135.09	0.06	0.00	193.94%	194.75%
King Crab, Unknown	7.9	1.0	1.0	6.9	1.0	310.70	0.14	0.05	135.09	0.06	0.00	193.94%	194.75%
Tanner Crab	4.0	2.0	2.0	3.0	2.0	684.45	0.30	0.11	427.78	0.19	0.00	136.64%	138.25%

Table VI-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Kenai, 1993

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give		Total	Mean HH	Percapita	Total	Mean HH	Percapita	Harvest	Percapita
Tanner Crab, Unknown	4.0	2.0	2.0	3.0	2.0		684.45	0.30	0.11	427.78	0.19	0.11	136.64%	138.25%
Unknown Crabs	1.0	0.0	0.0	1.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Chitons (bidarkis)	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Chitons (large)	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Chitons (small)	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Octopus	1.0	0.0	0.0	1.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sea Urchin	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Shrimp	5.9	3.0	3.0	5.0	2.0		1,170.77	0.51	0.18	585.39 gal	0.26	0.18	133.96%	135.43%
Snails	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Whelk	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Limpets	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Oyster	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Plants and Berries	51.5	41.6	41.6	15.8	16.8		33,282.58	14.64	5.22	8,320.64 gal	3.66	5.22	126.15%	126.95%
Berries	48.5	37.6	37.6	13.9	14.9		21,186.48	9.32	3.33	5,296.62 gal	2.33	3.33	100.29%	101.09%
Plants/Greens/Mushrooms	15.8	15.8	15.8	2.0	4.0		12,096.10	5.32	1.90	3,024.03 gal	1.33	1.90	173.20%	173.99%
Seaweed/Kelp (Food)	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Bull Kelp	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Fertilizer	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Vegetative Fertilizer	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Seaweed/Kelp (Non-food)	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00 gal	0.00	0.00	0.00%	0.00%
Wood	23.8	21.8	21.8	2.0	8.9		0.00	0.00	0.00	1,294.60 cird	0.57	0.00	60.63%	0.00%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-36. Estimated Amount of Resources Removed From Commercial Harvest, Kenai, 1993

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		24,012.54	6.27	4.50
Fish		24,012.54	6.85	4.50
Salmon	4,345.37	20,860.46	8.45	3.91
Chum Salmon	112.57	624.79	18.52	0.12
Coho Salmon	3,940.10	18,833.67	30.07	3.53
Sockeye Salmon	292.69	1,402.00	1.06	0.26
Non-Salmon Fish		3,152.08	3.04	0.59
Halibut	193.62	3,152.08	3.74	0.59

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-37. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Kenai, 1993

Resource	Percent Base	Subsistence Methods												Removed from Commercial Catch	Rod and Reel	Ice Fish	Any Method					
		Selnet	Floating Net	Dip Net	Pots	Other	Subsistence Gear		Commercial Catch	Rod and Reel	Ice Fish	Any Method										
		No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.	No. Lbs.					
Chum Salmon	total	1.09	1.14	0.81	0.74	18.41	16.95	0.14	0.09	4.37	4.56	24.82	23.49	9.16	8.45	65.07	67.78	0.95	0.27			
	gear type	86.96	88.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.82	4.31	2.59	3.00	0.15	0.15	0.00	0.00			
	resource	74.07	74.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.07	74.07	18.52	18.52	7.41	7.41	0.00	0.00			
	total	0.95	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	1.01	0.24	0.25	0.09	0.10	0.00	0.00		1.28	1.37
Coho Salmon	total	13.04	11.44	0.00	0.00	6.96	6.95	0.00	0.00	0.00	0.00	5.74	5.57	90.67	90.28	27.50	24.26	0.00	0.00			
	gear type	0.52	0.52	0.00	0.00	4.64	4.64	0.00	0.00	0.00	0.00	5.15	5.15	30.07	30.07	64.78	64.78	0.00	0.00			
	resource	0.14	0.13	0.00	0.00	1.28	1.18	0.00	0.00	0.00	0.00	1.42	1.31	8.31	7.63	17.89	16.44	0.00	0.00			
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.35	15.74	0.76	3.06	0.00	0.00	6.49	23.58	0.00	0.00			
Chinook Salmon	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.30	4.30	4.30	4.30	0.00	0.00	95.70	95.70	0.00	0.00			
	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.72	0.19	0.72	0.00	0.00	4.22	15.98	0.00	0.00			
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.14	1.55	0.00	0.00			
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00			
Pink Salmon	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	1.05	0.00	0.00			
	gear type	0.00	0.00	0.00	0.00	93.04	93.05	0.00	0.00	95.65	84.26	89.10	86.88	6.74	6.72	54.49	48.16	0.00	0.00			
	resource	0.00	0.00	1.39	1.39	29.45	29.45	0.00	0.00	7.18	7.18	38.01	38.01	1.06	1.06	60.93	60.93	0.00	0.00			
	total	0.00	0.00	0.81	0.74	17.13	15.78	0.00	0.00	4.18	3.85	22.12	20.36	0.62	0.57	35.45	32.64	0.00	0.00			
Sockeye Salmon	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.17	2.26	100.00	100.00			
	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	84.85	84.85	15.15	15.15			
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.32	1.53	0.95	0.27			
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.04	0.00	0.00			
Landlocked Salm	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	25.00	0.00	0.00			
	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.03	0.00	0.00			
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.09	0.00	0.00	0.14	0.09	0.00	0.00	0.00	0.00	0.00	0.00			
Unknown Salmon	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.39	0.00	0.00	0.00	0.00	0.00	0.00			
	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.00	75.00	0.00	0.00	0.00	0.00	0.00	0.00			
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.09	0.00	0.00	0.00	0.00	0.00	0.00			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-38. Estimated Salmon Harvest by Gear Type and Species, Kenai, 1993

Species	Harvest Units	Subsistence Methods																				Removed from Commercial Catch		Rod and Reel		Icefish		Any Method															
		Setnet										Floating Net										Dip Net		Pots		Other		Subsistence Gear Any Method		Total	HH Mean	Total	HH Mean										
		Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean																				
Salmon	no.	517.84	0.23	382.75	0.17	8,735.76	3.84	67.54	0.03	2,071.37	0.91	11,775.27	5.18	4,345.37	1.91	30,867.86	13.57	450.30	0.20	47,438.79	20.86	246,786.86	108.53	2,822.01	1.24	1,833.38	0.81	41,838.22	18.40	223.57	0.10	11,262.83	4.95	57,980.02	25.50	20,860.46	9.17	167,270.94	73.56	675.45	0.30	246,786.86	108.53
Chum	no.	450.30	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	450.30	0.20	112.57	0.05	45.03	0.02	0.00	0.00	607.90	0.27	607.90	0.27	2,499.15	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,373.85	1.48	
Coho	no.	67.54	0.03	0.00	0.00	607.90	0.27	0.00	0.00	0.00	0.00	675.45	0.30	3,940.10	1.73	8,488.10	3.73	0.00	0.00	13,103.64	5.76	13,103.64	5.76	322.86	0.14	0.00	0.00	2,905.77	1.28	0.00	0.00	0.00	0.00	3,228.63	1.42	18,833.67	8.28	40,573.11	17.84	0.00	0.00	62,635.42	27.54
Chinook	no.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.06	0.04	90.06	0.04	0.00	0.00	2,003.82	0.88	0.00	0.00	2,093.88	0.92	2,093.88	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41,207.58	18.12	
Pink	no.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	968.14	0.43	0.00	0.00	968.14	0.43	968.14	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,594.61	1.14	
Sockeye	no.	0.00	0.00	382.75	0.17	8,127.86	3.57	0.00	0.00	1,981.31	0.87	10,491.92	4.61	292.69	0.13	16,818.59	7.40	0.00	0.00	27,603.21	12.14	27,603.21	12.14	0.00	0.00	1,833.38	0.81	38,932.46	17.12	0.00	0.00	9,480.46	4.17	50,256.30	22.10	1,402.00	0.62	80,561.07	35.43	0.00	0.00	132,219.37	58.14
Landlocked	no.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,521.66	1.11	450.30	0.20	2,971.96	1.31	2,971.96	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,457.94	1.96
Unknown	no.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.54	0.03	0.00	0.00	22.51	0.01	0.00	0.00	90.06	0.04	90.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	298.10	0.13

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-39. Percentage of Households Harvesting Salmon by Gear Type and Species, Kenai, 1993

Resource	Subsistence Methods										Removed from Commercial Catch	Rod and Reel	Icefish	Any Method
	Setnet	Floating Net	Dip Net	Pots	Other	Subsistence Gear	Any	Commercial Catch	Rod and Reel	Icefish				
Salmon	1.98	1.98	12.87	0.99	0.99	16.83	16.83	3.96	59.41	0.99	66.34			
Chum Salmon	0.99	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.99	0.00	2.97			
Coho Salmon	0.99	0.00	1.98	0.00	0.00	1.98	1.98	2.97	38.61	0.00	41.58			
Chinook Salmon	0.00	0.00	0.00	0.00	0.99	0.99	0.99	0.00	29.70	0.00	30.69			
Pink Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.95	0.00	4.95			
Sockeye Salmon	0.00	1.98	11.88	0.00	0.99	14.85	14.85	2.97	41.58	0.00	50.50			
Landlocked Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.97	0.99	3.96			
Unknown Salmon	0.00	0.00	0.00	0.99	0.00	0.99	0.99	0.00	0.99	0.00	1.98			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-40. Estimated Harvest of Fish Other than Salmon by Gear Type, Kenai, 1993

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	292.69	0.13	3,152.08	1.39	100,085.27	44.01	63.04	0.03	103,593.08	45.56
Grayling	0.00	0.00	0.00	0.00	315.21	0.14	0.00	0.00	315.21	0.14
Pike	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sheefish	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Whitefish	0.00	0.00	0.00	0.00	157.60	0.07	0.00	0.00	157.60	0.07
Sturgeon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lingcod	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pacific Tom Cod	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pacific Cod (Gray)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sablefish (Black Cod)	0.00	0.00	0.00	0.00	279.18	0.12	0.00	0.00	279.18	0.12
Unknown Cod	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Flounder	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sole, Unknown	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Halibut	0.00	0.00	3,152.08	1.39	81,143.52	35.68	0.00	0.00	84,295.60	37.07
Herring	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Herring Roe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Spawn on Kelp	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sac Roe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Black Rockfish (black bass)	0.00	0.00	0.00	0.00	1,046.94	0.46	0.00	0.00	1,046.94	0.46
Red Rockfish	0.00	0.00	0.00	0.00	720.48	0.32	0.00	0.00	720.48	0.32
Sea Bass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Rockfish	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Irish Lord	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Sculpin	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Eulachon (Hooligan, Candlefish)	292.69	0.13	0.00	0.00	0.00	0.00	0.00	0.00	292.69	0.13
Unknown Smelt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kelp Greenling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Greenling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wolf Eel (Wolfish)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Shark	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Walleye Pollock (Whiting)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Skates	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arctic Char	0.00	0.00	0.00	0.00	63.04	0.03	0.00	0.00	63.04	0.03
Dolly Varden	0.00	0.00	0.00	0.00	4,948.76	2.18	0.00	0.00	4,948.76	2.18
Lake Trout	0.00	0.00	0.00	0.00	756.50	0.33	63.04	0.03	819.54	0.36
Rainbow Trout	0.00	0.00	0.00	0.00	10,149.70	4.46	0.00	0.00	10,149.70	4.46
Steelhead	0.00	0.00	0.00	0.00	472.81	0.21	0.00	0.00	472.81	0.21
Unknown Trout	0.00	0.00	0.00	0.00	31.52	0.01	0.00	0.00	31.52	0.01

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-41. Percentage of Fish Other Than Salmon Harvested by Gear Type, Kenai, 1993

Resource	Percent Base	Subsistence Gear Lbs.	Removed from Commercial Catch Lbs.	Rod and Reel Lbs.	Ice Fishing Lbs.
Non-Salmon Fish	resource	0.28	3.04	96.61	0.06
Graying	resource	0.00	0.00	100.00	0.00
Pike	resource	0.00	0.00	0.00	0.00
Sheefish	resource	0.00	0.00	0.00	0.00
Unknown Whitefish	resource	0.00	0.00	100.00	0.00
Sturgeon	resource	0.00	0.00	0.00	0.00
Lingcod	resource	0.00	0.00	0.00	0.00
Pacific Tom Cod	resource	0.00	0.00	0.00	0.00
Pacific Cod (Gray)	resource	0.00	0.00	0.00	0.00
Sablefish (Black Cod)	resource	0.00	0.00	100.00	0.00
Unknown Cod	resource	0.00	0.00	0.00	0.00
Unknown Flounder	resource	0.00	0.00	0.00	0.00
Sole, Unknown	resource	0.00	0.00	0.00	0.00
Halibut	resource	0.00	3.74	96.26	0.00
Herring	resource	0.00	0.00	0.00	0.00
Herring Roe	resource	0.00	0.00	0.00	0.00
Spawn on Kelp	resource	0.00	0.00	0.00	0.00
Sac Roe	resource	0.00	0.00	0.00	0.00
Black Rockfish (black bass)	resource	0.00	0.00	100.00	0.00
Red Rockfish	resource	0.00	0.00	100.00	0.00
Sea Bass	resource	0.00	0.00	0.00	0.00
Unknown Rockfish	resource	0.00	0.00	0.00	0.00
Irish Lord	resource	0.00	0.00	0.00	0.00
Unknown Sculpin	resource	0.00	0.00	0.00	0.00
Eulachon (Hooligan, Candlefish)	resource	100.00	0.00	0.00	0.00
Unknown Smelt	resource	0.00	0.00	0.00	0.00
Kelp Greenling	resource	0.00	0.00	0.00	0.00
Unknown Greenling	resource	0.00	0.00	0.00	0.00
Wolf Eel (Wolffish)	resource	0.00	0.00	0.00	0.00
Shark	resource	0.00	0.00	0.00	0.00
Walleye Pollock (Whiting)	resource	0.00	0.00	0.00	0.00
Skates	resource	0.00	0.00	0.00	0.00
Arctic Char	resource	0.00	0.00	100.00	0.00
Dolly Varden	resource	0.00	0.00	100.00	0.00
Lake Trout	resource	0.00	0.00	92.31	7.69
Rainbow Trout	resource	0.00	0.00	100.00	0.00
Steelhead	resource	0.00	0.00	100.00	0.00
Unknown Trout	resource	0.00	0.00	100.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VI-42. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Kenai, 1993

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	0.99	1.98	60.40	0.99	61.39
Grayling	0.00	0.00	0.99	0.00	0.99
Unknown Whitefish	0.00	0.00	0.99	0.00	0.99
Sablefish (Black Cod)	0.00	0.00	1.98	0.00	1.98
Halibut	0.00	1.98	40.59	0.00	42.57
Black Rockfish (black bass)	0.00	0.00	1.98	0.00	1.98
Red Rockfish	0.00	0.00	1.98	0.00	1.98
Eulachon (Hooligan, Candle)	0.99	0.00	0.00	0.00	0.99
Arctic Char	0.00	0.00	0.99	0.00	0.99
Dolly Varden	0.00	0.00	17.82	0.00	17.82
Lake Trout	0.00	0.00	2.97	0.99	3.96
Rainbow Trout	0.00	0.00	25.74	0.00	25.74
Steelhead	0.00	0.00	5.94	0.00	5.94
Unknown Trout	0.00	0.00	0.99	0.00	0.99

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Figure VI-14. Composition of Harvests by Resource Category, Kenai, 1982, 1991, 1992, and 1993

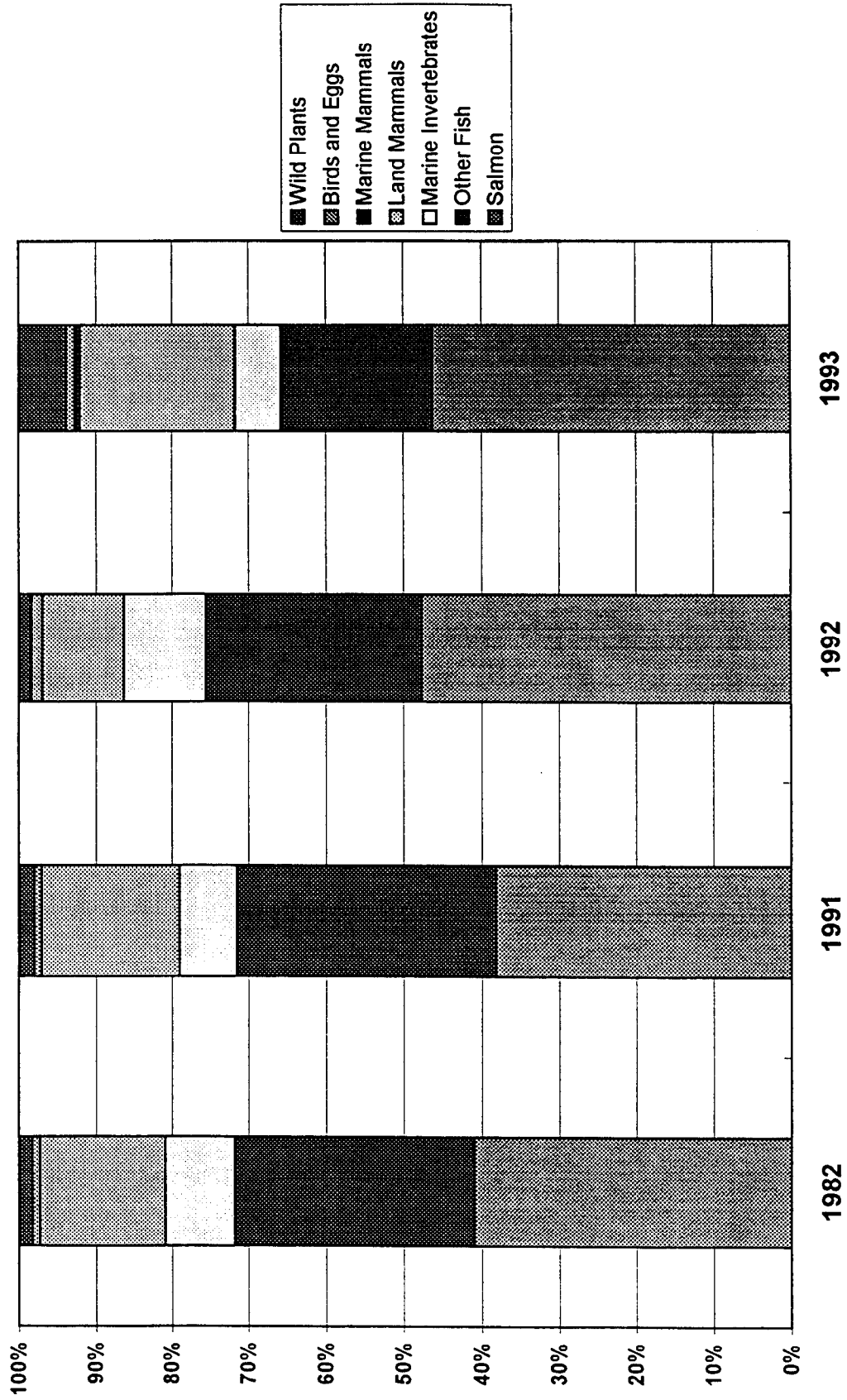


Table VI-43. Uses of Wild Foods, Kenai

	STUDY YEAR		
	1991	1992	1993
ANY WILD FOODS EATEN YESTERDAY?			
No Count Col %	80 80.0%	30 81.1%	78 77.2%
Yes Count Col %	20 20.0%	7 18.9%	23 22.8%
WILD FOODS AS MAIN PART OF A MEAL			
No Response Count Col %	1 1.0%		
No Count Col %	83 83.0%	31 83.8%	80 79.2%
Yes Count Col %	16 16.0%	6 16.2%	21 20.8%
HARVEST OF WILD FOODS BY RESPONDENT			
No Response Count Col %	1 1.0%		
No Count Col %	91 91.0%	36 97.3%	94 93.1%
Yes Count Col %	8 8.0%	1 2.7%	7 6.9%
WF HARVESTED BY RELATIVE IN HH			
No Response Count Col %	1 1.0%		
No Count Col %	97 97.0%	35 94.6%	97 96.0%
Yes Count	2	2	4

(continued)

Table VI-43. Uses of Wild Foods, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %	2.0%	5.4%	4.0%
WF HARVESTED BY RELATIVE IN ANOTHER HH			
No Response Count Col %	1 1.0%		
No Count Col %	98 98.0%	37 100.0%	99 98.0%
Yes Count Col %	1 1.0%		2 2.0%
WF HARVESTED BY RELATIVE IN ANOTHER COMM.			
No Response Count Col %	1 1.0%		
No Count Col %	98 98.0%	36 97.3%	98 97.0%
Yes Count Col %	1 1.0%	1 2.7%	3 3.0%
WF HARVESTED BY FRIEND IN HH			
No Response Count Col %	1 1.0%		
No Count Col %	99 99.0%	37 100.0%	101 100.0%
WF HARVESTED BY FRIEND IN COMMUNITY			
No Response Count Col %	1 1.0%		
No Count Col %	92 92.0%	34 91.9%	92 91.1%

(continued)

Table VI-43. Uses of Wild Foods, Kenai

	STUDY YEAR		
	1991	1992	1993
Yes Count Col %	7 7.0%	3 8.1%	9 8.9%
WF HARVESTED BY FRIEND IN ANOTHER COMM. No Response Count Col %	1 1.0%		
No Count Col %	98 98.0%	37 100.0%	97 96.0%
Yes Count Col %	1 1.0%		4 4.0%

Table VI-44. Safety of Using Subsistence Foods, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %		86.5%	71.3%
IS EATING CLAMS IMPORTANT? Yes Count Col %	1 100.0%		
ARE CLAMS SAFE FOR CHILDREN TO EAT? Do Not Know Count Col %	9 11.8%	2 6.7%	5 6.9%
Not Safe Count Col %	4 5.3%	2 6.7%	2 2.8%
Safe Count Col %	63 82.9%	26 86.7%	65 90.3%
WHY CLAMS NOT SAFE TO EAT Do Not Know Count Col %	1 25.0%		
Fearful of PSP poisoning Count Col %		1 50.0%	
Oil pollution or fear of contamination Count Col %	1 25.0%	1 50.0%	
Pollution from non-oil spill source Count Col %	2 50.0%		
Unsure about safety Count Col %			1 50.0%
Got sick after eating Count Col %			1 50.0%
DO YOU EAT SEAL OIL OR SEAL MEAT?			

(continued)

Table VI-44. Safety of Using Subsistence Foods, Kenai

	STUDY YEAR		
	1991	1992	1993
DO YOU EAT BIDARKIES? No Response Count Col %			1 1.0%
No Count Col %		36 97.3%	99 98.0%
Yes Count Col %		1 2.7%	1 1.0%
IS EATING BIDARKIES IMPORTANT TO YOU? No Count Col %	99 99.0%		
Yes Count Col %	1 1.0%		
BIDARKIE HARVEST AREAS SAFE? No Response Count Col %			1 50.0%
Do Not Know Count Col %			1 50.0%
Not Safe Count Col %	1 100.0%		
Safe Count Col %		1 100.0%	
DO YOU EAT CLAMS? No Count Col %		5 13.5%	29 28.7%
Yes Count		32	72

(continued)

Table VI-44. Safety of Using Subsistence Foods, Kenai

	STUDY YEAR		
	1991	1992	1993
No Count Col %		36 97.3%	101 100.0%
Yes Count Col %		1 2.7%	
IS EATING SEAL MEAT OR OIL IMPORTANT?			
No Count Col %	96 96.0%		
Yes Count Col %	4 4.0%		
ARE SEALS FROM HARVEST AREAS SAFE TO EAT?			
No Response Count Col %	2 66.7%		
Safe Count Col %	1 33.3%	1 100.0%	

Table VI-45. Resource Population Statuses, Kenai

	STUDY YEAR		
	1991	1992	1993
Same Count Col %	41 45.1%	18 60.0%	39 52.0%
	8 8.8%	3 10.0%	5 6.7%
COMPARED TO 1988: HARBOR SEAL			
Do Not Know Count Col %	58 64.4%	17 56.7%	45 60.0%
Less Count Col %	8 8.9%	9 30.0%	10 13.3%
Same Count Col %	22 24.4%	4 13.3%	20 26.7%
More Count Col %	2 2.2%		
COMPARED TO 1988: SEA LIONS			
Do Not Know Count Col %	64 71.9%	19 63.3%	46 62.2%
Less Count Col %	6 6.7%	5 16.7%	9 12.2%
Same Count Col %	19 21.3%	6 20.0%	19 25.7%
COMPARED TO 1988: SEA DUCKS			
Do Not Know Count Col %	46 50.5%	11 36.7%	37 49.3%
Less Count Col %	15 16.5%	11 36.7%	19 25.3%

(continued)

Table VI-45. Resource Population Statuses, Kenai

	STUDY YEAR		
	1991	1992	1993
COMPARED TO 1988: DEER			
Do Not Know Count Col %	2 66.7%	1 100.0%	15 46.9%
Less Count Col %			3 9.4%
Same Count Col %	1 33.3%		14 43.8%
COMPARED TO 1988: MOOSE			
No Response Count Col %		1 3.3%	
Do Not Know Count Col %		1 3.3%	6 8.0%
Less Count Col %		8 26.7%	8 10.7%
Same Count Col %		19 63.3%	46 61.3%
More Count Col %		1 3.3%	15 20.0%
COMPARED TO 1988: BEAR			
No Response Count Col %		1 3.3%	
Do Not Know Count Col %	39 42.9%	8 26.7%	27 36.0%
Less Count Col %	3 3.3%		4 5.3%

(continued)

Table VI-45. Resource Population Statuses, Kenai

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %	25 27.5%	6 20.0%	14 18.7%
Less Count Col %	25 27.5%	4 13.3%	20 26.7%
Same Count Col %	34 37.4%	19 63.3%	34 45.3%
More Count Col %	4 4.4%	1 3.3%	7 9.3%
COMPARED TO 1988: ROCKFISH			
No Response Count Col %		1 3.3%	
Do Not Know Count Col %	58 64.4%	15 50.0%	40 53.3%
Less Count Col %	6 6.7%	2 6.7%	12 16.0%
Same Count Col %	24 26.7%	12 40.0%	21 28.0%
More Count Col %	2 2.2%		2 2.7%
COMPARED TO 1988: DOLLY VARDEN			
Do Not Know Count Col %	43 47.8%	9 30.0%	24 32.0%
Less Count Col %	13 14.4%	5 16.7%	7 9.3%

(continued)

Table VI-45. Resource Population Statuses, Kenai

	STUDY YEAR		
	1991	1992	1993
Same Count Col %	26 28.6%	8 26.7%	18 24.0%
More Count Col %	4 4.4%		1 1.3%
COMPARED TO 1988: COMMON MURRE			
Do Not Know Count Col %	59 66.3%	16 53.3%	43 57.3%
Less Count Col %	9 10.1%	7 23.3%	14 18.7%
Same Count Col %	20 22.5%	7 23.3%	18 24.0%
More Count Col %	1 1.1%		
COMPARED TO 1988: SALMON			
Do Not Know Count Col %	10 11.0%	2 6.7%	12 16.0%
Less Count Col %	50 54.9%	11 36.7%	31 41.3%
Same Count Col %	23 25.3%	15 50.0%	29 38.7%
More Count Col %	8 8.8%	2 6.7%	3 4.0%
COMPARED TO 1988: HALIBUT			
No Response Count Col %	3 3.3%		

(continued)

Table VI-45. Resource Population Statuses, Kenai

	STUDY YEAR		
	1991	1992	1993
Same Count Col %	32 35.6%	15 50.0%	40 53.3%
More Count Col %	2 2.2%	1 3.3%	4 5.3%
COMPARED TO 1988: CLAMS Do Not Know Count Col %	33 36.3%	5 16.7%	22 29.3%
Less Count Col %	13 14.3%	6 20.0%	15 20.0%
Same Count Col %	43 47.3%	18 60.0%	34 45.3%
More Count Col %	2 2.2%	1 3.3%	4 5.3%
COMPARED TO 1988: BIDARKIES Do Not Know Count Col %	80 89.9%	22 73.3%	55 73.3%
Less Count Col %	2 2.2%		4 5.3%
Same Count Col %	6 6.7%	8 26.7%	16 21.3%
More Count Col %	1 1.1%		
COMPARED TO 1988: SEA URCHINS Do Not Know Count Col %	70 78.7%	16 53.3%	51 68.0%

(continued)

Table VI-45. Resource Population Statuses, Kenai

	STUDY YEAR		
	1991	1992	1993
Less Count Col %	5 5.6%	3 10.0%	4 5.3%
Same Count Col %	12 13.5%	11 36.7%	20 26.7%
More Count Col %	2 2.2%		
COMPARED TO 1988: OCTOPUS Do Not Know Count Col %	72 80.0%	21 70.0%	51 68.0%
Less Count Col %	4 4.4%		6 8.0%
Same Count Col %	13 14.4%	9 30.0%	18 24.0%
More Count Col %	1 1.1%		

Table VI-46. Childrens Participation in Subsistence, Kenai

	STUDY YEAR		
	1991	1992	1993
Were not allowed to commercial fish Count Col %			3 60.0%
Less harvesting activity Count Col %	2 25.0%		1 20.0%

Table VI-46. Childrens Participation in Subsistence, Kenai

	STUDY YEAR		
	1991	1992	1993
DOES YOUR HOUSEHOLD PROCESS WILD FOODS?			
No Count Col %		4 10.8%	16 15.8%
Yes Count Col %		33 89.2%	85 84.2%
DO CHILDREN HELP YOUR HH PROCESS WILD FOODS?			
No Count Col %	82 82.0%	27 73.0%	81 80.2%
Yes Count Col %	18 18.0%	10 27.0%	20 19.8%
DID EVOS AFFECT PARTICIPATION WITH CHILDREN?			
No Count Col %	85 91.4%	33 94.3%	89 94.7%
Yes Count Col %	8 8.6%	2 5.7%	5 5.3%
WHY EVOS AFFECTED PARTICIPATION WITH CHILDREN			
No Response Count Col %	1 12.5%		
Resources were not available Count Col %	1 12.5%		
Were too busy with other affairs Count Col %	3 37.5%	1 50.0%	1 20.0%
Did not trust foods Count Col %	1 12.5%	1 50.0%	

(continued)

Table VI-47. Sharing, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %	29.1%	22.6%	13.3%
PREV. YEAR: SHARING OF LABOR			
Less			
Count	12	3	6
Col %	13.2%	8.6%	6.4%
Same			
Count	57	22	66
Col %	62.6%	62.9%	70.2%
More			
Count	22	10	22
Col %	24.2%	28.6%	23.4%
PRE-OS: SHARING OF WILD RESOURCES			
Do Not Know			
Count		1	
Col %		3.3%	
Less			
Count	22	8	10
Col %	27.5%	26.7%	12.2%
Same			
Count	46	16	55
Col %	57.5%	53.3%	67.1%
More			
Count	12	5	17
Col %	15.0%	16.7%	20.7%
PRE-OS: SHARING OF HUNT/FISH GEAR			
No Response			
Count			1
Col %			1.2%
Do Not Know			
Count		1	
Col %		3.6%	
Less			
Count	13	5	7
Col %	17.6%	17.9%	8.5%
Same			

(continued)

Table VI-47. Sharing, Kenai

	STUDY YEAR		
	1991	1992	1993
DID HOUSEHOLD SHARE?			
No			
Count	1	5	26
Col %	33.3%	13.5%	25.7%
Yes			
Count	2	32	75
Col %	66.7%	86.5%	74.3%
PREV. YEAR: SHARING OF WILD RES.			
Less			
Count	24	5	7
Col %	27.3%	13.5%	7.2%
Same			
Count	55	19	72
Col %	62.5%	51.4%	74.2%
More			
Count	9	13	18
Col %	10.2%	35.1%	18.6%
PREV. YEAR: SHARING OF HUNT/FISH GEAR			
Less			
Count	17	8	9
Col %	21.3%	23.5%	9.7%
Same			
Count	51	15	68
Col %	63.8%	44.1%	73.1%
More			
Count	12	11	16
Col %	15.0%	32.4%	17.2%
PREV. YEAR: SHARING OF MONEY			
Less			
Count	13	2	8
Col %	15.1%	6.5%	8.9%
Same			
Count	48	22	70
Col %	55.8%	71.0%	77.8%
More			
Count	25	7	12

(continued)

Table VI-47. Sharing, Kenai

	STUDY YEAR		
	1991	1992	1993
Count	51	15	61
Col %	68.9%	53.6%	74.4%
More			
Count	10	7	13
Col %	13.5%	25.0%	15.9%
PRE-OS: SHARING OF MONEY			
Do Not Know			
Count		1	
Col %		3.8%	
Less			
Count	13	3	8
Col %	16.5%	11.5%	10.1%
Same			
Count	45	12	56
Col %	57.0%	46.2%	70.9%
More			
Count	21	10	15
Col %	26.6%	38.5%	19.0%
PRE-OS: SHARING OF LABOR			
Do Not Know			
Count		2	
Col %		7.1%	
Less			
Count	13	3	6
Col %	15.5%	10.7%	7.3%
Same			
Count	58	16	56
Col %	69.0%	57.1%	68.3%
More			
Count	13	7	20
Col %	15.5%	25.0%	24.4%

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
Same Count Col %			22 21.8%
Increased Count Col %			32 31.7%
LAST 5 YRS.: ELDERS INFLUENCE: WHY No Response Count Col %			3 5.0%
Fewer elders, traditional people passed away Count Col %			1 1.7%
Elders not as active Count Col %			2 3.3%
Younger individuals playing more of a role Count Col %			4 6.7%
Elders dissatisfied, frustrated, bitter Count Col %			2 3.3%
Elders more aware of the power they hold Count Col %			12 20.0%
More voters, more involved Count Col %			3 5.0%
Elders knowledge is not appreciated or recognized Count Col %			2 3.3%
Elders knowledge is more appreciated or recognized			

(continued)

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
LAST 3 YRS.: ELDERS INFLUENCE Do Not Know Count Col %	9 9.2%		
Decreased Count Col %	7 7.1%		
Same Count Col %	26 26.5%		
Increased Count Col %	56 57.1%		
LAST 4 YRS.: ELDERS INFLUENCE No Response Count Col %		1 2.7%	
Do Not Know Count Col %		4 10.8%	
Decreased Count Col %		7 18.9%	
Same Count Col %		9 24.3%	
Increased Count Col %		16 43.2%	
LAST 5 YRS.: ELDERS INFLUENCE Do Not Know Count Col %			20 19.8%
Decreased Count Col %			27 26.7%

(continued)

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %			1.7%
Elders are not as prominent in the public eye			
Count			4
Col %			6.7%
State of Alaska withdrawal of support for senior programs			
Count			1
Col %			1.7%
More younger people moving into community			
Count			3
Col %			5.0%
Increasing number of people prefer instant gratification			
Count			1
Col %			1.7%
PRE-EVOS: ATTEND PUBLIC MEETINGS			
Do Not Know			
Count	1		
Col %	1.1%		
Never			
Count	44		
Col %	48.4%		
Sometimes			
Count	37		
Col %	40.7%		
Almost Always			
Count	9		
Col %	9.9%		
PRE-EVOS: ATTEND PUBLIC MEETINGS			
No Response			
Count	1		
Col %	2.9%		
Do Not Know			
Count			1
Col %			1.2%

(continued)

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
Count			5
Col %			8.3%
Increasing number of elders			
Count			2
Col %			3.3%
Change in the direction of the community			
Count			1
Col %			1.7%
Elders are not listened to			
Count			1
Col %			1.7%
Need for elders to be more active			
Count			1
Col %			1.7%
More active dealing with oil spill problems			
Count			1
Col %			1.7%
Seniors more active in church activities			
Count			1
Col %			1.7%
Religious community is taking over traditional values			
Count			1
Col %			1.7%
Senior citizen centers have allowed seniors to organize			
Count			6
Col %			10.0%
As politicians are replaced by younger ones			
Count			2
Col %			3.3%
Negative news has seniors afraid to go out and be involved			
Count			1

(continued)

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
3.00 Count Col %		4 10.8%	10 9.9%
4.00 Count Col %		2 5.4%	4 4.0%
5.00 Count Col %		1 2.7%	1 1.0%
6.00 Count Col %		2 5.4%	4 4.0%
7.00 Count Col %			1 1.0%
8.00 Count Col %			2 2.0%
10.00 Count Col %		2 5.4%	3 3.0%
12.00 Count Col %		1 2.7%	5 5.0%
15.00 Count Col %		2 5.4%	
18.00 Count Col %			1 1.0%
20.00 Count Col %		2 5.4%	1 1.0%
48.00 Count			1

(continued)

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
Less Count Col %		8 23.5%	24 28.2%
Same Count Col %		20 58.8%	47 55.3%
More Count Col %		5 14.7%	13 15.3%
LAST YEAR: ATTEND PUBLIC MEETINGS			
Do Not Know Count Col %	1 1.0%		
Never Count Col %	46 46.0%		
Sometimes Count Col %	45 45.0%		
Almost Always Count Col %	8 8.0%		
LAST YEAR: ATTEND PUBLIC MEETINGS			
No Response Count Col %			1 1.0%
Never Count Col %		16 43.2%	47 46.5%
1.00 Count Col %		1 2.7%	6 5.9%
2.00 Count Col %		3 8.1%	9 8.9%

(continued)

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
Count	3	2	3
Col %	3.0%	5.4%	3.0%
REGIONAL NATIVE CORPORATION			
None			
Count	1		1
Col %	33.3%		33.3%
Bering Straits Native Corp.			
Count	1		1
Col %	33.3%		33.3%
Bristol Bay Native Corp.			
Count	1		1
Col %	33.3%		33.3%
Cook Inlet Region, Inc.			
Count	1	2	1
Col %	33.3%	100.0%	33.3%
VOTE IN LAST REG. CORP. ELECTION?			
No			
Count	1	1	2
Col %	33.3%	50.0%	66.7%
Yes			
Count	3	1	1
Col %	100.0%	50.0%	33.3%
VILLAGE NATIVE CORPORATION			
None, At Large			
Count	1	1	1
Col %	100.0%	100.0%	50.0%
Salamantoff Native Association (Kenai)			
Count	1		
Col %	100.0%		
Saguyak (Clarks Point)			
Count			1
Col %			50.0%
VOTE IN LAST NATIVE VILLAGE CORP. ELECTION?			
No			
Count		1	1

(continued)

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %			1.0%
50.00			
Count			1
Col %			1.0%
52.00			
Count			2
Col %			2.0%
99.00			
Count		1	2
Col %		2.7%	2.0%
VOTE IN LAST CITY COUNCIL ELECTION?			
Do Not Know			
Count	1		
Col %	1.1%		
No			
Count	45		
Col %	47.4%		
Yes			
Count	49		
Col %	51.6%		
VOTE IN LAST STATE-WIDE ELECTION?			
Do Not Know			
Count			2
Col %			2.0%
No			
Count	34	10	25
Col %	35.1%	27.0%	24.8%
Yes			
Count	63	27	74
Col %	64.9%	73.0%	73.3%
BELONG TO NATIVE CORPORATION?			
No			
Count	97	35	98
Col %	97.0%	94.6%	97.0%
Yes			

(continued)

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %	7.1%		
Environmental awareness Count Col %	1 7.1%		1 11.1%
Ability to listen Count Col %	1 7.1%		

Table VI-48. Political Activities, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %		50.0%	50.0%
Yes Count Col %	1 100.0%	1 50.0%	1 50.0%
HAS VIEW OF LEADER CHANGED SINCE EVOS? Do Not Know Count Col %	1 1.0%		1 1.0%
No Count Col %	82 84.5%	36 97.3%	86 89.6%
Yes Count Col %	14 14.4%	1 2.7%	9 9.4%
WHY POST EVOS VIEW OF LEADERS Do Not Know Count Col %			1 11.1%
Trust Count Col %	7 50.0%		2 22.2%
Awareness/involvement Count Col %	1 7.1%	1 100.0%	4 44.4%
Level headed/reasonable Count Col %	1 7.1%		1 11.1%
Represents concerns Count Col %	2 14.3%		
Concern Count Col %	2 14.3%		
Decisive Count	1		

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Count	3		7
Col %	3.0%		6.9%
Recreational opportunities			
Count	2		3
Col %	2.0%		3.0%
Pace of Life			
Count	1	1	3
Col %	1.0%	2.7%	3.0%
Quality of Life			
Count	10	1	4
Col %	10.0%	2.7%	4.0%
Cultural Reasons			
Count	1		
Col %	1.0%		
Religious Reasons			
Count			1
Col %			1.0%
Location			
Count	3	6	2
Col %	3.0%	16.2%	2.0%
Climate			
Count		2	2
Col %		5.4%	2.0%
This is where they established their home			
Count		1	2
Col %		2.7%	2.0%
Transferred by military, employer, or social service agency			
Count		3	
Col %		8.1%	
LIVE HERE: WHERE PERSON IS FROM			
No			
Count	92	32	90
Col %	92.0%	86.5%	89.1%
Yes			

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
MAIN REASON MOVED TO COMMUNITY			
Born or reared here			
Count	4	4	12
Col %	4.0%	10.8%	11.9%
Relatives (family)			
Count	13	1	8
Col %	13.0%	2.7%	7.9%
Married a person born or reared here			
Count	3		3
Col %	3.0%		3.0%
Family has always lived here			
Count		2	
Col %		5.4%	
Friends			
Count	2	1	1
Col %	2.0%	2.7%	1.0%
Subsistence opportunities			
Count	3	2	5
Col %	3.0%	5.4%	5.0%
Employment reasons			
Count	47	13	47
Col %	47.0%	35.1%	46.5%
Educational opportunities			
Count	1		
Col %	1.0%		
Economic reasons			
Count	3		1
Col %	3.0%		1.0%
Housing/property			
Count	2		
Col %	2.0%		
Environmental qualities			
Count	2		
Col %	2.0%		
Size of the community			

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Count Col %	8 8.0%	5 13.5%	11 10.9%
LIVE HERE: RELATIVES LIVE HERE			
No Count Col %	67 67.0%	29 78.4%	65 64.4%
Yes Count Col %	33 33.0%	8 21.6%	36 35.6%
LIVE HERE: MARRIED PERSON FROM HERE			
No Count Col %	74 74.0%	31 83.8%	91 90.1%
Yes Count Col %	26 26.0%	6 16.2%	10 9.9%
LIVE HERE: ALWAYS LIVED HERE			
No Count Col %	89 89.0%	32 86.5%	91 90.1%
Yes Count Col %	11 11.0%	5 13.5%	10 9.9%
LIVE HERE: FRIENDS LIVE HERE			
No Count Col %	34 34.0%	18 48.6%	53 52.5%
Yes Count Col %	66 66.0%	19 51.4%	48 47.5%
LIVE HERE: HUNTING & FISHING HERE			
No Count Col %	31 31.0%	11 29.7%	34 33.7%
Yes Count	69	26	67

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %	69.0%	70.3%	66.3%
LIVE HERE: JOB OPPORTUNITIES HERE			
No Count Col %	44 44.0%	14 37.8%	37 36.6%
Yes Count Col %	56 56.0%	23 62.2%	64 63.4%
LIVE HERE: EDUCATIONAL OPPORTUNITIES			
No Count Col %	44 44.0%	18 48.6%	60 59.4%
Yes Count Col %	56 56.0%	19 51.4%	41 40.6%
LIVE HERE: COST OF LIVING			
No Count Col %	53 53.0%	28 75.7%	63 62.4%
Yes Count Col %	47 47.0%	9 24.3%	38 37.6%
LIVE HERE: HOUSING AVAILABLE			
No Count Col %	40 40.0%	19 51.4%	51 50.5%
Yes Count Col %	60 60.0%	18 48.6%	50 49.5%
LIVE HERE: STORES			
No Count Col %	55 55.0%	24 64.9%	59 58.4%
Yes Count Col %	45 45.0%	13 35.1%	42 41.6%

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
LIVE HERE: NECESSARY PERSONAL FREEDOMS	No	79	79
	Count	79.0%	78.4%
Col %			79
			78.2%
Yes	Count	21	8
	Col %	21.0%	21.6%
			22
			21.8%
LIVE HERE: RECREATIONAL OPPORTUNITIES	No	21	10
	Count	21.0%	27.0%
Col %			27
			73.0%
Yes	Count	79	27
	Col %	79.0%	73.0%
			80
			79.2%
LIVE HERE: OTHER SERVICES	No	15	8
	Count	15.0%	21.6%
Col %			17
			16.8%
Yes	Count	85	29
	Col %	85.0%	78.4%
			84
			83.2%
LIVE HERE: LESS CRIME	No	2	2
	Count	16.7%	16.7%
Col %			3
			10.3%
Yes	Count	8	2
	Col %	66.7%	16.7%
			9
			31.0%
LIVE HERE: LESS DRINKING/DRUGS	No	1	
	Count	8.3%	
Col %			2
			6.9%
Yes	Count		1
	Col %		8.3%
			6
			20.7%

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
LIVE HERE: MEDICAL SERVICES	No	62	24
	Count	62.0%	64.9%
Col %			57
			56.4%
Yes	Count	38	13
	Col %	38.0%	35.1%
			44
			43.6%
LIVE HERE: BEAUTY OF AREA	No	48	23
	Count	48.0%	62.2%
Col %			49
			48.5%
Yes	Count	52	14
	Col %	52.0%	37.8%
			52
			51.5%
LIVE HERE: SIZE OF COMMUNITY	No	8	5
	Count	8.0%	13.5%
Col %			12
			11.9%
Yes	Count	92	32
	Col %	92.0%	86.5%
			89
			88.1%
LIVE HERE: LESS CRIME	No	15	2
	Count	15.0%	5.4%
Col %			12
			11.9%
Yes	Count	85	35
	Col %	85.0%	94.6%
			89
			88.1%
LIVE HERE: LESS DRINKING/DRUGS	No	42	14
	Count	42.0%	37.8%
Col %			32
			31.7%
Yes	Count	58	23
	Col %	58.0%	62.2%
			69
			68.3%

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Not here by choice	1 Count 8.3%	1 Count 8.3%	1 Count 3.4%
Climate		2 Count 16.7%	4 Count 13.8%
This is where they established their home		4 Count 33.3%	7 Count 24.1%
Retirement opportunities		1 Count 8.3%	1 Count 3.4%
Income opportunities			1 Count 3.4%
More convenient			1 Count 3.4%
People are kind and generous			1 Count 3.4%
Good benefits for senior citizens			3 Count 10.3%
MAIN REASON REMAINING IN COMMUNITY			1 Count 1.0%
Born or reared here	5 Count 5.0%		1 Count 1.0%
Relatives (family)	9 Count 9.0%		11 Count 10.9%
Married a person born or reared here			

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Count	1	2	2
Col %	1.0%	5.4%	2.0%
Family has always lived here			3 Count 3.0%
Friends	6 Count 6.0%	3 Count 8.1%	2 Count 2.0%
Subsistence opportunities	10 Count 10.0%	2 Count 5.4%	8 Count 7.9%
Employment reasons	29 Count 29.0%	11 Count 29.7%	28 Count 27.7%
Educational opportunities			2 Count 2.0%
Economic reasons	1 Count 1.0%	1 Count 2.7%	2 Count 2.0%
Housing/property	1 Count 1.0%	1 Count 2.7%	2 Count 2.0%
Medical Services	1 Count 1.0%		
Environmental qualities	9 Count 9.0%	2 Count 5.4%	10 Count 9.9%
Size of the community	10 Count 10.0%	2 Count 5.4%	6 Count 5.9%
Crime levels			2 Count 2.0%

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Count			2
Col %			2.0%
POST-EVOS: CHANGE IN LIKING COMMUNITY			
Do Not Know			1
Count			1
Col %			1.2%
Less			10
Count		1	10
Col %		3.1%	11.9%
Same			64
Count	78	28	64
Col %	84.8%	87.5%	76.2%
More			9
Count	4	3	9
Col %	4.3%	9.4%	10.7%
POST-EVOS: WHY CHANGE IN LIKING COMMUNITY			
No Response			1
Count			1
Col %			7.7%
Non-specific			2
Count			2
Col %			10.5%
Oil contamination/fear of oil contamination			1
Count			1
Col %			7.7%
Animals harvest to find/hunt/fish			1
Count			1
Col %			5.3%
More stressful			1
Count			1
Col %			5.3%
Financial situation worse			2
Count			2
Col %			15.4%

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Personal freedoms (politics)			
Count		3	2
Col %		8.1%	2.0%
Recreational opportunities			
Count	2	2	6
Col %	2.0%	5.4%	5.9%
Pace of Life			
Count			2
Col %			2.0%
Quality of Life			
Count	13	4	2
Col %	13.0%	10.8%	2.0%
Cultural Reasons			
Count	1		
Col %	1.0%		
Religious Reasons			
Count			2
Col %			2.0%
Not here by choice			
Count	2		
Col %	2.0%		
Climate			
Count			1
Col %			1.0%
This is where they established their home			
Count		3	3
Col %		8.1%	3.0%
Transferred by military, employer, or social service agency			
Count		1	
Col %		2.7%	
More convenient			
Count			1
Col %			1.0%
Good benefits for senior citizens			

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %	14 14.0%	4 10.8%	16 15.8%
No Count Col %	29 29.0%	9 24.3%	25 24.8%
Yes Count Col %	57 57.0%	24 64.9%	60 59.4%
CONFIDENT ABOUT HUNT/FISH/GATHERING			
No Response Count Col %	1 1.0%		1 1.0%
Do Not Know Count Col %	1 1.0%	1 2.7%	2 2.0%
No Count Col %	43 44.3%	19 51.4%	43 42.6%
Yes Count Col %	52 53.6%	17 45.9%	55 54.5%
WHY UNCONFIDENT ABOUT HUNTING/FISHING/GATHERING			
No Response Count Col %	2 4.4%		1 2.3%
Increased restrictions Count Col %	21 46.7%	11 55.0%	18 41.9%
Uncertainty about the future Count Col %	1 2.2%	2 10.0%	3 7.0%
Increased development Count Col %	3 6.7%	3 15.0%	5 11.6%

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Future of environment uncertain Count Col %	2 15.4%	1 25.0%	2 10.5%
Too many people Count Col %	1 7.7%		3 15.8%
Too much media attention Count Col %	1 7.7%		
Other reasons Count Col %	1 7.7%		2 10.5%
Improved financial situation Count Col %	1 7.7%		
Lived here longer Count Col %	1 7.7%		4 21.1%
Increased appreciation of surroundings Count Col %	1 7.7%	2 50.0%	4 21.1%
Improved community cohesiveness Count Col %		1 25.0%	
RATHER LIVE IN ANOTHER COMMUNITY Do Not Know Count Col %		1 2.7%	2 2.0%
No Count Col %	67 67.0%	26 70.3%	78 77.2%
Yes Count Col %	33 33.0%	10 27.0%	21 20.8%
EXPECT TO LIVE IN REGION WHEN OLD			

(continued)

Table VI-49. Significance of Place, Kenai

	STUDY YEAR		
	1991	1992	1993
Environmental, animal rights, anti-gun interests Count Col %	1 2.2%	2 10.0%	4 9.3%
Native ownership of lands Count Col %	4 8.9%	2 10.0%	5 11.6%
Population pressure Count Col %	10 22.2%	2 10.0%	19 44.2%
Vulnerable to environmental damage Count Col %	14 31.1%	5 25.0%	2 4.7%
Miscellaneous reasons Count Col %			2 4.7%
Reduced resource availability Count Col %			2 4.7%
Poor resource management Count Col %			2 4.7%
CONTINUE TO LIVE HERE IF NO WILD FOOD Do Not Know Count Col %	3 3.0%	4 10.8%	7 7.0%
NO Count Col %	22 22.0%	6 16.2%	28 28.0%
Yes Count Col %	75 75.0%	27 73.0%	65 65.0%

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: US COAST GUARD			
Do Not Know Count Col %	28 28.0%	7 18.9%	26 26.3%
Not Effective Count Col %	23 23.0%	8 21.6%	15 15.2%
Somewhat Count Col %	25 25.0%	13 35.1%	27 27.3%
Effective Count Col %	24 24.0%	9 24.3%	31 31.3%
EFFECTIVENESS EVOS: ADEC			
No Response Count Col %			1 1.0%
Do Not Know Count Col %	24 24.2%	7 18.9%	36 36.4%
Not Effective Count Col %	22 22.2%	9 24.3%	18 18.2%
Somewhat Count Col %	30 30.3%	12 32.4%	21 21.2%
Effective Count Col %	23 23.2%	9 24.3%	23 23.2%
EFFECTIVENESS EVOS: INSURANCE COMPANIES			
Do Not Know Count Col %	56 56.0%		
Not Effective Count Col %	21 21.0%		

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Somewhat Count Col %	13 13.0%		1 1.1%
Effective Count Col %	10 10.0%		
EFFECTIVENESS EVOS: LOCAL NATIVE PROFIT			
No Response Count Col %			75 80.6%
Do Not Know Count Col %	37 72.5%	21 63.6%	
Not Effective Count Col %	3 5.9%	4 12.1%	7 7.5%
Somewhat Count Col %	5 9.8%	3 9.1%	1 1.1%
Effective Count Col %	6 11.8%	5 15.2%	9 9.7%
EFFECTIVENESS EVOS: NATIVE NON-PROFITS			
No Response Count Col %			1 1.1%
Do Not Know Count Col %	42 79.2%	22 66.7%	78 84.8%
Not Effective Count Col %	3 5.7%	4 12.1%	5 5.4%
Somewhat Count Col %	4 7.5%	5 15.2%	3 3.3%

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %	54 58.1%	12 41.4%	61 65.6%
Not Effective Count Col %	19 20.4%	7 24.1%	12 12.9%
Somewhat Count Col %	14 15.1%	6 20.7%	9 9.7%
Effective Count Col %	6 6.5%	3 10.3%	11 11.8%
EFFECTIVENESS EVOS: IRA COUNCIL No Response Count Col %			1 1.2%
Do Not Know Count Col %	5 100.0%	23 69.7%	74 88.1%
Not Effective Count Col %		4 12.1%	4 4.8%
Somewhat Count Col %		3 9.1%	2 2.4%
Effective Count Col %		3 9.1%	3 3.6%
EFFECTIVENESS EVOS: CHAMBER OF COMMERCE Do Not Know Count Col %			60 64.5%
Not Effective Count Col %		8 25.0%	13 14.0%

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Effective Count Col %	4 7.5%	2 6.1%	5 5.4%
EFFECTIVENESS EVOS: BOROUGH GOVERNMENT Do Not Know Count Col %	50 51.0%	14 40.0%	49 50.5%
Not Effective Count Col %	14 14.3%	8 22.9%	12 12.4%
Somewhat Count Col %	17 17.3%	8 22.9%	22 22.7%
Effective Count Col %	17 17.3%	5 14.3%	14 14.4%
EFFECTIVENESS EVOS: VILLAGE CORPORATION No Response Count Col %			1 1.1%
Do Not Know Count Col %	8 100.0%	21 65.6%	73 83.9%
Not Effective Count Col %		3 9.4%	4 4.6%
Somewhat Count Col %		3 9.4%	3 3.4%
Effective Count Col %		5 15.6%	6 6.9%
EFFECTIVENESS EVOS: CITY COUNCIL No Response Count Col %		1 3.4%	

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Somehat Count Col %	10 10.9%	6 18.8%	10 10.8%
Effective Count Col %	10 10.9%	5 15.6%	10 10.8%
EFFECTIVENESS EVOS: COMMERCIAL BUSINESSES			
No Response Count Col %		1 2.9%	
Do Not Know Count Col %	35 37.6%	11 32.4%	46 50.5%
Not Effective Count Col %	12 12.9%	7 20.6%	10 11.0%
Somehat Count Col %	19 20.4%	7 20.6%	13 14.3%
Effective Count Col %	27 29.0%	8 23.5%	22 24.2%
EFFECTIVENESS EVOS: COMMERCIAL FISHING GROUPS			
No Response Count Col %			1 1.0%
Do Not Know Count Col %	22 22.0%	9 26.5%	39 40.2%
Not Effective Count Col %	11 11.0%	3 8.8%	12 12.4%
Somehat Count	19	11	23

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %	19.0%	32.4%	23.7%
Effective Count Col %	48 48.0%	11 32.4%	22 22.7%
EFFECTIVENESS EVOS: OTHER BUSINESS GROUPS			
Do Not Know Count Col %	71 76.3%		
Not Effective Count Col %	4 4.3%		
Somehat Count Col %	12 12.9%		
Effective Count Col %	6 6.5%		
EFFECTIVENESS EVOS: SCHOOLS			
No Response Count Col %	1 1.1%		
Do Not Know Count Col %	50 54.3%		
Not Effective Count Col %	7 7.6%		
Somehat Count Col %	13 14.1%		
Effective Count Col %	21 22.8%		
EFFECTIVENESS EVOS: CHURCHES			

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Somehat Count Col %	5 5.6%		
Effective Count Col %	22 24.7%		
EFFECTIVENESS EVOS: HEALTH AIDES Do Not Know Count Col %	8 88.9%		
Not Effective Count Col %	1 11.1%		
EFFECTIVENESS EVOS: SOCIAL WORKERS Do Not Know Count Col %	65 71.4%	20 62.5%	61 67.8%
Not Effective Count Col %	6 6.6%	2 6.3%	7 7.8%
Somehat Count Col %	9 9.9%	7 21.9%	10 11.1%
Effective Count Col %	11 12.1%	3 9.4%	12 13.3%
EFFECTIVENESS EVOS: LOCAL LAW ENFORCEMENT Do Not Know Count Col %	54 62.1%	16 53.3%	55 61.8%
Not Effective Count Col %	6 6.9%	2 6.7%	7 7.9%
Somehat Count	8	7	8

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %	54 60.0%		
Not Effective Count Col %	7 7.8%		
Somehat Count Col %	10 11.1%		
Effective Count Col %	19 21.1%		
EFFECTIVENESS EVOS: HEALTH SERVICES No Response Count Col %		1 2.9%	1 1.1%
Do Not Know Count Col %		17 50.0%	53 57.6%
Not Effective Count Col %		3 8.8%	7 7.6%
Somehat Count Col %		7 20.6%	11 12.0%
Effective Count Col %		6 17.6%	20 21.7%
EFFECTIVENESS EVOS: MEDICAL PROFESSION Do Not Know Count Col %	54 60.7%		
Not Effective Count Col %	8 9.0%		

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %	9.2%	23.3%	9.0%
Effective Count Col %	19 21.8%	5 16.7%	19 21.3%
EFFECTIVENESS EVOS: STATE LAW ENFORCEMENT			
Do Not Know Count Col %	39 41.5%	15 45.5%	55 59.8%
Not Effective Count Col %	9 9.6%	3 9.1%	6 6.5%
Somewhat Count Col %	15 16.0%	7 21.2%	12 13.0%
Effective Count Col %	31 33.0%	8 24.2%	19 20.7%
EFFECTIVENESS EVOS: EXXON			
No Response Count Col %		1 2.7%	
Do Not Know Count Col %	11 11.0%	6 16.2%	19 19.2%
Not Effective Count Col %	39 39.0%	13 35.1%	33 33.3%
Somewhat Count Col %	30 30.0%	10 27.0%	25 25.3%
Effective Count Col %	20 20.0%	7 18.9%	22 22.2%
EFFECTIVENESS EVOS: VECO			

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
No Response Count Col %		3 8.1%	
Do Not Know Count Col %	22 22.0%	9 24.3%	36 36.4%
Not Effective Count Col %	27 27.0%	5 13.5%	13 13.1%
Somewhat Count Col %	21 21.0%	8 21.6%	25 25.3%
Effective Count Col %	30 30.0%	12 32.4%	25 25.3%
EFFECTIVENESS EVOS: ALYESKA PIPELINE			
No Response Count Col %			2 2.0%
Do Not Know Count Col %	29 29.6%	11 29.7%	37 37.4%
Not Effective Count Col %	38 38.8%	10 27.0%	30 30.3%
Somewhat Count Col %	17 17.3%	10 27.0%	21 21.2%
Effective Count Col %	14 14.3%	6 16.2%	9 9.1%
EFFECTIVENESS EVOS: VOLUNTEER CLEAN-UP GROUPS			
Somewhat Count Col %			1 50.0%

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %	100.0%	100.0%	100.0%
EFFECTIVENESS EVOS: PMS REGIONAL CITIZENS ADVISORY COUNCIL			
No Response Count		1	
Col %		100.0%	
EFFECTIVENESS EVOS: FEDERALLY MANDATED SPILL RESPONSE GROUPS			
Do Not Know Count	2	2	
Col %	20.0%	33.3%	
Not Effective Count	3		
Col %	30.0%		
Somewhat Count	2		3
Col %	20.0%		50.0%
Effective Count	3	4	3
Col %	30.0%	66.7%	50.0%
EFFECTIVENESS EVOS: PMS OIL REFORM ALLIANCE			
Somewhat Count		1	
Col %		100.0%	
EFFECTIVENESS EVOS: OTHER UNIDENTIFIED GROUPS			
Not Effective Count		1	1
Col %		25.0%	50.0%
Somewhat Count		2	1
Col %		50.0%	50.0%
Effective Count	1	1	
Col %	100.0%	25.0%	

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
Effective Count			1
Col %			50.0%
EFFECTIVENESS EVOS: ANIMAL RESCUE GROUPS			
Not Effective Count		1	
EFFECTIVENESS EVOS: GENERAL ENVIRONMENTAL GROUPS			
Somewhat Count			2
Col %			100.0%
Effective Count	2		
Col %	100.0%		
EFFECTIVENESS EVOS: MEDIA INFORMATION GROUPS			
Not Effective Count			1
Col %			100.0%
Effective Count	2		
Col %	100.0%		
EFFECTIVENESS EVOS: COOK INLET REGIONAL CITIZENS ADVISORY COUNCIL			
Do Not Know Count			1
Col %			33.3%
Not Effective Count		1	
Col %		33.3%	
Somewhat Count			1
Col %			33.3%
Effective Count	1	1	

(continued)

Table VI-50. Effectiveness of Oil Spill Responses, Kenai

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: OILED MAYORS			
Do Not Know Count Col %		20 54.1%	65 65.7%
Not Effective Count Col %		5 13.5%	12 12.1%
Somewhat Count Col %		7 18.9%	14 14.1%
Effective Count Col %	1 100.0%	5 13.5%	8 8.1%

Table VI-51. Subsistence Food Safety Information, Kenai

	STUDY YEAR		
	1991	1992	1993
Untimely Count Col %	2 7.1%		2 6.9%
Heard about damaged resources which contradicted advice Count Col %			1 3.4%
Believe information was deliberately withheld Count Col %	3 10.7%	1 11.1%	1 3.4%
There were not enough tests Count Col %	1 3.6%	1 11.1%	2 6.9%
Personal responsibility to keep informed Count Col %			4 13.8%

Table VI-51. Subsistence Food Safety Information, Kenai

	STUDY YEAR		
	1991	1992	1993
ADEQUATELY INFORMED ABOUT FOOD SAFETY?			
No Response Count Col %	1 1.0%		1 1.1%
Do Not Know Count Col %	7 7.1%	1 2.9%	8 8.4%
No Count Col %	22 22.2%	7 20.0%	20 21.1%
Somewhat Count Col %	6 6.1%	2 5.7%	9 9.5%
Yes Count Col %	63 63.6%	25 71.4%	57 60.0%
WHY NOT ADEQUATELY INFORMED			
No Response Count Col %	5 17.9%	3 33.3%	1 3.4%
Do Not Know Count Col %	1 3.6%		
Lack of clear or definitive advice Count Col %	4 14.3%		3 10.3%
Received incomplete information Count Col %	5 17.9%	1 11.1%	8 27.6%
Received no information Count Col %	8 28.6%	3 33.3%	12 41.4%
Did not trust or believe advice Count Col %	3 10.7%	1 11.1%	2 6.9%

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
OCS EFFECT: FISH			
No Response Count Col %			1 1.0%
Do Not Know Count Col %	10 10.0%	4 10.8%	13 12.9%
Decrease Count Col %	22 22.0%	6 16.2%	22 21.8%
No Change Count Col %	65 65.0%	27 73.0%	61 60.4%
Increase Count Col %	3 3.0%		4 4.0%
OCS EFFECT: SHELLFISH			
No Response Count Col %			1 1.0%
Do Not Know Count Col %	14 14.0%	4 10.8%	16 15.8%
Decrease Count Col %	20 20.0%	5 13.5%	20 19.8%
No Change Count Col %	63 63.0%	27 73.0%	61 60.4%
Increase Count Col %	3 3.0%	1 2.7%	3 3.0%
OCS EFFECT: MARINE MAMMALS			
Do Not Know Count Col %	11 11.0%	5 13.5%	15 14.9%

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
Decrease Count Col %	28 28.0%	9 24.3%	24 23.8%
No Change Count Col %	59 59.0%	23 62.2%	61 60.4%
Increase Count Col %	2 2.0%		1 1.0%
OCS EFFECT: LAND MAMMALS			
Do Not Know Count Col %	8 8.0%	3 8.1%	13 12.9%
Decrease Count Col %	11 11.0%	3 8.1%	10 9.9%
No Change Count Col %	79 79.0%	31 83.8%	76 75.2%
Increase Count Col %	2 2.0%		2 2.0%
OCS EFFECT: BIRDS			
Do Not Know Count Col %	9 9.0%	3 8.1%	13 12.9%
Decrease Count Col %	20 20.0%	3 8.1%	18 17.8%
No Change Count Col %	69 69.0%	31 83.8%	69 68.3%
Increase Count Col %	2 2.0%		1 1.0%

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
Yes Count Col %	22 22.0%		
ARE YOU IN FAVOR OF THE SEARCH FOR OIL? Do Not Know Count Col %		2 5.4%	6 5.9%
No Count Col %		3 8.1%	12 11.9%
Yes Count Col %		32 86.5%	83 82.2%
OPINION ON SEARCH FOR OIL No Response Count Col %			1 1.0%
Do Not Know Count Col %			1 1.0%
Reduce dependency on foreign oil/enhance national security Count Col %		7 18.9%	10 9.9%
Create more jobs in the community Count Col %		14 37.8%	42 41.6%
We can live in balance with the environment Count Col %		5 13.5%	8 7.9%
Increase state revenues Count Col %		4 10.8%	8 7.9%
Less habitat destruction with off-shore Count		1	1

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
OCS DEVELOPMENT = MORE JOBS? Do Not Know Count Col %	1 1.0%		3 3.0%
No Count Col %	11 11.0%	1 2.7%	12 11.9%
Yes Count Col %	88 88.0%	36 97.3%	86 85.1%
CONTAIN AND CLEANUP SMALL OIL SPILL Do Not Know Count Col %	5 5.0%	1 2.7%	12 11.9%
No Count Col %	20 20.0%	5 13.5%	28 27.7%
Maybe Count Col %	19 19.0%	31 83.8%	61 60.4%
Yes Count Col %	56 56.0%		
CONTAIN AND CLEANUP LARGE OIL SPILL No Response Count Col %	1 1.0%		
Do Not Know Count Col %	6 6.0%	9 24.3%	16 15.8%
No Count Col %	51 51.0%	18 48.6%	61 60.4%
Maybe Count Col %	20 20.0%	10 27.0%	24 23.8%

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
Col %		2.7%	1.0%
Energy needed Count Col %		7 18.9%	12 11.9%
Conditional: in favor of search/development but not locally Count Col %		1 2.7%	1 1.0%
Need to know extent of resource availability and reserves Count Col %		1 2.7%	3 3.0%
Conditions: in favor when necessary Count Col %			1 1.0%
Beneficial to the economy Count Col %		11 29.7%	52 51.5%
Positive experiences with development Count Col %		4 10.8%	3 3.0%
Conditional: if approved by local government Count Col %		1 2.7%	
Because it is there Count Col %			2 2.0%
Conditional: depends on time of year Count Col %		1 2.7%	
Conditional upon technological advancement Count Col %		1 2.7%	1 1.0%

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
Not making sufficient use of current resources Count Col %		2 5.4%	1 1.0%
Adverse experiences with other development Count Col %			2 2.0%
Pollution concerns and impacts Count Col %		1 2.7%	10 9.9%
Aesthetic reasons Count Col %			2 2.0%
In favor of on-shore development instead of off-shore Count Col %		1 2.7%	2 2.0%
Should explore alternative energy sources, conservation Count Col %		2 5.4%	2 2.0%
Adverse impact on subsistence and commercial fishing Count Col %		1 2.7%	
Distrust of the oil industry Count Col %			1 1.0%
Potential damage to renewable resources Count Col %			2 2.0%
More difficult to regulate off-shore development Count Col %			1 1.0%

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
No benefit to local economy Count Col %		1 2.7%	1 1.0%
Uncertainties with development Count Col %		1 2.7%	2 2.0%
Technology needs improvement Count Col %			4 4.0%
Unspecified ecological impacts Count Col %			1 1.0%
Conditional: in favor if done carefully Count Col %		4 10.8%	4 4.0%
Safe than atomic power Count Col %			1 1.0%
Health concerns (e.g., cancer) Count Col %			1 1.0%
ARE YOU IN FAVOR OF THE DEVELOPMENT AND PRODUCTION OF OIL? No Response Count Col %			1 1.0%
Do Not Know Count Col %		1 2.7%	4 4.0%
No Count Col %		3 8.1%	12 11.9%
Yes Count Col %		33 89.2%	84 83.2%

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
OPINION ON DEVELOPMENT AND PRODUCTION No Response Count Col %			2 2.0%
Reduce dependency on foreign oil/enhance national security Count Col %		8 21.6%	12 11.9%
Create more jobs in the community Count Col %		10 27.0%	43 42.6%
We can live in balance with the environment Count Col %		5 13.5%	10 9.9%
Increase state revenues Count Col %		5 13.5%	8 7.9%
Less habitat destruction with off-shore Count Col %		1 2.7%	1 1.0%
Energy needed Count Col %		6 16.2%	12 11.9%
Conditional: in favor of search/development but not locally Count Col %		1 2.7%	2 2.0%
Need to know extent of resource availability and reserves Count Col %		1 2.7%	2 2.0%
Conditions: in favor when necessary Count Col %			1 1.0%
Generalized: good for everyone			

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
Count Col %			1 1.0%
Beneficial to the economy Count Col %	16 43.2%	3 8.1%	51 50.5%
Positive experiences with development Count Col %		1 2.7%	4 4.0%
Conditional: if approved by local government Count Col %		1 2.7%	
Because it is there Count Col %			2 2.0%
Conditional: depends on time of year Count Col %		1 2.7%	
Conditional upon technological advancement Count Col %		2 5.4%	4 4.0%
Not making sufficient use of current resources Count Col %		2 5.4%	1 1.0%
Adverse experiences with other development Count Col %		1 2.7%	2 2.0%
Pollution concerns and impacts Count Col %		1 2.7%	11 10.9%
Aesthetic reasons Count Col %			2 2.0%

(continued)

Table VI-52. OCS Development Effects, Kenai

	STUDY YEAR		
	1991	1992	1993
In favor of on-shore development instead of off-shore Count Col %		1 2.7%	1 1.0%
Should explore alternative energy sources, conservation Count Col %		2 5.4%	2 2.0%
Adverse impact on subsistence and commercial fishing Count Col %		1 2.7%	
Distrust of the oil industry Count Col %			3 3.0%
Potential damage to renewable resources Count Col %			2 2.0%
No benefit to local economy Count Col %			1 1.0%
Uncertainties with development Count Col %		1 2.7%	2 2.0%
Technology needs improvement Count Col %			4 4.0%
Conditional: in favor if done carefully Count Col %		5 13.5%	14 13.9%
Health concerns (e.g., cancer) Count Col %			1 1.0%

Table VI-53. Subsistence and Personal Use Salmon Harvests, Kenai, 1982, 1991, 1992, and 1993

	1982	1991	1992	1993
Subsistence Harvests, Pounds Usable Weight per Capita				
Setnet	NA	4.8	8.5	0.4
Dipnet	NA	3.7	4.7	6.6
All Subsistence Methods	0.9	8.5	13.2	9.1
Percentage of Total Salmon (in numbers of fish) Caught by Subsistence Methods				
Setnet	NA	17.8%	14.3%	1.1%
Dipnet	NA	14.2%	25.1%	18.4%
All Subsistence Methods	5.7%	31.9%	39.4%	24.8%
Percentage of Sampled Households Using Subsistence Methods				
Setnet	NA	12.0%	13.5%	2.0%
Dipnet	NA	14.0%	13.5%	12.9%
All Subsistence Methods	9.2%	25.0%	27.0%	16.8%

Subsistence methods includes dipnets and set nets operated under subsistence or personal use regulations.

Subsistence harvests by gear type not available for 1982

"All subsistence methods" includes methods other than setnet and dip net.

Sources: Scott et al. 1993; ADF&G, Division of Subsistence Household surveys, 1992, 1993, and 1994

Table VI-54. Subsistence/Personal Use Setnet Harvests, Selected Fisheries, Upper Cook Inlet, 1982, 1991, 1992, and 1993

	Number of Permits	Number of Salmon				
		Chinook	Sockeye	Coho	Pink	Chum
Kasilof Personal Use						
1982	649	372	7,543	24	17	0
1991	NA	34	8,380	0	0	0
1992	0	0	0	0	0	0
1993	NA	47	7,942	0	0	0
Fall Coho Personal Use/ Subsistence						
1982	0	0	0	0	0	0
1991	360	0	0	2,703	0	8
1992	0	0	0	0	0	0
1993	535	0	0	1,168	23	0
Northern/Central Districts Subsistence						
1982	0	0	0	0	0	0
1991	7,065	550	32,230	3,520	537	1,598
1992	9,200	1,139	46,419	10,320	1,818	1,827
1993	0	0	0	0	0	0

Source: Ruesch and Fox 1994:61

CHAPTER VII: SELDOVIA

by

Ronald T. Stanek, Lisa Tomrdle, and James A. Fall

COMMUNITY BACKGROUND

Seldovia is located near the southern tip of the Kenai Peninsula on the south shore of Kachemak Bay in Southcentral Alaska (Fig. I-1). The community is not connected by road with the rest of the Kenai Peninsula or the state. Kachemak Bay is an ice-free, deep-water harbor that offers a transportation avenue for the residents of Seldovia. The climate in Seldovia is characterized by much fog and an annual rainfall of 37 inches (Reed 1985).

At historic contact, Seldovia Bay was at the boundary of the territories of the Dena'ina Athabaskan Indians and Chugach Alutiiq people. By the late 19th century the community consisted of an Alaska Native village centered around a trading post. By the turn of the century, Seldovia had become an important shipping and trade center, the most important in Cook Inlet, because of its natural deep water port. Salmon canneries were built during this period of time, beginning Seldovia's reliance upon commercial fishing for a large portion of its income for decades to come. The community's population grew with the development of commercial herring fisheries in the 1920s. Many non-Native, long-term residents, often of Scandinavian heritage, arrived during that decade. In 1945, Seldovia became incorporated as city. By the 1950s, other commercial centers on the Kenai Peninsula had outgrown Seldovia (Reed 1985:143, 146; Georgette 1985:3). Its population rose in the 1950s, 1960s, and 1970s, but began to decline in the 1980s with the collapse of commercial crab fisheries (Table I-1; Figure VII-1). For more background on Seldovia's history, see Reed (1979) and Reed (1985).

DeVito (1992) reports that Seldovia's economy has moved away from commercial fishing and processing income in recent years, especially with the closure of its last seafood cannery, and that the visitor industry is becoming more important. Unlike Kenai, the oil and gas industry was not a major industry in Seldovia in the mid 1980s (Reed 1985). However, the creation of the Seldovia Oil Spill Response Team in the aftermath of the *Exxon Valdez* Oil Spill has given the oil and gas industry more of a presence in Seldovia. The commercial fisheries are still a major industry for Seldovia, but with the instability of fisheries in the last decade, Seldovia is having to diversify its economy by turning to other industries such as tourism.

The Alaska Ferry *Tustumena* serves Seldovia twice a week in the summer and once a week in the fall and early spring. There is no service from January 1 to mid-March. Other transportation facilities include a small boat harbor and an airport with flights to neighboring Homer, Port Graham, and Nanwalek. Also located in Seldovia is a school (K-12), a police station, a fire station, a post office, a library, a senior

citizens housing project, a grocery store, a drug store, and a health center. Visitor accommodations include several hotels, bed and breakfast homes, three restaurants, three bars, and a laundromat.

The Division of Subsistence had previously conducted research in Seldovia in 1983, pertaining to resource harvest activities that occurred in 1982 (Reed 1983, 1985). Limited fieldwork also occurred in 1985 (Georgette 1985). Comparisons between this earlier research and the more recent findings are limited by two factors. First, the 1982 survey was administered to a random sample of 35 households, approximately 20 percent of the community total. The more recent samples were much larger, at least 65 households representing a 42 to 57 percent random sample. The second factor is that the survey instrument used in the more recent research asked about a much more detailed range of resources than did the 1982 instrument (Reed 1985:202). For example, the 1982 survey asked about "clams" but did not ask about any specific type of clam such as razors or littlenecks. Thus it is difficult to make certain comparisons due to the different levels of specificity of the surveys; however, comparisons will be made when appropriate.

RESEARCH METHODS

Fieldwork occurred in Seldovia in all three study years.¹ The "study year" for which data were collected ran from April through the following March. Hence, the first year pertains to the period from April 1991 through March 1992, the second study year is April 1992 through March 1993, and the third study year covers April 1993 through March 1994.

For the first study year, the goal for Seldovia was a total of 65 household interviews. Up to 27 of these were to be conducted with members of a panel of households interviewed previously as part of the MMS-sponsored Social Indicators (SI) research project (see Chapter I), with the remainder to be drawn randomly from a list of habitable dwellings within the Seldovia city limits. As shown in Table VII-1, the total sample of 66 households was comprised of 16 SI panel members and 50 other households, representing 56.9 percent of the total estimated number of permanent households in the community. The interviewing took place between April 8 and April 30, 1992. The study team consisted of Ron Stanek, Lisa Tomrdle, Gladys Yuth (local research assistant), and Lillian Elvsaa (local research assistant). On average, in the first study year, harvest survey interviews in Seldovia took 0.71 hours (43 minutes) to complete (Table I-7), and social effects interviews took an additional 0.75 hours (45 minutes) (Table I-8).

In the second field season, the Seldovia study area was increased to include households along the Jakolof Bay Road (also known as the Seldovia Red Mountain Road) including the Barabara Heights subdivision.² Consequently, the estimated number of dwelling units increased from 189 to 257. In

¹ For more detail on sampling methods and the conduct of fieldwork, see the series of interim reports prepared at the close of each field season (Fall and Utermohle 1992, 1993a, and 1994).

² In recent years, a residential area has developed along a 10-mile stretch of the Jakolof Bay Road, outside the city limits of Seldovia. A large parcel of land along the road, owned by the Seldovia Native Association, was subdivided and the lots were made

addition, the 1991 SI panel was retired. The 50 households randomly selected in the previous year became a new panel, with a goal to interview enough households from this group to make up to one half of the total goal of 65 interviews. Out of this panel, 32 households were interviewed and an additional 33 randomly selected households made up the balance of the sample, 47.5 percent of all year-round households. Compared to the year before, there was a relatively high refusal rate during the second round of research, 17.7 percent of all households contacted (14 households) (Table VII-1). This may have been due to people being fatigued from filling out numerous questionnaires dealing with lawsuits against Exxon. Several respondents even confused ADF&G researchers with Exxon representatives.

The study team for the second year consisted of Lisa Tomrdle, Brad Palach, Susan McNeil, and Lillian Elvsaas (local research assistant). The interviewing occurred in the last two weeks of March, 1993. On average, the harvest surveys took 0.36 hours (22 minutes) to administer (Table I-7);³ the social effects interviews lasted an average of 0.52 hours (31 minutes) (Table I-8).

For the third study year (1993), sampling goals were similar to the year before. Of the 32 panel members from 1992, 25 were reinterviewed. A new sample of 40 randomly selected households made up the balance of 65 interviews, for a sample of 42.5 percent of the year-round households in the community (Table VII-1). Also as in the year before, the study area included the city of Seldovia as well as the Jakolof Bay Road area outside the city limits. The interviews took place between March 29 and April 7, 1994. The study team consisted of Dave Andersen, Matt Kookesh, Susan McNeil, and Lillian Elvsaas (local research assistant). The average harvest survey took 0.5 hours (30 minutes) to complete in Seldovia in the third study year, about midway between the two earlier years (Table I-7). The average for the social effects surveys was 0.56 hours (34 minutes) (Table I-8).

DEMOGRAPHY

The 1991 Study Year

Based on the first year's research, the estimated population of the city of Seldovia was 341 persons in 1991, slightly higher than the 1990 U.S. Census figure of 316 people within the city limits (Table VII-2). This estimate was about 29 percent lower than the population of 479 people in 1980. The collapse of the king crab fishery in the early 1980s seems to have been a contributing factor to the decline in population (Reed 1985:146). However, there has also been a movement out of the city itself to properties along the Jakolof Road. Because this population is not included in the official census records for Seldovia, reliance on U.S. census data alone exaggerates the Seldovia area's population decline (see discussion on

available to its shareholders through a lottery. Consequently, many homes in this area are owned by long-term Seldovia residents who have, for a variety of reasons, chosen to live "out of town." U.S. Census data for Seldovia do not include these residents, but for this study, it was important to include them since they are part of the Seldovia community.

³ The length of the interviews decreased because the harvest survey instrument was substantially shorter in the second study year. See Chapter One.

demography for the second and third study years, below). The average household size in Seldovia in 1991 was almost three (2.94) and ranged from one to six people.

Figure VII-2 and Table VII-3 show a 1991 population of 52.6 percent male and 47.4 percent female for Seldovia. The 1991 average length of residency for household heads was 17.8 years (Table VII-2). The Alaska Natives comprised about 23.7 percent of the 1991 estimated population (81 people), compared to 15.2 percent (48 people) from the U.S. Census estimate for 1990.

The 1992 Study Year

Because the Seldovia study area was increased to include a larger area connected by road to the city itself, the estimated number of households in the community increased from 116 in 1991 to 137 in 1992 (Table VII-2). The 1992 estimated population was 375 with a mean household size of 2.74 persons, a decrease of 0.20 persons from the year before. Very slight changes occurred in the sex and age structure. Although a segment of older-aged (late 70 and 80s) people appears to have been missed, this could be because a low-income housing unit was not sampled during 1992 (Table VII-3; Figure VII-3). The Alaska Native portion of the population increased to 34.3 percent, 10.6 percentage points over 1991. This change is likely due to the high percentage of Native-occupied housing in the new area outside the city limits which was included in this second study year. This is further supported by the increase in the average length of residency, from 13.9 years in 1991/92 to 15.1 years in the second study year.

The 1993 Study Year

There were an estimated 153 year-round households in the Seldovia area in the 1993/94 study year, which, like 1992/93, included households living within the city limits and in the area connected to the city by road (Table VII-2). This represented an increase of 16 households over the year before. The estimated total population increased notably, to 430, compared to 375 the year before, as a consequence of the larger number of households and a slight increase in the average size of households in the interviewed sample. While this estimate of 430 for the Seldovia area is still well below the 479 estimated by the US. Census for 1980, it tempers the degree of population decline suggested by focusing on the area within the city limits alone.

Figure VII-4 and Table VII-5 report the age and sex structure of Seldovia's population during the third study year. The percentage of Alaska Natives in the study population in 1993/94 was 32.8 percent (141 people), remaining about the same as the year before. The average length of residency of household heads was 19.7 years, about midway between the two previous years' estimates (Table VII-2).

CASH ECONOMY

The 1991 Study Year

According to the study findings, the average total (earned and other) household income in Seldovia in 1991/92 was \$43,022. The total per capita income was \$14,636 (Table VII-7), comparable to the U.S. Census finding of \$14,052 per capita in 1989 (U.S. Bureau of the Census 1992a). As Reed (1985:148) pointed out, Seldovia's economy has been overwhelmingly based upon commercial fishing throughout most of its history. Seldovia's reliance upon commercial fishing in 1991/92 is reflected in Table VII-7, with commercial fishing contributing the largest share (\$12,778 or 29.7 percent) to the average total household income. It should be noted that the 1991 lower Cook Inlet commercial salmon fishery followed a poor 1990 season and itself was a "disappointment," with a harvest of less than half the preseason forecast and an ex-vessel value of about half the 20-year average (Bucher and Hammarstrom 1993:1,87).

Contributing almost as much as commercial fishing to Seldovia's 1991/92 cash income was government employment at \$9,775 (26.3 percent). Lesser sources of earned income for 1991/92 are listed in Table VII-7.

Incomes derived outside of jobs in 1991/92 are summarized in Table VII-8. (Note that this income was included in the total household and per capita income, discussed above.) The average household other income was \$9,465 and the per capita was \$3,220. The largest share of other income was provided by Alaska Permanent Fund Dividends (\$2,103 per household); other (rental property incomes for example) incomes (\$1,768), retirement pensions (\$1,765), dividends and interest (\$1,167), and social security (\$1,109), held the next largest shares, respectively.

In 1991, 67.0 percent of the estimated total number of adults in Seldovia were employed (Table VII-6) for some part of the year. The survey found that less than half, 40.0 percent, of these adults worked year-round. On average, employed adults worked 8.7 months during the study year. By comparison, in the road-connected community of Kenai, 64.9 percent of the adults were employed year-round in 1991/92. Seldovia's income shows a heavier reliance upon seasonal jobs such as commercial fishing than was found in Kenai for the same year. In neighboring Port Graham and Nanwalek, 67.1 percent of the Nanwalek adults and 67.4 percent of the Port Graham adults were employed in 1991; 13.7 percent of the Nanwalek and 41.5 percent of the Port Graham adults worked year-round. Seasonal logging employment was more common among Nanwalek adults which may account for the lesser number of year-round employed adults in this community.

In terms of employment by type of industry in 1991/92, commercial fishing dominated all other categories with 33 percent of the jobs in Seldovia (Fig. VII-5). Services were the next nearest job source with 13 percent, and local government-education followed at 9 percent. The retail trade industry played a large role in the job market in Seldovia in 1991/92 with 9 percent of the jobs.

The sampled Seldovia households estimated that, on average, they spent \$437 per month on food during the 1991/92 study year. The median monthly expenditure for food was \$400. This represents 11.3 percent of the average household income in Seldovia in the first study year (Table I-101).

The majority of the interviewed households in Seldovia (54.6 percent) reported that their financial situation during the 1991/92 study year was about the same as before the *Exxon Valdez* Oil Spill of March 1989. Also, 10.6 percent of the households said their financial situation was better than before the spill and 28.8 percent said it was worse (Table I-103).

Table VII-9 provides a summary of the kinds of equipment and supplies used by Seldovia households during the study year for subsistence harvesting and processing. Overall, the replacement value of this equipment averaged about \$15,591 per household.

The 1992 Study Year

Many respondents who were interviewed in the second year of the study reported that the local monetary economy in Seldovia had declined since the year before. For example, some people reported that the economy had been so bad that some families were forced to move away in order to find work. Despite these reports of a worsening economy, the percentage of adults who were employed increased by 12.2 percentage points to 80.2 percent. The average number of months employed was 8.6 per employed adults (compared to 8.7 the year before). The number of jobs held per person increased by three-tenths and the mean number of jobs per household increased by six-tenths (Table VII-6).

Comparable to 1991 were the percentages of jobs provided by several sectors such as commercial fishing, retail trade, mining, and state government (Figure VII-6). However, major changes occurred in several other sectors. Most dramatic was the loss of the single cannery which was responsible for a 66 percent decline in manufacturing jobs. Two new job sectors appeared in the Seldovia employment picture - agriculture, forestry, and fishing provided one percent of the total jobs, and wholesale trade provided five percent (16.2 new jobs).

In the second study year, average household incomes in Seldovia dropped to \$36,907, a decline of 14.2 percent from the previous year. Likewise, per capita incomes dropped to \$13,477 in 1992/93 (Table VII-10). Some of this decrease may have been due in part to the inclusion of a population segment with lower average incomes than households formerly surveyed within the city limits. Commercial fishing remained the largest single source of earned income in Seldovia in 1992/93 at \$3,760 per capita, a decline of \$586 from the previous year (Table VII-10). The 1992 commercial salmon fishery in lower Cook Inlet was depressed. The total harvest only achieved 38 percent of the pre-season forecast and the exvessel value was the lowest since 1976 (Bucher 1992:1).

For the sources of other income (Table VII-11), there was an overall decrease to \$2,803 per person in 1992/93. Income from some public assistance programs, such as food stamps, unemployment, child support, and AFDC showed modest increases, however.

The 1993 Study Year

The cash employment situation in Seldovia in the third study year was, in some ways, generally similar to findings from the previous year. On average, employed adults worked 8.9 months (compared to 8.7 in 1991/92 and 8.6 in 1992/93). In 1993/94, 45 percent of Seldovia's work force was employed year-round, very similar to the 40 percent estimated for 1991/92 and 39 percent in 1992/93 (Table VII-6). However, the contribution of commercial fishing to income in Seldovia dropped notably from the two previous years. Jobs in commercial fishing contributed \$1,524 per person to the average earned incomes in the community (15.3 percent of earned income, 8.7 percent of all income), third after services (\$3,084 per capita) and government (\$2,142) (Table VII-12). In contrast, commercial fishing had ranked first in both 1991/92 and 1992/93 at \$4,347 per person (38.1 percent of earned income, 29.7 percent of all income) and \$3,760 per person (35.2 percent of earned income, 27.9 percent of all income), respectively.

Figure VII-7 illustrates the percentage of jobs in Seldovia in 1993/94 by sector. In contrast to the first two study years, in 1993/94 commercial fishing ranked second, with 22 percent of the jobs, compared to services, with 23 percent. The first two years, commercial fishing had ranked first by far, with 33 percent and 33 percent of the jobs, respectively.

These findings regarding commercial fishing jobs and income in Seldovia in 1993/94 are consistent with the economic performance of the lower Cook Inlet salmon fisheries. Although the total salmon harvest doubled over the year before, the 1993 commercial season was the fourth consecutive year of poor returns to the lower Cook Inlet salmon fleet (Bucher and Hammarstrom 1994:1). The catch remained below the 20-year average, and, with low prices, the exvessel value of the catch was the lowest since 1976.

Particularly noteworthy for 1993/94, was the increase in total per capita income in Seldovia, to \$17,502, up from \$14,637 in 1991/92 and \$13,477 in 1992/93 (Table VII-12). However, earned income decreased to \$9,948 per person, from 11,416 in 1991/92 and \$10,674 in 1992/93. The overall gain is accounted for by the increase in other income to \$7,555 per person, compared to \$3,220 in 1991/92 and \$2,803 in 1992/93. Responsible for virtually all of this change was an increase in Native corporation dividends to \$4,147 per person (compared to just \$214 per person in 1991/92 and \$260 per person in 1992/93) (Table VII-13) This represents a one time "return of capital" payment to shareholders in the Seldovia Native Association resulting from a land settlement with the State regarding inholdings within the Kachemak Bay State Park. Consequently, for the community overall, "other income" represented 43.2 percent of the community's total income, compared to 22 percent in 1991/92 and 20.8 percent in 1992/93.

On average, Seldovia households estimated that they spent \$445 per month on food in the 1993/94 study year, and a median of \$400. This represented 9.7 percent of the average household income (Table I-102). This was very similar to the 1991/92 study year.

RESOURCE HARVESTS AND USES: 1991/92

Participation in Hunting, Fishing, and Gathering Activities

During the first study year, use of wild resources in Seldovia was almost universal, with 98.5 percent of all surveyed households reporting use of at least one wild resource (Table VII-14). Most households (92.4 percent) attempted to harvest wild resources and were successful. Another large group of households (95.5 percent) reported receiving resources while 84.9 percent gave away wild resources. The most widely used resources were berries (90.9 percent of the estimated households utilized them), halibut (89.4 percent), chinook salmon (74.2), coho salmon (69.7 percent), and butter and steamer clams (63.6 percent each) (Table VII-19).

Table VII-19 lists the 73 kinds of resources, excluding wood and edible plants, utilized by Seldovia households in 1991/92. This list includes 29 kinds of fish (including unknown salmon and trout), 12 species of land mammals, 2 species of marine mammals, 15 species of birds, and 15 types of marine invertebrates. On average, in the 1991/92 study year, Seldovia households used 13.5 kinds of wild resources, attempted to harvest 9.3 types, harvested 9.0 varieties, received 6.4 types, and gave away 4.8 kinds (Table VII-14).

With 77.8 percent of Seldovia residents attempting to harvest fish and marine invertebrates during the first study year, fishing activities generated the highest levels of participation among the population (Table VII-15). Plant and berry gathering activities followed fishing closely, with 74.7 percent of the population participating. A smaller percentage (21.7 percent), hunted for land and sea mammals. Only 1.0 percent of the population engaged in hunting or trapping of furbearers. Overall, 89.2 percent of the population attempted to harvest any one resource, and 88.7 percent processed (butchered, preserved, and stored) at least one resource.

Seldovia households were involved in resource exchanges with residents of 19 other Alaska communities in 1991/92 (Table VII-16). Of all Alaska communities, the most households gave resources to other residents of Seldovia (77.3 percent). People living outside of the state received wild resources from 31.8 percent of Seldovia households, while Anchorage residents received gifts of wild foods from 22.7 percent of the households. The most Seldovia households received gifts of wild resources from other residents of Seldovia (92.4 percent), followed by Homer (7.6 percent), Anchorage (7.6 percent), and Nanwalek (English Bay) (4.6 percent).

Resource Harvest Quantities and Harvest Composition

In Seldovia during 1991/92, the average household harvest of wild resources was 604.0 pounds usable weight and the per capita harvest was 205.5 pounds (Table VII-14, Fig. VII-8). The average harvest was divided among salmon at 64.6 pounds per person (30.9 percent of the total harvest), other fish at 68.2 pounds per person (32.6 percent), marine invertebrates at 33.8 pounds per person (15.0 percent), land

mammals at 29.6 pounds per person (14.2 percent), birds at 1.2 pounds per person (0.6 percent), and wild plants and berries at 11.6 pounds per person (5.5 percent). No marine mammal harvests were documented for 1991/92 (Fig. VII-9, Fig. VII-10; Table VII-18).

The largest percentage of households in Seldovia, 45.5 percent, estimated that between 1 percent and 25 percent of their annual supply of meat, fish, and poultry derived from wild resources in the first study year. The second-largest portion, 21.2 percent, provided an estimate of 26 to 50 percent, while 19.7 percent estimated 51 to 75 percent and 12.1 percent estimated 76 to 99 percent. Finally, 1.5 percent of the households used no wild foods (Table I-104). About 46.9 percent of the residents to the social effects questionnaire had used a wild food the day before the interview (Table VII-43). This was about the in the mid range of study communities, more than double the rate of Kenai, about the same as Port Graham, but lower Nanwalek (Fig. I-3).

Of the sampled Seldovia households, 67.2 percent reported that their 1991/92 uses and harvest of wild resources were about the same as the previous year, 1990 (Table I-57). Only 14.8 percent reported an increase in harvest and use and 18.0 percent reported a decrease over the year before. Of the latter group, most cited a decline in resource abundance as the reason their harvests decreased. When asked to compare 1991 with the year before the *Exxon Valdez* Oil Spill (1988), 73.1 percent said their 1991 harvests and uses were about the same, 1.9 percent said they were higher, and 25.0 percent said they were lower (Table I-58, Fig. VII-11). Again, most respondents citing lowered uses blamed decreases in the availability of resources, while a few also mentioned time constraints and less effort. Only one household mentioned contamination concerns as leading to lower uses than before the spill (Table I-62).

Seldovia residents harvested 64.6 pounds of salmon per capita during the study year (Table VII-17). The harvest was divided up among coho salmon at 30.1 percent, chinook salmon, at 25.6 percent, chum salmon at 19.1 percent, sockeye salmon at 16.4 percent, and pink salmon at 8.8 percent. As illustrated in Table VII-20, Table VII-21, and Table VII-22, 46.4 pounds of salmon per household (24.5 percent of the total harvest) was removed from commercial catches, 38.1 pounds (20.1 percent) were taken with subsistence set gillnets, 3.5 pounds (1.9 percent) were taken with dip nets, and 101.8 pounds (53.6 percent) were taken by rod and reel. Of the households harvesting salmon, 27.3 percent removed salmon from commercial catches, 10.6 percent took salmon with subsistence set gillnets, 6.1 percent harvested with dip nets, and 66.7 percent took salmon with rod and reel (Table VII-23).

Over half of the Seldovia households (59.0 percent) estimated that their 1991/92 harvest and use of salmon was the same as in 1990; 14.8 percent said it was higher and 26.2 percent said it was lower (Table I-9). Compared to 1988, 64.2 percent of the households reported that their 1991/92 harvest and use was the same, 13.2 percent said it was higher, and 22.6 percent said it was lower (Table I-10, Fig. VII-11).

On average, Seldovia households used 2.6 methods to preserve their salmon harvests in 1991/92 (Table I-106). The most households froze salmon (80.3 percent of all households), followed by smoking

(48.5 percent), canning (43.9 percent), pickling (28.8 percent), salting (27.3 percent), kippering (19.7 percent), and drying (13.6 percent).

Of the 23 types of non-salmon finfish harvested in 1991/92 by Seldovia households, halibut contributed the largest share at 147.2 edible pounds per household (73.5 percent of the total non-salmon finfish harvest) (Table VII-19). Gray cod, at 12.4 pounds (6.2 percent), and Dolly Varden, at 8.2 pounds (4.1 percent) were the next largest contributors. As illustrated in Table VII-20, Table VII-24, and Table VII-25, 29.4 percent of the non-salmon fish harvest in pounds was removed from commercial catches, 4.4 percent was taken with subsistence gear, and 66.3 percent was taken with rod and reel. As shown in Table VII-26, 57.6 percent of Seldovia's households used rod and reel gear to harvest fish other than salmon in 1991, 27.3 percent removed these fish from commercial catches, 9.1 percent used subsistence methods, and 1.5 percent fished through the ice with hook and line gear.

A high percentage of sampled households (77.0 percent) said their 1991/92 use and harvest of fish other than salmon was the same as the year before (Table I-15). Only 3.3 percent said it was higher while 19.7 percent said it was lower. Compared to 1988, 73.6 percent said 1991 was about the same, 5.7 percent said it was higher, and 20.8 percent said it was lower (Table I-16; Fig. VII-11).

Seldovia residents harvested 33.8 pounds per capita of marine invertebrates in 1991/92 (Table VII-17). Clams composed over one-half (54.7 percent) of the harvest at 15.1 pounds per person (Table VII-19). This high use of clams reflects Seldovia's proximity to productive clamming beds like Jakolof Bay. The importance of clams to Seldovia residents was noted by Reed (1985:161). A majority of the sampled households, 73.8 percent, estimated that their 1991/92 marine invertebrate uses were about the same as 1990, and 66.7 percent said they were the same as 1988 (Table I-45, Table I-46). When comparing the 1991 harvests and uses with 1990, 8.2 percent said they were higher and 18.0 percent said they were lower; compared to 1988, 3.7 percent said it was higher and 29.6 percent said it was lower (Fig. VII-11).

The big game harvest by Seldovia households of 29.6 pounds per capita in 1991/92 was largely made up of moose and deer, with black bear, caribou, and goat contributing much smaller portions (Table VII-17, Table VII-19). While moose could be obtained in the local area, Seldovia hunters had to travel to other areas such as Kodiak and Prince William Sound to find deer. Most households estimated that their 1991 big game harvest and use was about the same as 1990 (80.3 percent of the sampled households) and 1988 (the year before the oil spill) (90.6 percent) (Table I-21, Table I-22). Higher harvest and use was reported by 4.9 percent of the households when compared to 1990 and none of the households compared to 1988. Lower harvest and use was reported by 14.8 percent of the households compared to 1990 and 9.4 percent compared to 1988 (Fig. VII-11).

Just as was the case in Kenai during 1991/92, hunting and trapping for small land mammals generated little participation among Seldovia households in 1991 with only 4.5 percent of the households using small game (Table VII-19). The 1982 survey found similar results and many of the respondents to that survey reported that furbearers were not abundant in the local area (Reed 1985:164). Per capita

harvest in 1991/92 was less than one pound (0.7 pounds) and this was exclusively made up of hares. Other small game taken for fur only were coyotes, land otters, mink, and weasels. Most of the sampled households reported no change in harvest or use of small game and furbearers when asked to compare 1991 to 1990 and 1988 (Table I-27, Table I-28).

Although there was no documented harvest of marine mammals by sampled Seldovia households in 1991/92, 6.1 percent of the households reported utilizing marine mammals (Table VII-19). Marine mammals were received from unsampled households within the community and also from the neighboring village of Port Graham. All households reported that their 1991 harvest and use of marine mammals was about the same as in 1990 and 1988 (100 percent for 1990 and for 1988) (Table I-33, Table I-34; Fig. VII-11).

In subsequent research conducted by the division (Wolfe and Mishler 1993), several active marine mammal hunters were identified among Seldovia residents. Harbor seals are the main target of these hunters. One reason why this harvest was not documented in the 1991/92 harvest survey is that of the six hunters identified in 1993, only two had been active harvesters in the last few years. Commercial fishing activities sometimes occur at the same time as the preferred seal hunting seasons, such as in the spring. For some hunters, commercial fishing has priority over seal hunting. Knowledgeable seal hunters told the researchers that the seal population has gone down dramatically in the last seven or so years. It is harder to find the seals now and requires a greater investment of time and energy. It is unclear to many of the hunters just what is causing this decline but conjectures were given such as depletion of food for seals by commercial, sports, and subsistence fishing. The *Exxon Valdez* oil spill was also mentioned as adding to the decline.

As Table VII-19 illustrates, 24.2 percent of Seldovia households used birds in 1991/92 and 22.7 percent attempted to harvest them. The per capita harvest of birds was 1.2 pounds. Of the sampled households, 93.2 percent said that their 1991 harvest and use of birds and eggs was the same as 1990 (Table I-39). No one said it was higher and 6.8 percent said it was lower. The 1991 harvest and use was about the same in 1988 for 92.3 percent of the households; 1.9 percent said it had increased and 5.8 percent said it had decreased (Fig. VII-11).

Seldovia households widely engaged in plant and berry gathering in 1991/92, with 83.3 percent harvesting plants and berries and 90.9 percent using them (Table VII-19). The per capita harvest was 11.6 pounds. Nine sampled households (13.6 percent) used plants for medicinal purposes, with 16 different kinds used (Table I-109). Over three-quarters of the households, 83.6 percent, reported their 1991 plant and berry use and harvest was the same as the previous year, 1990 (Table I-51). Only 9.8 percent reported an increase in plant and berry harvest and 6.6 percent reported a decline. For 1988, 90.7 percent said their 1991 harvest and use was about the same, 3.7 percent said it was higher and 5.6 percent said it was lower (Table I-52, Fig. VII-11).

RESOURCE HARVESTS AND USES: 1992/93

Participation in Hunting, Fishing, and Gathering Activities

Participation levels for wild resource harvesting activities among Seldovia residents in 1992/93 were very much like those of the year before. Almost identical to 1991/92, the vast majority of the households in 1992/93 used at least one resource (98.5 percent), and just over 93 percent attempted, harvested, and received at least one resource, while 84.6 percent gave away at least one resource. For all resources, 90.4 percent of the total estimated population attempted to harvest at least one type of resource in the second study year. On average, households used 12.3 kinds of wild resources in 1992/93 (compared to 13.5 kinds in 1991/92), attempted to harvest 8.9 kinds, harvested 8.4 types, received 6.2 varieties, and gave away 4.3 kinds (Table VII-14).

Resource Harvest Quantities and Harvest Composition

The estimated per capita harvest of wild resources in Seldovia in 1992/93 was 145.1 pounds, a decrease of about 30.5 percent from the previous year's estimate of 205.5 pounds per person (Fig. VII-8). Also, per capita harvests of all the major resource groups were down from 1991/92 levels (Table VII-17, Fig. VII-9). The largest decline occurred in non-salmon fish (down about 27 pounds per person), land mammals (a 14 pound per person decrease), and marine invertebrates (down by 16 pounds per person). Smaller declines occurred with salmon (down by 6.1 pounds per capita) and plants (down by 1.7 pounds per person). Very slight increases occurred in marine mammals (up from no harvest to 1.3 pounds per person) and birds and eggs (up by 0.1 pounds per person).⁴

The percentage of Seldovia respondents who had used a wild resource the day before the interview was 44.6 percent in 1993, virtually identical to the 46.9 percent recorded for the year before (Table VII-43). This again was more than double the rate for Kenai, but was below that of Port Graham or Nanwalek (Fig. I-3).

With regard to the methods used to harvest fisheries resources, there were several modest changes from 1991/92 to 1992/93. Removal of resources from commercial harvests for home use accounted for 26.2 percent of the total harvest, an increase over the 19.1 percent from the year before (Table VII-28).

For non-salmon fish overall (Table VII-32, Table VII-33), rod and reel accounted for the bulk (58.7 percent) of the harvest, while subsistence gear took 4.1 percent, and removal from commercial harvests provided 36.9 percent. The proportions taken by each method of harvest were comparable between years. Table VII-34 reports the percentage of households using subsistence methods (16.9 percent), commercial

⁴ Resource assessment questions were not asked in the second study year.

removal (30.8 percent), rod and reel (46.2 percent), or ice fishing (3.1 percent) to obtain non-salmon fish in 1992/93.

The salmon harvest in 1992/93 by Seldovia residents (Tables VII-29 and VII-30) was taken primarily by rod and reel (52.0 percent), while subsistence gear took 12.6 percent and removal from commercial harvests accounted for 35.4 percent. The proportions taken by rod and reel were comparable for the two years, however, a shift occurred where about 10.0 percent more was taken from commercial sources in 1992/93. A corresponding decrease occurred in the percentage taken by subsistence gear. Participation in the use of different gear types (Table VII-31) for salmon harvest also changed slightly. About 10 percent fewer households used some subsistence method in 1992, whereas use of rod and reel increased by 4.0 percent, and dip net usage increased by 4.5 percent.

The proportion of the total harvest comprised by each resource group changed relatively little between years (Table VII-18, Fig. VII-9, Fig. VII-12). Salmon changed the most (up 9.4 percentage points), while the other groups either decreased slightly (non-salmon fish, marine invertebrates, and land mammals), stayed about the same (plants and birds), or increased (marine mammals).

RESOURCE HARVESTS AND USES: 1993/94

Participation in Hunting, Fishing, and Gathering Activities

As in the two previous study years, participation in resource uses in Seldovia in the 1993/94 study year was very high. As shown in Table VII-14, 95.4 percent of the households used, attempted to harvest, and harvested wild resources in 1993/94, while 86.2 percent received wild resources and 78.5 percent gave them away. On average, Seldovia households used 12.9 kinds of wild resources in this third study year, attempted to harvest 9.3 kinds, harvested 8.9 types, received 6.4 types, and gave away an average of 5.0 kinds. These levels were higher than in the previous study year (1992/93), but were quite similar to those of 1991/92.

As shown in Table VII-15, 93.4 percent of Seldovia's population participated in some resource harvest activities in 1993/94, even higher than the two previous years. In 1993/94, 78.1 percent of the population fished, 18.0 percent hunted, 1.6 percent trapped, 84.2 percent gathered wild plants, and 89.1 percent helped process these wild resources. There was substantial continuity across the three study years in individual participation in wild resource activities.

Resource Harvest Quantities and Harvest Composition

The estimated mean household harvest of wild resources in Seldovia for 1993/94 was 516.7 pounds usable weight, and the per capita harvest was 183.5 pounds (Table VII-14, Table VII-35). Both estimates are about midway between those of the two previous years, being lower than that of the first study year (1991/92) and higher than that of the second (1992/93) (Fig. VII-8). The composition of the

harvest in 1993/94 was broadly similar to the early findings (Table VII-18; Fig. VII-13, Fig. VII-14). As in 1992/93, salmon ranked first, at 35.0 percent of the total harvest, and other fish second, with 23.8 percent; other fish had ranked first in 1991/92 and salmon a very close second. As in both previous years, marine invertebrates were third (18.5 percent), land mammals fourth (12.9 percent) and wild plants fifth (8.5 percent). Birds and eggs, at 0.7 percent, and marine mammals, also at approximately 0.7 percent, made up very small portions of the total harvest, as they had in prior study years.

About 36.9 percent of the Seldovia households estimated that between 1 and 25 percent of their annual use of meat, fish, and poultry derived from wild foods, while 24.6 percent gave an estimate of 26 to 50 percent, 15.4 percent said 51 to 75 percent, and 9.2 percent said 76 to 99 percent. Additionally, 4.6 percent said that all their meat, fish and poultry was from wild resources, and 9.2 percent said that they used no wild meat (Table I-105). These percentages were very similar to those reported for 1991/92. As reported in Table VII-43, 43.1 percent of Seldovia respondents had used a wild food the day before the interview. This was very similar to the findings for the two previous years.

Most Seldovia households (56.7 percent) thought that their wild resource uses in 1993/94 were similar to the year before, while 20.0 percent said uses were higher and 23.3 percent said they were lower (Table I-95). Compared to the year before the spill (1988), subsistence uses in 1993/94 were about the same for 52.1 percent of the households, higher for 18.8 percent, and lower for 29.2 percent (Table I-95). The latter was very similar to the 25.0 percent reporting lower uses in 1991/92 than before the spill (Fig. VII-11). Just 7.7 percent of all sampled households (five households; 35.7 percent of the 14 households reporting lowered uses) cited an oil spill reason for their reduced level of uses in 1993/94 in comparison with 1988. The spill as a cause of lower numbers of animals was the most often mentioned reason (Table I-98). While for some resource categories, a larger percentage of respondents in 1994 than in 1992 said uses had gone down in comparison to 1988 (Fig. VII-11), few pointed to the spill as a cause of the change. For example, while half of the 20 households who used birds said their uses were down, only one household cited a spill-related reason (Table I-86).

As in the two previous study years, removal of resources from commercial harvests for home use was important in Seldovia in 1993/94, accounting for 16.9 percent of the total resource take. This compares to 19.1 percent in 1991/92 and 26.2 percent in 1992/93 (Table VII-36).

The 1993/94 salmon harvest of 64.3 pounds per person was virtually identical to that estimated for 1991/92 and just slightly higher than that for 1992/93. Rod and reel harvests predominated (60.1 percent of all salmon harvested; 65.5 percent of the usable pounds of salmon), followed by commercial removal (29.1 percent of the salmon) and subsistence methods (9.6 percent) (Table VII-37, Table VII-38). This represented an increase in the contribution of rod and reel harvests and a corresponding decrease in commercial removal and harvests with subsistence methods, compared to the first two study years. In 1993/94, 63.1 percent of the Seldovia households harvested salmon with rod and reel, 18.5 percent removed salmon from commercial catches for home use, and 7.7 percent used subsistence methods

(Table VII-39). In 1993/94, chinook ranked first among salmon in terms of pounds harvested per capita, and coho were second, followed by sockeye, chum, and pink.

For fish other than salmon, the 1993/94 estimated harvest of 43.6 pounds per person was very similar to that of the previous year (41.1 pounds per person) but remained well below the estimate for 1991/92 (68.2 pounds) (Table VII-17, Fig. VII-9). As in previous years, rod and reel harvests accounted for most of the catch (65.6 percent), followed by commercial removal (29.9 percent) and subsistence methods (4.5 percent) (Table VII-40, Table VII-41). As reported in Table VII-42, 50.8 percent of the households used rod and reel to harvest fish other than salmon, 24.6 percent removed these fish from commercial harvests, and 6.2 percent used subsistence methods.

The marine invertebrate harvest of 34.0 pounds per person in 1993/94 represented a near doubling of the estimated harvest of the year before (17.8 pounds per person) and a return to the relatively high harvest level estimated for 1991/92 (30.4 pounds per person) (Table VII-17, Fig. VII-9). Removal from commercial harvests accounted for just 5.7 percent of the total marine invertebrate take (Table VII-36).

Land mammal harvests also increased in 1993/94, to 23.6 pounds per person, in comparison to the estimate of 15.2 pounds in 1992/93, but remained below the 29.6 pounds per person estimated for 1991/92. Wild plant harvests also increased, to 15.6 pounds per person, higher than either of the previous two years. Harvests of marine mammals (1.2 pounds per person) and birds and eggs (1.3 pounds per person) were again relatively low in 1993/94 (Table VII-17; Fig. VII-9).

DISCUSSION

Patterns of Wild Resource Uses

As noted above, there was a substantial amount of continuity over the three study years of 1991/92, 1992/93, and 1993/94 in the patterns of wild resource use in Seldovia. Participation were very high, and the range of resources used was relatively broad. On the other hand, particularly striking is the very large difference between harvest estimates in these three most recent study years compared to findings from the 1982 division research (Reed 1985). The 1982 harvest estimate of 50.7 pounds per person is just 28.4 percent of the average of the three most recent study years. For the five major categories of resources which make up most of Seldovia's harvests (salmon, other fish, marine invertebrates, land mammals, and wild plants), in no case was a per capita estimate for one of the last three years less than twice that of 1982; in most cases, the more recent estimates were three to four times as large.

In contrast to the large difference in harvest quantities, the composition of the 1982 harvest is very similar to those of 1991/92, 1992/93, and 1993/94, and especially to the three-year average (Table VII-17, Table VII-18, Fig. VII-8, Fig. VII-14). Except for 1991/92, when salmon ranked second to other fish, the rank order of major resource categories' contribution to the total wild food harvest was identical between years.

Particularly noteworthy is the relatively high ranking of marine invertebrates, third overall in all four years. It is unusual in Southcentral Alaska for marine invertebrates to rank above land mammals or, in some Native communities, marine mammals.

There are several possible explanations for the differences in estimated quantities of resources harvested for home use in Seldovia in the early 1990s compared to 1982. One possibility is that the 1982 research did not accurately document harvest levels. Other explanations include regulatory changes, changes in resource abundance and availability, changes in the local economy, and demographic changes (including changes in the ethnic composition of the community).

Addressing the question of the reliability of the 1982 data, it should be noted that, at the time, some of the results were "unexpected," according to the researchers who conducted the study. It was, for example "surprising to find that despite an average lengthy household residency in the community, a resource-extractive economy, and proximity to marine resources, Seldovia households used fewer resources than nearby Homer which had a much larger population and more diversified economy" (Georgette 1985:1). Additional research was carried out in 1985, which largely supported the earlier study findings. One conclusion at the time was that "limited game in the area and regulatory restrictions on subsistence salmon fishing contributed to a relatively low harvest of resources by Seldovia households" (Georgette 1985:15). A second explanation concerned the cultural background of the majority of Seldovia residents:

[M]uch of the [surveyed] Seldovia population did not come from hunting and fishing traditions. Several long-term Seldovia residents who immigrated to the community during the 1920s explained that they hunted game when they had to but quit as soon as it was no longer necessary, when meat became available in the store. These immigrants felt that hunting was an activity one engaged in when there were no alternatives for food. They preferred to work for wages and purchase the meat they needed. This attitude is understandable in the context of Seldovia's historical role as Cook Inlet's commercial center (Georgette 1985:15).

This was offered as a reason why Seldovia's non-commercial resource uses in the early 1980s were below those of predominately Alaska Native communities in Cook Inlet such as Nanwalek, Port Graham, and Tyonek.

Third, the 1985 research found that in the 1970s and early 1980s, the commercial fisheries in which Seldovia fishermen participated had become increasingly competitive. These fishermen needed to participate in a variety of fisheries, often entailing distant travel, larger boats, investment in diverse gear, and consequent large debt. These factors discouraged removal of fish from the commercial catches for home use. For these fishermen, most of whom were seiners or drift gillnetters, fish were viewed more as a commodity than as a food item. Nevertheless, Seldovia set net fishermen exhibited a different pattern. They tended to fish more locally, were more oriented to sharing, and had local facilities for processing fish for home use (Georgette 1985:20-21).

As was noted earlier, the survey conducted for the 1982 study in Seldovia was based on a smaller household sample (35 households) and used a more limited list of resources to collect the harvest data than that employed during the last three study years. Because of these methods, it might be suggested that highly productive households were missed and that harvests of key resources were not recorded for 1982. This is unlikely, for three reasons. First, the 1982 sample of households contained a range harvest levels, including a relatively small portion of households that harvested well above the community average. A similar pattern was found in the later study years. Second, as noted above, despite the differences in harvest quantities, the composition of the harvests was very similar across all study years, suggesting that the 1982 sample was representative of activities occurring at the time. Third, even though a more limited list of resources was used, data were collected on the key species that make up the bulk of the harvests.

In summary, the available information suggests that the earlier data do provide a good representation of harvest quantities in Seldovia in the early 1980s. Consequently, the findings for 1991/92, 1992/93, and 1993/94 demonstrate a substantial increase in noncommercial resource uses in the community. This also means that the 1982 data should not be used to depict present levels of resource harvests and uses in Seldovia.

Changes in regulations may account for some of the differences between resource harvests in Seldovia in 1982 and those of the early 1990s. As is discussed in the Kenai chapter above, the regulations governing subsistence fishing in Cook Inlet in 1982 were vastly different than those in place in 1991, 1992, and 1993. In 1982, Seldovia Bay was closed to the taking of salmon under subsistence regulations (ADF&G 1982); further, other nearby open areas were restricted to use by residents of those areas only (i.e., only Port Graham and Nanwalek residents could subsistence fish in the Port Graham Subdistrict). For these reasons, there was no reported harvest by subsistence set gill nets or dip nets in 1982, only removal from commercial gear (35 percent) and use of rod and reel (65 percent) were reported (Reed 1985:186). In contrast, subsistence salmon harvests provided 41.6 pounds per household in 1991/92, 56.7 pounds in 1992/93, and 17.3 pounds in 1993/94. On the other hand, the contribution of subsistence-caught salmon remained relatively low; thus regulatory changes are not the primary explanation for the increase in estimated harvests.

A second source of the increased harvests in Seldovia is changes in resource abundance and availability of chinook and coho salmon. For example, the most widely used and harvested salmon in Seldovia in 1991, 1992, and 1993 was chinook salmon, with per capita harvests of 16.5 pounds, 18.0 pounds, and 26.6 pounds, respectively (Table VII-19, Table VII-27, and Table VII-35). This represents a significant difference from the 1982 data which rated use of chinook salmon below sockeyes, cohos, and pinks, with a per capita harvest of just 1.7 pounds (Reed 1985:153). Prior to 1988, chinook salmon were not available in the Seldovia area. In 1987, the Alaska Department of Fish and Game first released chinook smolt into Seldovia Bay (Dudiak 1993). About 800 chinooks returned in 1988, 1,000 in 1989, 1,340 in 1990, and 1,570 in 1991. Many respondents reported that they can now catch chinook salmon with rod and reel

in Seldovia Slough, whereas before they had to travel out of the Seldovia area. Rod and reel accounted for 69.9 percent of the chinook harvest in 1991/92, 69.4 percent in 1992/93, and 79.3 percent in 1993/94. There was very widespread household participation in this fishery: 53.0 percent of the households caught chinooks with rod and reel in 1991/92, as did 46.2 percent in 1992/93 and 56.9 percent in 1993/94. In sharp contrast, the 1982 survey reported that all of the chinook salmon harvested by the sampled households were brought home from commercial catches, by just four sampled households (11.4 percent) (Reed 1985:156).

Harvests of coho salmon by Seldovia residents also increased substantially from the 6.7 pounds per person recorded for 1982. Harvests of cohos, in pounds usable weight per person, were 19.4 pounds in 1991/92, 14.2 pounds in 1992/93, and 15.2 pounds in 1993/94. In 1982, coho salmon were scarce in the immediate Seldovia vicinity. The primary fishing location for cohos had been along the Rocky River Road, but in 1982 a portion of this road washed out, preventing ready access to coho runs in the Rocky River. In the mid 1980s, a restocking program rehabilitated runs of cohos into Seldovia Bay itself (Georgette 1985:17-18). Consequently, these fish have been more readily available for harvest with rod and reel or with subsistence gear than in 1982.

Changes in the local economy may also account for some of the differences in harvest quantities in Seldovia. As noted earlier, Seldovia has a historical reliance upon commercial fishing. As was explained by Reed (1985:148), salmon and crab resources have tended to fluctuate greatly from year to year over the last several decades. In 1975, 105 commercial fishing permits were held by Seldovia residents: 54 for crab, 34 for salmon, and 17 for other types of fish and shellfish (Reed 1983:189). By 1982, 161 permits were held by Seldovia residents: 31 for crab, 38 for salmon, 38 for halibut, 43 for herring, and 11 for other fish and other shellfish (Reed 1985:148). By 1991, only 24 crab permits were held by Seldovia residents (out of a total of 188 permits) and only six of these were specifically for Cook Inlet (Commercial Fisheries Entry Commission 1993). Crab permits were 51 percent of all permits held in 1975, 19 percent in 1982, and 13 percent in 1991. King crab fishing has been closed since 1983, and Dungeness crab fishing was closed in 1991 for Lower Cook Inlet. Most of the crab removed from commercial catches by Seldovia fishermen in all three study years was Tanner crab. But the 1991 commercial crab removal was only 4.4 percent of the total crab harvest as compared to the 1982 removal of 84 percent of the total crab harvest (Reed 1985:50).

Commercial salmon fishing in Cook Inlet has fared somewhat better than crab but has still seen its share of problems in the last few years. From 1984 through 1988, the salmon harvest for Cook Inlet increased along with the salmon prices (Kenai Peninsula Borough Economic Development District, Inc. 1992a, 1992b, 1992c). By 1991, the salmon harvest had declined 32 percent from the year before resulting in a ten-year low in harvest numbers. At the same time, prices for chinooks, sockeyes, and cohos were the second lowest they had been in ten years and pink and chum prices were the lowest they had been in ten years. The 1993 season was the fourth consecutive year which below average harvests and very low

prices resulted in earnings to fishers about half or less than the 20-year average (Bucher and Hammarstrom 1994:112).

The last fish cannery in Seldovia closed its doors in October of 1991, taking with it not only a local place to deliver fish, but also several seasonal jobs. A couple of respondents that had worked at the cannery were planning on leaving Seldovia because they were having difficulty finding work and had supplemented their food expenses with fish received from the cannery. A commercial fisherman who was interviewed in 1992 reported that his use of wild resources has decreased in recent years because "fishing has gone to hell," meaning his commercial fishing activities.

The relative contribution of resources removed from commercial catches remained fairly steady over all four study years. Seldovia residents obtained about 27 percent of their fish harvests for home use and 19.1 percent of their overall harvests by removal from commercial catches in 1991, compared to 36 percent in 1992 (26.2 percent of all resources) and 27 percent in 1993/94 (16.9 percent of all resources). This compares to 26.9 percent of all fish and 15.6 percent of all resources in 1982. In terms of harvest quantities, however, there has been a large increase since 1982, when about 4,750 pounds of wild foods were removed from commercial catches⁵ (about 8 pounds per person), compared to an average of about 12,735 pounds from 1991/92 through 1993/94 (about 33 pounds per person).

The decline in commercial fishing earnings has occurred alongside an increase in removal of resources from commercial catches for home use. This suggests that downturns in commercial fishing returns have encouraged people to retain more of their catch, and rely more heavily on local wild resources than had been the case in the early 1980s and 1970s when fishing incomes were higher.

Finally, demographic factors may play a role in the increase in wild resource harvests in Seldovia since the early 1980s. Overall, the population in the Seldovia area has decreased in the last 10 years; this decrease has been attributed to economic factors. It is possible that those who have chosen to remain in Seldovia are more committed to living in the community and to the harvest of local wild resources for food. It should also be noted that despite the general population decline, the Alaska Native population in Seldovia was higher in 1993 (141 people) than in 1980 (123). This segment of Seldovia's population has a strong commitment to traditional uses of wild foods (Reed 1979:70-73, Reed 1985:167-171), which has perhaps also been reinforced by the economic factors listed above.

Comparisons with other Communities

Comparatively, Seldovia's per capita harvest quantities in the 1990s were lower than those of the nearby, predominately Alaska Native communities of Port Graham (see Chapter VIII) and Nanwalek (see Chapter IX), as well as the smaller Alaska Native villages of Prince William Sound and the Kodiak Island Borough. Harvest levels in Seldovia were higher than those of road-connected Kenai Peninsula

⁵ This total only includes fish, since data on commercial removal of marine invertebrates were not collected for 1982.

communities such as Kenai (see Chapter VI), Cooper Landing (91.5 pounds in 1990-91), and Hope (110.7 pounds in 1990-91) (Seitz, Tomrdle, and Fall 1992), as well as Valdez (see Chapter III).

The Exxon Valdez Oil Spill and Seldovia: Findings from the Social Effects Questionnaire

This final section examines possible long-term effects of the *Exxon Valdez* oil spill (EVOS) on Seldovia, focusing primarily on patterns of wild resource use. Selected findings from the social effects questionnaire will be used. These are summarized in Tables VII-43 through VII-52). For a review of oil spill-related events in Seldovia in 1989, see Impact Assessment Inc. (IAI) (IAI 1990c:172-179) and for further discussion of the effects of the spill on Seldovia, see the summary of key respondent interviews conducted as part of the MMS-sponsored Social Indicators study (McNabb 1993).⁶

As discussed by IAI (1990c) and McNabb (1993), oil spill issues in Seldovia in 1989 especially concerned the view that Exxon and Veco "took over" the spill response, ignoring local institutions and knowledge. There was also criticism of the local government's handling of the spill response. Other effects noted by these studies included stress, anxiety over the future of resources and the commercial fishery, and effects on children separated from their parents.

In the present study, one of the most important reasons respondents gave for why they live in Seldovia was the small town, isolated, safe feeling they felt in the community. Some respondents felt the EVOS and clean-up activities were detrimental to this atmosphere by causing social disruption and stress within the community. Some residents said they noticed more "greed" among their neighbors and felt that the EVOS had "changed a lot of people." On the other hand, some residents felt that the EVOS may have brought people in the community together to work towards clean-up and prevention of future spills.

Regarding economic impacts of the spill, as also discussed in the Kenai chapter, some Seldovia fishermen were unable to commercial salmon fish in Upper Cook Inlet due to oil from the *Exxon Valdez* Oil Spill (EVOS). Other perceived effects mentioned by fishermen and business people included the lack of tenders that were hired away to work on the EVOS; lack of construction and maintenance associated with commercial fishing boats because many of these too were hired away to the EVOS; and lower prices for salmon in 1989.

In 1992, few Seldovia respondents to the social effects questionnaire said that their opinion of living in their community had suffered since the spill; just 14.8 percent said they liked living in Seldovia less in 1991 than before 1989, as did 10.9 percent in 1993, and 14.0 percent in 1994 (Table VII-49). This was about the same as Port Graham and Nanwalek, but notably below the level of increased dissatisfaction expressed by residents of Prince William Sound communities (Fig. I-8).

⁶ Keeble (1991:181-194) describes, in one chapter of his book on the oil spill, some spill-related issues and events in Seldovia in 1989. These include an early volunteer effort to deploy booms to protect Seldovia Bay, frustrations in getting adequate fiscal and logistical support from Exxon and Veco, allegations that Exxon largely ignored clean-up needs in Cook Inlet, and further allegations that some individuals and groups profited improperly from the spill.

In the IAI study and the social indicators project, interviewed respondents in Seldovia did not offer as concerns any oil spill-related subsistence issues or food contamination issues. The lack of these two issues as post-spill concerns is in stark contrast to the neighboring communities of Port Graham and Nanwalek, where concerns about the safety of subsistence foods and the short-term and long-term impacts of the spill on subsistence resources were central issues.

The division did not conduct systematic household surveys to document subsistence harvests levels in Seldovia in 1989, the year of the oil spill. Therefore, it is not possible to directly assess any effects of the spill on harvests and uses in that specific year. In Nanwalek and Port Graham, subsistence harvests were down about 50 percent in 1989 compared to 1987 (Fall 1991b). As noted above, it appears that subsistence harvests in Seldovia in the three study years of 1991/92, 1992/93, and 1993/94 were substantially higher than those of the early 1980s. This suggests that if the spill had disrupted subsistence harvests in Seldovia in 1989, the effect was short-lived. Further evidence of a relatively small impacts on harvest levels in Seldovia is provided in Figure I-16. Only 25.0 percent of the Seldovia households stated that they believed their overall level of resource uses in 1991/92 was lower than the year before the oil spill. This was fourth-lowest among study communities, and half or less the rate for the nearby communities of Port Graham (50.0 percent reporting lowered uses in 1991/92) and Nanwalek (57.7 percent having lower uses in 1991/92). Also, as illustrated in Figure VII-11, in the assessment of 70 percent or more of the Seldovia households, resource uses at the category level were about the same or higher in 1991/92 than in 1988. Regarding 1993/94, while 29.2 percent of the households said their uses were lower than in 1988, only five (10.4 percent of the 48 sampled households which had lived in the community before the spill) pointed to the spill as the reason for the change (Table I-98).

As discussed in Chapter I, the safety of using subsistence resources which may have been contaminated by oil was a major issue in many villages following the *Exxon Valdez* spill (Fall 1991a, 1991b; Walker and Field 1991). In the first study year, eight sampled Seldovia households (12.1 percent) discarded some wild resources during the study year (Table I-107). Marine invertebrates were the most frequently discarded, by three households (4.5 percent). In most cases, respondents were unable to provide a suggested cause of the abnormality, although most said they had not observed such conditions before the oil spill.

Only 36.7 percent of Seldovia households in 1991 reported that they had been adequately informed about the safety of subsistence foods (Table VII-51). This was the second-lowest of any study community (after Chenega Bay) and substantially below that of Port Graham (50.0 percent adequately informed) and Nanwalek (62.1 percent adequately informed) (Fig. I-9). In the second study year, about half the Seldovia respondents said they had been adequately informed, but this dropped to 36.2 percent in 1994. It should be noted that the Oil Spill Health Task Force did not include Seldovia in its round of community visits in 1989 or 1991. This was primarily because the Task Force had not received any communications from the community that oil contamination was a concern

In 1992 and subsequent years, few Seldovia respondents expressed concerns about the safety of subsistence foods. None in 1992 and just 6.3 percent in 1993 suggested that seals were not safe for children to eat. This percentage increased in 1994 to 20 percent (3 or 15 households which used seals) which said they were not sure if seals were safe for children to eat; none said they were certain they were not safe and none gave a reason for their uncertainty, however. Regarding the safety of using clams, just 6.8 percent in 1992, 3.4 percent in 1993, and 6.8 percent in 1994 had misgivings about the safety of clams. In 1993 and 1994, one respondent cited oil contamination as the reason for clams being unsafe; none mentioned oil contamination in 1992. Concerns about the safety of these resources were much higher in all three study years in Port Graham, Nanwalek, and the Prince William Sound villages of Tatitlek and Chenega Bay (Fig. I-4, Fig. I-5).

Several questions in the social effects instrument addressed potential social effects of the spill, including its possible impact on the noncommercial distribution and exchange of subsistence foods among households. Most Seldovia respondents did not suggest that sharing of subsistence foods had declined since the spill (Table VII-47). In 1992, only 15.5 percent gave that opinion, fourth lowest among the study communities and below the level for Port Graham (32.6 percent) and Nanwalek (48.1 percent). In the second study year, only 11.5 percent of Seldovia's respondents said sharing was less than 1988; this was the lowest among all study communities. This percentage increased slightly for 1993, to 22.4 percent, but remained lower than Port Graham, Nanwalek, and the Alaska Native villages of Prince William Sound (Fig. I-7).

Likewise, only 7.9 percent of the Seldovia respondents in 1992 said they believed that the spill had affected children's participation in subsistence activities, second lowest among study communities in that study year. This percentage rose slightly, to 14.8 percent of respondents in 1993, but remained relatively low, and returned to about its first year level in the third study year, at 7.9 percent (Table VII-46). This contrasted with Port Graham and Nanwalek, where 43.2 percent and 53.8 percent, respectively, in the first study year, 34.8 percent and 61.3 percent in the second year, and 54.5 percent and 62.1 percent in the third year, said that the spill had adversely affected children's participation in subsistence (Fig. I-6).

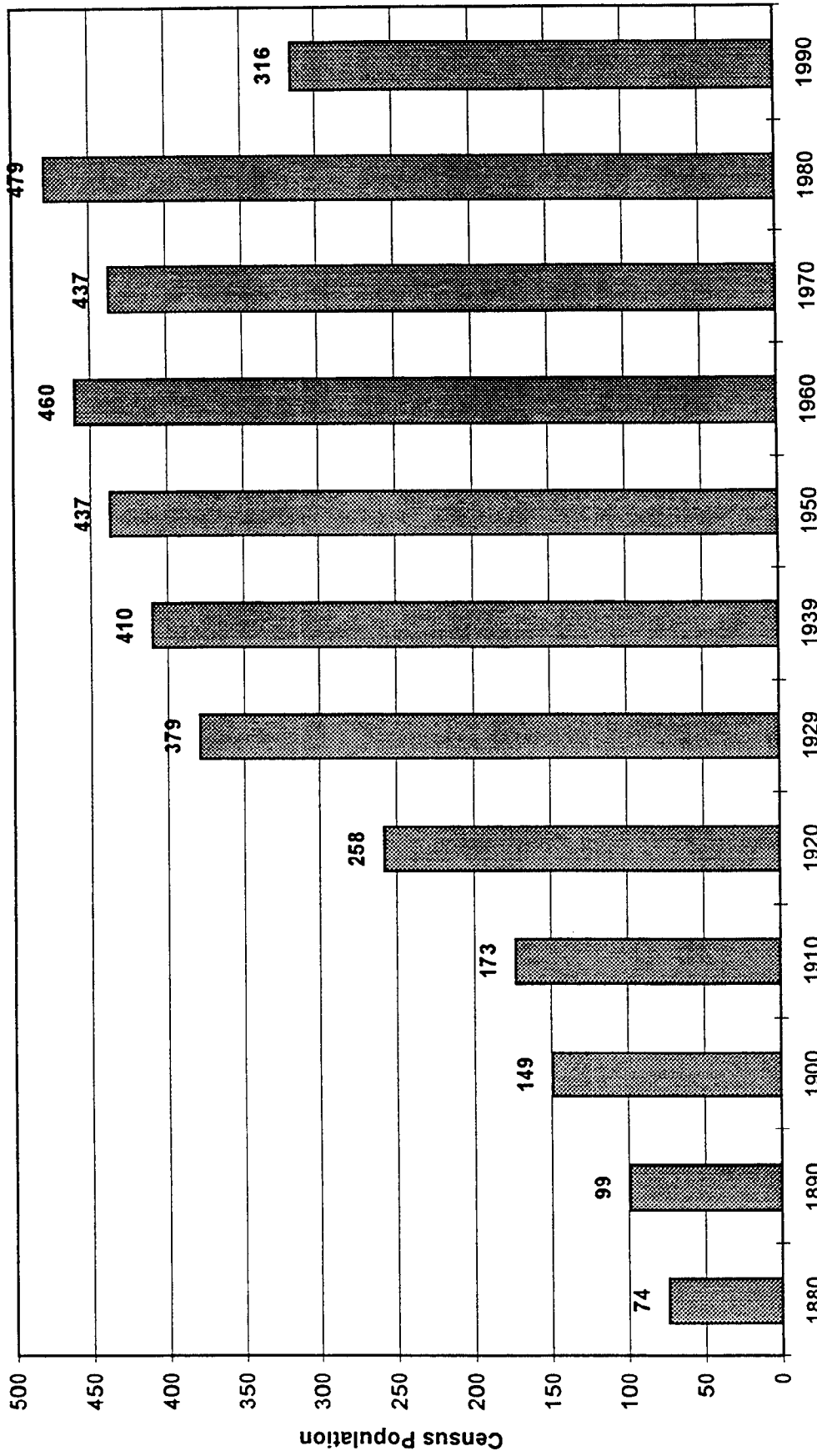
For most resources, a relatively low percentage of Seldovia respondents believed that populations had declined since the year before the spill. For many resources, such as rockfish, octopus, sea lions, bidarkies (chitons), sea urchins, and harbor seals, respondents offered no opinion as to resource status (Table VII-45). Only for clams, a very widely used and highly valued resource in Seldovia, did a majority of respondents (61.5 percent) in 1992 report there were less than in 1988 (Fig. VII-15). This percentage dropped to 45.3 percent in 1993 (Fig. VII-16), but bounced back up to 63.5 percent in 1994 (Fig. VII-17). This was also the resource category for which the largest percentage of respondents reported lowered uses in 1991/92 in comparison to 1988 (24.2 percent). Also, a shift occurred from the first to the second year, with a larger percentage of households reporting lowered populations of salmon, common murre, and sea ducks. This was generally the case in the third study year as well, with a larger percentage of

respondents reporting lower populations than they had reported in the first study year (Table VII-45). Particularly noteworthy in the third year was the relatively large percentage of respondents reporting that salmon populations had dropped compared to before the spill. This view was offered by 59.6 percent of the respondents in 1994, compared to just 28.8 percent in 1992 and 41.5 percent in 1992 (Table VII-45).

Concerning the impact of future Outer Continental Shelf (OCS) development, just under half of Seldovia's respondents predicted lower levels of fish (43.8 percent in 1991, 43.1 percent in 1992, 49.2 percent in 1993), marine mammals (48.4 percent, 46.2 percent, 47.7 percent), birds (42.2 percent, 41.5 percent, 38.5 percent), and marine invertebrates (48.4 percent, 41.5 percent, and 49.2 percent), about in the mid-range of community responses. Lower percentages, 35.9 percent in 1991, 26.2 percent in 1992, and 24.6 percent in 1993, predicted lowered land mammal populations if OCS development occurred. About 46.9 percent of the Seldovia's respondents for the 1991 study year thought that OCS development would bring more jobs; this rose to 55.4 percent for 1992 but dropped to 41.5 percent in 1993 (Table VII-52). This was about midway between the responses from Nanwalek (lower) and Port Graham (higher), but far fewer than Kenai (88.0 percent for 1991, 97.3 percent in 1992, 85.1 percent in 1993) (Fig. I-15).

In summary, it appears that among Kenai Peninsula communities, the *Exxon Valdez* oil spill left more long-lasting affects in Nanwalek and Port Graham than in Seldovia. Comparatively few households in Seldovia reported lowered harvest levels, reduced levels of sharing, lower participation in subsistence activities by children, or depressed resource populations since the spill, and few were concerned about oil contamination of subsistence foods. This may in part reflect the relatively low levels of oiling of beaches near Seldovia, in contrast to the moderate to heavy oiling suffered by some places, such as Windy Bay and Chugach Bay, that are part of the subsistence harvest areas of Port Graham and Nanwalek. On the other hand, Seldovia residents, like their neighbors in Nanwalek and Port Graham, were divided over the potential benefits of outer continental shelf development, with about half predicting negative impacts on fish and wildlife and about half predicting enhanced employment opportunities. This is in contrast to Kenai, a community highly dependent on the oil and gas industry, where most respondents did not predict environmental problems with OCS development and most believed that new jobs would result from such activities.

Figure VII-1. Seldovia Census Population, 1880 - 1990



Sources: Rollins 1978; Alaska Department of Labor 1991

Table VII-1. Sample Participation: Seidovia, 1992, 1993, and 1994

VARIABLE	1992		1993		1994		TOTAL HOUSEHOLDS
	Social Indicators		Social Effects		Social Effects		
	Panel	Non-Panel*	Panel	Non-Panel*	Panel	Non-Panel*	
Estimated Household Structures	16	173	189	42	215	225	257
Non-Residential Structures	NA	2	2	NA	NA	NA	0
Estimated Households	16	171	187	42	215	225	257
Total Panel	27	NA	NA	50	NA	NA	NA
Interview Goal:	27	38	65	32	33	33	65
Households Interviewed	11	55	66	32	33	25	65
Failed to Contact	2	19	21	7	9	4	17
Refused	1	3	4	3	11	3	11
Vacant Households	0	39	39	NA	56	NA	52
Seasonal Households**	2	6	8	0	6	0	0
Non-Resident Household ***	0	0	0	0	5	0	0
Vacant and Invalid Households:	2	45	47	0	67	0	52
Failed to Contact: HH Interviewed	0	0	0	0	NA	0	NA
Refused: HH Interviewed	0	0	0	0	NA	0	NA
Panel Household Moved	4	NA	NA	7	NA	1	NA
Panel Respondent Deceased	0	NA	NA	1	NA	0	NA
Panel Disposition	0	0	0	50	NA	33	NA
Total Households Attempted:	16	122	138	42	120	32	145
Refusal Rate:	6.25%	2.46%	2.90%	8.57%	25.00%	10.71%	14.47%
Non-Perm. HH Rate ("Vacancy Rate"):	12.5%	36.9%	34.1%	0.0%	55.8%	0.0%	35.9%
Interview Goal (Percentage)	40.7%	144.7%	101.5%	100.0%	100.0%	78.1%	100.0%
Social Effects Surveys Completed	11	54	65	32	33	25	65
Total Permanent Households	14	108	122	42	95	32	153
Percentage Interviewed	78.57%	50.93%	54.10%	76.19%	34.74%	78.13%	42.48%
Percentage of Total Households	11.48%	88.52%	100.00%	30.66%	69.34%	20.92%	100.00%
Interview Weighting Factor	1.273	1.984	1.848	1.313	2.879	1.280	2.354

NOTES:

Shaded areas are computed fields.

* Includes panel members who were not attempted to contact.

** Seasonal households are households which maintain a permanent domicile elsewhere where they spend the majority of their time.

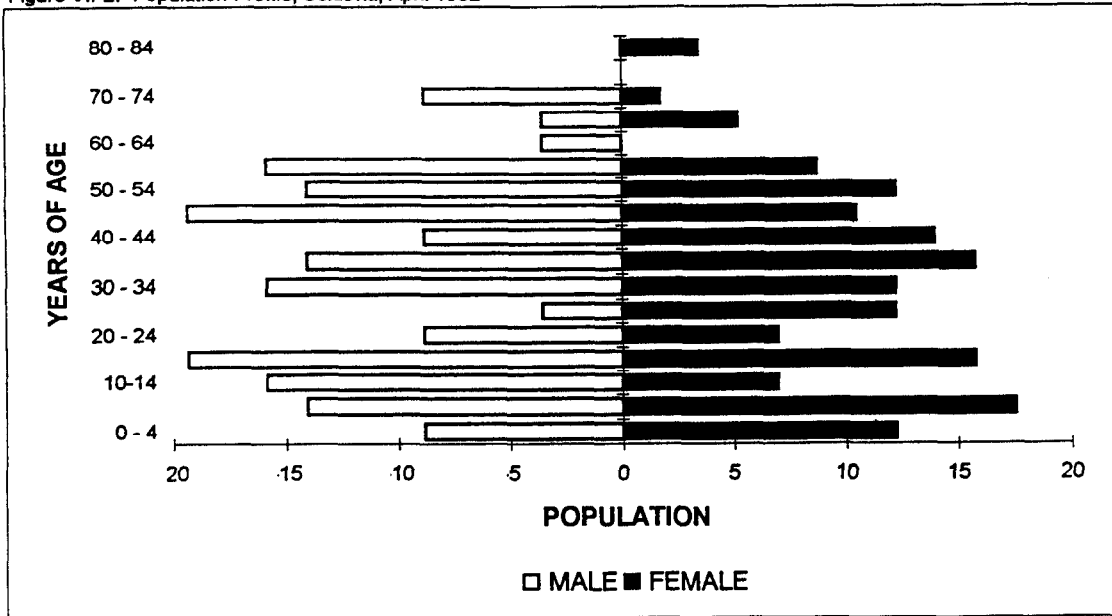
*** Non-resident households are households which were not present during the study year or which were resident less than the required number of months.

Table VII-2 . Demographic Characteristics of Households, Seldovia, April 1992, April 1993, and April 1994

Characteristics	1991/92 SY	1992/93 SY	1993/94 SY
Sampled Households	66	65	65
Number of Households in the Community	116	137	153
Percentage of Households Sampled	56.90	47.45	42.48
Household Size			
Mean	2.94	2.74	2.82
Minimum	1.00	1.00	1
Maximum	6.00	6.00	6
Sample Population	194	178	183
Estimated Community Population	340.97	375.17	430.75
Age			
Mean	33.59	33.10	34.10
Minimum	0.32	0.34	1.43
Maximum	84.40	90.86	86.40
Median	33.708	34.809	36.604
Length of Residency - Population			
Mean	13.88	15.12	15.10
Minimum	0.32	0.13	0
Maximum	66.13	80.13	63.63
Length of Residency - Household Heads			
Mean	17.76	20.16	19.73
Minimum	0.63	0.63	0
Maximum	66.13	80.13	63.63
Sex			
Males			
Number	179.27	193.91	228.32
Percentage	52.58	51.69	53.01
Females			
Number	161.70	181.26	202.43
Percentage	47.42	48.31	46.99
Alaska Native			
Households (Either Head)			
Number	31.64	52.69	58.85
Percentage	27.27	38.46	38.46
Estimated Population			
Number	80.85	128.57	141.23
Percentage	23.71	34.27	32.79

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994

Figure VII-2. Population Profile, Seldovia, April 1992



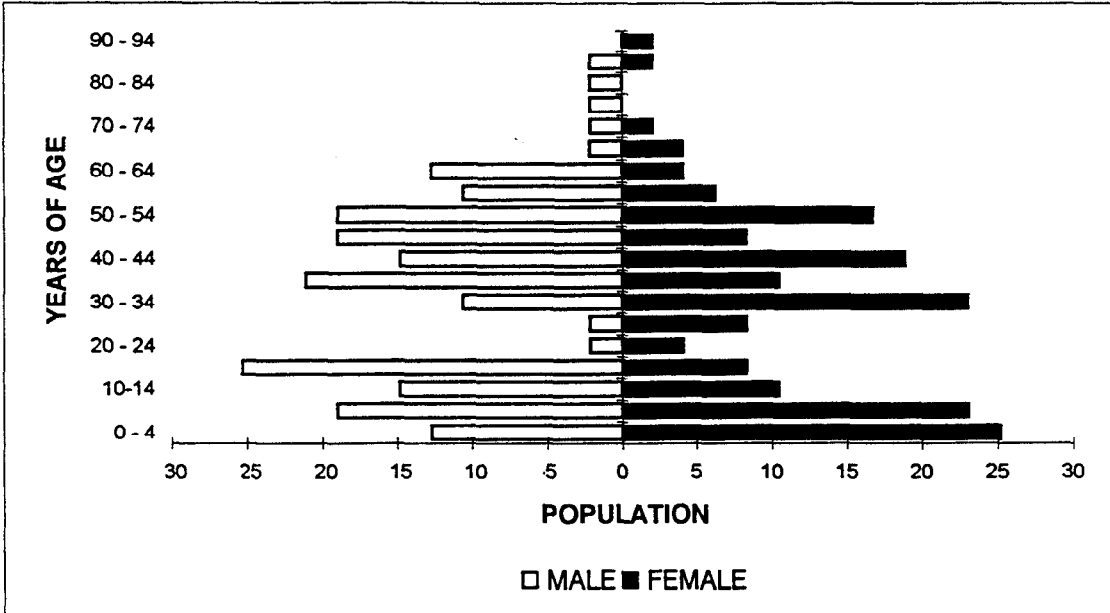
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VII-3. Population Profile, Seldovia, April 1992

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	8.79	4.90%	4.90%	12.30	7.61%	7.61%	21.09	6.19%	6.19%
5 - 9	14.06	7.84%	12.75%	17.58	10.87%	18.48%	31.64	9.28%	15.46%
10 - 14	15.82	8.82%	21.57%	7.03	4.35%	22.83%	22.85	6.70%	22.16%
15 - 19	19.33	10.78%	32.35%	15.82	9.78%	32.61%	35.15	10.31%	32.47%
20 - 24	8.79	4.90%	37.25%	7.03	4.35%	36.96%	15.82	4.64%	37.11%
25 - 29	3.52	1.96%	39.22%	12.30	7.61%	44.57%	15.82	4.64%	41.75%
30 - 34	15.82	8.82%	48.04%	12.30	7.61%	52.17%	28.12	8.25%	50.00%
35 - 39	14.06	7.84%	55.88%	15.82	9.78%	61.96%	29.88	8.76%	58.76%
40 - 44	8.79	4.90%	60.78%	14.06	8.70%	70.65%	22.85	6.70%	65.46%
45 - 49	19.33	10.78%	71.57%	10.55	6.52%	77.17%	29.88	8.76%	74.23%
50 - 54	14.06	7.84%	79.41%	12.30	7.61%	84.78%	26.36	7.73%	81.96%
55 - 59	15.82	8.82%	88.24%	8.79	5.43%	90.22%	24.61	7.22%	89.18%
60 - 64	3.52	1.96%	90.20%	0.00	0.00%	90.22%	3.52	1.03%	90.21%
65 - 69	3.52	1.96%	92.16%	5.27	3.26%	93.48%	8.79	2.58%	92.78%
70 - 74	8.79	4.90%	97.06%	1.76	1.09%	94.57%	10.55	3.09%	95.88%
75 - 79	0.00	0.00%	97.06%	0.00	0.00%	94.57%	0.00	0.00%	95.88%
80 - 84	0.00	0.00%	97.06%	3.52	2.17%	96.74%	3.52	1.03%	96.91%
85 - 89	0.00	0.00%	97.06%	0.00	0.00%	96.74%	0.00	0.00%	96.91%
90 - 94	0.00	0.00%	97.06%	0.00	0.00%	96.74%	0.00	0.00%	96.91%
95 - 99	0.00	0.00%	97.06%	0.00	0.00%	96.74%	0.00	0.00%	96.91%
100 - 104	0.00	0.00%	97.06%	0.00	0.00%	96.74%	0.00	0.00%	96.91%
Missing	5.27	2.94%	100.00%	5.27	3.26%	100.00%	10.55	3.09%	100.00%
TOTAL	179.27	52.58%		161.70	47.42%		340.97	100.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure VII-3. Population Profile, Seldovia, April 1993



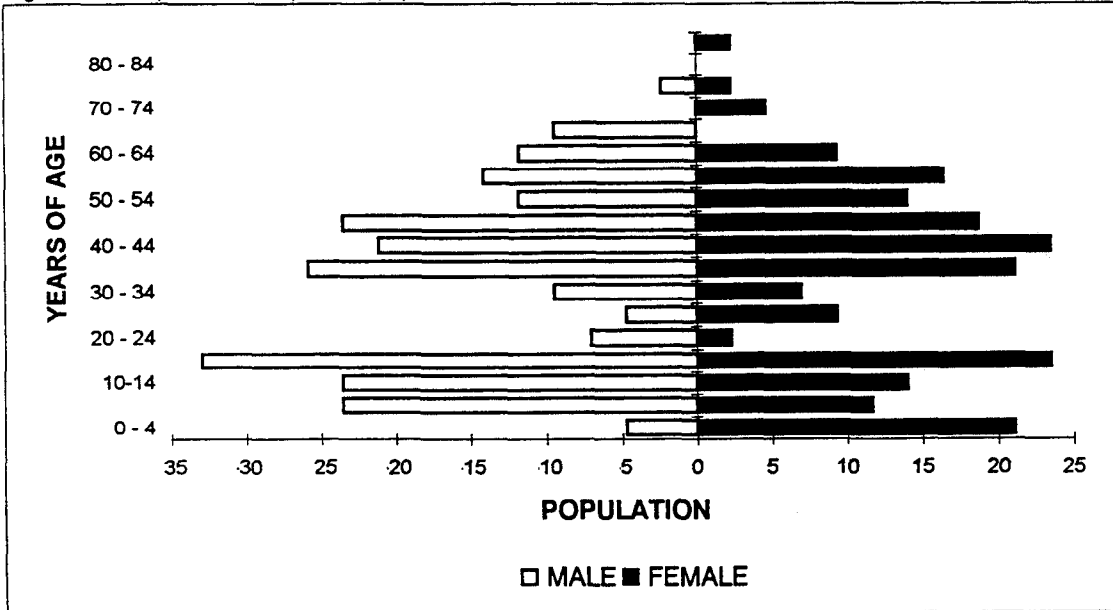
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VII-4. Population Profile, Seldovia, April 1993

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	12.65	6.52%	6.52%	25.29	13.95%	13.95%	37.94	10.11%	10.11%
5 - 9	18.97	9.78%	16.30%	23.18	12.79%	26.74%	42.15	11.24%	21.35%
10 - 14	14.75	7.61%	23.91%	10.54	5.81%	32.56%	25.29	6.74%	28.09%
15 - 19	25.29	13.04%	36.96%	8.43	4.65%	37.21%	33.72	8.99%	37.08%
20 - 24	2.11	1.09%	38.04%	4.22	2.33%	39.53%	6.32	1.69%	38.76%
25 - 29	2.11	1.09%	39.13%	8.43	4.65%	44.19%	10.54	2.81%	41.57%
30 - 34	10.54	5.43%	44.57%	23.18	12.79%	56.98%	33.72	8.99%	50.56%
35 - 39	21.08	10.87%	55.43%	10.54	5.81%	62.79%	31.62	8.43%	58.99%
40 - 44	14.75	7.61%	63.04%	18.97	10.47%	73.26%	33.72	8.99%	67.98%
45 - 49	18.97	9.78%	72.83%	8.43	4.65%	77.91%	27.40	7.30%	75.28%
50 - 54	18.97	9.78%	82.61%	16.86	9.30%	87.21%	35.83	9.55%	84.83%
55 - 59	10.54	5.43%	88.04%	6.32	3.49%	90.70%	16.86	4.49%	89.33%
60 - 64	12.65	6.52%	94.57%	4.22	2.33%	93.02%	16.86	4.49%	93.82%
65 - 69	2.11	1.09%	95.65%	4.22	2.33%	95.35%	6.32	1.69%	95.51%
70 - 74	2.11	1.09%	96.74%	2.11	1.16%	96.51%	4.22	1.12%	96.63%
75 - 79	2.11	1.09%	97.83%	0.00	0.00%	96.51%	2.11	0.56%	97.19%
80 - 84	2.11	1.09%	98.91%	0.00	0.00%	96.51%	2.11	0.56%	97.75%
85 - 89	2.11	1.09%	100.00%	2.11	1.16%	97.67%	4.22	1.12%	98.88%
90 - 94	0.00	0.00%	100.00%	2.11	1.16%	98.84%	2.11	0.56%	99.44%
95 - 99	0.00	0.00%	100.00%	0.00	0.00%	98.84%	0.00	0.00%	99.44%
100 - 104	0.00	0.00%	100.00%	0.00	0.00%	98.84%	0.00	0.00%	99.44%
Missing	0.00	0.00%	100.00%	2.11	1.16%	100.00%	2.11	0.56%	100.00%
TOTAL	193.91	51.69%		181.26	48.31%		375.17	100.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure VII-4. Population Profile, Seldovia, April 1994



SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-5. Population Profile, Seldovia, April 1994

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	4.71	2.06%	2.06%	21.18	10.47%	10.47%	25.89	6.01%	6.01%
5-9	23.54	10.31%	12.37%	11.77	5.81%	16.28%	35.31	8.20%	14.21%
10-14	23.54	10.31%	22.68%	14.12	6.98%	23.26%	37.66	8.74%	22.95%
15 - 19	32.95	14.43%	37.11%	23.54	11.63%	34.88%	56.49	13.11%	36.07%
20 - 24	7.06	3.09%	40.21%	2.35	1.16%	36.05%	9.42	2.19%	38.25%
25 - 29	4.71	2.06%	42.27%	9.42	4.65%	40.70%	14.12	3.28%	41.53%
30 - 34	9.42	4.12%	46.39%	7.06	3.49%	44.19%	16.48	3.83%	45.36%
35 - 39	25.89	11.34%	57.73%	21.18	10.47%	54.65%	47.08	10.93%	56.28%
40 - 44	21.18	9.28%	67.01%	23.54	11.63%	66.28%	44.72	10.38%	66.67%
45 - 49	23.54	10.31%	77.32%	18.83	9.30%	75.58%	42.37	9.84%	76.50%
50 - 54	11.77	5.15%	82.47%	14.12	6.98%	82.56%	25.89	6.01%	82.51%
55 - 59	14.12	6.19%	88.66%	16.48	8.14%	90.70%	30.60	7.10%	89.62%
60 - 64	11.77	5.15%	93.81%	9.42	4.65%	95.35%	21.18	4.92%	94.54%
65 - 69	9.42	4.12%	97.94%	0.00	0.00%	95.35%	9.42	2.19%	96.72%
70 - 74	0.00	0.00%	97.94%	4.71	2.33%	97.67%	4.71	1.09%	97.81%
75 - 79	2.35	1.03%	98.97%	2.35	1.16%	98.84%	4.71	1.09%	98.91%
80 - 84	0.00	0.00%	98.97%	0.00	0.00%	98.84%	0.00	0.00%	98.91%
85 - 89	0.00	0.00%	98.97%	2.35	1.16%	100.00%	2.35	0.55%	99.45%
90 - 94	0.00	0.00%	98.97%	0.00	0.00%	100.00%	0.00	0.00%	99.45%
95 - 99	0.00	0.00%	98.97%	0.00	0.00%	100.00%	0.00	0.00%	99.45%
100 - 104	0.00	0.00%	98.97%	0.00	0.00%	100.00%	0.00	0.00%	99.45%
Missing	2.35	1.03%	100.00%	0.00	0.00%	100.00%	2.35	0.55%	100.00%
TOTAL	228.32	53.01%		202.43	46.99%		430.75	100.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-6. Employment Characteristics, Seldovia, 1991/92, 1992/93, and 1993/94

Characteristics		1991/92	1992/93	1993/94
ADULTS				
Total		249.58	255.03	317.77
Employed	Number	166.97	204.45	249.51
	Percentage	66.90	80.17	78.52
Jobs	Number	223.21	330.91	386.03
	Mean	1.34	1.62	1.55
	Minimum	1	1	1
	Maximum	4	5	5
Months Employed	Mean	8.67	8.60	8.89
	Minimum	1	1	1
	Maximum	12	12	12
	Year-Round	40.00%	39.18%	45.28%
HOUSEHOLDS				
Total		116.00	137.00	153.00
Employed	Number	103.70	120.14	143.58
	Percentage	89.39	87.69	93.85
Jobs per Employed Household	Mean	2.15	2.75	2.69
	Minimum	1	1	1
	Maximum	7	6	11
Employed Adults	Mean	1.61	1.70	1.74
	Minimum	1	1	1
	Maximum	5	4	6

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993 and 1994.

Figure VII-5. Employment by Industry, Seldovia, 1991/92

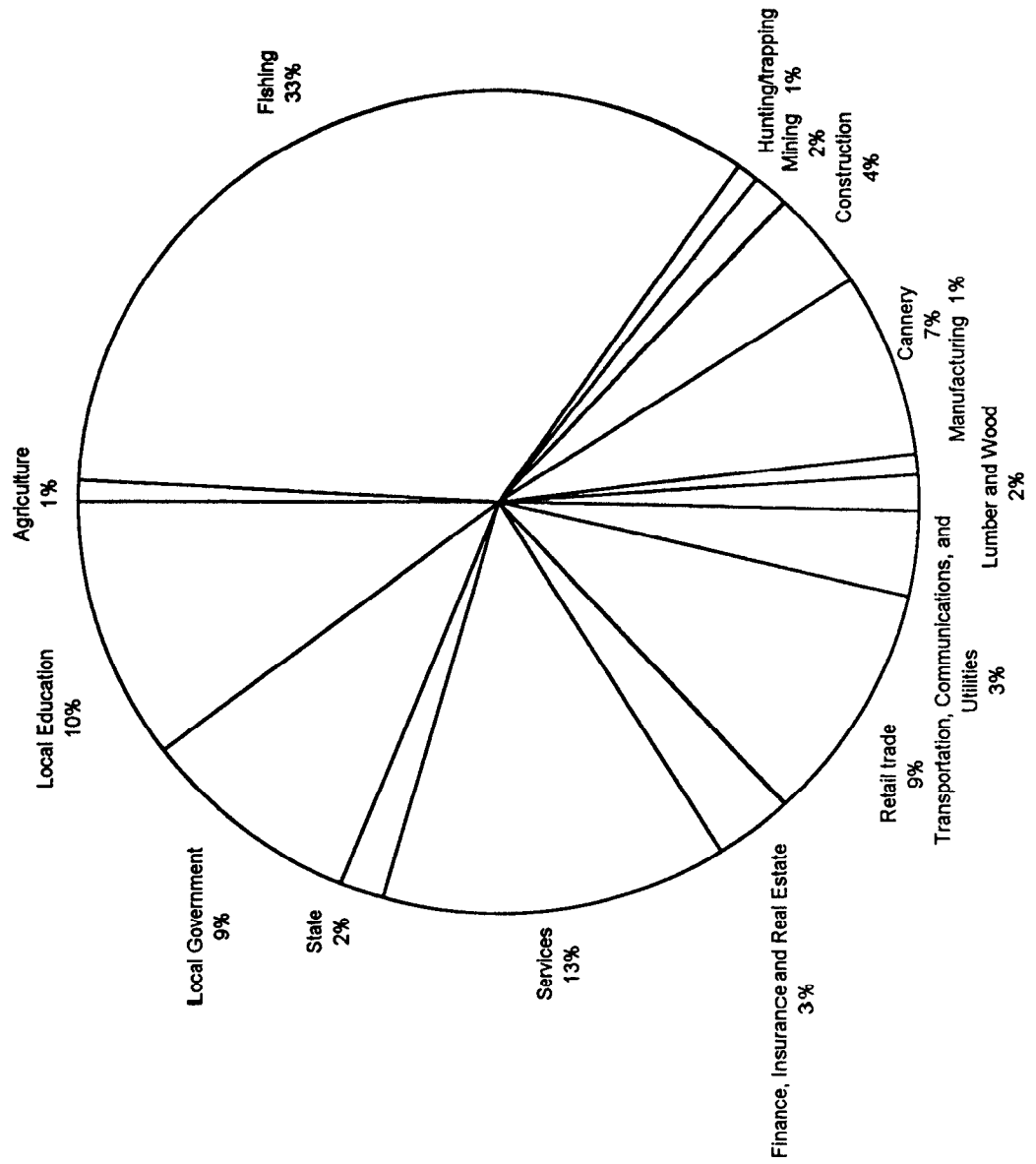


Table VII-7. Community, Household, and Per Capita Incomes, All Sources and by Employer Type, Seidovia, 1991/92

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$4,990,626.49	\$43,022.64	\$14,636.57
Earned Income	\$3,892,719.59	\$33,557.93	\$11,416.61
Agriculture, Forestry, and Fishing	1,482,269.09	12,778.18	4,347.22
Agriculture	0.00	0.00	0.00
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	1,482,269.09	12,778.18	4,347.22
Hatchery/Enhancement	0.00	0.00	0.00
Commercial Fishing	1,482,093.33	12,776.67	4,346.70
Hunting/Trapping	175.76	1.52	0.52
Mining	351,515.15	3,030.30	1,030.93
Construction	131,818.18	1,136.36	386.60
Manufacturing	179,338.64	1,546.02	525.97
Cannery	179,338.64	1,546.02	525.97
Other Manufacturing	AMT UNK	AMT UNK	AMT UNK
Logging/Timber	AMT UNK	AMT UNK	AMT UNK
Transportation, Communications, and Utilities	65,909.09	568.18	193.30
Trade	145,527.27	1,254.55	426.80
Wholesale	0.00	0.00	0.00
Retail	145,527.27	1,254.55	426.80
Finance, Insurance, and Real Estate	177,093.33	1,526.67	519.38
Services	225,286.06	1,942.12	660.72
Government	1,133,962.77	9,775.54	3,325.70
Federal	0.00	0.00	0.00
State	AMT UNK	AMT UNK	AMT UNK
Local	1,133,962.77	9,775.54	3,325.70
Local Government	420,763.64	3,627.27	1,234.02
Local Education	713,199.13	6,148.27	2,091.68
Unknown	0.00	0.00	0.00
Other Income	\$1,097,906.90	\$9,464.71	\$3,219.95

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VII-8. Community, Household, and Per Capita Other Income by Source, Seldovia, 1991/92

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$1,097,906.90	\$9,464.71	\$3,219.95
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	3.03	7.03	0.06	0.02
Adult Public Assistance	0.00	0.00	0.00	0.00
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	9.09	204,666.18	1,764.36	600.25
Longevity Bonus	15.15	52,727.27	454.55	154.64
Social Security	16.67	128,693.71	1,109.43	377.43
Workman's Comp./Insurance	0.00	0.00	0.00	0.00
Energy Assistance	4.55	1,933.33	16.67	5.67
Supplemental Security Income	3.03	15,269.82	131.64	44.78
Food Stamps	0.00	0.00	0.00	0.00
Unemployment	15.15	37,499.13	323.27	109.98
Native Corporation Dividend	22.73	72,829.55	627.84	213.60
Dividend/Interest	10.61	135,333.33	1,166.67	396.91
Child Support	0.00	0.00	0.00	0.00
Rental Income	0.00	0.00	0.00	0.00
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	87.88	243,897.03	2,102.56	715.30
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	0.00	0.00	0.00	0.00
Housing Allowances/Off-Base Allowances	0.00	0.00	0.00	0.00
Women, Infants, and Children Program	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Other	7.58	205,050.51	1,767.68	601.37

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure VII-6. Employment by Industry, Seidovia, 1992/93

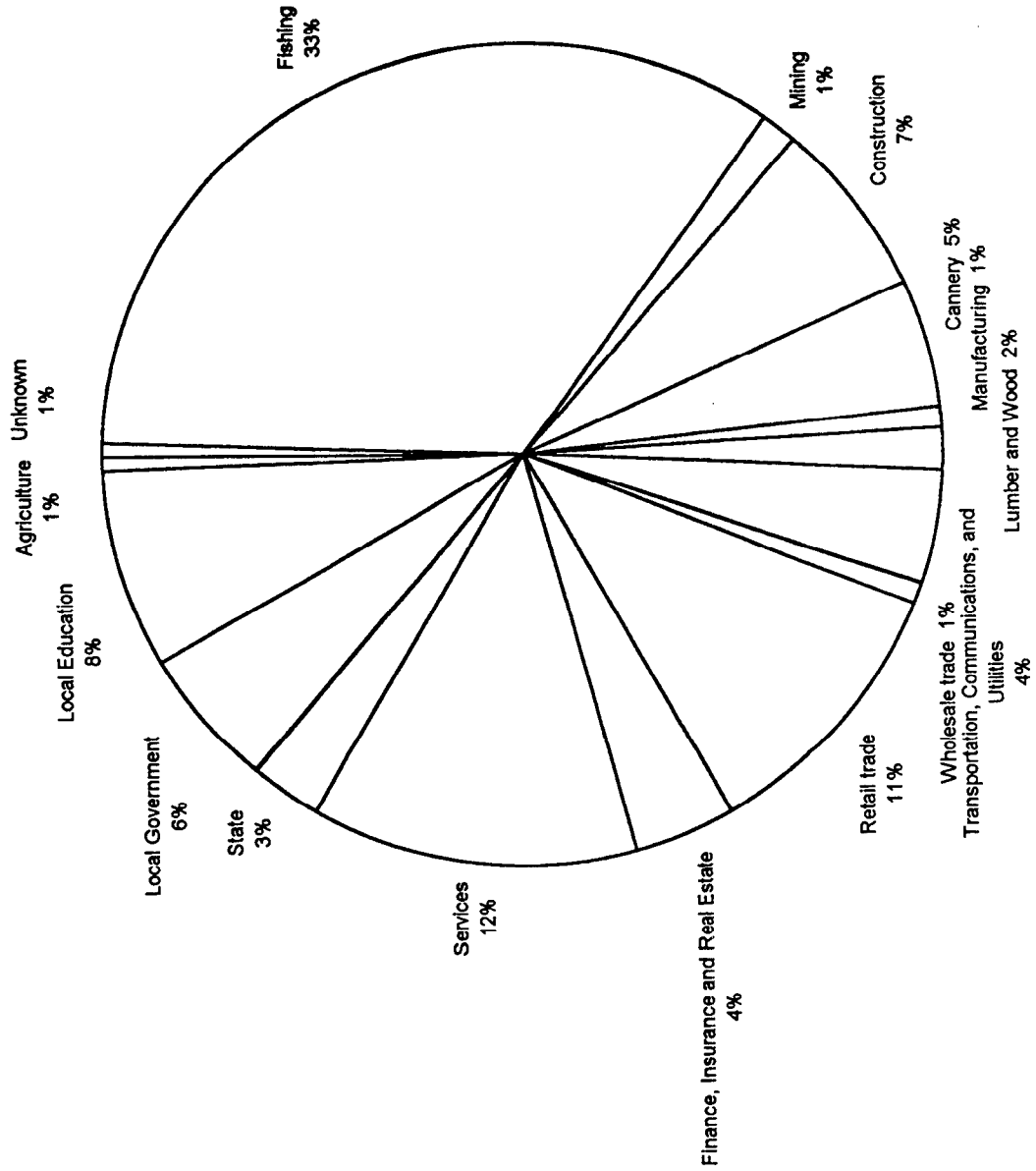


Table VII-9. Subsistence Equipment Expenses and Use, Seldovia, 1991/92

Sampled Households = 66
Community Households = 116

Equipment Type	Equipment Count		Replacement		Equipment Cost		Use of Equipment for Subsistence		HH Sharing of Equipment	
	Total	HH Mean	HH Mean	HH Mean	Annual Fuel	Annual Cost	% of Cost	Total Cost	% Borrowing	% Lending
All Equipment			\$15,591.15	\$339.45	\$722.02	54.14	\$1,045,844.96	\$9,015.90	28.79	39.39
Skiff with outboard	56.24	0.48	\$2,334.85		\$186.56	48.33	\$141,472.68	\$1,219.59	10.61	21.21
Outboard Motor	8.79	0.08	\$136.36	\$0.91	\$31.82	8.60	\$1,687.27	\$14.55	0.00	4.55
Boats with inboard	14.06	0.12	\$5,265.15	\$176.77	\$234.85	76.18	\$501,670.71	\$4,324.75	9.09	1.52
Skiff, manually-propelled	5.27	0.05	\$87.88		\$0.00	98.62	\$10,053.33	\$86.67	0.00	1.52
ATV/Motorcycle	15.82	0.14	\$525.25	\$3.56	\$5.45	39.11	\$24,239.90	\$208.96	1.52	4.55
Snowmachine/snowmobile	1.76	0.02	\$27.27	\$0.61	\$5.30	75.00	\$2,886.82	\$24.89	1.52	0.00
Airplane	3.52	0.03	\$378.79	\$34.96	\$52.56	5.00	\$2,704.63	\$23.32	0.00	0.00
Highway vehicle	42.18	0.36	\$2,659.85	\$117.34	\$64.98	32.45	\$107,000.71	\$922.42	4.55	10.61
Tackle			\$402.44		\$26.08	89.54	\$44,508.70	\$383.70	6.06	24.24
Pots	47.45	0.41	\$31.82		\$2.27	100.00	\$3,954.55	\$34.09	3.03	6.06
Fishing Nets	29.88	0.26	\$126.26		\$4.55	60.42	\$9,168.69	\$79.04	0.00	1.52
Guns	228.48	1.97	\$878.52				\$101,908.64	\$878.52	1.52	7.58
Traps	268.91	2.32	\$47.42				\$5,501.21	\$47.42	0.00	3.03
Ammunition					\$42.32		\$5,787.61	\$49.89	0.00	1.52
Cabins	1.76	0.02	\$13.64		\$0.00	100.00	\$1,581.82	\$13.64	3.03	1.52
Miscellaneous Camping Equipment			\$262.68				\$30,471.34	\$262.68	3.03	3.03
Fishing/Hunting Camps	26.36	0.23	\$1,704.55			98.58	\$194,915.15	\$1,680.30	1.52	4.55
Freezer	133.58	1.15	\$467.11				\$54,184.60	\$467.11	4.55	12.12
Miscellaneous freezing supplies					\$23.83		\$2,764.13	\$23.83	1.52	1.52
Canner	65.03	0.56	\$68.52				\$7,948.64	\$68.52	6.06	10.61
Miscellaneous canning supplies					\$21.93		\$2,543.86	\$21.93	1.52	3.03
Vacuum sealer/Sealer	36.91	0.32	\$82.93				\$9,619.31	\$82.93	3.03	3.03
Miscellaneous sealer supplies					\$8.37		\$970.66	\$8.37	0.00	1.52
Smoke house/dry rack	52.73	0.45	\$85.31				\$9,895.92	\$85.31	7.58	10.61
Miscellaneous smoker supplies					\$11.15		\$1,293.37	\$11.15	3.03	3.03

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992.

Table VII-10. Community, Household, and Per Capita Incomes, All Sources and by Employer Type, Seldovia, 1992/93

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$5,056,304.54	\$36,907.33	\$13,477.40
Earned Income	\$4,004,643.75	\$29,230.98	\$10,674.23
Agriculture, Forestry, and Fishing	1,423,449.33	10,390.14	3,794.15
Agriculture	12,646.15	92.31	33.71
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	1,410,803.18	10,297.83	3,760.44
Hatchery/Enhancement	0.00	0.00	0.00
Commercial Fishing	1,410,803.18	10,297.83	3,760.44
Hunting/Trapping	0.00	0.00	0.00
Mining	286,646.15	2,092.31	764.04
Construction	133,088.12	971.45	354.74
Manufacturing	242,393.05	1,769.29	646.09
Cannery	170,415.35	1,243.91	454.24
Other Manufacturing	843.08	6.15	2.25
Logging/Timber	71,134.62	519.23	189.61
Transportation, Communications, and Utilities	198,123.08	1,446.15	528.09
Trade	282,315.80	2,060.70	752.50
Wholesale	52,692.31	384.62	140.45
Retail	229,623.50	1,676.08	612.05
Finance, Insurance, and Real Estate	115,501.54	843.08	307.87
Services	358,277.83	2,615.17	954.98
Government	964,848.85	7,042.69	2,571.77
Federal	0.00	0.00	0.00
State	152,386.15	1,112.31	406.18
Local	812,462.69	5,930.38	2,165.59
Local Government	281,587.69	2,055.38	750.56
Local Education	530,875.00	3,875.00	1,415.03
Unknown	AMT UNK	AMT UNK	AMT UNK
Other Income	\$1,051,660.78	\$7,676.36	\$2,803.16

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VII-11. Community, Household, and Per Capita Other Income by Source, Seldovia, 1992/93

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$1,051,660.78	\$7,676.36	\$2,803.16
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	3.08	50,057.69	365.38	133.43
Adult Public Assistance	0.00	0.00	0.00	0.00
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	9.23	219,021.27	1,598.70	583.79
Longevity Bonus	13.85	63,230.77	461.54	168.54
Social Security	10.77	129,981.38	948.77	346.46
Workman's Comp./Insurance	0.00	0.00	0.00	0.00
Energy Assistance	6.15	3,509.31	25.62	9.35
Supplemental Security Income	1.54	AMT UNK	AMT UNK	AMT UNK
Food Stamps	3.08	6,744.62	49.23	17.98
Unemployment	13.85	66,896.05	488.29	178.31
Native Corporation Dividend	29.23	97,510.16	711.75	259.91
Dividend/Interest	6.15	30,582.62	223.23	81.52
Child Support	3.08	16,018.46	116.92	42.70
Rental Income	3.08	18,126.15	132.31	48.31
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	98.46	326,279.20	2,381.60	869.69
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	0.00	0.00	0.00	0.00
Housing Allowances/Off-Base Allowances	0.00	0.00	0.00	0.00
Women, Infants, and Children Program	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Other	6.15	23,703.11	173.02	63.18

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure VII-7. Employment by Industry, Seldovia, 1993/94

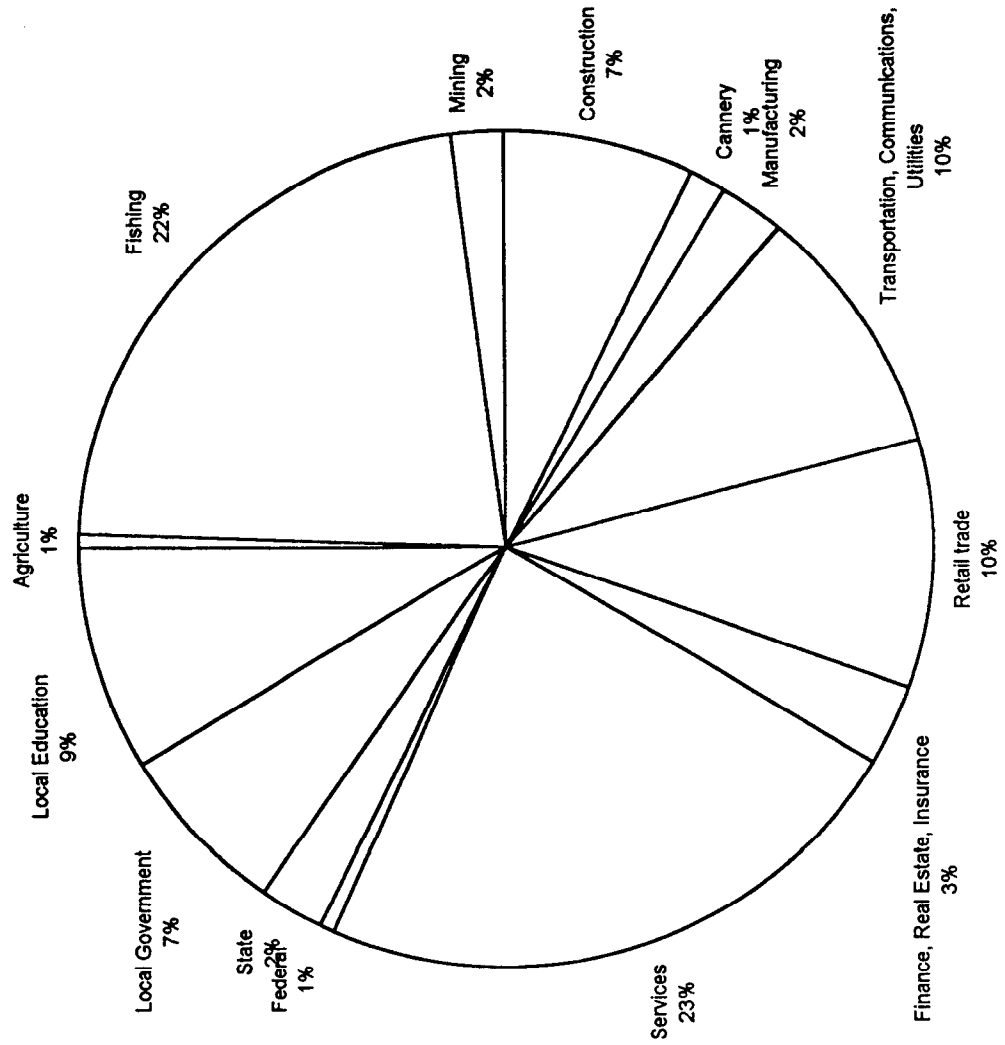


Table VII-12. Community, Household, and Per Capita Incomes, All Sources and by Employer Type, Seldovia, 1993/94

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$7,539,223.31	\$49,275.97	\$17,502.39
Earned Income	\$4,284,997.04	\$28,006.52	\$9,947.67
Agriculture, Forestry, and Fishing	657,714.31	4,298.79	1,526.89
Agriculture	1,412.31	9.23	3.28
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	656,302.00	4,289.56	1,523.61
Hatchery/Enhancement	0.00	0.00	0.00
Commercial Fishing	656,302.00	4,289.56	1,523.61
Hunting/Trapping	0.00	0.00	0.00
Mining	282,461.54	1,846.15	655.74
Construction	424,310.19	2,773.27	985.04
Manufacturing	38,108.77	249.08	88.47
Cannery	AMT UNK	AMT UNK	AMT UNK
Other Manufacturing	38,108.77	249.08	88.47
Logging/Timber	0.00	0.00	0.00
Transportation, Communications, and Utilities	287,689.43	1,880.32	667.87
Trade	285,582.74	1,866.55	662.98
Wholesale	0.00	0.00	0.00
Retail	285,582.74	1,866.55	662.98
Finance, Insurance, and Real Estate	57,904.62	378.46	134.43
Services	1,328,477.14	8,682.86	3,084.07
Government	922,748.31	6,031.03	2,142.17
Federal	14,123.08	92.31	32.79
State	181,089.23	1,183.59	420.40
Local	727,536.00	4,755.14	1,688.98
Local Government	160,782.15	1,050.86	373.26
Local Education	566,753.85	3,704.27	1,315.73
Unknown	0.00	0.00	0.00
Other Income	\$3,254,226.26	\$21,269.45	\$7,554.72

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-13. Community, Household, and Per Capita Other Income by Source, Seldovia, 1993/94

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$3,254,226.26	\$21,269.45	\$7,554.72
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	4.62	78,736.15	514.62	182.79
Adult Public Assistance	1.54	AMT UNK	AMT UNK	AMT UNK
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	12.31	423,315.69	2,766.77	982.73
Longevity Bonus	9.23	35,307.69	230.77	81.97
Social Security	10.77	152,872.89	999.17	354.90
Workman's Comp./Insurance	1.54	AMT UNK	AMT UNK	AMT UNK
Energy Assistance	9.23	5,790.46	37.85	13.44
Supplemental Security Income	1.54	AMT UNK	AMT UNK	AMT UNK
Food Stamps	10.77	50,331.51	328.96	116.85
Unemployment	10.77	138,089.80	902.55	320.58
Native Corporation Dividend	35.38	1,786,218.92	11,674.63	4,146.73
Dividend/Interest	4.62	105,923.08	692.31	245.90
Child Support	0.00	0.00	0.00	0.00
Rental Income	3.08	18,830.77	123.08	43.72
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	1.54	32,953.85	215.38	76.50
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	1.54	5,413.85	35.38	12.57
Alaska Permanent Fund Dividend	92.31	349,826.22	2,286.45	812.13
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	1.54	70,615.38	461.54	163.93
ASRC Elder Trust	0.00	0.00	0.00	0.00
Supplemental Union Benefits	0.00	0.00	0.00	0.00
Gifts	0.00	0.00	0.00	0.00
Medicare/Medicaid	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-14. Characteristics of Resource Harvest and Use, Seldovia, 1991/92, 1992/93, and 1993/94

Study Year	1991/92	1992/93	1993/94
Mean Number Of Resources Used Per Household	13.52	12.31	12.94
Minimum	0	0	0
Maximum	36	30	37
95 % Confidence Limit (+/-)	9.91	9.81	10.83
Median	11.5	11	13
Mean Number Of Resources Attempted To Harvest Per Household	9.30	8.91	9.29
Minimum	0	0	0
Maximum	35	27	25
95 % Confidence Limit (+/-)	11.83	12.46	11.71
Median	8	8	8
Mean Number Of Resources Harvested Per Household	9.00	8.35	8.88
Minimum	0	0	0
Maximum	35	27	25
95 % Confidence Limit (+/-)	12.26	12.72	11.90
Median	8	8	7
Mean Number Of Resources Received Per Household	6.42	6.18	6.38
Minimum	0	0	0
Maximum	24	23	31
95 % Confidence Limit (+/-)	14.02	13.78	16.31
Median	5	5	5
Mean Number Of Resources Given Away Per Household	4.80	4.28	5
Minimum	0	0	0
Maximum	21	20	17
95 % Confidence Limit (+/-)	17.66	18.01	15.79
Median	3	3	5
Mean Household Harvest, Pounds	603.96	397.45	516.69
Minimum	0.00	0.00	0.00
Maximum	4,583.04	3,788.62	3,466.15
Total Pounds Harvested	70,059.41	54,450.78	79,053.88
Community Per Capita Harvest, Pounds	205.47	145.14	183.52
Percent Using Any Resource	98.48	98.46	95.38
Percent Attempting To Harvest Any Resource	92.42	93.85	95.38
Percent Harvesting Any Resource	92.42	93.85	95.38
Percent Receiving Any Resource	95.45	95.38	86.15
Percent Giving Away Any Resource	84.85	84.62	78.46
Number Of Households In Sample	66	65	65
Number of Resources Available	114	133	146

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994

Table VII-15. Participation in the Harvest and Processing of Wild Resources, Seldovia, 1991/92, 1992/93, and 1993/94

Study Year			1991/92	1992/93	1993/94
Total Number of People			340.97	375.17	430.75
GAME	Hunt	Number	73.82	99.06	77.68
		Percentage	21.65	26.40	18.03
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	93.15	120.14	131.82
		Percentage	27.32	32.02	30.60
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
FISH	Fish	Number	265.39	290.86	336.60
		Percentage	77.84	77.53	78.14
		Missing	1.76	0.00	0.00
		Missing %	0.52	0.00	0.00
	Process	Number	267.15	299.29	334.25
		Percentage	78.35	79.78	77.60
		Missing	1.76	0.00	0.00
		Missing %	0.52	0.00	0.00
FURBEARERS	Hunt or Trap	Number	3.52	6.32	7.06
		Percentage	1.03	1.69	1.64
		Missing	1.76	0.00	0.00
		Missing %	0.52	0.00	0.00
	Process	Number	3.52	10.54	16.48
		Percentage	1.03	2.81	3.83
		Missing	1.76	0.00	0.00
		Missing %	0.52	0.00	0.00
PLANTS	Gather	Number	254.85	301.40	362.49
		Percentage	74.74	80.34	84.15
		Missing	1.76	0.00	0.00
		Missing %	0.52	0.00	0.00
	Process	Number	235.52	263.46	348.37
		Percentage	69.07	70.22	80.87
		Missing	1.76	0.00	0.00
		Missing %	0.52	0.00	0.00
ANY RESOURCE	Attempt	Number	304.06	339.34	402.51
		Percent	89.18	90.45	93.44
	Process	Number	302.30	322.48	383.68
		Percent	88.66	85.96	89.07

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994

Table VII-16. Percentage of Households Sharing Resources by Community, Seldovia, 1991/92

Community	Salmon		Non-salmon Fish		Marine Invertebrates		Game		Marine Mammals		Birds and Eggs		Plants and Berries*		Any Resource	
	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave
All Communities	63.64	50.00	60.61	54.55	74.24	43.94	42.42	21.21	6.06	3.03	7.58	7.58	50.00	56.06	95.45	84.85
Anchor Point	0.00	0.00	0.00	1.52	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.00	1.52	1.52
Anchorage	0.00	9.09	1.52	13.64	0.00	6.06	6.06	3.03	0.00	0.00	0.00	0.00	0.00	12.12	7.58	24.24
Cantwell	0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.00
English Bay	3.03	0.00	0.00	0.00	1.52	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	1.52
Homer	4.55	4.55	1.52	3.03	4.55	3.03	0.00	3.03	0.00	1.52	0.00	0.00	1.52	4.55	7.58	9.09
Hoonah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.00	1.52
Iliamna	0.00	0.00	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52
Jakolof Bay	1.52	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.03	0.00
Kenai	0.00	0.00	0.00	1.52	3.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	3.03	1.52
Kodiak City	1.52	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	1.52	1.52
Kotzebue	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52
Ninitchik	0.00	1.52	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52
Palmer	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52
Port Graham	1.52	3.03	3.03	3.03	1.52	3.03	0.00	1.52	3.03	1.52	3.03	0.00	3.03	3.03	3.03	3.03
Seldovia	46.97	28.79	57.58	43.94	72.73	37.88	31.82	15.15	4.55	1.52	4.55	7.58	46.97	36.36	92.42	77.27
Seward	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.00
Skagway	0.00	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.00
Soldotna	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.00	1.52
Valdez	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.00	1.52
Wasilla	0.00	1.52	0.00	1.52	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.03	0.00	4.55
Other U.S.	0.00	18.18	0.00	13.64	0.00	4.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.61	0.00	31.82
Community Unknown	7.58	4.55	3.03	0.00	0.00	1.52	4.55	3.03	0.00	0.00	0.00	1.52	0.00	1.52	15.15	10.61

* Plants and Berries includes sharing of wood and help for fertilizer.

Note: Percentages are based upon valid responses.

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992.

Table VII-17. Subsistence Harvests in Pounds Usable Weight per Person by Resource Category, Seldovia, 1982, 1991/92, 1992/93, and 1993/94

	Pounds Usable Weight per Person				Three-Year Average, 1991/92 through 1993/94
	1982	1991/92	1992/93	1993/94	
Salmon	17.9	64.6	58.5	64.3	62.5
Other Fish	11.6	68.2	41.1	43.6	50.1
Marine Invertebrates	8.4	30.4	17.8	34.0	27.6
Land Mammals	7.0	29.6	15.2	23.6	22.6
Marine Mammals	0.0	0.0	1.3	1.2	0.9
Birds and Eggs	1.4	1.2	1.3	1.3	1.3
Wild Plants	4.4	11.6	9.9	15.6	12.5
All Resources	50.7	205.5	145.1	183.5	177.4

Table VII-18. Composition of Resource Harvests by Resource Category, Seldovia, 1982, 1991/92, 1992/93, and 1993/94

	Percentage of Total Harvest				Three-Year Average, 1991/92 through 1993/94
	1982	1991/92	1992/93	1993/94	
Salmon	35.3%	31.4%	40.3%	35.0%	35.2%
Other Fish	22.8%	33.2%	28.3%	23.8%	28.2%
Marine Invertebrates	16.6%	14.8%	12.3%	18.5%	15.6%
Land Mammals	13.8%	14.4%	10.5%	12.9%	12.7%
Marine Mammals	0.0%	0.0%	0.9%	0.7%	0.5%
Birds and Eggs	2.8%	0.6%	0.9%	0.7%	0.7%
Wild Plants	8.7%	5.6%	6.8%	8.5%	7.0%

Figure VII-8. Harvests of Wild Resources for Home Use, Pounds Usable Weight per Capita, Seldovia, 1982, 1991/92, 1992/93, and 1993/94

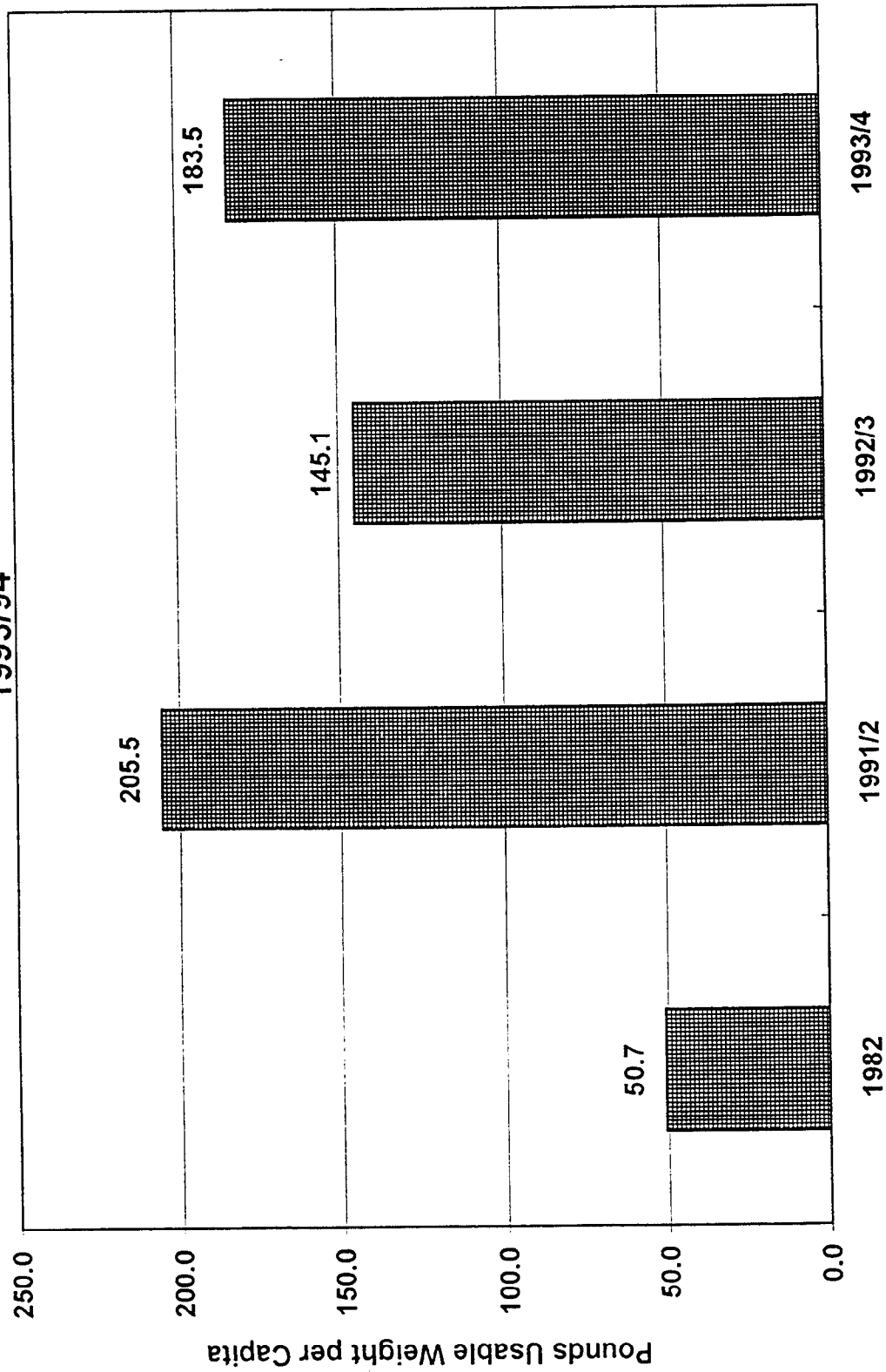


Figure VII-9. Per Capita Harvests of Wild Resources by Resource Category, Seldovia, 1982, 1991/92, 1992/93, and 1993/94

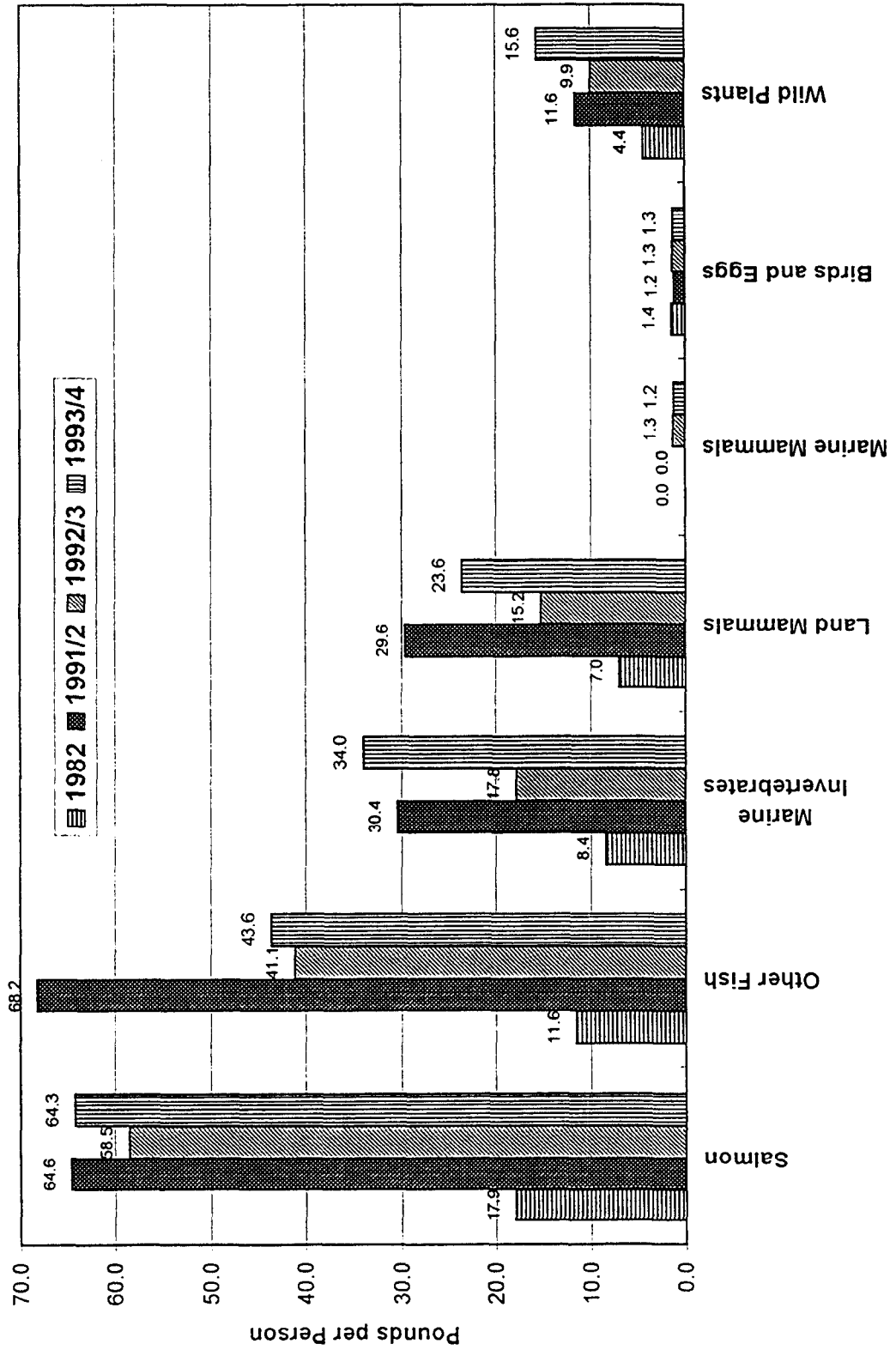


Figure VII-10. Composition of Wild Resource Harvests by Resource Category, Seldovia, 1991/92

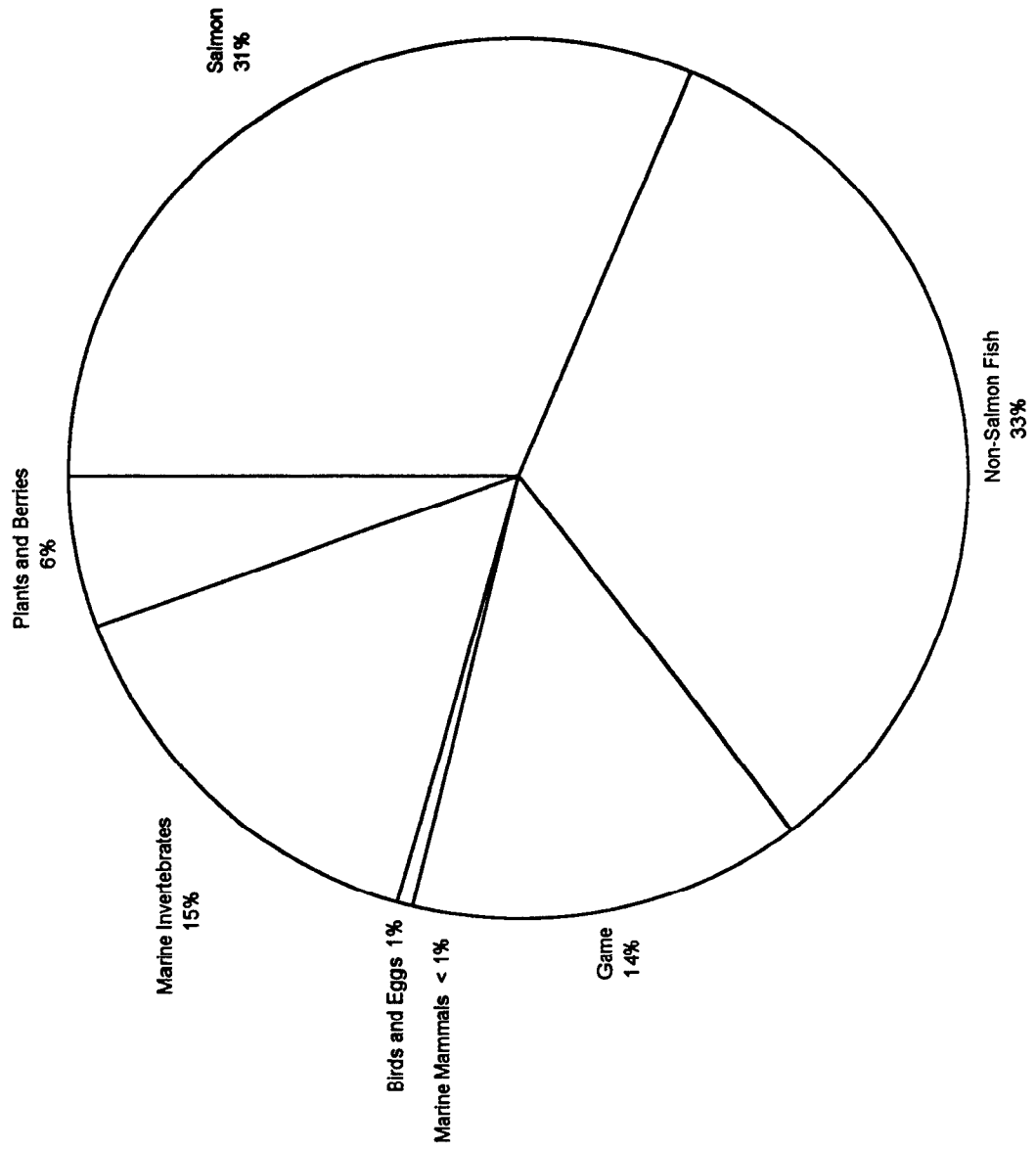


Figure VII-11. Percentage of Seldovia Households Reporting Lower Levels of Uses of Wild Resources Compared to 1988, the Year Before the Exxon Valdez Oil Spill

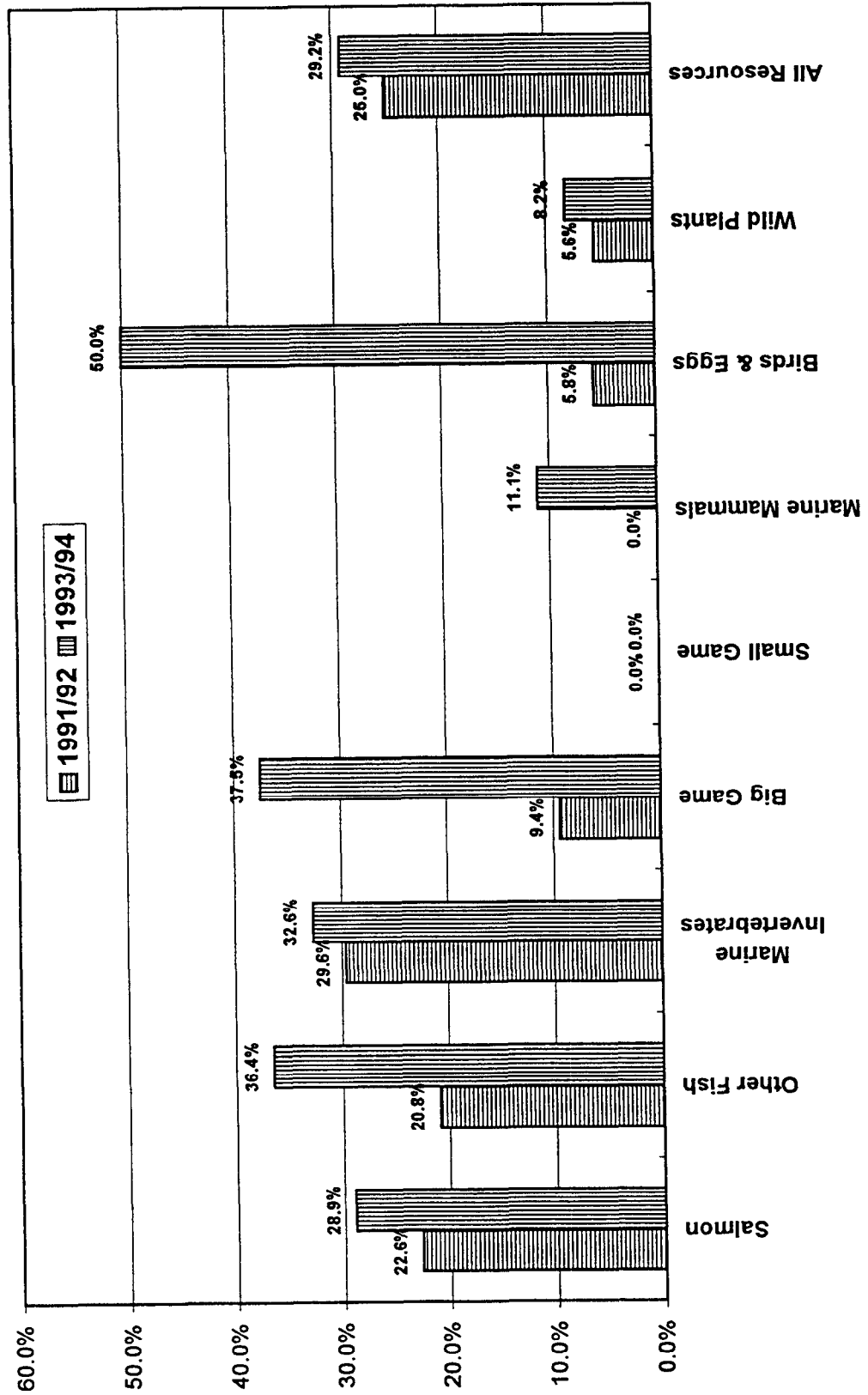


Table VII-19. Estimated Harvest and Use of Fish, Mammal, Bird, and Plant Resources, Setdovia, 1991/92

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	98.5	92.4	92.4	95.5	84.8	70,059.41	603.96	205.47			21.81%	21.80%
Fish	97.0	90.9	89.4	77.3	69.7	45,269.83	390.26	132.77			23.46%	23.66%
Salmon	92.4	80.3	78.8	60.6	50.0	22,018.24	189.81	64.58	4,910.67	42.33	35.69%	33.56%
Chum Salmon	28.8	28.8	28.8	3.0	10.6	4,213.96	36.33	12.36	759.27	6.55	62.08%	61.38%
Coho Salmon	69.7	57.6	57.6	21.2	28.8	6,629.40	57.15	19.44	1,339.27	11.55	45.97%	45.32%
Chinook Salmon	74.2	65.2	65.2	34.8	39.4	5,637.11	48.60	16.53	636.24	5.48	26.41%	25.24%
Pink Salmon	40.9	36.4	36.4	10.6	13.6	1,930.17	16.64	5.66	1,015.88	8.76	53.39%	52.85%
Sockeye Salmon	59.1	34.8	34.8	30.3	21.2	3,607.60	31.10	10.58	1,160.00	10.00	41.38%	41.03%
Unknown Salmon	3.0	1.5	0.0	3.0	1.5	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Non-Salmon Fish	90.9	74.2	72.7	60.6	54.5	23,251.59	200.44	68.19			23.47%	25.02%
Pike	1.5	1.5	1.5	0.0	0.0	10.55	0.09	0.03	3.52	0.03	131.12%	132.00%
Cod	39.4	19.7	19.7	24.2	18.2	1,556.86	13.42	4.57	679.30	5.86	59.85%	58.43%
Pacific Tomcod	6.1	3.0	3.0	3.0	3.0	114.24	0.98	0.34	228.48	1.97	121.29%	120.89%
Pacific Cod (Gray)	39.4	19.7	19.7	22.7	16.7	1,442.62	12.44	4.23	450.82	3.89	59.66%	61.27%
Sablefish (Black Cod)	30.3	18.2	18.2	15.2	12.1	735.55	6.34	2.16	237.27	2.05	57.49%	58.76%
Greenling	36.4	22.7	22.7	16.7	15.2	599.33	5.17	1.76	169.61	1.46	43.43%	47.96%
Lingcod	31.8	16.7	16.7	16.7	15.2	572.97	4.94	1.68	143.24	1.23	49.64%	50.14%
Unknown Greenling	7.6	6.1	6.1	1.5	0.0	26.36	0.23	0.08	26.36	0.23	90.51%	91.33%
Flounder	1.5	1.5	1.5	0.0	0.0	15.82	0.14	0.05	5.27	0.05	131.12%	129.94%
Unknown Flounder	1.5	1.5	1.5	0.0	0.0	15.82	0.14	0.05	5.27	0.05	131.12%	129.94%
Sole	1.5	1.5	1.5	0.0	0.0	7.03	0.06	0.02	7.03	0.06	131.12%	132.00%
Sole, Unknown	1.5	1.5	1.5	0.0	0.0	7.03	0.06	0.02	7.03	0.06	131.12%	132.00%
Halibut	89.4	63.6	62.1	48.5	40.9	17,069.83	147.15	50.06	805.18	6.94	25.58%	27.02%
Herring	19.7	9.1	9.1	12.1	7.6	738.92	6.37	2.17	123.15 gal	1.06	95.00%	94.43%
Herring Roe	3.0	0.0	0.0	3.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	40.9	27.3	25.8	18.2	19.7	1,297.09	11.18	3.80	500.03	4.31	46.28%	50.33%
Black Rockfish (black bass)	12.1	12.1	12.1	1.5	4.5	421.82	3.64	1.24	281.21	2.42	63.93%	64.70%
Red Rockfish	34.8	18.2	16.7	18.2	16.7	875.27	7.55	2.57	218.82	1.89	68.88%	68.46%
Sculpin	3.0	1.5	1.5	1.5	0.0	0.88	0.01	0.00	1.76	0.02	131.12%	129.94%
Irish Lord	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Sculpin	1.5	1.5	1.5	0.0	0.0	0.88	0.01	0.00	1.76	0.02	131.12%	129.94%
Smelt	15.2	1.5	1.5	15.2	3.0	35.13	0.30	0.10	10.81 gal	0.09	131.12%	130.63%
Eulachon (Hooligan, Candlefish)	15.2	1.5	1.5	15.2	3.0	35.13	0.30	0.10	10.81 gal	0.09	131.12%	130.63%
Wolf Eel (Wolffish)	1.5	1.5	1.5	0.0	0.0	8.79	0.08	0.03	17.58	0.15	131.12%	132.00%

Table VII-19. Estimated Harvest and Use of Fish, Mammal, Bird, and Plant Resources, Seldovia, 1991/92

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Shark	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Walleye Pollock (Whiting)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tuna/Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sheefish	1.5	1.5	1.5	0.0	1.5	19.33	0.17	0.06	3.52	0.03	131.12%	132.00%
Trout and Char	47.0	40.9	40.9	10.6	18.2	1,156.48	9.97	3.39	826.06	7.12	33.71%	35.28%
Char	42.4	34.8	34.0	9.1	15.2	976.86	8.42	2.86	697.76	6.02	33.10%	34.66%
Arctic Char	1.5	1.5	1.5	0.0	1.5	29.53	0.25	0.09	21.09	0.18	131.12%	132.00%
Dolly Varden	42.4	34.8	34.8	9.1	13.6	947.33	8.17	2.78	676.67	5.83	33.88%	35.34%
Trout	15.2	12.1	12.1	4.5	3.0	179.62	1.55	0.53	128.30	1.11	84.86%	85.59%
Rainbow Trout	10.6	7.6	7.6	4.5	3.0	108.27	0.93	0.32	77.33	0.67	76.24%	76.75%
Steelhead	3.0	3.0	3.0	0.0	0.0	59.05	0.51	0.17	42.18	0.36	125.69%	126.64%
Unknown Trout	4.5	4.5	4.5	0.0	0.0	12.30	0.11	0.04	8.79	0.08	77.59%	77.46%
Game	53.0	36.4	24.2	42.4	21.2	10,078.12	86.88	29.56	210.91	1.82	83.53%	35.67%
Big Game	53.0	34.8	24.2	42.4	21.2	9,832.05	84.76	28.84	75.58	0.65	37.50%	36.03%
Black Bear	18.2	9.1	6.1	13.6	3.0	407.76	3.52	1.20	8.79	0.08	67.99%	79.59%
Brown Bear	1.5	1.5	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Caribou	15.2	3.0	1.5	13.6	3.0	527.27	4.55	1.55	3.52	0.03	131.12%	131.32%
Deer	25.8	13.6	13.6	15.2	10.6	2,125.96	18.33	6.24	49.21	0.42	46.74%	45.43%
Elk	4.5	0.0	0.0	4.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goat	10.6	3.0	1.5	9.1	1.5	127.42	1.10	0.37	1.76	0.02	131.12%	132.00%
Moose	36.4	18.2	10.6	27.3	10.6	6,643.64	57.27	19.48	12.30	0.11	47.21%	46.68%
Sheep, Dall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Small Game/Furbearer	4.5	6.1	4.5	0.0	1.5	246.06	2.12	0.72	135.33	1.17	121.05%	132.00%
Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Beaver	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Coyote	3.0	3.0	3.0	0.0	0.0	0.00	0.00	0.00	3.52	0.03	92.00%	0.00%
Hare	1.5	3.0	1.5	0.0	1.5	246.06	2.12	0.72	123.03	1.06	131.12%	132.00%
Snowshoe Hare	1.5	3.0	1.5	0.0	1.5	246.06	2.12	0.72	123.03	1.06	131.12%	132.00%
Land Otter	1.5	1.5	1.5	0.0	0.0	0.00	0.00	0.00	3.52	0.03	131.12%	0.00%
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mink	1.5	1.5	1.5	0.0	0.0	0.00	0.00	0.00	1.76	0.02	131.12%	0.00%
Muskrat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VII-19. Estimated Harvest and Use of Fish, Mammal, Bird, and Plant Resources, Seldovia, 1991/92

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Weasel	1.5	1.5	1.5	0.0	0.0	0.00	0.00	0.00	3.52	0.03	131.12%	0.00%
Wolf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tree Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Mammals	6.1	0.0	0.0	6.1	3.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	6.1	0.0	0.0	6.1	3.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harbor Seal	6.1	0.0	0.0	6.1	3.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Sea Lion	3.0	0.0	0.0	3.0	1.5	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sea Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Birds and Eggs	24.2	22.7	21.2	7.6	7.6	401.61	3.46	1.18	488.61	4.21	44.10%	49.13%
Birds	24.2	22.7	21.2	7.6	7.6	401.61	3.46	1.18	488.61	4.21	44.10%	49.13%
Upland Game Birds	10.6	12.1	10.6	1.5	1.5	71.36	0.62	0.21	101.94	0.88	58.30%	58.44%
Grouse	10.6	12.1	10.6	1.5	1.5	66.44	0.57	0.19	94.91	0.82	55.68%	55.67%
Plarmigan	1.5	1.5	1.5	0.0	0.0	4.92	0.04	0.01	7.03	0.06	131.12%	132.00%
Migratory Birds	16.7	13.6	13.6	7.6	7.6	330.25	2.85	0.97	386.67	3.33	53.78%	58.44%
Waterfowl	16.7	13.6	13.6	7.6	7.6	330.25	2.85	0.97	386.67	3.33	53.78%	58.44%
Ducks	16.7	13.6	13.6	6.1	7.6	269.08	2.32	0.79	339.21	2.92	50.73%	54.04%
Elder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elder, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, White-winged	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Black	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Surf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harlequin	1.5	1.5	1.5	0.0	0.0	8.79	0.08	0.03	17.58	0.15	131.12%	132.00%
Goldeneye	9.1	6.1	6.1	4.5	4.5	49.21	0.42	0.14	61.52	0.53	80.82%	81.72%
Bufflehead	4.5	4.5	4.5	0.0	0.0	12.65	0.11	0.04	31.64	0.27	85.31%	85.27%
Merganser	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scatup	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mallard	15.2	10.6	10.6	6.1	6.1	152.91	1.32	0.45	152.91	1.32	54.38%	55.41%
Pintail	3.0	4.5	3.0	0.0	1.5	8.44	0.07	0.02	10.55	0.09	111.10%	110.12%
Wigeon	3.0	4.5	3.0	0.0	1.5	30.76	0.27	0.09	43.94	0.38	107.73%	108.31%
Teal	3.0	3.0	3.0	0.0	0.0	6.33	0.05	0.02	21.09	0.18	111.10%	109.98%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VII-19. Estimated Harvest and Use of Fish, Mammal, Bird, and Plant Resources, Saldovia, 1991/92

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give		Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Oldsquaw	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese	4.5	4.5	4.5	1.5	3.0	61.16	0.53	0.18	0.41	87.25%	83.50%	83.50%	83.50%
Brant	1.5	1.5	1.5	0.0	1.5	31.64	0.27	0.09	26.36	131.12%	132.00%	131.12%	132.00%
White-fronted Geese	1.5	1.5	1.5	1.5	0.0	8.44	0.07	0.02	3.52	131.12%	129.94%	131.12%	129.94%
Canada Geese	1.5	1.5	1.5	0.0	1.5	21.09	0.18	0.06	17.58	131.12%	132.00%	131.12%	132.00%
Canada Geese, Unknown	1.5	1.5	1.5	0.0	1.5	21.09	0.18	0.06	17.58	131.12%	132.00%	131.12%	132.00%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Sandhill Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Seabirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Loons	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Puffins	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Seabird Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Gull Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Marine Invertebrates	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Clams	86.4	68.2	68.2	74.2	43.9	10,371.13	89.41	30.42	14.82	36.60%	36.63%	36.60%	36.63%
Butler Clams	75.8	60.6	60.6	43.9	31.8	5,156.78	44.46	15.12	8.24	30.29%	30.47%	30.29%	30.47%
Razor Clams	63.6	51.5	51.5	27.3	28.8	2,868.05	24.72	8.41	956.02 gal	32.03%	32.15%	32.03%	32.15%
Pacific Littleneck Clams (Steamers)	25.8	7.6	7.6	19.7	6.1	500.91	4.32	1.47	166.97 gal	80.81%	80.61%	80.81%	80.61%
Cockles	63.6	51.5	50.0	25.8	24.2	1,787.82	15.41	5.24	595.94 gal	41.29%	41.62%	41.29%	41.62%
Geoducks	12.1	10.6	10.6	3.0	1.5	225.67	1.95	0.66	75.22 gal	77.14%	78.27%	77.14%	78.27%
Scallops	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00%	0.00%	0.00%	0.00%
Mussels	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Crabs	22.7	21.2	21.2	10.6	7.6	196.91	1.70	0.58	131.27 gal	47.67%	46.73%	47.67%	46.73%
Dungeness Crab	66.7	19.7	18.2	54.5	21.2	2,554.11	22.02	7.49	1,599.83	65.02%	65.47%	65.02%	65.47%
King Crab	21.2	4.5	4.5	19.7	4.5	28.30	0.24	0.08	40.42	88.43%	88.69%	88.43%	88.69%
Tanner Crab	13.6	4.5	3.0	12.1	6.1	101.06	0.87	0.30	43.94	125.90%	125.45%	125.90%	125.45%
	62.1	16.7	15.2	51.5	18.2	2,424.75	20.90	7.11	1,515.47	63.76%	63.58%	63.76%	63.58%

Table VII-19. Estimated Harvest and Use of Fish, Mammal, Bird, and Plant Resources, Seldovia, 1991/92

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	
Tanner Crab, Unknown	62.1	16.7	15.2	51.5	18.2	2,424.75	20.90	7.11	1,515.47	13.06	63.76%	63.58%	
Chitons (bidarkis)	18.2	13.6	13.6	9.1	4.5	719.55	6.20	2.11	180.33 gal	1.55	81.48%	80.98%	
Chitons (large)	1.5	1.5	1.5	0.0	0.0	5.27	0.05	0.02	1.76 gal	0.02	131.12%	132.00%	
Chitons (small)	18.2	13.6	13.6	9.1	4.5	714.28	6.16	2.09	178.57 gal	1.54	82.28%	81.57%	
Octopus	15.2	9.1	9.1	7.6	3.0	1,511.52	13.03	4.43	377.88	3.26	121.94%	122.21%	
Sea Urchin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Shrimp	4.5	0.0	0.0	4.5	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Snails	6.1	4.5	4.5	1.5	0.0	6.59	0.06	0.02	4.39 gal	0.04	77.59%	77.00%	
Whelk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Limpets	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Plants and Berries	90.9	83.3	83.3	39.4	51.5	3,938.73	33.95	11.55	984.68 gal	8.49	27.85%	27.52%	
Berries	90.9	83.3	83.3	34.8	48.5	3,567.88	30.76	10.46	891.97 gal	7.69	28.62%	28.49%	
Plants/Greens/Mushrooms	31.8	30.3	30.3	6.1	7.6	263.64	2.27	0.77	65.91 gal	0.57	56.53%	55.78%	
Seaweed/Kelp (Food)	13.6	10.6	10.6	7.6	4.5	107.21	0.92	0.31	26.80 gal	0.23	87.73%	86.42%	
Wood	54.5	43.9	43.9	12.1	7.6	0.00	0.00	0.00	353.27 crd	3.05	33.29%	0.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VII-20. Estimated Amount of Resources Removed From Commercial Harvest, Seldovia, 1991/92

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		13393.81	24.07	19.12
Fish		12210.78	26.97	17.43
Salmon		5382.80	24.45	7.68
Chum Salmon	1212.73	829.14	19.68	1.18
Coho Salmon	149.39	1931.40	29.13	2.76
Chinook Salmon	390.18	1027.76	18.23	1.47
Pink Salmon	116.00	217.06	11.25	0.31
Sockeye Salmon	114.24	1377.45	38.18	1.97
Non-Salmon Fish	442.91	6827.98	29.37	9.75
Cod	324.27	1037.67	66.65	1.48
Pacific Cod (Gray)	324.27	1037.67	71.93	1.48
Sablefish (Black Cod)	161.70	501.26	68.15	0.72
Greenling	76.45	305.82	51.03	0.44
Lingcod	76.45	305.82	53.37	0.44
Hallibut	192.40	4078.92	23.90	5.82
Herring	7.33 gal	43.97	5.95	0.06
Rockfish	220.58	860.33	66.33	1.23
Black Rockfish (black bass)	8.79	13.18	3.13	0.02
Red Rockfish	211.79	847.15	96.79	1.21
Marine Invertebrates		1183.02	11.41	1.69
Crabs		1126.78	44.12	1.61
Dungeness Crab	705.23	1.23	4.35	0.00
Tanner Crab	1.76	1125.55	46.42	1.61
Tanner Crab, Unknown	703.47	1125.55	46.42	1.61
Octopus	703.47	56.24	3.72	0.08

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VII-21. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest Seldovia, 1991/92

Resource	Percent Base	Subsistence Methods										Removed from Commercial Catch		Rod and Reel		Any Method	
		Net		Dip Net		Subsistence Gear Any Method		No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.
		No.	Lbs.	No.	Lbs.	No.	Lbs.										
Salmon	total	22.58	20.05	1.65	1.86	24.23	21.91	24.70	24.45	51.07	53.64	24.70	24.45	51.07	53.64		
Chum Salmon	gear type	1.90	2.65	10.87	11.91	2.51	3.44	12.32	15.40	23.13	27.25	12.32	15.40	23.13	27.25		
	resource	2.78	2.78	1.16	1.16	3.94	3.94	19.68	19.68	76.39	76.39	19.68	19.68	76.39	76.39		
	total	0.43	0.53	0.18	0.22	0.61	0.75	3.04	3.77	11.81	14.62	3.04	3.77	11.81	14.62	15.46	19.14
Coho Salmon	gear type	32.65	40.59	23.91	23.37	32.05	39.13	32.17	35.88	22.63	23.79	32.17	35.88	22.63	23.79		
	resource	27.03	27.03	1.44	1.44	28.48	28.48	29.13	29.13	42.39	42.39	29.13	29.13	42.39	42.39		
	total	7.37	8.14	0.39	0.43	7.77	8.57	7.95	8.77	11.56	12.76	7.95	8.77	11.56	12.76	27.27	30.11
Chinook Salmon	gear type	5.23	11.64	21.74	38.03	6.35	13.88	9.57	19.09	17.73	33.36	9.57	19.09	17.73	33.36		
	resource	9.12	9.12	2.76	2.76	11.88	11.88	18.23	18.23	69.89	69.89	18.23	18.23	69.89	69.89		
	total	1.18	2.33	0.36	0.71	1.54	3.04	2.36	4.67	9.06	17.89	2.36	4.67	9.06	17.89	12.96	25.60
Pink Salmon	gear type	6.34	3.03	0.00	0.00	5.91	2.77	9.42	4.03	33.15	13.37	9.42	4.03	33.15	13.37		
	resource	6.92	6.92	0.00	0.00	6.92	6.92	11.25	11.25	81.83	81.83	11.25	11.25	81.83	81.83		
	total	1.43	0.61	0.00	0.00	1.43	0.61	2.33	0.99	16.93	7.17	2.33	0.99	16.93	7.17	20.69	8.77
Sockeye Salmon	gear type	53.88	42.09	43.48	26.70	53.18	40.79	36.52	25.59	3.36	2.22	36.52	25.59	3.36	2.22		
	resource	51.52	51.52	3.03	3.03	54.55	54.55	38.18	38.18	7.27	7.27	38.18	38.18	7.27	7.27		
	total	12.17	8.44	0.72	0.50	12.88	8.94	9.02	6.26	1.72	1.19	9.02	6.26	1.72	1.19	23.62	16.38
Unknown Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VII-22. Estimated Salmon Harvest by Gear Type and Species, Seldovia, 1991/92

	Harvest Units	Subsistence Methods												Removed from Commercial Catch			Rod and Reel			Any Method		
		Net			Dip Net			Subsistence Gear Any Method			Total	HH Mean	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean			
		Total	HH Mean	HH Mean	Total	HH Mean	HH Mean	Total	HH Mean	HH Mean												
Salmon	numbers	1,109.03	9.56	80.85	0.70	1,189.88	10.26	1,189.88	10.26	1,212.73	10.45	2,508.06	21.62	2,508.06	21.62	4,910.67	42.33	4,910.67	42.33			
	pounds	4,415.17	38.06	409.52	3.53	4,824.69	41.59	4,824.69	41.59	5,382.80	46.40	11,810.75	101.82	11,810.75	101.82	22,018.24	189.81	22,018.24	189.81			
Chum Salmon	numbers	21.09	0.18	8.79	0.08	29.88	0.26	29.88	0.26	149.39	1.29	580.00	5.00	580.00	5.00	759.27	6.55	759.27	6.55			
	pounds	117.05	1.01	48.77	0.42	165.83	1.43	165.83	1.43	829.14	7.15	3,219.00	27.75	3,219.00	27.75	4,213.96	36.33	4,213.96	36.33			
Coho Salmon	numbers	362.06	3.12	19.33	0.17	381.39	3.29	381.39	3.29	390.18	3.36	567.70	4.89	567.70	4.89	1,339.27	11.55	1,339.27	11.55			
	pounds	1,792.20	15.45	95.70	0.83	1,887.90	16.28	1,887.90	16.28	1,931.40	16.65	2,810.10	24.23	2,810.10	24.23	6,629.40	57.15	6,629.40	57.15			
Chinook Salmon	numbers	58.00	0.50	17.58	0.15	75.58	0.65	75.58	0.65	116.00	1.00	444.67	3.83	444.67	3.83	636.24	5.48	636.24	5.48			
	pounds	513.88	4.43	155.72	1.34	669.60	5.77	669.60	5.77	1,027.76	8.86	3,939.75	33.96	3,939.75	33.96	5,637.11	48.60	5,637.11	48.60			
Pink Salmon	numbers	70.30	0.61	0.00	0.00	70.30	0.61	70.30	0.61	114.24	0.98	831.33	7.17	831.33	7.17	1,015.88	8.76	1,015.88	8.76			
	pounds	133.58	1.15	0.00	0.00	133.58	1.15	133.58	1.15	217.06	1.87	1,579.53	13.62	1,579.53	13.62	1,930.17	16.64	1,930.17	16.64			
Sockeye Salmon	numbers	597.58	5.15	35.15	0.30	632.73	5.45	632.73	5.45	442.91	3.82	84.36	0.73	84.36	0.73	1,160.00	10.00	1,160.00	10.00			
	pounds	1,858.46	16.02	109.32	0.94	1,967.78	16.96	1,967.78	16.96	1,377.45	11.87	262.37	2.26	262.37	2.26	3,607.60	31.10	3,607.60	31.10			
Unknown Salmon	numbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
	pounds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VII-23. Percentage of Households Harvesting Salmon by Gear Type and Species, Seldovia, 1991/92

Resource	Subsistence Methods			Removed from Commercial Catch	Rod and Reel	Any Method
	Net	Dip Net	Any Subsistence Gear			
Salmon	10.61	6.06	16.67	27.27	66.67	78.79
Chum Salmon	1.52	1.52	3.03	7.58	19.70	28.79
Coho Salmon	3.03	3.03	6.06	16.67	45.45	57.58
Chinook Salmon	6.06	4.55	10.61	16.67	53.03	65.15
Pink Salmon	3.03	0.00	3.03	4.55	33.33	36.36
Sockeye Salmon	6.06	1.52	7.58	22.73	12.12	34.85
Unknown Salmon	0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VII-24. Estimated Harvest of Fish Other than Salmon by Gear Type, Seldovia, 1991/92

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	1,018.67	8.78	6,827.98	58.86	15,404.06	132.79	0.88	0.01	23,251.59	200.44
Pike	0.00	0.00	0.00	0.00	10.55	0.09	0.00	0.00	10.55	0.09
Sheefish	19.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	19.33	0.17
Lingcod	0.00	0.00	305.82	2.64	267.15	2.30	0.00	0.00	572.97	4.94
Pacific Tom Cod	105.45	0.91	0.00	0.00	8.79	0.08	0.00	0.00	114.24	0.98
Pacific Cod (Gray)	0.00	0.00	1,037.67	8.95	404.95	3.49	0.00	0.00	1,442.62	12.44
Sablefish (Black Cod)	0.00	0.00	501.26	4.32	234.28	2.02	0.00	0.00	735.55	6.34
Unknown Flounder	0.00	0.00	0.00	0.00	15.82	0.14	0.00	0.00	15.82	0.14
Sole, Unknown	0.00	0.00	0.00	0.00	7.03	0.06	0.00	0.00	7.03	0.06
Hallibut	74.52	0.64	4,078.92	35.16	12,916.39	111.35	0.00	0.00	17,069.83	147.15
Herring	690.73	5.95	43.97	0.38	4.22	0.04	0.00	0.00	736.92	6.37
Black Rockfish (black bass)	0.00	0.00	13.18	0.11	408.64	3.52	0.00	0.00	421.82	3.64
Red Rockfish	0.00	0.00	847.15	7.30	28.12	0.24	0.00	0.00	875.27	7.55
Unknown Sculpin	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.01	0.88	0.01
Eulachon (Hooligan, Candlefish)	35.13	0.30	0.00	0.00	0.00	0.00	0.00	0.00	35.13	0.30
Unknown Greenling	0.00	0.00	0.00	0.00	26.36	0.23	0.00	0.00	26.36	0.23
Wolf Eel (Wolffish)	0.00	0.00	0.00	0.00	8.79	0.08	0.00	0.00	8.79	0.08
Arctic Char	29.53	0.25	0.00	0.00	0.00	0.00	0.00	0.00	29.53	0.25
Dolly Varden	61.52	0.53	0.00	0.00	885.82	7.64	0.00	0.00	947.33	8.17
Rainbow Trout	0.00	0.00	0.00	0.00	108.27	0.93	0.00	0.00	108.27	0.93
Steelhead	2.46	0.02	0.00	0.00	56.59	0.49	0.00	0.00	59.05	0.51
Unknown Trout	0.00	0.00	0.00	0.00	12.30	0.11	0.00	0.00	12.30	0.11

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VII-25. Percentage of Fish Other Than Salmon Harvested by Gear Type, Seldovia, 1991/92

Resource	Percent Base	Subsistence Gear Lbs.	Removed from Commercial Catch Lbs.	Rod and Reel Lbs.	Ice Fishing Lbs.
Non-Salmon Fish	resource	4.38	29.37	66.25	0.00
Pike	resource	0.00	0.00	100.00	0.00
Sheefish	resource	100.00	0.00	0.00	0.00
Lingcod	resource	0.00	53.37	46.63	0.00
Pacific Tom Cod	resource	92.31	0.00	7.69	0.00
Pacific Cod (Gray)	resource	0.00	71.93	28.07	0.00
Sablefish (Black Cod)	resource	0.00	68.15	31.85	0.00
Unknown Flounder	resource	0.00	0.00	100.00	0.00
Sole, Unknown	resource	0.00	0.00	100.00	0.00
Halibut	resource	0.44	23.90	75.67	0.00
Herring	resource	93.48	5.95	0.57	0.00
Black Rockfish (black bass)	resource	0.00	3.13	96.88	0.00
Red Rockfish	resource	0.00	96.79	3.21	0.00
Unknown Sculpin	resource	0.00	0.00	0.00	100.00
Eulachon (Hooligan, Candlefish)	resource	100.00	0.00	0.00	0.00
Unknown Greenling	resource	0.00	0.00	100.00	0.00
Wolf Eel (Wolffish)	resource	0.00	0.00	100.00	0.00
Arctic Char	resource	100.00	0.00	0.00	0.00
Dolly Varden	resource	6.49	0.00	93.51	0.00
Rainbow Trout	resource	0.00	0.00	100.00	0.00
Steelhead	resource	4.17	0.00	95.83	0.00
Unknown Trout	resource	0.00	0.00	100.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VII-26. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Seldovia, 1991/92

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	9.09	27.27	57.58	1.52	72.73
Pike	0.00	0.00	1.52	0.00	1.52
Sheefish	1.52	0.00	0.00	0.00	1.52
Lingcod	0.00	9.09	7.58	0.00	16.67
Pacific Tom Cod	1.52	0.00	1.52	0.00	3.03
Pacific Cod (Gray)	0.00	12.12	7.58	0.00	19.70
Sablefish (Black Cod)	0.00	10.61	7.58	0.00	18.18
Unknown Flounder	0.00	0.00	1.52	0.00	1.52
Sole, Unknown	0.00	0.00	1.52	0.00	1.52
Hallbut	1.52	24.24	42.42	0.00	62.12
Herring	6.06	1.52	1.52	0.00	9.09
Black Rockfish (black bass)	0.00	1.52	10.61	0.00	12.12
Red Rockfish	0.00	13.64	3.03	0.00	16.67
Unknown Sculpin	0.00	0.00	0.00	1.52	1.52
Eulachon (Hooligan, Candlefish)	1.52	0.00	0.00	0.00	1.52
Unknown Greenling	0.00	0.00	6.06	0.00	6.06
Wolf Eel (Wolfish)	0.00	0.00	1.52	0.00	1.52
Arctic Char	1.52	0.00	0.00	0.00	1.52
Dolly Varden	1.52	0.00	33.33	0.00	34.85
Rainbow Trout	0.00	0.00	7.58	0.00	7.58
Steelhead	1.52	0.00	1.52	0.00	3.03
Unknown Trout	0.00	0.00	4.55	0.00	4.55

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure VII-12. Composition of Wild Resource Harvests by Resource Category, Seldovia, 1992/93

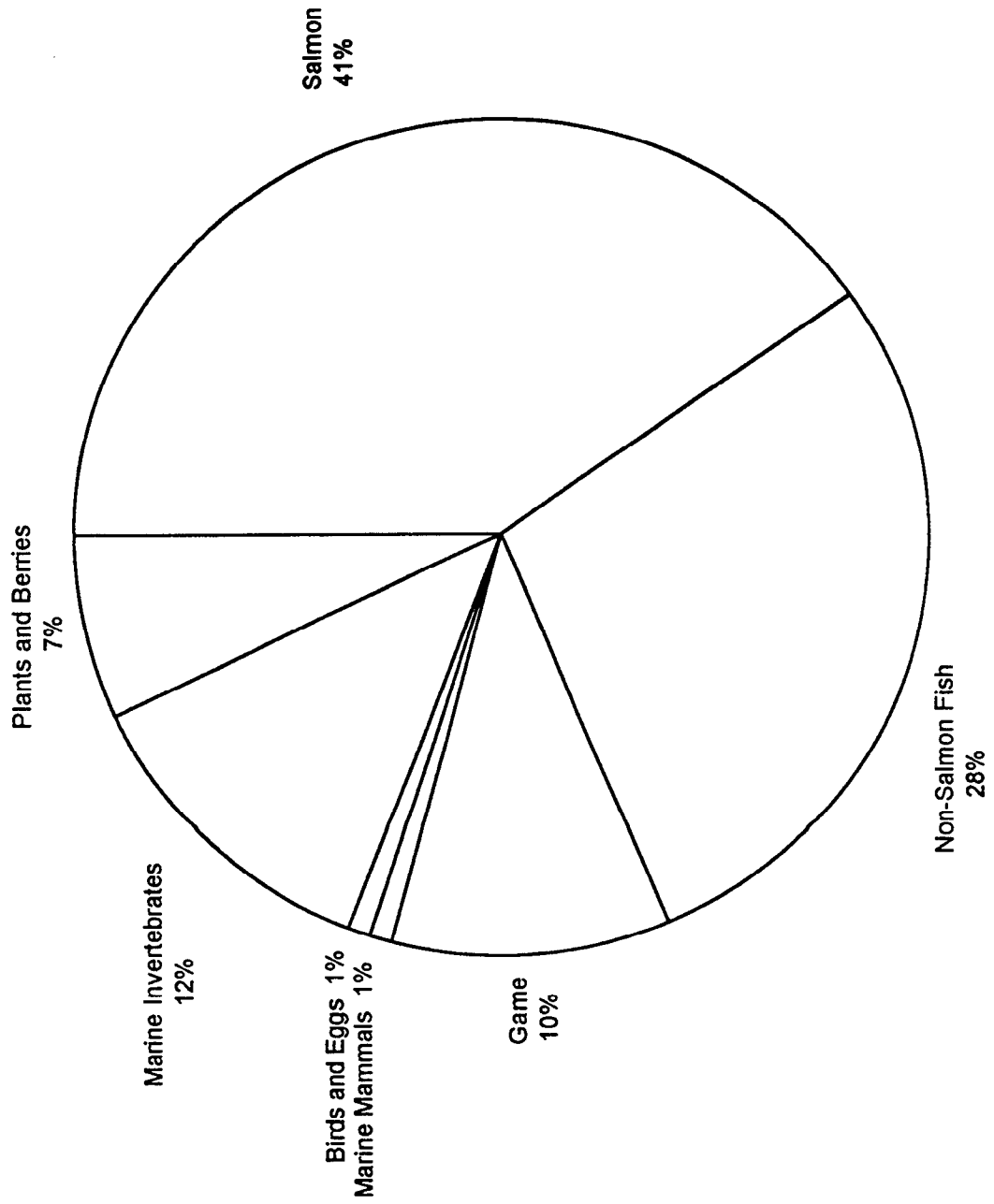


Table VII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seldovia, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Per capita	Total	Mean HH	Harvest	Per capita
All Resources	98.5	93.8	93.8	95.4	84.6	54,450.78	397.45	145.14			26.77%	27.98%
Fish	95.4	89.2	86.2	76.9	75.4	37,393.07	272.94	99.67			29.36%	30.95%
Salmon	90.8	76.9	73.8	58.5	53.8	21,964.24	160.32	58.54	4,897.64	35.75	42.01%	38.98%
Chum Salmon	24.6	21.5	21.5	7.7	12.3	3,490.34	25.48	9.30	727.15	5.31	54.78%	54.55%
Coho Salmon	58.5	47.7	46.2	29.2	26.2	5,309.47	38.76	14.15	1,083.56	7.91	51.41%	52.32%
Chinook Salmon	80.0	63.1	56.9	49.2	35.4	6,748.32	49.26	17.99	764.25	5.58	38.53%	38.24%
Pink Salmon	35.4	32.3	32.3	9.2	16.9	3,008.90	21.96	8.02	1,302.55	9.51	56.97%	57.56%
Sockeye Salmon	60.0	35.4	35.4	33.8	20.0	3,407.21	24.87	9.08	1,020.12	7.45	45.50%	46.69%
Landlocked Salmon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Non-Salmon Fish	89.2	75.4	70.8	60.0	53.8	15,428.83	112.62	41.13			34.78%	37.24%
Pike	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cod	36.9	24.6	24.6	18.5	10.8	1,091.85	7.97	2.91	519.04	3.79	64.48%	41.76%
Pacific Tomcod	1.5	1.5	1.5	0.0	1.5	105.38	0.77	0.28	210.77	1.54	144.82%	144.94%
Pacific Cod (Gray)	35.4	24.6	24.6	16.9	10.8	986.47	7.20	2.63	308.27	2.25	40.43%	42.64%
Unknown Cod	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	23.1	18.5	18.5	6.2	9.2	1,027.90	7.50	2.74	331.58	2.42	58.19%	60.15%
Greenling	36.9	23.1	23.1	13.8	7.7	552.22	4.03	1.47	296.13	2.16	49.64%	52.29%
Lingcod	29.2	15.4	15.4	13.8	4.6	341.45	2.49	0.91	85.36	0.62	58.54%	61.02%
Unknown Greenling	13.8	13.8	13.8	0.0	4.6	210.77	1.54	0.56	210.77	1.54	55.54%	57.46%
Flounder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Flounder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sole	1.5	1.5	1.5	0.0	0.0	16.86	0.12	0.04	16.86	0.12	144.82%	144.94%
Sole, Unknown	1.5	1.5	1.5	0.0	0.0	16.86	0.12	0.04	16.86	0.12	144.82%	144.94%
Halibut	86.2	58.5	53.8	52.3	43.1	9,117.14	66.55	24.30	430.05	3.14	33.10%	35.38%
Herring	4.6	3.1	3.1	3.1	1.5	155.93	1.14	0.42	25.99 gal	0.19	107.67%	107.67%
Herring Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	23.1	18.5	16.9	7.7	4.6	1,928.54	14.08	5.14	1,009.06	7.37	106.50%	105.05%
Black Rockfish (black bass)	13.8	12.3	10.8	4.6	3.1	1,264.62	9.23	3.37	843.08	6.15	109.66%	111.20%
Red Rockfish	13.8	10.8	9.2	6.2	3.1	663.92	4.95	1.77	165.98	1.21	94.93%	96.91%
Yellow Eye Rockfish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sculpin	3.1	3.1	3.1	0.0	0.0	12.65	0.09	0.03	25.29	0.18	122.71%	123.01%
Irish Lord	3.1	3.1	3.1	0.0	0.0	12.65	0.09	0.03	25.29	0.18	122.71%	123.01%
Unknown Sculpin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Smelt	6.2	0.0	0.0	6.2	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%

Table VII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seidovia, 1992/93

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	
Eulachon (Hooligan, Candlefish)	6.2	0.0	0.0	6.2	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Unknown Smelt	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Wolf Eel (Wolffish)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Shark	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Walleye Pollock (Whiting)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Skates	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Tuna/Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Grayling	1.5	1.5	1.5	0.0	0.0	1.48	0.01	0.00	2.11	0.02	144.82%	144.11%	
Sheefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Unknown Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Trout and Char	36.9	35.4	33.8	9.2	15.4	1,524.28	11.13	4.06	1,088.77	7.95	47.44%	47.86%	
Char	33.8	32.3	30.8	7.7	13.8	1,388.54	10.14	3.70	991.82	7.24	51.20%	51.80%	
Arctic Char	1.5	1.5	1.5	0.0	1.5	14.75	0.11	0.04	10.54	0.08	144.82%	145.77%	
Dolly Varden	33.8	32.3	30.8	7.7	13.8	1,373.79	10.03	3.66	981.28	7.16	51.76%	52.33%	
Lake Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Trout	3.1	3.1	3.1	1.5	1.5	135.74	0.99	0.36	96.95	0.71	127.05%	126.36%	
Rainbow Trout	1.5	1.5	1.5	1.5	0.0	17.70	0.13	0.05	12.65	0.09	144.82%	144.94%	
Steelhead	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Unknown Trout	1.5	1.5	1.5	0.0	1.5	118.03	0.86	0.31	84.31	0.62	144.82%	144.11%	
Game	61.5	36.9	16.9	53.8	18.5	5,702.78	41.63	15.20	50.58	0.37	48.32%	55.33%	
Big Game	61.5	32.3	13.8	53.8	18.5	5,673.28	41.41	15.12	37.94	0.28	55.60%	55.58%	
Bison	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Black Bear	20.0	7.7	4.6	15.4	7.7	611.23	4.46	1.63	10.54	0.08	95.10%	91.96%	
Brown Bear	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Caribou	12.3	1.5	1.5	10.8	0.0	948.46	6.92	2.53	6.32	0.05	144.82%	143.28%	
Deer	21.5	4.6	3.1	16.9	6.2	546.31	3.99	1.46	12.65	0.09	107.27%	107.43%	
Elk	3.1	0.0	0.0	3.1	1.5	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Goat	6.2	4.6	1.5	4.6	3.1	152.81	1.12	0.41	2.11	0.02	144.82%	145.77%	
Moose	46.2	21.5	4.6	41.5	10.8	3,414.46	24.92	9.10	6.32	0.05	82.30%	82.99%	
Sheep, Dall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Small Game/Furbearer	4.6	7.7	4.6	0.0	0.0	29.51	0.22	0.08	12.65	0.09	89.20%	101.83%	
Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Beaver	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Coyote	1.5	4.6	1.5	0.0	0.0	0.00	0.00	0.00	2.11	0.02	144.82%	0.00%	
Hare	1.5	1.5	1.5	0.0	0.0	12.65	0.09	0.03	6.32	0.05	144.82%	146.58%	

Table VII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seidovia, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Snowshoe Hare	1.5	1.5	1.5	0.0	0.0	12.65	0.09	0.03	6.32	0.05	144.82%	146.58%
Land Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mink	1.5	3.1	1.5	0.0	0.0	0.00	0.00	0.00	2.11	0.02	144.82%	0.00%
Muskrat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	1.5	1.5	1.5	0.0	0.0	16.86	0.12	0.04	2.11	0.02	144.82%	142.44%
Weasel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tree Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Feral Animals	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Reindeer - Feral	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Mammals	10.8	6.2	4.6	9.2	3.1	472.12	3.45	1.26	10.54	0.08	85.68%	86.00%
Whale	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whale	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	10.8	6.2	4.6	9.2	3.1	472.12	3.45	1.26	8.43	0.06	87.52%	86.00%
Harbor Seal	10.8	6.2	4.6	9.2	3.1	472.12	3.45	1.26	8.43	0.06	87.52%	86.00%
Unknown Seal	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Sea Lion	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sea Otter	1.5	1.5	1.5	0.0	0.0	0.00	0.00	0.00	2.11	0.02	144.82%	0.00%
Birds and Eggs	35.4	32.3	29.2	15.4	6.2	499.40	3.65	1.33	623.88	4.55	50.63%	51.52%
Birds	35.4	32.3	29.2	15.4	6.2	499.40	3.65	1.33	623.88	4.55	50.63%	51.52%
Upland Game Birds	27.7	27.7	24.6	4.6	1.5	172.62	1.26	0.46	246.60	1.80	59.86%	60.82%
Grouse	23.1	23.1	21.5	3.1	1.5	95.90	0.70	0.26	137.00	1.00	52.85%	52.69%
Ptarmigan	7.7	9.2	6.2	3.1	1.5	76.72	0.56	0.20	109.60	0.80	89.30%	90.88%
Migratory Birds	21.5	16.9	15.4	12.3	4.6	326.78	2.39	0.87	377.28	2.75	63.31%	61.77%
Waterfowl	21.5	16.9	15.4	12.3	4.6	326.78	2.39	0.87	377.28	2.75	63.31%	61.77%
Ducks	21.5	16.9	15.4	12.3	4.6	309.07	2.26	0.82	362.52	2.65	62.21%	60.13%
Eider	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Large	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seidovia, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Common Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, White-winged	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Black	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Surf	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harlequin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goldeneye	7.7	6.2	6.2	4.6	3.1	53.96	0.39	0.14	67.45	0.49	80.59%	82.64%
Bufflehead	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Merganser	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scaup	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mallard	16.9	15.4	13.8	9.2	3.1	168.62	1.23	0.45	168.62	1.23	57.33%	59.09%
Pintail	4.6	4.6	4.6	3.1	1.5	40.47	0.30	0.11	50.58	0.37	87.52%	89.07%
Wigeon	1.5	1.5	1.5	0.0	1.5	17.70	0.13	0.05	25.29	0.16	144.82%	145.77%
Teal	1.5	1.5	1.5	0.0	1.5	7.59	0.06	0.02	25.29	0.18	144.82%	145.77%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Ducks, Unknown	3.1	3.1	3.1	0.0	0.0	20.74	0.15	0.06	25.29	0.18	122.71%	121.21%
Geese	3.1	3.1	3.1	1.5	1.5	17.70	0.13	0.05	14.75	0.11	102.67%	103.99%
Brant	1.5	1.5	1.5	0.0	1.5	10.12	0.07	0.03	8.43	0.06	144.82%	145.77%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	1.5	1.5	1.5	1.5	0.0	7.59	0.06	0.02	6.32	0.05	144.82%	145.77%
Canada Geese, Lesser	1.5	1.5	1.5	1.5	0.0	7.59	0.06	0.02	6.32	0.05	144.82%	145.77%
Canada Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sandhill Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffins	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seldovia, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gull Eggs	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Invertebrates	89.2	73.8	73.8	70.8	50.8	6,673.36	48.71	17.79			34.08%	36.08%
Clams	80.0	70.8	70.8	44.6	36.9	4,661.63	34.03	12.43	1,553.88 gal	11.34	29.45%	30.91%
Butter Clams	70.8	64.6	64.6	35.4	32.3	3,041.65	22.20	8.11	1,013.88 gal	7.40	32.79%	33.49%
Razor Clams	24.6	15.4	15.4	13.8	3.1	573.82	4.19	1.53	191.27 gal	1.40	53.21%	55.42%
Pacific Littleneck Clams (Steamers)	36.9	30.8	30.8	15.4	10.8	1,026.49	7.49	2.74	342.16 gal	2.50	40.40%	41.96%
Softshell Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Pinkneck Clams	1.5	1.5	1.5	0.0	1.5	18.97	0.14	0.05	6.32 gal	0.05	144.82%	144.94%
Horse Clams (Gaper)	3.1	1.5	1.5	1.5	0.0	0.70	0.01	0.00	0.23 gal	0.00	144.82%	143.28%
Unknown Clams	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Cockles	10.8	7.7	7.7	3.1	3.1	27.38	0.20	0.07	9.13 gal	0.07	77.75%	77.61%
Scallops	1.5	1.5	1.5	0.0	0.0	0.25	0.00	0.00	4.22	0.03	144.82%	144.94%
Mussels	20.0	12.3	12.3	10.8	4.6	80.08	0.58	0.21	53.39 gal	0.39	69.00%	70.94%
Crabs	69.2	12.3	12.3	61.5	20.0	1,071.55	7.82	2.86	669.72	4.89	67.79%	69.60%
Dungeness Crab	12.3	0.0	0.0	12.3	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
King Crab	4.6	0.0	0.0	4.6	1.5	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tanner Crab	61.5	12.3	12.3	53.8	20.0	1,071.55	7.82	2.86	669.72	4.89	67.79%	69.60%
Tanner Crab, Unknown	61.5	12.3	12.3	53.8	20.0	1,071.55	7.82	2.86	669.72	4.89	67.79%	69.60%
Unknown Crabs	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Chitons (bidarkis)	16.9	15.4	15.4	4.6	9.2	183.37	1.34	0.49	45.84 gal	0.33	71.30%	71.51%
Chitons (large)	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Chitons (small)	15.4	15.4	15.4	3.1	9.2	183.37	1.34	0.49	45.84 gal	0.33	71.30%	71.51%
Octopus	13.8	9.2	9.2	9.2	6.2	368.85	2.69	0.98	92.21	0.67	89.41%	91.07%
Sea Urchin	1.5	1.5	1.5	0.0	0.0	1.05	0.01	0.00	2.11 gal	0.02	144.82%	145.77%
Shrimp	6.2	4.6	4.6	3.1	1.5	244.49	1.78	0.65	122.25 gal	0.89	125.37%	127.17%
Snails	6.2	6.2	6.2	1.5	4.6	31.62	0.23	0.08	21.08 gal	0.15	85.95%	87.53%
Whelk	1.5	1.5	1.5	0.0	0.0	1.58	0.01	0.00	1.05 gal	0.01	144.82%	145.77%
Limpets	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Oyster	1.5	1.5	1.5	0.0	0.0	1.52	0.01	0.00	0.51 gal	0.00	144.82%	144.11%
Plants and Berries	89.2	76.9	75.4	44.6	43.1	3,710.04	27.08	9.89	927.51 gal	6.77	35.03%	32.97%
Berries	87.7	75.4	73.8	40.0	40.0	3,323.83	24.26	8.86	830.96 gal	6.07	38.34%	36.45%
Plants/Greens/Mushrooms	33.8	27.7	27.7	10.8	7.7	285.04	2.08	0.76	71.26 gal	0.52	57.46%	56.29%
Seaweed/Kelp (Food)	20.0	18.5	18.5	4.6	7.7	101.17	0.74	0.27	25.29 gal	0.18	52.67%	51.49%
Wood	55.4	53.8	53.8	9.2	16.9	0.00	0.00	0.00	530.08 crd	3.87	22.98%	0.00%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VII-28. Estimated Amount of Resources Removed From Commercial Harvest, Seldovia, 1992/93

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		14269.42	32.38	26.21
Fish		13465.55	36.01	24.73
Salmon	1700.91	7767.82	35.37	14.27
Chum Salmon	223.42	1072.39	30.72	1.97
Coho Salmon	434.18	2127.50	40.07	3.91
Chinook Salmon	223.42	1972.76	29.23	3.62
Pink Salmon	139.11	321.34	10.68	0.59
Sockeye Salmon	680.78	2273.82	66.74	4.18
Non-Salmon Fish		5697.73	36.93	10.46
Cod	255.05	816.17	74.75	1.50
Pacific Cod (Gray)	255.05	816.17	82.74	1.50
Sablefish (Black Cod)	322.75	1000.53	97.34	1.84
Greenling	114.34	330.91	59.92	0.61
Lingcod	72.19	288.75	84.57	0.53
Unknown Greenling	42.15	42.15	20.00	0.08
Hallbut	131.67	2791.35	30.62	5.13
Herring	10.54 gal	53.23	40.55	0.12
Rockfish	274.89	695.55	36.07	1.28
Black Rockfish (black bass)	161.60	242.40	19.17	0.45
Red Rockfish	113.29	453.15	68.25	0.83
Marine Invertebrates		803.87	12.05	1.48
Clams	10.54 gal	31.62	0.68	0.06
Pacific Littleneck Clams (Steamers)	10.54 gal	31.62	3.08	0.06
Crabs	416.80	666.87	62.23	1.22
Tanner Crab	416.80	666.87	62.23	1.22
Tanner Crab, Unknown	416.80	666.87	62.23	1.22
Octopus	26.35	105.38	28.57	0.19

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VII-29. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Seldovia, 1992/93

Resource	Percent Base	Subsistence Methods										Removed from Commercial Catch	Rod and Reel		Any Method	
		Net		Dip Net		Subsistence Gear Any Method		No.	Lbs.	No.	Lbs.		No.	Lbs.	No.	Lbs.
		No.	Lbs.	No.	Lbs.	No.	Lbs.									
Salmon	total	13.77	12.09	0.65	0.48	14.42	12.57	34.73	35.37	50.85	52.07					
Chum Salmon	gear type	10.00	12.20	0.00	0.00	9.55	11.73	13.14	13.81	17.52	18.31					
	resource	9.28	9.28	0.00	0.00	9.28	9.28	30.72	30.72	60.00	60.00					
	total	1.38	1.47	0.00	0.00	1.38	1.47	4.56	4.88	8.91	9.53	14.85	15.89			
Coho Salmon	gear type	35.31	43.96	0.00	0.00	33.73	42.28	25.53	27.39	16.51	17.62					
	resource	21.98	21.98	0.00	0.00	21.98	21.98	40.07	40.07	37.95	37.95					
	total	4.85	5.31	0.00	0.00	4.86	5.31	8.87	9.69	8.40	9.17	22.12	24.17			
Chinook Salmon	gear type	1.56	3.51	0.00	0.00	1.49	3.37	13.14	25.40	21.29	40.94					
	resource	1.38	1.38	0.00	0.00	1.38	1.38	29.23	29.23	69.39	69.39					
	total	0.22	0.42	0.00	0.00	0.22	0.42	4.56	8.98	10.83	21.32	15.60	30.72			
Pink Salmon	gear type	18.13	10.64	0.00	0.00	17.31	10.23	8.18	4.14	41.80	21.03					
	resource	9.39	9.39	0.00	0.00	9.39	9.39	10.68	10.68	79.94	79.94					
	total	2.50	1.29	0.00	0.00	2.50	1.29	2.84	1.46	21.26	10.95	26.60	13.70			
Sockeye Salmon	gear type	35.00	29.70	100.00	100.00	37.91	32.39	40.02	29.27	2.88	2.09					
	resource	23.14	23.14	3.10	3.10	26.24	26.24	66.74	66.74	7.02	7.02					
	total	4.82	3.59	0.65	0.48	5.47	4.07	13.90	10.35	1.46	1.09	20.83	15.51			
Landlocked Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VII-30. Estimated Salmon Harvest by Gear Type and Species, Seldovia, 1992/93

Harvest Units	Subsistence Methods												Rod and Reel		Any Method	
	Net			Dip Net			Subsistence Gear Any Method			Removed from Commercial Catch						
	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH				
Salmon	674.46	4.92	31.62	0.23	706.08	5.15	1,700.91	12.42	2,490.66	18.18	4,897.64	35.75	21,964.24	160.32		
	2,654.66	19.38	105.60	0.77	2,760.25	20.15	7,767.82	56.70	11,436.17	83.48	21,964.24	160.32				
Chum Salmon	67.45	0.49	0.00	0.00	67.45	0.49	223.42	1.63	436.29	3.18	727.15	5.31	3,490.34	25.48		
	323.74	2.36	0.00	0.00	323.74	2.36	1,072.39	7.83	2,094.20	15.29	3,490.34	25.48				
Coho Salmon	238.17	1.74	0.00	0.00	238.17	1.74	434.18	3.17	411.21	3.00	1,083.56	7.91	5,309.47	38.76		
	1,167.03	8.52	0.00	0.00	1,167.03	8.52	2,127.50	15.53	2,014.93	14.71	5,309.47	38.76				
Chinook Salmon	10.54	0.08	0.00	0.00	10.54	0.08	223.42	1.63	530.30	3.87	764.25	5.58	6,748.32	49.26		
	93.05	0.68	0.00	0.00	93.05	0.68	1,972.76	14.40	4,682.51	34.18	6,748.32	49.26				
Pink Salmon	122.25	0.89	0.00	0.00	122.25	0.89	139.11	1.02	1,041.20	7.60	1,302.55	9.51	3,008.90	21.96		
	282.39	2.06	0.00	0.00	282.39	2.06	321.34	2.35	2,405.17	17.56	3,008.90	21.96				
Sockeye Salmon	236.06	1.72	31.62	0.23	267.68	1.95	680.78	4.97	71.66	0.52	1,020.12	7.45	3,407.21	24.67		
	788.45	5.76	105.60	0.77	894.04	6.53	2,273.82	16.60	239.35	1.75	3,407.21	24.67				
Landlocked Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table XVII-31. Percentage of Households Harvesting Salmon by Gear Type and Species, Seldovia, 1992/93

Resource	Subsistence Methods			Removed from Commercial Catch	Rod and Reel	Any Method
	Net	Dip Net	Any Subsistence Gear			
Salmon	6.15	1.54	7.69	26.15	60.00	73.85
Chum Salmon	3.08	0.00	3.08	9.23	13.85	21.54
Coho Salmon	4.62	0.00	4.62	13.85	35.38	46.15
Chinook Salmon	1.54	0.00	1.54	16.92	46.15	56.92
Pink Salmon	3.08	0.00	3.08	4.62	26.15	32.31
Sockeye Salmon	6.15	1.54	7.69	21.54	13.85	35.38
Landlocked Salmon	0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VII-32. Estimated Harvest of Fish Other than Salmon by Gear Type, Seldovia, 1992/93

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	639.18	4.67	5,697.73	41.59	9,056.09	66.10	35.83	0.26	15,428.83	112.62
Graying	1.48	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.48	0.01
Lingcod	0.00	0.00	288.75	2.11	52.69	0.38	0.00	0.00	341.45	2.49
Pacific Tom Cod	105.38	0.77	0.00	0.00	0.00	0.00	0.00	0.00	105.38	0.77
Pacific Cod (Gray)	0.00	0.00	816.17	5.96	170.30	1.24	0.00	0.00	986.47	7.20
Sablefish (Black Cod)	0.00	0.00	1,000.53	7.30	27.38	0.20	0.00	0.00	1,027.90	7.50
Sole, Unknown	0.00	0.00	0.00	0.00	16.86	0.12	0.00	0.00	16.86	0.12
Halibut	80.43	0.59	2,791.35	20.37	6,245.35	45.59	0.00	0.00	9,117.14	66.55
Herring	50.58	0.37	63.23	0.46	42.11	0.31	0.00	0.00	155.93	1.14
Black Rockfish (black bass)	0.00	0.00	242.40	1.77	1,022.22	7.46	0.00	0.00	1,264.62	9.23
Red Rockfish	0.00	0.00	453.15	3.31	210.77	1.54	0.00	0.00	663.92	4.85
Irish Lord	2.11	0.02	0.00	0.00	10.54	0.08	0.00	0.00	12.65	0.09
Unknown Greenling	27.40	0.20	42.15	0.31	134.89	0.98	0.00	0.00	210.77	1.54
Arctic Char	14.75	0.11	0.00	0.00	0.00	0.00	0.00	0.00	14.75	0.11
Dolly Varden	357.04	2.61	0.00	0.00	987.24	7.21	29.51	0.22	1,373.79	10.03
Rainbow Trout	0.00	0.00	0.00	0.00	17.70	0.13	0.00	0.00	17.70	0.13
Unknown Trout	0.00	0.00	0.00	0.00	118.03	0.86	0.00	0.00	118.03	0.86

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VII-33. Percentage of Fish Other Than Salmon Harvested by Gear Type, Seldovia, 1992/93

Resource	Percent Base	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing
		Lbs.	Lbs.	Lbs.	Lbs.
Non-Salmon Fish	resource	4.14	36.93	58.70	0.23
Grayling	resource	100.00	0.00	0.00	0.00
Lingcod	resource	0.00	84.57	15.43	0.00
Pacific Tom Cod	resource	100.00	0.00	0.00	0.00
Pacific Cod (Gray)	resource	0.00	82.74	17.26	0.00
Sablefish (Black Cod)	resource	0.00	97.34	2.66	0.00
Sole, Unknown	resource	0.00	0.00	100.00	0.00
Halibut	resource	0.88	30.62	68.50	0.00
Herring	resource	32.44	40.55	27.01	0.00
Black Rockfish (black bass)	resource	0.00	19.17	80.83	0.00
Red Rockfish	resource	0.00	68.25	31.75	0.00
Irish Lord	resource	16.67	0.00	83.33	0.00
Unknown Greenling	resource	13.00	20.00	64.00	3.00
Arctic Char	resource	100.00	0.00	0.00	0.00
Dolly Varden	resource	25.99	0.00	71.86	2.15
Rainbow Trout	resource	0.00	0.00	100.00	0.00
Unknown Trout	resource	0.00	0.00	100.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VII-34. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Seldovia, 1992/93

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	16.92	30.77	46.15	3.08	70.77
Grayling	1.54	0.00	0.00	0.00	1.54
Lingcod	0.00	10.77	4.62	0.00	15.38
Pacific Tom Cod	1.54	0.00	0.00	0.00	1.54
Pacific Cod (Gray)	0.00	16.92	7.69	0.00	24.62
Sablefish (Black Cod)	0.00	16.92	1.54	0.00	18.46
Sole, Unknown	0.00	0.00	1.54	0.00	1.54
Hallbut	3.08	24.62	35.38	0.00	53.85
Herring	1.54	1.54	1.54	0.00	3.08
Black Rockfish (black bass)	0.00	3.08	9.23	0.00	10.77
Red Rockfish	0.00	9.23	1.54	0.00	9.23
Irish Lord	1.54	0.00	1.54	0.00	3.08
Unknown Greenling	3.08	1.54	7.69	1.54	13.85
Arctic Char	1.54	0.00	0.00	0.00	1.54
Dolly Varden	6.15	0.00	21.54	3.08	30.77
Rainbow Trout	0.00	0.00	1.54	0.00	1.54
Unknown Trout	0.00	0.00	1.54	0.00	1.54

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure VII-13. Composition of Wild Resource Harvests by Resource Category, Seldovia, 1993/94

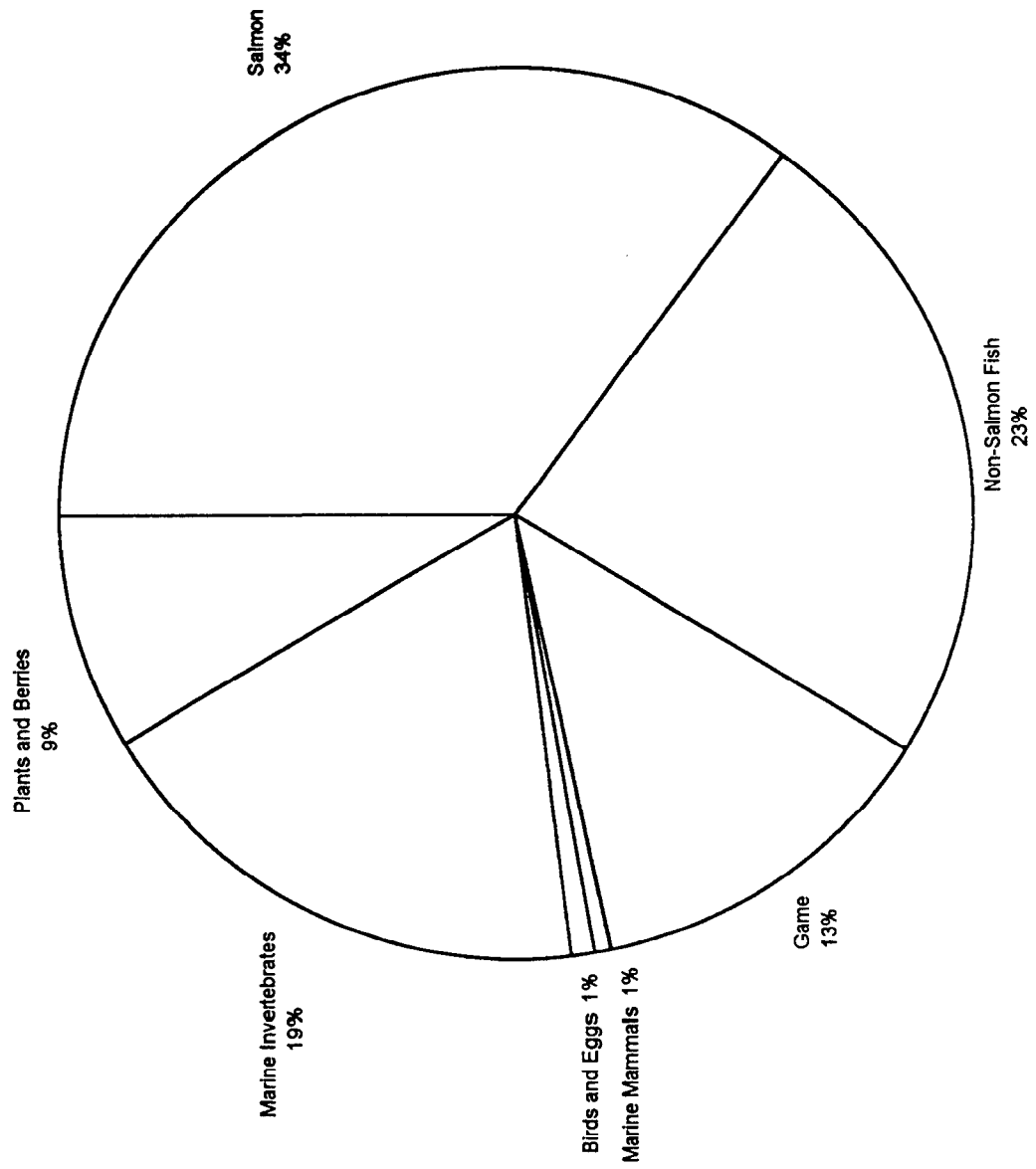


Figure VII-14. Composition of Harvests by Resource Category, Seldovia, 1982, 1991/92, 1992/93, and 1993/94

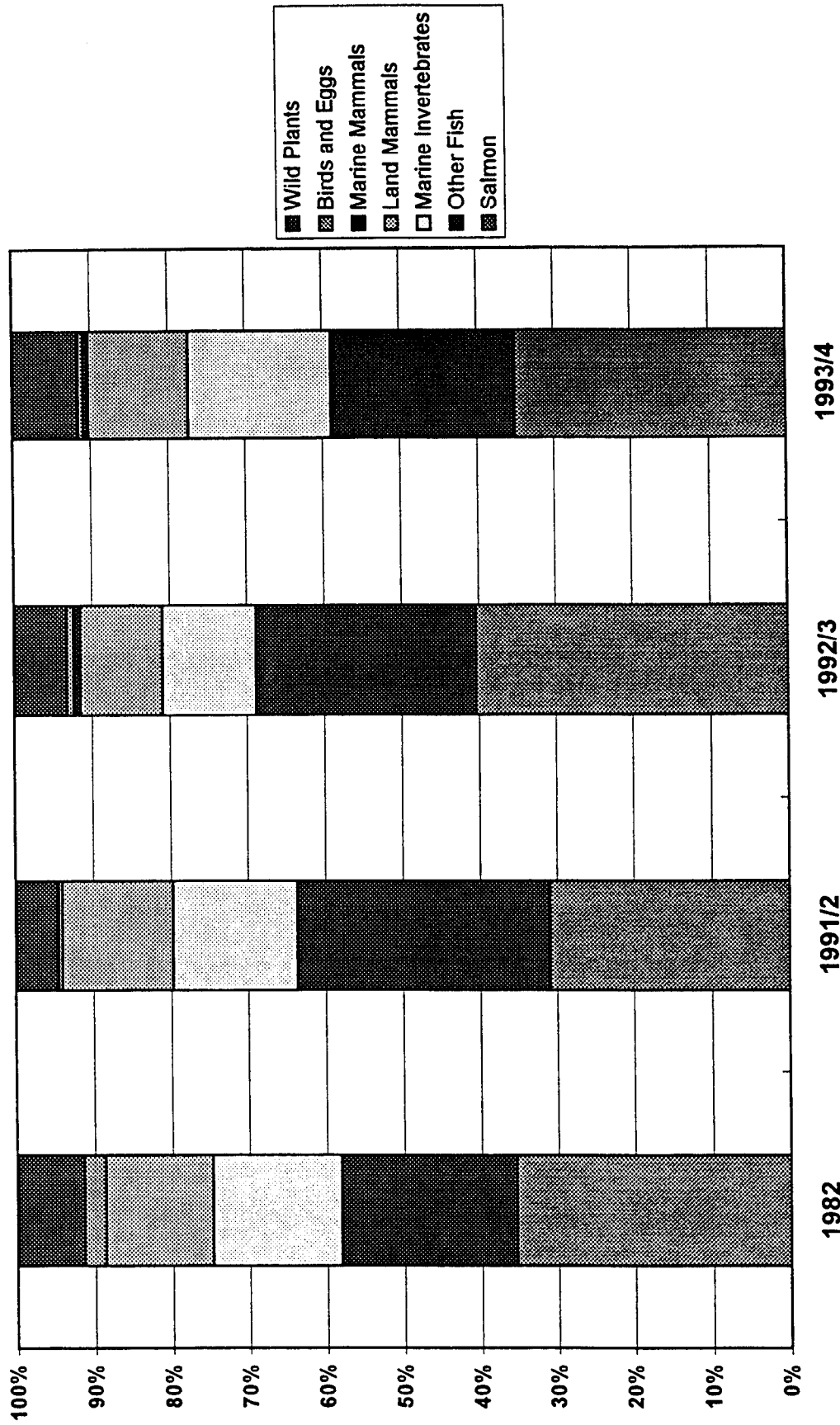


Table VII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Selidovia, 1993/94

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	95.4	95.4	95.4	86.2	78.5	79,053.88	516.69	183.52			25.03%	23.57%
Fish	90.8	86.2	84.6	76.9	66.2	46,463.37	303.68	107.87			31.18%	30.46%
Salmon	89.2	76.9	73.8	66.2	53.8	27,677.56	180.90	64.25	6,145.89	40.17	47.03%	42.85%
Chum Salmon	18.5	13.8	13.8	4.6	9.2	3,163.52	20.68	7.34	701.45	4.58	103.25%	102.99%
Coho Salmon	60.0	55.4	50.8	21.5	21.5	6,535.45	42.72	15.17	1,452.32	9.49	49.40%	49.38%
Chinook Salmon	81.5	66.2	64.6	49.2	38.5	11,470.20	74.97	26.63	1,327.57	8.68	34.81%	32.89%
Pink Salmon	27.7	23.1	23.1	12.3	13.8	3,134.66	20.49	7.28	1,591.20	10.40	60.60%	59.41%
Sockeye Salmon	56.9	40.0	36.9	33.8	12.3	3,338.41	21.82	7.75	1,049.82	6.86	51.45%	52.15%
Landlocked Salmon	1.5	1.5	1.5	0.0	0.0	35.31	0.23	0.08	23.54	0.15	151.50%	150.85%
Unknown Salmon	4.6	0.0	0.0	4.6	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Non-Salmon Fish	86.2	66.2	63.1	60.0	50.8	18,785.81	122.78	43.61			29.51%	29.35%
Pike	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sturgeon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cod	26.2	18.5	18.5	9.2	13.8	1,959.34	12.81	4.55	612.29	4.00	63.41%	63.66%
Pacific Tomcod	1.5	0.0	0.0	1.5	1.5	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Pacific Cod (Gray)	26.2	18.5	18.5	9.2	13.8	1,959.34	12.81	4.55	612.29	4.00	63.41%	63.66%
Unknown Cod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	29.2	13.8	13.8	20.0	9.2	732.99	4.79	1.70	236.45	1.55	63.30%	63.87%
Greenling	23.1	13.8	13.8	9.2	4.6	696.74	4.55	1.62	198.90	1.30	77.77%	88.43%
Kelp Greenling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Lingcod	18.5	9.2	9.2	9.2	4.6	663.78	4.34	1.54	165.95	1.08	91.32%	92.69%
Unknown Greenling	4.6	4.6	4.6	0.0	0.0	32.95	0.22	0.08	32.95	0.22	111.74%	113.13%
Flounder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Flounder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sole	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sole, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Hallbut	84.6	58.5	56.9	50.8	44.6	13,042.66	85.25	30.28	615.22	4.02	31.25%	30.87%
Herring	9.2	1.5	1.5	7.7	1.5	411.92	2.69	0.96	68.65 gal	0.45	151.50%	150.85%
Herring Roe	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	40.0	27.7	27.7	15.4	7.7	1,176.92	7.69	2.73	455.47	2.98	50.35%	44.98%
Black Rockfish (black bass)	10.8	10.8	10.8	0.0	1.5	321.30	2.10	0.75	214.20	1.40	89.69%	87.62%
Red Rockfish	30.8	18.5	18.5	15.4	4.6	729.69	4.77	1.69	182.42	1.19	53.77%	55.32%
Unknown Rockfish	3.1	3.1	3.1	0.0	1.5	125.93	0.82	0.29	58.85	0.38	108.46%	108.95%
Sea Bass	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seldovia, 1993/94

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Per capita	Total	Mean HH	Per capita	Harvest	Per capita		
														Harvest	Per capita
Sculpin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Irish Lord	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Unknown Sculpin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Smelt	7.7	1.5	1.5	6.2	3.1	76.50	0.50	0.18	23.54 gal	0.15	0.15	151.50%	152.53%		
Eulachon (Hooligan, Candlefish)	7.7	1.5	1.5	6.2	3.1	76.50	0.50	0.18	0.00	0.00	0.00	0.00%	0.00%		
Unknown Smelt	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Wolf Eel (Wolfish)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Shark	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Walleye Pollock (Whiting)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Skates	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Grayling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Sheefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Unknown Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Trout and Char	36.9	30.8	27.7	13.8	13.8	688.74	4.50	1.60	491.95	3.22	3.22	46.47%	44.47%		
Char	32.3	29.2	26.2	10.8	12.3	609.65	3.98	1.42	435.46	2.85	2.85	45.55%	43.28%		
Arclic Char	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Dolly Varden	32.3	29.2	26.2	10.8	12.3	609.65	3.98	1.42	435.46	2.85	2.85	45.55%	43.28%		
Lake Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Trout	9.2	6.2	6.2	3.1	3.1	79.09	0.52	0.18	56.49	0.37	0.37	97.97%	97.82%		
Rainbow Trout	6.2	4.6	4.6	1.5	1.5	75.79	0.50	0.18	54.14	0.35	0.35	102.17%	102.06%		
Steelhead	3.1	1.5	1.5	1.5	1.5	3.30	0.02	0.01	2.35	0.02	0.02	151.50%	150.85%		
Unknown Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Game	60.0	26.2	15.4	50.8	27.7	10,161.32	66.41	23.59	136.52	0.89	0.89	78.90%	51.15%		
Big Game	58.5	24.6	12.3	50.8	26.2	10,076.58	65.86	23.39	51.78	0.34	0.34	70.28%	51.50%		
Bison	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Black Bear	10.8	4.6	0.0	10.8	3.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Brown Bear	1.5	0.0	0.0	1.5	1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Caribou	20.0	3.1	1.5	18.5	4.6	1,059.23	6.92	2.46	7.06	0.05	0.05	151.50%	149.15%		
Deer	20.0	4.6	4.6	13.8	6.2	1,220.23	7.98	2.83	28.25	0.18	0.18	86.09%	84.43%		
Elk	3.1	0.0	0.0	3.1	1.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Goat	4.6	1.5	1.5	3.1	4.6	170.65	1.12	0.40	2.35	0.02	0.02	151.50%	149.15%		
Moose	47.7	18.5	9.2	41.5	15.4	7,626.46	49.85	17.70	14.12	0.09	0.09	59.39%	59.14%		
Sheep, Dall	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Small Game/Furbearer	4.6	6.2	4.6	0.0	3.1	84.74	0.55	0.20	84.74	0.55	0.55	108.96%	89.84%		
Fox	0.0	1.5	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		

Table VII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seldovia, 1993/94

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Red Fox	0.0	1.5	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Beaver	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Coyote	1.5	1.5	1.5	0.0	0.0	0.00	0.00	0.00	2.35	0.02	151.50%	0.00%
Hare	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Snowshoe Hare	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Land Otter	1.5	3.1	1.5	0.0	1.5	0.00	0.00	0.00	11.77	0.08	151.50%	0.00%
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mink	0.0	1.5	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Muskrat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	3.1	3.1	3.1	0.0	3.1	56.49	0.37	0.13	7.06	0.05	112.22%	112.09%
Weasel	1.5	1.5	1.5	0.0	1.5	0.00	0.00	0.00	7.06	0.05	151.50%	0.00%
Wolf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	1.5	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	1.5	1.5	1.5	0.0	0.0	28.25	0.18	0.07	56.49	0.37	151.50%	152.53%
Tree Squirrel	1.5	1.5	1.5	0.0	0.0	28.25	0.18	0.07	56.49	0.37	151.50%	152.53%
Feral Animals	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Reindeer - Feral	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Mammals	13.8	4.6	4.6	9.2	9.2	527.26	3.45	1.22	16.48	0.11	98.14%	150.85%
Whale	3.1	0.0	0.0	3.1	1.5	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whale	1.5	0.0	0.0	1.5	1.5	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	10.8	1.5	1.5	9.2	6.2	527.26	3.45	1.22	9.42	0.06	151.50%	150.85%
Harbor Seal	7.7	1.5	1.5	6.2	6.2	527.26	3.45	1.22	9.42	0.06	151.50%	150.85%
Unknown Seal	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Sea Lion	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sea Otter	3.1	3.1	3.1	0.0	1.5	0.00	0.00	0.00	7.06	0.05	112.22%	0.00%
Birds and Eggs	33.8	26.2	26.2	15.4	9.2	552.26	3.61	1.28	699.09	4.57	46.04%	43.89%
Birds	33.8	26.2	26.2	15.4	9.2	552.26	3.61	1.28	699.09	4.57	46.04%	43.89%
Upland Game Birds	16.9	15.4	15.4	4.6	4.6	245.51	1.60	0.57	350.72	2.29	55.46%	53.83%
Grouse	10.8	10.8	10.8	3.1	3.1	95.57	0.62	0.22	136.52	0.89	62.20%	60.36%
Ptarmigan	12.3	10.8	10.8	3.1	3.1	149.94	0.98	0.35	214.20	1.40	74.24%	73.23%
Migratory Birds	26.2	18.5	18.5	12.3	7.7	306.75	2.00	0.71	348.37	2.28	52.51%	50.60%
Waterfowl	26.2	18.5	18.5	12.3	7.7	306.75	2.00	0.71	348.37	2.28	52.51%	50.60%
Ducks	26.2	18.5	18.5	12.3	7.7	295.45	1.93	0.69	338.95	2.22	51.95%	49.36%

Table VII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seldovia, 1993/94

Resource Name	Percentage of Households			Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Eider	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Small	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Spectacled Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Large	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
King Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, White-winged	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Black	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Surf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harlequin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goldeneye	9.2	6.2	6.2	6.2	3.1	105.45	0.69	0.24	131.82	0.86	100.76%	100.38%
Bufflehead	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Merganser	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scap	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mallard	23.1	16.9	16.9	9.2	3.1	167.12	1.09	0.39	167.12	1.09	49.39%	49.15%
Pintail	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wigeon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Teal	1.5	1.5	1.5	0.0	0.0	5.65	0.04	0.01	18.83	0.12	151.50%	151.69%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	1.5	1.5	1.5	0.0	1.5	9.42	0.05	0.02	11.77	0.08	151.50%	149.15%
Shoveler	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canvasback	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Ducks, Unknown	3.1	1.5	1.5	1.5	0.0	7.81	0.05	0.02	9.42	0.06	151.50%	151.69%
Geese	1.5	1.5	1.5	0.0	0.0	11.30	0.07	0.03	9.42	0.06	151.50%	152.53%
Brant	1.5	1.5	1.5	0.0	0.0	11.30	0.07	0.03	9.42	0.06	151.50%	152.53%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Lesser	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Swan	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seldovia, 1993/94

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Sandhill Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffins	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gull Eggs	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Waterfowl Eggs	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Duck Eggs	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Duck Eggs, Unknown	1.5	0.0	0.0	1.5	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Invertebrates	90.8	78.5	78.5	70.8	63.1	14,627.32	95.60	33.96	0.00	0.00	34.78%	33.03%
Abalone	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Clams	83.1	76.9	76.9	43.1	49.2	11,049.47	72.22	25.65	0.00	24.07	35.17%	33.62%
Butler Clams	78.5	72.3	72.3	30.8	47.7	7,801.16	50.99	18.11	3,683.16 gal	17.00	38.89%	36.66%
Razor Clams	18.5	10.8	9.2	15.4	4.6	342.48	2.24	0.80	114.16 gal	0.75	68.33%	68.27%
Pacific Littleneck Clams (Steamers)	66.2	61.5	61.5	24.6	30.8	2,905.82	18.99	6.75	968.61 gal	6.33	40.91%	41.52%
Softshell Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Pinkneck Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Horse Clams (Gaper)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Unknown Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Cockles	9.2	9.2	9.2	0.0	4.6	183.60	1.20	0.43	61.20 gal	0.40	117.32%	116.78%
Scallops	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Mussels	18.5	16.9	16.9	3.1	6.2	158.88	1.04	0.37	105.92 gal	0.69	60.01%	60.38%
Crabs	61.5	16.9	15.4	53.8	27.7	1,815.99	11.87	4.22	1,195.75	7.82	70.37%	71.96%
Dungeness Crab	21.5	6.2	4.6	20.0	1.5	92.27	0.60	0.21	131.82	0.86	135.55%	134.11%
King Crab	12.3	3.1	3.1	10.8	4.6	70.38	0.46	0.16	30.60	0.20	109.17%	109.16%
King Crab, Unknown	12.3	3.1	3.1	10.8	4.6	70.38	0.46	0.16	30.60	0.20	109.17%	109.16%
Tanner Crab	52.3	15.4	15.4	43.1	26.2	1,653.34	10.81	3.84	1,033.34	6.75	74.79%	73.89%

Table VII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Seldovia, 1993/94

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Per capita	Total	Mean HH	Harvest	Per capita	Harvest	Per capita
Tanner Crab, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Unknown Crabs	26.2	24.6	24.6	9.2	15.4	741.46	4.85	1.72	185.37 gal	1.21	56.69%	54.54%	1.21	56.69%
Chitons (bidarkis)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	0.00	0.00%
Chitons (large)	26.2	24.6	24.6	9.2	15.4	741.46	4.85	1.72	185.37 gal	1.21	56.69%	54.54%	1.21	56.69%
Chitons (small)	29.2	16.9	13.8	20.0	9.2	513.14	3.35	1.19	128.28	0.84	105.11%	104.31%	0.84	105.11%
Ociopus	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	0.00	0.00%
Sea Urchin	9.2	6.2	6.2	6.2	1.5	65.91	0.43	0.15	32.95 gal	0.22	81.24%	80.06%	0.22	81.24%
Shrimp	4.6	3.1	3.1	1.5	1.5	7.06	0.05	0.02	4.71 gal	0.03	106.29%	107.74%	0.03	106.29%
Snails	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	0.00	0.00%
Whelk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	0.00	0.00%
Limpets	7.7	6.2	6.2	6.2	4.6	91.80	0.60	0.21	30.60 gal	0.20	85.02%	84.54%	0.20	85.02%
Oyster	95.4	92.3	92.3	27.7	52.3	6,722.35	43.94	15.61	1,680.59 gal	10.98	20.76%	19.88%	10.98	20.76%
Plants and Berries	93.8	89.2	89.2	23.1	47.7	5,340.88	34.91	12.40	1,335.22 gal	8.73	20.76%	19.28%	8.73	20.76%
Berries	40.0	40.0	40.0	7.7	15.4	1,070.76	7.00	2.49	267.69 gal	1.75	52.76%	53.02%	1.75	52.76%
Plants/Greens/Mushrooms	18.5	16.9	16.9	4.6	6.2	310.71	2.03	0.72	77.68 gal	0.51	74.53%	75.51%	0.51	74.53%
Seaweed/Kelp (Food)	18.5	16.9	16.9	4.6	6.2	310.71	2.03	0.72	77.68 gal	0.51	74.53%	75.51%	0.51	74.53%
Bull Kelp	1.5	1.5	1.5	0.0	0.0	0.00	0.00	0.00	470.77 gal	3.08	151.50%	0.00%	3.08	151.50%
Fertilizer	1.5	1.5	1.5	0.0	0.0	0.00	0.00	0.00	470.77 gal	3.08	151.50%	0.00%	3.08	151.50%
Vegetative Fertilizer	1.5	1.5	1.5	0.0	0.0	0.00	0.00	0.00	470.77 gal	3.08	151.50%	0.00%	3.08	151.50%
Seaweed/Kelp (Non-food)	52.3	50.8	50.8	6.2	9.2	0.00	0.00	0.00	519.61 crd	3.40	28.74%	0.00%	3.40	28.74%
Wood														

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-36. Estimated Amount of Resources Removed From Commercial Harvest, Seldovia, 1993/94

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		13355.44	21.86	16.89
Fish		12528.53	26.96	15.85
Salmon	1786.57	6909.67	24.96	8.74
Chum Salmon	37.66	169.85	5.37	0.21
Coho Salmon	440.17	1980.76	30.31	2.51
Chinook Salmon	228.32	1972.71	17.20	2.50
Pink Salmon	536.68	1057.25	33.73	1.34
Sockeye Salmon	543.74	1729.09	51.79	2.19
Non-Salmon Fish		5618.87	29.91	7.11
Cod	292.17	934.95	47.72	1.18
Pacific Cod (Gray)	292.17	934.95	47.72	1.18
Sablefish (Black Cod)	154.06	477.60	65.16	0.60
Greenling	76.50	291.88	41.89	0.37
Lingcod	71.79	287.17	43.26	0.36
Unknown Greenling	4.71	4.71	14.29	0.01
Halibut	160.33	3398.95	26.06	4.30
Rockfish	161.24	515.49	43.80	0.65
Black Rockfish (black bass)	51.78	77.68	24.18	0.10
Red Rockfish	109.45	437.82	60.00	0.55
Marine Invertebrates		826.91	5.65	1.05
Crabs	301.29	490.31	27.00	0.62
King Crab	11.77	27.07	38.46	0.03
King Crab, Unknown	11.77	27.07	38.46	0.03
Tanner Crab	289.52	463.24	28.02	0.59
Tanner Crab, Unknown	289.52	463.24	28.02	0.59
Octopus	78.27	313.06	61.01	0.40
Shrimp	11.77 gal	23.54	35.71	0.03

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-37. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Seldovia, 1993/94

Resource	Percent Base	Subsistence Methods										Removed from Commercial Catch	Rod and Reel		Any Method		
		Setnet			Dip Net			Subsistence Gear Any Method					No.	Lbs.		No.	Lbs.
		No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.						
	total	10.23	9.52	0.04	0.03	10.26	9.55					29.07	24.96	60.67	65.49		
Chum Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.11	2.46	17.80	16.52		
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.37	5.37	94.63	94.63			
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.61	10.80	10.82	11.41	11.43	
Coho Salmon	gear type	45.69	49.05	0.00	0.00	45.52	48.91					24.64	28.67	19.44	18.00		
	resource	19.77	19.77	0.00	0.00	19.77	19.77					30.31	30.31	49.92	49.92		
	total	4.67	4.67	0.00	0.00	4.67	4.67					7.16	7.16	11.80	11.79	23.63	23.61
Chinook Salmon	gear type	7.49	15.44	0.00	0.00	7.46	15.39					12.78	28.55	28.22	50.15		
	resource	3.55	3.55	0.00	0.00	3.55	3.55					17.20	17.20	79.26	79.26		
	total	0.77	1.47	0.00	0.00	0.77	1.47					3.72	7.13	17.12	32.85	21.60	41.44
Pink Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00					30.04	15.30	28.28	11.46		
	resource	0.00	0.00	0.00	0.00	0.00	0.00					33.73	33.73	66.27	66.27		
	total	0.00	0.00	0.00	0.00	0.00	0.00					8.73	3.82	17.16	7.51	25.89	11.33
Sockeye Salmon	gear type	46.82	35.51	100.00	100.00	47.01	35.70					30.43	25.02	5.62	3.68		
	resource	28.03	28.03	0.22	0.22	28.25	28.25					51.79	51.79	19.96	19.96		
	total	4.79	3.38	0.04	0.03	4.83	3.41					8.85	6.25	3.41	2.41	17.08	12.06
Landlocked Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	0.63	0.19		
	resource	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	100.00	100.00		
	total	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	0.38	0.13	0.38	0.13
Unknown Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00		
	resource	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00		
	total	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-38. Estimated Salmon Harvest by Gear Type and Species, Seldovia, 1993/94

Harvest Units	Subsistence Methods												Removed from Commercial Catch		Rod and Reel		Any Method	
	Setnet			Dip Net			Subsistence Gear Any Method			Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	
	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH									
Salmon numbers pounds	628.48 2,634.66	4.11 17.22	2.35 7.49	0.02 0.05	4.12 17.27	630.83 2,642.15	0.00 0.00	0.00 0.00	0.00 0.00	1,786.57 6,909.67	11.68 45.16	3,728.49 18,125.75	24.37 118.47	6,145.89 27,677.56	40.17 180.90			
Chum Salmon numbers pounds	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	37.66 169.85	0.25 1.11	663.78 2,993.67	4.34 19.57	701.45 3,163.52	4.58 20.68			
Coho Salmon numbers pounds	287.17 1,292.26	1.88 8.45	0.00 0.00	0.00 0.00	1.88 8.45	287.17 1,292.26	0.00 0.00	0.00 0.00	0.00 0.00	440.17 1,980.76	2.88 12.95	724.98 3,262.43	4.74 21.32	1,452.32 6,535.45	9.49 42.72			
Chinook Salmon numbers pounds	47.08 406.74	0.31 2.66	0.00 0.00	0.00 0.00	0.31 2.66	47.08 406.74	0.00 0.00	0.00 0.00	0.00 0.00	228.32 1,972.71	1.49 12.89	1,052.17 9,090.74	6.88 59.42	1,327.57 11,470.20	8.68 74.97			
Pink Salmon numbers pounds	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	536.68 1,057.25	3.51 6.91	1,054.52 2,077.41	6.89 13.58	1,591.20 3,134.66	10.40 20.49			
Sockeye Salmon numbers pounds	294.23 935.65	1.92 6.12	2.35 7.49	0.02 0.05	1.94 6.16	296.58 943.14	0.00 0.00	0.00 0.00	0.00 0.00	543.74 1,729.09	3.55 11.30	209.49 666.19	1.37 4.35	1,049.82 3,338.41	6.86 21.82			
Landlocked Salmon numbers pounds	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	23.54 35.31	0.15 0.23	23.54 35.31	0.15 0.23			
Unknown Salmon numbers pounds	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-39. Percentage of Households Harvesting Salmon by Gear Type and Species, Seldovia, 1993/94

Resource	Subsistence Methods			Removed from Commercial Catch	Rod and Reel	Any Method
	Setnet	Dip Net	Any Subsistence Gear			
Salmon	6.15	1.54	7.69	18.46	63.08	73.85
Chum Salmon	0.00	0.00	0.00	3.08	12.31	13.85
Coho Salmon	3.08	0.00	3.08	7.69	43.08	50.77
Chinook Salmon	1.54	0.00	1.54	12.31	56.92	64.62
Pink Salmon	0.00	0.00	0.00	4.62	21.54	23.08
Sockeye Salmon	3.08	1.54	4.62	16.92	20.00	36.92
Landlocked Salmon	0.00	0.00	0.00	0.00	1.54	1.54
Unknown Salmon	0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-40. Estimated Harvest of Fish Other than Salmon by Gear Type, Seldivia, 1993/94

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	851.62	5.57	5,618.87	36.72	12,315.32	80.49	0.00	0.00	18,785.81	122.78
Graying	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pike	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sheefish	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Whitefish	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sturgeon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lingcod	0.00	0.00	287.17	1.88	376.62	2.46	0.00	0.00	663.78	4.34
Pacific Tom Cod	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pacific Cod (Gray)	15.06	0.10	934.95	6.11	1,009.33	6.60	0.00	0.00	1,959.34	12.81
Sablefish (Black Cod)	36.48	0.24	477.60	3.12	218.91	1.43	0.00	0.00	732.99	4.79
Unknown Cod	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Flounder	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sole, Unknown	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Halibut	176.54	1.15	3,398.95	22.22	9,467.17	61.88	0.00	0.00	13,042.66	85.25
Herring	411.92	2.69	0.00	0.00	0.00	0.00	0.00	0.00	411.92	2.69
Herring Roe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Spawn on Kelp	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sac Roe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Black Rockfish (black bass)	0.00	0.00	77.68	0.51	243.62	1.59	0.00	0.00	321.30	2.10
Red Rockfish	131.82	0.86	437.82	2.86	160.06	1.05	0.00	0.00	729.69	4.77
Sea Bass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Rockfish	0.00	0.00	0.00	0.00	125.93	0.82	0.00	0.00	125.93	0.82
Irish Lord	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Sculpin	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Eulachon (Hooligan, Candlefish)	76.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	76.50	0.50
Unknown Smelt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kelp Greenling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Greenling	0.00	0.00	4.71	0.03	28.25	0.18	0.00	0.00	32.95	0.22
Wolf Eel (Wolffish)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Shark	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Walleye Pollock (Whiting)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Skates	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table VII-40. Estimated Harvest of Fish Other than Salmon by Gear Type, Seldovia, 1993/94

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Arctic Char pounds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dolly Varden pounds	0.00	0.00	0.00	0.00	609.65	3.98	0.00	0.00	609.65	3.98
Lake Trout pounds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rainbow Trout pounds	0.00	0.00	0.00	0.00	75.79	0.50	0.00	0.00	75.79	0.50
Steelhead pounds	3.30	0.02	0.00	0.00	0.00	0.00	0.00	0.00	3.30	0.02
Unknown Trout pounds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-41. Percentage of Fish Other Than Salmon Harvested by Gear Type, Saldovia, 1993/94

Resource	Percent Base	Subsistence Gear Lbs.	Removed from Commercial Catch Lbs.	Rod and Reel Lbs.	Ice Fishing Lbs.
Non-Salmon Fish	resource	4.53	29.91	65.56	0.00
Grayling	resource	0.00	0.00	0.00	0.00
Pike	resource	0.00	0.00	0.00	0.00
Sheefish	resource	0.00	0.00	0.00	0.00
Unknown Whitefish	resource	0.00	0.00	0.00	0.00
Sturgeon	resource	0.00	0.00	0.00	0.00
Lingcod	resource	0.00	43.26	56.74	0.00
Pacific Tom Cod	resource	0.00	0.00	0.00	0.00
Pacific Cod (Gray)	resource	0.77	47.72	51.51	0.00
Sablefish (Black Cod)	resource	4.98	65.16	29.87	0.00
Unknown Cod	resource	0.00	0.00	0.00	0.00
Unknown Flounder	resource	0.00	0.00	0.00	0.00
Sole, Unknown	resource	0.00	0.00	0.00	0.00
Hallbut	resource	1.35	26.06	72.59	0.00
Herring	resource	100.00	0.00	0.00	0.00
Herring Roe	resource	0.00	0.00	0.00	0.00
Spawn on Kelp	resource	0.00	0.00	0.00	0.00
Sac Roe	resource	0.00	0.00	0.00	0.00
Black Rockfish (black bass)	resource	0.00	24.18	75.82	0.00
Red Rockfish	resource	18.06	60.00	21.94	0.00
Sea Bass	resource	0.00	0.00	0.00	0.00
Unknown Rockfish	resource	0.00	0.00	100.00	0.00
Irish Lord	resource	0.00	0.00	0.00	0.00
Unknown Sculpin	resource	0.00	0.00	0.00	0.00
Eulachon (Hooligan, Candlefish)	resource	100.00	0.00	0.00	0.00
Unknown Smeit	resource	0.00	0.00	0.00	0.00
Kelp Greenling	resource	0.00	0.00	0.00	0.00
Unknown Greenling	resource	0.00	14.29	85.71	0.00
Wolf Eel (Wolffish)	resource	0.00	0.00	0.00	0.00
Shark	resource	0.00	0.00	0.00	0.00
Walleye Pollock (Whiting)	resource	0.00	0.00	0.00	0.00
Skates	resource	0.00	0.00	0.00	0.00

Table VII-41. Percentage of Fish Other Than Salmon Harvested by Gear Type, Seldovia, 1993/94

Resource	Percent Base	Subsistence Gear		Removed from Commercial Catch		Rod and Reel		Ice Fishing	
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Arctic Char	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dolly Varden	resource	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Lake Trout	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rainbow Trout	resource	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
Steelhead	resource	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Trout	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-42. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Seldovia, 1993/94

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	6.15	24.62	50.77	0.00	63.08
Lingcod	0.00	7.69	1.54	0.00	9.23
Pacific Cod (Gray)	1.54	9.23	9.23	0.00	18.46
Sablefish (Black Cod)	1.54	9.23	3.08	0.00	13.85
Halibut	3.08	21.54	40.00	0.00	56.92
Herring	1.54	0.00	0.00	0.00	1.54
Black Rockfish (black bass)	0.00	4.62	6.15	0.00	10.77
Red Rockfish	3.08	9.23	6.15	0.00	18.46
Unknown Rockfish	0.00	0.00	3.08	0.00	3.08
Eulachon (Hooligan, Candle)	1.54	0.00	0.00	0.00	1.54
Unknown Greenling	0.00	1.54	3.08	0.00	4.62
Dolly Varden	0.00	0.00	26.15	0.00	26.15
Rainbow Trout	0.00	0.00	4.62	0.00	4.62
Steelhead	1.54	0.00	0.00	0.00	1.54

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VII-43. Uses of Wild Foods, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count	2	3	3
Col %	3.1%	4.7%	4.6%
WF HARVESTED BY RELATIVE IN ANOTHER COMM.			
No	62	63	65
Count	96.9%	98.4%	100.0%
Col %			
Yes	2	1	
Count	3.1%	1.6%	
Col %			
WF HARVESTED BY FRIEND IN HH			
No	63	62	64
Count	98.4%	96.9%	98.5%
Col %			
Yes	1	2	1
Count	1.6%	3.1%	1.5%
Col %			
WF HARVESTED BY FRIEND IN COMMUNITY			
No	55	57	54
Count	85.9%	89.1%	83.1%
Col %			
Yes	9	7	11
Count	14.1%	10.9%	16.9%
Col %			
WF HARVESTED BY FRIEND IN ANOTHER COMM.			
No	63	63	64
Count	98.4%	98.4%	98.5%
Col %			
Yes	1	1	1
Count	1.6%	1.6%	1.5%
Col %			

Table VII-43. Uses of Wild Foods, Seldovia

	STUDY YEAR		
	1991	1992	1993
ANY WILD FOODS EATEN YESTERDAY?			
No	34	36	37
Count	53.1%	55.4%	56.9%
Col %			
Yes	30	29	28
Count	46.9%	44.6%	43.1%
Col %			
WILD FOODS AS MAIN PART OF A MEAL			
No	40	43	44
Count	62.5%	66.2%	67.7%
Col %			
Yes	24	22	21
Count	37.5%	33.8%	32.3%
Col %			
HARVEST OF WILD FOODS BY RESPONDENT			
Do Not Know			1
Count			1.5%
Col %			
No	49	58	52
Count	76.6%	90.6%	80.0%
Col %			
Yes	15	6	12
Count	23.4%	9.4%	18.5%
Col %			
WF HARVESTED BY RELATIVE IN HH			
No	58	53	57
Count	90.6%	82.8%	87.7%
Col %			
Yes	6	11	8
Count	9.4%	17.2%	12.3%
Col %			
WF HARVESTED BY RELATIVE IN ANOTHER HH			
No	62	61	62
Count	96.9%	95.3%	95.4%
Col %			
Yes			

(continued)

Table VII-44. Safety of Using Subsistence Foods, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count		58	59
Col %		89.2%	90.8%
ARE CLAMS SAFE FOR CHILDREN TO EAT?			
Do Not Know			
Count	2	1	2
Col %	3.6%	1.7%	3.4%
Not Safe			
Count	2	1	2
Col %	3.6%	1.7%	3.4%
Safe			
Count	52	56	54
Col %	92.9%	96.6%	93.1%
WHY CLAMS NOT SAFE TO EAT			
Do Not Know			
Count	2		
Col %	50.0%		
Oil pollution or fear of contamination			
Count	1	1	1
Col %	25.0%	100.0%	50.0%
Resource looks bad			
Count			1
Col %			50.0%
Safe to eat if you know which ones to take			
Count	1		
Col %	25.0%		
DO YOU EAT SEAL OIL OR SEAL MEAT?			
No			
Count		48	50
Col %		73.8%	76.9%
Yes			
Count		17	15
Col %		26.2%	23.1%
IS EATING SEAL MEAT OR OIL IMPORTANT?			
No			
Count	55		

(continued)

Table VII-44. Safety of Using Subsistence Foods, Seldovia

	STUDY YEAR		
	1991	1992	1993
DO YOU EAT BIDARKIES?			
No			
Count		38	38
Col %		58.5%	58.5%
Yes			
Count		27	27
Col %		41.5%	41.5%
IS EATING BIDARKIES IMPORTANT TO YOU?			
No			
Count	50		
Col %	78.1%		
Yes			
Count	14		
Col %	21.9%		
BIDARKIE HARVEST AREAS SAFE?			
Do Not Know			
Count			1
Col %			3.7%
Not Safe			
Count		2	3
Col %		7.4%	11.1%
Safe			
Count	14	25	23
Col %	100.0%	92.6%	85.2%
WHY BIDARKIES NOT SAFE TO EAT			
Oil pollution or fear of contamination			
Count		2	2
Col %		100.0%	66.7%
Unsure about safety			
Count			1
Col %			33.3%
DO YOU EAT CLAMS?			
No			
Count		7	6
Col %		10.8%	9.2%
Yes			

(continued)

Table VII-44. Safety of Using Subsistence Foods, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %	85.9%		
Yes Count Col %	9 14.1%		
ARE SEALS FROM HARVEST AREAS SAFE TO EAT?			
Do Not Know Count Col %		1 6.3%	3 20.0%
Safe Count Col %	8 100.0%	15 93.8%	12 80.0%

Table VII-45. Resource Population Statuses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %	7.7%	3.8%	1.9%
COMPARED TO 1988: COMMON MURRE			
Do Not Know			
Count	17	22	22
Col %	32.7%	41.5%	42.3%
Less			
Count	11	23	21
Col %	21.2%	43.4%	40.4%
Same			
Count	21	8	9
Col %	40.4%	15.1%	17.3%
More			
Count	3		
Col %	5.8%		
COMPARED TO 1988: SALMON			
Do Not Know			
Count	6	9	8
Col %	11.5%	17.0%	15.4%
Less			
Count	15	22	31
Col %	28.8%	41.5%	59.6%
Same			
Count	27	19	10
Col %	51.9%	35.8%	19.2%
More			
Count	4	3	3
Col %	7.7%	5.7%	5.8%
COMPARED TO 1988: HALIBUT			
No Response			
Count	1		
Col %	2.0%		
Do Not Know			
Count	5	10	12
Col %	9.8%	18.9%	23.1%
Less			

(continued)

Table VII-45. Resource Population Statuses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count	20	17	18
Col %	39.2%	32.1%	34.6%
Same			
Count	22	25	22
Col %	43.1%	47.2%	42.3%
More			
Count	3	1	
Col %	5.9%	1.9%	
COMPARED TO 1988: ROCKFISH			
Do Not Know			
Count	22	30	26
Col %	43.1%	56.6%	50.0%
Less			
Count	5	7	10
Col %	9.8%	13.2%	19.2%
Same			
Count	21	13	14
Col %	41.2%	24.5%	26.9%
More			
Count	3	3	2
Col %	5.9%	5.7%	3.8%
COMPARED TO 1988: DOLLY VARDEN			
Do Not Know			
Count	8	21	23
Col %	15.7%	39.6%	44.2%
Less			
Count	6	9	7
Col %	11.8%	17.0%	13.5%
Same			
Count	32	18	22
Col %	62.7%	34.0%	42.3%
More			
Count	5	5	
Col %	9.8%	9.4%	
COMPARED TO 1988: CLAMS			

(continued)

Table VII-45. Resource Population Statuses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Same Count Col %	13 25.5%	11 20.8%	12 23.1%
More Count Col %	1 2.0%	2 3.8%	
COMPARED TO 1988: OCTOPUS			
Do Not Know Count Col %	25 49.0%	29 55.8%	26 50.0%
Less Count Col %	7 13.7%	7 13.5%	6 11.5%
Same Count Col %	17 33.3%	14 26.9%	19 36.5%
More Count Col %	2 3.9%	2 3.8%	1 1.9%

Table VII-45. Resource Population Statuses, Seldovia

	STUDY YEAR		
	1991	1992	1993
No Response Count Col %	1 1.9%		
Do Not Know Count Col %	7 13.5%	12 22.6%	6 11.5%
Less Count Col %	32 61.5%	24 45.3%	33 63.5%
Same Count Col %	10 19.2%	17 32.1%	13 25.0%
More Count Col %	2 3.8%		
COMPARED TO 1988: BIDARKIES			
Do Not Know Count Col %	22 43.1%	26 49.1%	18 34.6%
Less Count Col %	9 17.6%	13 24.5%	15 28.8%
Same Count Col %	19 37.3%	14 26.4%	19 36.5%
More Count Col %	1 2.0%		
COMPARED TO 1988: SEA URCHINS			
Do Not Know Count Col %	27 52.9%	27 50.9%	31 59.6%
Less Count Col %	10 19.6%	13 24.5%	9 17.3%

(continued)

Table VII-45. Resource Population Statuses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %	38.5%	49.1%	36.5%
Less Count Col %	11 21.2%	16 30.2%	19 36.5%
Same Count Col %	20 38.5%	9 17.0%	13 25.0%
More Count Col %	1 1.9%	2 3.8%	1 1.9%
COMPARED TO 1988: SEA LIONS			
Do Not Know Count Col %	23 45.1%	29 56.9%	25 48.1%
Less Count Col %	8 15.7%	13 25.5%	15 28.8%
Same Count Col %	15 29.4%	8 15.7%	11 21.2%
More Count Col %	5 9.8%	1 2.0%	1 1.9%
COMPARED TO 1988: SEA DUCKS			
Do Not Know Count Col %	7 13.5%	15 28.3%	19 36.5%
Less Count Col %	12 23.1%	24 45.3%	18 34.6%
Same Count Col %	29 55.8%	12 22.6%	14 26.9%
More Count	4	2	1

(continued)

Table VII-45. Resource Population Statuses, Seldovia

	STUDY YEAR		
	1991	1992	1993
COMPARED TO 1988: DEER			
Do Not Know Count Col %	1 33.3%	3 75.0%	1 100.0%
Same Count Col %	2 66.7%	1 25.0%	
COMPARED TO 1988: MOOSE			
Do Not Know Count Col %		7 15.6%	14 27.5%
Less Count Col %		4 8.9%	3 5.9%
Same Count Col %		27 60.0%	26 51.0%
More Count Col %		7 15.6%	8 15.7%
COMPARED TO 1988: BEAR			
Do Not Know Count Col %	7 13.5%	7 13.2%	11 21.2%
Less Count Col %	4 7.7%	5 9.4%	11 21.2%
Same Count Col %	28 53.8%	27 50.9%	21 40.4%
More Count Col %	13 25.0%	14 26.4%	9 17.3%
COMPARED TO 1988: HARBOR SEAL			
Do Not Know Count	20	26	19

(continued)

Table VII-46. Children's Participation in Subsistence, Seldovia

	STUDY YEAR		
	1991	1992	1993
DOES YOUR HOUSEHOLD PROCESS WILD FOODS?			
No			
Count		3	7
Col %		4.6%	10.8%
Yes			
Count		62	58
Col %		95.4%	89.2%
DO CHILDREN HELP YOUR HH PROCESS WILD FOODS?			
No			
Count	44	42	46
Col %	72.1%	64.6%	70.8%
Yes			
Count	17	23	19
Col %	27.9%	35.4%	29.2%
DID EVOS AFFECT PARTICIPATION WITH CHILDREN?			
No			
Count	58	52	58
Col %	92.1%	85.2%	92.1%
Yes			
Count	5	9	5
Col %	7.9%	14.8%	7.9%
WHY EVOS AFFECTED PARTICIPATION WITH CHILDREN			
Resources were not available			
Count		1	
Col %		11.1%	
Were too busy with other affairs			
Count	3	5	1
Col %	60.0%	55.6%	20.0%
Did not trust foods			
Count	1	1	
Col %	20.0%	11.1%	
Were not allowed to commercial fish			
Count	1		2
Col %	20.0%		40.0%

(continued)

Table VII-46. Children's Participation in Subsistence, Seldovia

	STUDY YEAR		
	1991	1992	1993
Less harvesting activity			
Count			2
Col %			40.0%
Decreased effort because of the spill			
Count		2	
Col %		22.2%	

Table VII-47. Sharing, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %	72.6%	59.7%	67.3%
More Count Col %	10 16.1%	15 24.2%	12 21.8%
PREV. YEAR: SHARING OF LABOR Less Count Col %	4 6.3%	4 6.9%	4 7.0%
Same Count Col %	48 76.2%	39 67.2%	45 78.9%
More Count Col %	11 17.5%	15 25.9%	8 14.0%
PRE-OS: SHARING OF WILD RESOURCES Do Not Know Count Col %	1 1.7%		2 3.4%
Less Count Col %	9 15.5%	6 11.5%	13 22.4%
Same Count Col %	42 72.4%	37 71.2%	28 48.3%
More Count Col %	6 10.3%	9 17.3%	15 25.9%
PRE-OS: SHARING OF HUNT/FISH GEAR Do Not Know Count Col %	1 1.9%		1 1.9%
Less Count Col %	8 14.8%	6 13.0%	9 17.3%
Same			

(continued)

Table VII-47. Sharing, Seldovia

	STUDY YEAR		
	1991	1992	1993
DID HOUSEHOLD SHARE? No Count Col %	19 29.7%	8 12.3%	10 15.4%
Yes Count Col %	45 70.3%	57 87.7%	55 84.6%
PREV. YEAR: SHARING OF WILD RES. Do Not Know Count Col %		1 1.6%	
Less Count Col %	6 9.4%	8 12.9%	10 16.1%
Same Count Col %	48 75.0%	41 66.1%	44 71.0%
More Count Col %	10 15.6%	12 19.4%	8 12.9%
PREV. YEAR: SHARING OF HUNT/FISH GEAR Less Count Col %	4 7.0%	3 5.6%	6 10.9%
Same Count Col %	48 84.2%	44 81.5%	42 76.4%
More Count Col %	5 8.8%	7 13.0%	7 12.7%
PREV. YEAR: SHARING OF MONEY Less Count Col %	7 11.3%	10 16.1%	6 10.9%
Same Count	45	37	37

(continued)

Table VII-47. Sharing, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count	43	38	32
Col %	79.6%	82.6%	61.5%
More			
Count	2	2	10
Col %	3.7%	4.3%	19.2%
PRE-OS: SHARING OF MONEY			
Do Not Know			
Count			1
Col %			1.9%
Less			
Count	9	9	7
Col %	15.5%	16.4%	13.0%
Same			
Count	41	37	33
Col %	70.7%	67.3%	61.1%
More			
Count	8	9	13
Col %	13.8%	16.4%	24.1%
PRE-OS: SHARING OF LABOR			
Do Not Know			
Count			3
Col %			5.6%
Less			
Count	8	6	8
Col %	13.6%	12.0%	14.8%
Same			
Count	47	34	34
Col %	79.7%	68.0%	63.0%
More			
Count	4	10	9
Col %	6.8%	20.0%	16.7%

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
LAST 3 YRS.: ELDERS INFLUENCE			
Do Not Know Count Col %	3 4.8%		
Decreased Count Col %	26 41.9%		
Same Count Col %	27 43.5%		
Increased Count Col %	6 9.7%		
LAST 4 YRS.: ELDERS INFLUENCE			
No Response Count Col %		1 1.6%	
Do Not Know Count Col %		7 11.1%	
Decreased Count Col %		16 25.4%	
Same Count Col %		27 42.9%	
Increased Count Col %		12 19.0%	
LAST 5 YRS.: ELDERS INFLUENCE			
Do Not Know Count Col %			12 18.5%
Decreased Count Col %			24 36.9%

(continued)

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
Same Count Col %			19 29.2%
Increased Count Col %			10 15.4%
LAST 5 YRS.: ELDERS INFLUENCE: WHY			
No Response Count Col %			3 9.1%
Do Not Know Count Col %			1 3.0%
Because of the crisis in the community since the oil spill Count Col %			3 9.1%
Fewer elders, traditional people passed away Count Col %			5 15.2%
Elders not as active Count Col %			7 21.2%
Younger individuals playing more of a role Count Col %			2 6.1%
Elders dissatisfied, frustrated, bitter Count Col %			2 6.1%
Elders more aware of the power they hold Count Col %			1 3.0%
Elders knowledge is not appreciated or recognized			

(continued)

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
Same Count Col %		32 56.1%	28 48.3%
More Count Col %		11 19.3%	10 17.2%
LAST YEAR: ATTEND PUBLIC MEETINGS			
Never Count Col %		24 37.5%	
Sometimes Count Col %		24 37.5%	
Almost Always Count Col %		16 25.0%	
LAST YEAR: ATTEND PUBLIC MEETINGS			
No Response Count Col %		1 1.5%	
Do Not Know Count Col %		1 1.5%	
Never Count Col %		14 21.5%	21 32.3%
1.00 Count Col %		7 10.8%	5 7.7%
2.00 Count Col %		9 13.8%	5 7.7%
3.00 Count Col %		4 6.2%	3 4.6%

(continued)

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count Col %			2 6.1%
Elders knowledge is more appreciated or recognized Count Col %			3 9.1%
Change in the direction of the community Count Col %			1 3.0%
Elders are not listened to Count Col %			1 3.0%
Elders unable to keep pace with rapid changes Count Col %			1 3.0%
Individuals taking more of a role Count Col %			1 3.0%
PRE-EVOS: ATTEND PUBLIC MEETINGS			
Never Count Col %	21 36.8%		
Sometimes Count Col %	28 49.1%		
Almost Always Count Col %	8 14.0%		
PRE-EVOS: ATTEND PUBLIC MEETINGS			
Do Not Know Count Col %		2 3.5%	1 1.7%
Less Count Col %		12 21.1%	19 32.8%

(continued)

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %		1.5%	3.1%
25.00 Count Col %		1 1.5%	
30.00 Count Col %		2 3.1%	2 3.1%
37.00 Count Col %		1 1.5%	
40.00 Count Col %		1 1.5%	1 1.5%
45.00 Count Col %		1 1.5%	
50.00 Count Col %			1 1.5%
52.00 Count Col %			1 1.5%
70.00 Count Col %			1 1.5%
VOTE IN LAST CITY COUNCIL ELECTION?			
No			24 38.1%
Yes			39 61.9%
VOTE IN LAST STATE-WIDE ELECTION?			
Do Not Know			1

(continued)

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
4.00 Count Col %		2 3.1%	4 6.2%
5.00 Count Col %			2 3.1%
6.00 Count Col %		5 7.7%	3 4.6%
7.00 Count Col %		1 1.5%	2 3.1%
8.00 Count Col %		1 1.5%	
9.00 Count Col %		1 1.5%	
10.00 Count Col %		3 4.6%	3 4.6%
12.00 Count Col %		2 3.1%	3 4.6%
15.00 Count Col %		2 3.1%	2 3.1%
18.00 Count Col %			1 1.5%
20.00 Count Col %		5 7.7%	3 4.6%
24.00 Count		1	2

(continued)

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %	13.3%	10.5%	4.5%
NANA Regional Corp., Inc. Count Col %	1 6.7%		
VOTE IN LAST REG. CORP. ELECTION? No Count Col %	2 13.3%	2 11.1%	3 15.0%
Yes Count Col %	13 86.7%	16 88.9%	17 85.0%
VILLAGE NATIVE CORPORATION No Response Count Col %	2 13.3%		1 4.5%
Native Village of Belkofsky Count Col %		1 5.3%	1 4.5%
Ouzinkie Native Corporation Count Col %	1 6.7%	2 10.5%	
Port Graham Corporation Count Col %			1 4.5%
Seldovia Native Association Count Col %	11 73.3%	15 78.9%	18 81.8%
Uyak Natives, Incorporated Count Col %	1 6.7%		1 4.5%
Olgoonik Corporation, Inc. (Mainwright) Count Col %		1 5.3%	
VOTE IN LAST NATIVE VILLAGE CORP. ELECTION?			

(continued)

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %	1.6%		1.5%
No Count Col %	21 32.8%	17 26.6%	13 20.0%
Yes Count Col %	42 65.6%	47 73.4%	51 78.5%
BELONG TO NATIVE CORPORATION? No Count Col %	49 76.6%	46 70.8%	43 66.2%
Yes Count Col %	15 23.4%	19 29.2%	22 33.8%
REGIONAL NATIVE CORPORATION None Count Col %	1 6.7%	1 5.3%	2 9.1%
Aleut Corp. Count Col %		1 5.3%	1 4.5%
Arctic Slope Regional Corp. Count Col %		1 5.3%	
Bering Straits Native Corp. Count Col %	1 6.7%		
Chugach Alaska Corp. Count Col %			1 4.5%
Cook Inlet Region, Inc. Count Col %	10 66.7%	14 73.7%	17 77.3%
Koniag, Inc. Count	2	2	1

(continued)

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
No Count Col %	3 20.0%	1 5.3%	5 22.7%
Yes Count Col %	12 80.0%	18 94.7%	17 77.3%
HAS VIEW OF LEADER CHANGED SINCE EVOS?			
Do Not Know Count Col %	1 1.6%	1 1.7%	3 4.7%
No Count Col %	51 79.7%	44 73.3%	47 73.4%
Yes Count Col %	12 18.8%	15 25.0%	14 21.9%
WHY POST EVOS VIEW OF LEADERS			
No Response Count Col %			1 7.1%
Do Not Know Count Col %	1 7.7%	1 6.7%	1 7.1%
Trust Count Col %	3 23.1%	6 40.0%	5 35.7%
Awareness/involvement Count Col %	6 30.8%	4 26.7%	9 64.3%
Education Count Col %		1 6.7%	1 7.1%
Level headed/reasonable Count Col %	2 15.4%	1 6.7%	2 14.3%

(continued)

Table VII-48. Political Activities, Seldovia

	STUDY YEAR		
	1991	1992	1993
Represents concerns Count Col %	2 15.4%		
Decisive Count Col %	1 7.7%	1 6.7%	
Environmental awareness Count Col %	1 7.7%	1 6.7%	
Ability to listen Count Col %	2 15.4%		
Sobriety/maturity Count Col %	1 7.7%	1 6.7%	

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count	5	2	2
Col %	7.8%	3.1%	3.1%
Crime levels			
Count	1		
Col %	1.6%		
Recreational opportunities			
Count		2	
Col %		3.1%	
Pace of Life			
Count	3	2	
Col %	4.7%	3.1%	
Quality of Life			
Count	11	5	2
Col %	17.2%	7.7%	3.1%
Religious Reasons			
Count	3	1	1
Col %	4.7%	1.5%	1.5%
Location			
Count		2	3
Col %		3.1%	4.6%
Natural disasters forced movement			
Count		1	
Col %		1.5%	
This is where they established their home			
Count		6	1
Col %		9.2%	1.5%
LIVE HERE: WHERE PERSON IS FROM			
NO			
Count	54	47	47
Col %	84.4%	72.3%	72.3%
Yes			
Count	10	18	18
Col %	15.6%	27.7%	27.7%
LIVE HERE: RELATIVES LIVE HERE			
NO			

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
MAIN REASON MOVED TO COMMUNITY			
No Response			
Count		2	12
Col %		3.1%	18.5%
Born or reared here			
Count	14	16	18
Col %	21.9%	24.6%	27.7%
Relatives (family)			
Count		5	3
Col %		7.7%	4.6%
Married a person born or reared here			
Count	4	2	4
Col %	6.3%	3.1%	6.2%
Family has always lived here			
Count		2	1
Col %		3.1%	1.5%
Friends			
Count			1
Col %			1.5%
Subsistence opportunities			
Count	4		1
Col %	6.3%		1.5%
Employment reasons			
Count	16	13	10
Col %	25.0%	20.0%	15.4%
Educational opportunities			
Count	1	1	1
Col %	1.6%	1.5%	1.5%
Housing/property			
Count		1	
Col %		1.5%	
Environmental qualities			
Count	2	2	5
Col %	3.1%	3.1%	7.7%
Size of the community			

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %	59.4%	60.0%	60.0%
Yes Count Col %	26 40.6%	26 40.0%	26 40.0%
LIVE HERE: EDUCATIONAL OPPORTUNITIES			
No Count Col %	1 1.6%	1 1.5%	1 1.5%
No Count Col %	40 62.5%	26 40.0%	34 52.3%
Yes Count Col %	23 35.9%	38 58.5%	30 46.2%
LIVE HERE: COST OF LIVING			
No Count Col %	54 84.4%	52 80.0%	57 87.7%
Yes Count Col %	10 15.6%	13 20.0%	8 12.3%
LIVE HERE: HOUSING AVAILABLE			
No Count Col %	29 45.3%	22 33.8%	36 55.4%
Yes Count Col %	35 54.7%	43 66.2%	29 44.6%
LIVE HERE: STORES			
No Count Col %	50 78.1%	46 70.8%	61 93.8%
Yes Count Col %	14 21.9%	19 29.2%	4 6.2%

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count Col %	35 54.7%	35 53.8%	40 61.5%
Yes Count Col %	29 45.3%	30 46.2%	25 38.5%
LIVE HERE: MARRIED PERSON FROM HERE			
No Count Col %	51 79.7%	50 76.9%	58 89.2%
Yes Count Col %	13 20.3%	15 23.1%	7 10.8%
LIVE HERE: ALWAYS LIVED HERE			
No Count Col %	51 79.7%	51 78.5%	47 72.3%
Yes Count Col %	13 20.3%	14 21.5%	18 27.7%
LIVE HERE: FRIENDS LIVE HERE			
No Count Col %	21 32.8%	13 20.0%	26 40.0%
Yes Count Col %	43 67.2%	52 80.0%	39 60.0%
LIVE HERE: HUNTING & FISHING HERE			
No Count Col %	16 25.0%	14 21.5%	20 30.8%
Yes Count Col %	48 75.0%	51 78.5%	45 69.2%
LIVE HERE: JOB OPPORTUNITIES HERE			
No Count	38	39	39

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count	12	4	8
Col %	18.8%	6.2%	12.3%
Yes	52	61	57
Col %	81.3%	93.8%	87.7%
LIVE HERE: LESS DRINKING/DRUGS			
NO	42	42	50
Col %	66.7%	64.6%	76.9%
Yes	21	23	15
Col %	33.3%	35.4%	23.1%
LIVE HERE: NECESSARY PERSONAL FREEDOMS			
NO	7	4	10
Col %	10.9%	6.2%	15.4%
Yes	57	61	55
Col %	89.1%	93.8%	84.6%
LIVE HERE: RECREATIONAL OPPORTUNITIES			
NO	8	6	11
Col %	12.5%	9.2%	16.9%
Yes	56	59	54
Col %	87.5%	90.8%	83.1%
OTHER REASONS FOR LIVING IN COMMUNITY			
Pace of Life	5	4	4
Count			
Col %	29.4%	17.4%	17.4%
Quality of Life	9	14	12
Count			
Col %	52.9%	60.9%	60.0%
Cultural Reasons	1	1	1
Count			
Col %	4.3%	4.3%	4.3%

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
LIVE HERE: MEDICAL SERVICES			
No Response		1	2
Count		1.5%	3.1%
Col %			
NO	33	35	42
Count			
Col %	51.6%	53.8%	64.6%
Yes	31	29	21
Count			
Col %	48.4%	44.6%	32.3%
LIVE HERE: OTHER SERVICES			
NO	34	36	47
Count			
Col %	53.1%	55.4%	72.3%
Yes	30	29	18
Count			
Col %	46.9%	44.6%	27.7%
LIVE HERE: BEAUTY OF AREA			
NO	2	3	3
Count			
Col %	3.1%	4.6%	4.6%
Yes	62	62	62
Count			
Col %	96.9%	95.4%	95.4%
LIVE HERE: SIZE OF COMMUNITY			
No Response			1
Count			1.5%
Col %			
NO	14	8	8
Count			
Col %	21.9%	12.3%	12.3%
Yes	50	57	56
Count			
Col %	78.1%	87.7%	86.2%
LIVE HERE: LESS CRIME			
NO			

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
Religious Reasons Count Col %	1 5.9%	1 4.3%	1 5.0%
Location Count Col %	2 11.8%	1 4.3%	
Not here by choice Count Col %	1 5.9%	2 8.7%	2 10.0%
This is where they established their home Count Col %		3 13.0%	5 25.0%
MAIN REASON REMAINING IN COMMUNITY No Response Count Col %			1 1.5%
Do Not Know Count Col %		1 1.5%	
Born or reared here Count Col %	1 1.6%	2 3.1%	3 4.6%
Relatives (family) Count Col %	5 7.9%	3 4.6%	5 7.7%
Married a person born or reared here Count Col %	2 3.2%	1 1.5%	2 3.1%
Family has always lived here Count Col %	1 1.6%	2 3.1%	
Friends Count Col %	4 6.3%	3 4.6%	1 1.5%
Subsistence opportunities			

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count Col %	3 4.8%	2 3.1%	4 6.2%
Employment reasons Count Col %	3 4.8%	7 10.8%	6 6.2%
Educational opportunities Count Col %	1 1.6%		1 1.5%
Economic reasons Count Col %			1 1.5%
Housing/property Count Col %	1 1.6%	2 3.1%	5 7.7%
Environmental qualities Count Col %	18 28.6%	11 16.9%	18 27.7%
Size of the community Count Col %	2 3.2%	5 7.7%	3 4.6%
Crime levels Count Col %			3 4.6%
Personal freedoms (politics) Count Col %	5 7.9%	1 1.5%	4 6.2%
Recreational opportunities Count Col %	2 3.2%	3 4.6%	1 1.5%
Pace of Life Count Col %	3 4.8%	6 9.2%	
Quality of Life Count Col %	10 15.9%	12 18.5%	4 6.2%

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
Religious Reasons Count Col %	1 1.6%	1 1.5%	1 1.5%
Not here by choice Count Col %		1 1.5%	2 3.1%
Climate Count Col %	1 1.6%		
This is where they established their home Count Col %		3 4.6%	1 1.5%
POST-EVOS: CHANGE IN LIKING COMMUNITY Do Not Know Count Col %	1 1.9%		2 3.5%
Less Count Col %	8 14.8%	6 10.9%	8 14.0%
Same Count Col %	41 75.9%	46 83.6%	42 73.7%
More Count Col %	4 7.4%	3 5.5%	5 8.8%
POST-EVOS: WHY CHANGE IN LIKING COMMUNITY No Response Count Col %	1 8.3%	3 42.9%	
Non-specific Count Col %	1 8.3%		1 7.7%
Animals harvest to find/hunt/fish Count Col %	2 16.7%		

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
More stressful Count Col %	2 16.7%	4 57.1%	
Financial situation worse Count Col %	2 16.7%		4 30.8%
Future of environment uncertain Count Col %			1 7.7%
Too many people Count Col %			1 7.7%
Other reasons Count Col %	2 16.7%		1 7.7%
Lived here longer Count Col %			2 15.4%
Increased appreciation of surroundings Count Col %	1 8.3%		2 15.4%
Improved community cohesiveness Count Col %	1 8.3%		
Increased disillusionment with government agencies Count Col %			1 7.7%
RATHER LIVE IN ANOTHER COMMUNITY Do Not Know Count Col %	2 3.1%	2 3.1%	4 6.3%
No Count Col %	51 79.7%	55 84.6%	45 70.3%

(continued)

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %	6.1%	9.5%	3.2%
Environmental, animal rights, anti-gun interests			
Count			1
Col %			3.2%
Native ownership of lands			
Count	2	5	11
Col %	6.1%	23.8%	35.5%
Population pressure			
Count	4	5	4
Col %	12.1%	23.8%	12.9%
Vulnerable to environmental damage			
Count	10	2	2
Col %	30.3%	9.5%	6.5%
Miscellaneous reasons			
Count		1	1
Col %		4.8%	3.2%
Reduced resource availability			
Count		2	6
Col %		9.5%	19.4%
CONTINUE TO LIVE HERE IF NO WILD FOOD			
Do Not Know			
Count	1	3	7
Col %	1.6%	4.6%	10.8%
NO			
Count	23	21	16
Col %	35.9%	32.3%	24.6%
Yes			
Count	40	41	42
Col %	62.5%	63.1%	64.6%

Table VII-49. Significance of Place, Seldovia

	STUDY YEAR		
	1991	1992	1993
Yes			
Count	11	8	15
Col %	17.2%	12.3%	23.4%
EXPECT TO LIVE IN REGION WHEN OLD			
Do Not Know			
Count	4	4	8
Col %	6.3%	6.2%	12.3%
NO			
Count	13	15	7
Col %	20.3%	23.1%	10.8%
Yes			
Count	47	46	50
Col %	73.4%	70.8%	76.9%
CONFIDENT ABOUT HUNT/FISH/GATHERING			
Do Not Know			
Count	2	4	1
Col %	3.1%	6.2%	1.5%
NO			
Count	33	21	31
Col %	51.6%	32.3%	47.7%
Yes			
Count	29	40	33
Col %	45.3%	61.5%	50.8%
WHY UNCONFIDENT ABOUT HUNTING/FISHING/GATHERING			
No Response			
Count	1		
Col %	3.0%		
Increased restrictions			
Count	13	8	10
Col %	39.4%	38.1%	32.3%
Uncertainty about the future			
Count	6	1	2
Col %	18.2%	4.8%	6.5%
Increased development			
Count	2	2	1

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %	36 60.0%		
Not Effective Count Col %	12 20.0%		
Somewhat Count Col %	5 8.3%		
Effective Count Col %	6 10.0%		
EFFECTIVENESS EVOS: LOCAL NATIVE PROFIT No Response Count Col %		1 1.9%	1 1.7%
Do Not Know Count Col %	39 70.9%	17 32.7%	32 53.3%
Not Effective Count Col %	2 3.6%	7 13.5%	3 5.0%
Somewhat Count Col %	5 9.1%	8 15.4%	13 21.7%
Effective Count Col %	9 16.4%	19 36.5%	11 18.3%
EFFECTIVENESS EVOS: NATIVE NON-PROFITS No Response Count Col %		1 2.0%	1 1.8%
Do Not Know Count Col %	33 60.0%	29 56.9%	36 63.2%

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: US COAST GUARD No Response Count Col %	1 1.7%		1 1.5%
Do Not Know Count Col %	16 26.7%	19 30.6%	16 24.6%
Not Effective Count Col %	17 28.3%	14 22.6%	15 23.1%
Somewhat Count Col %	19 31.7%	20 32.3%	21 32.3%
Effective Count Col %	7 11.7%	9 14.5%	12 18.5%
EFFECTIVENESS EVOS: ADEC No Response Count Col %	2 3.3%		1 1.5%
Do Not Know Count Col %	17 28.3%	25 40.3%	22 33.8%
Not Effective Count Col %	12 20.0%	12 19.4%	10 15.4%
Somewhat Count Col %	20 33.3%	18 29.0%	24 36.9%
Effective Count Col %	9 15.0%	7 11.3%	8 12.3%
EFFECTIVENESS EVOS: INSURANCE COMPANIES No Response Count Col %	1 1.7%		

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Not Effective Count Col %	3 5.5%	5 9.8%	5 8.8%
Somewhat Count Col %	3 5.5%	6 11.8%	9 15.8%
Effective Count Col %	16 29.1%	10 19.6%	6 10.5%
EFFECTIVENESS EVOS: BOROUGH GOVERNMENT No Response Count Col %			1 1.5%
Do Not Know Count Col %	21 35.6%	27 43.5%	30 46.2%
Not Effective Count Col %	13 22.0%	13 21.0%	17 26.2%
Somewhat Count Col %	15 25.4%	10 16.1%	8 12.3%
Effective Count Col %	10 16.9%	12 19.4%	9 13.8%
EFFECTIVENESS EVOS: VILLAGE CORPORATION No Response Count Col %	1 1.7%	1 1.6%	1 1.6%
Do Not Know Count Col %	20 33.3%	19 30.6%	30 49.2%
Not Effective Count Col %	5 8.3%	4 6.5%	3 4.9%

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Somewhat Count Col %	8 13.3%	13 21.0%	13 21.3%
Effective Count Col %	26 43.3%	25 40.3%	14 23.0%
EFFECTIVENESS EVOS: CITY COUNCIL No Response Count Col %			1 1.6%
Do Not Know Count Col %	16 27.1%	21 33.9%	23 36.5%
Not Effective Count Col %	12 20.3%	13 21.0%	18 28.6%
Somewhat Count Col %	17 28.8%	9 14.5%	12 19.0%
Effective Count Col %	14 23.7%	19 30.6%	9 14.3%
EFFECTIVENESS EVOS: IRA COUNCIL No Response Count Col %			1 2.3%
Do Not Know Count Col %			33 75.0%
Not Effective Count Col %	1 100.0%	1 9.1%	3 6.8%
Somewhat Count Col %			4 9.1%

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Effective Count Col %			3 6.8%
EFFECTIVENESS EVOS: CHAMBER OF COMMERCE			
No Response Count Col %	1 1.8%		1 1.6%
Do Not Know Count Col %	24 42.1%	26 41.9%	29 46.0%
Not Effective Count Col %	11 19.3%	15 24.2%	17 27.0%
Somewhat Count Col %	13 22.8%	8 12.9%	8 12.7%
Effective Count Col %	8 14.0%	13 21.0%	8 12.7%
EFFECTIVENESS EVOS: COMMERCIAL BUSINESSES			
No Response Count Col %	1 1.7%		1 1.7%
Do Not Know Count Col %	14 23.3%	17 27.9%	27 45.8%
Not Effective Count Col %	5 8.3%	13 21.3%	5 8.5%
Somewhat Count Col %	14 23.3%	13 21.3%	12 20.3%
Effective Count Col %	26 43.3%	18 29.5%	14 23.7%

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: COMMERCIAL FISHING			
No Response Count Col %			1 1.6%
Do Not Know Count Col %	11 18.3%	7 11.3%	16 25.4%
Not Effective Count Col %	3 5.0%	1 1.6%	2 3.2%
Somewhat Count Col %	4 6.7%	17 27.4%	11 17.5%
Effective Count Col %	42 70.0%	37 59.7%	33 52.4%
EFFECTIVENESS EVOS: OTHER BUSINESS			
No Response Count Col %	1 2.3%		
Do Not Know Count Col %	15 34.1%		
Not Effective Count Col %	2 4.5%		
Somewhat Count Col %	10 22.7%		
Effective Count Col %	16 36.4%		
EFFECTIVENESS EVOS: SCHOOLS			
No Response			

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count Col %		19 30.6%	28 45.2%
Not Effective Count Col %		5 8.1%	2 3.2%
Somewhat Count Col %		9 14.5%	15 24.2%
Effective Count Col %		29 46.8%	16 25.8%
EFFECTIVENESS EVOS: MEDICAL PROFESSION			
Do Not Know Count Col %		18 30.0%	
Not Effective Count Col %		5 8.3%	
Somewhat Count Col %		13 21.7%	
Effective Count Col %		24 40.0%	
EFFECTIVENESS EVOS: HEALTH AIDES			
Do Not Know Count Col %		16 40.0%	
Not Effective Count Col %		5 12.5%	
Somewhat Count Col %		12 30.0%	
Effective			

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count Col %	1 1.7%		
Do Not Know Count Col %	16 26.7%		
Not Effective Count Col %	5 8.3%		
Somewhat Count Col %	12 20.0%		
Effective Count Col %	26 43.3%		
EFFECTIVENESS EVOS: CHURCHES			
No Response Count Col %	1 1.7%		
Do Not Know Count Col %	27 45.8%		
Not Effective Count Col %	13 22.0%		
Somewhat Count Col %	8 13.6%		
Effective Count Col %	10 16.9%		
EFFECTIVENESS EVOS: HEALTH SERVICES			
No Response Count Col %			1 1.6%
Do Not Know			

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: STATE LAW ENFORCEMENT			
No Response Count Col %			1 1.7%
Do Not Know Count Col %	27 45.8%	26 52.0%	38 65.5%
Not Effective Count Col %	7 11.9%	6 12.0%	4 6.9%
Somewhat Count Col %	12 20.3%	10 20.0%	8 13.8%
Effective Count Col %	13 22.0%	8 16.0%	7 12.1%
EFFECTIVENESS EVOS: EXXON			
No Response Count Col %	1 1.7%		1 1.6%
Do Not Know Count Col %	12 20.0%	13 21.0%	10 15.6%
Not Effective Count Col %	25 41.7%	29 46.8%	37 57.8%
Somewhat Count Col %	17 28.3%	16 25.8%	9 14.1%
Effective Count Col %	5 8.3%	4 6.5%	7 10.9%
EFFECTIVENESS EVOS: VECO			
No Response Count	1		1

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: SOCIAL WORKERS			
No Response Count Col %	7 17.5%		1 1.6%
Do Not Know Count Col %	26 43.3%	23 40.4%	32 52.5%
Not Effective Count Col %	9 15.0%	8 14.0%	2 3.3%
Somewhat Count Col %	13 21.7%	12 21.1%	13 21.3%
Effective Count Col %	12 20.0%	14 24.6%	13 21.3%
EFFECTIVENESS EVOS: LOCAL LAW ENFORCEMENT			
No Response Count Col %	1 1.7%		1 1.6%
Do Not Know Count Col %	19 31.7%	21 34.4%	31 50.8%
Not Effective Count Col %	3 5.0%	8 13.1%	4 6.6%
Somewhat Count Col %	9 15.0%	13 21.3%	10 16.4%
Effective Count Col %	28 46.7%	19 31.1%	15 24.6%

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Effective Count Col %		1 100.0%	
EFFECTIVENESS EVOS: COOK INLET REGIONAL CITIZENS ADVISORY COUNCIL			
Somewhat Count Col %		1 100.0%	
EFFECTIVENESS EVOS: FEDERALLY MANDATED SPILL RESPONSE GROUPS			
No Response Count Col %		1 2.4%	
Do Not Know Count Col %		6 14.3%	8 18.2%
Not Effective Count Col %			2 4.5%
Somewhat Count Col %		15 35.7%	12 27.5%
Effective Count Col %		28 52.8%	22 50.0%
EFFECTIVENESS EVOS: OTHER UNIDENTIFIED GROUPS			
Not Effective Count Col %			1 33.3%
Somewhat Count Col %		2 66.7%	
Effective Count Col %		1 33.3%	2 66.7%

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %	1.7%		1.5%
Do Not Know Count Col %	9 15.0%	12 19.4%	13 20.0%
Not Effective Count Col %	15 25.0%	15 24.2%	21 32.3%
Somewhat Count Col %	24 40.0%	27 43.5%	19 29.2%
Effective Count Col %	11 18.3%	8 12.9%	11 16.9%
EFFECTIVENESS EVOS: ALYESKA PIPELINE			
No Response Count Col %	1 1.7%		1 1.5%
Do Not Know Count Col %	24 40.0%	26 41.9%	28 43.1%
Not Effective Count Col %	15 25.0%	17 27.4%	22 33.8%
Somewhat Count Col %	13 21.7%	12 19.4%	8 12.3%
Effective Count Col %	7 11.7%	7 11.3%	6 9.2%
EFFECTIVENESS EVOS: VOLUNTEER CLEAN-UP GROUPS			
Effective Count Col %	1 100.0%	1 100.0%	1 100.0%
EFFECTIVENESS EVOS: ANIMAL RESCUE GROUPS			

(continued)

Table VII-50. Effectiveness of Responses, Seldovia

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: OILED MAYORS			
No Response Count Col %			1 1.6%
Do Not Know Count Col %		37 59.7%	43 67.2%
Not Effective Count Col %		8 12.9%	11 17.2%
Somewhat Count Col %		8 12.9%	5 7.8%
Effective Count Col %		9 14.5%	4 6.3%

Table VII-51. Subsistence Food Safety Information, Seldovia

	STUDY YEAR		
	1991	1992	1993
ADEQUATELY INFORMED ABOUT FOOD SAFETY?			
Do Not Know			
Count	3	4	4
Col %	5.0%	6.5%	6.9%
No			
Count	27	16	27
Col %	45.0%	25.8%	46.6%
Somewhat			
Count	8	12	6
Col %	13.3%	19.4%	10.3%
Yes			
Count	22	30	21
Col %	36.7%	48.4%	36.2%
WHY NOT ADEQUATELY INFORMED			
No Response			
Count	8	9	1
Col %	22.9%	32.1%	3.0%
Lack of clear or definitive advice			
Count	2		
Col %	5.7%		
Received incomplete information			
Count	3	2	6
Col %	8.6%	7.1%	18.2%
Received no information			
Count	13	9	14
Col %	37.1%	32.1%	42.4%
Did not trust or believe advice			
Count	6	4	3
Col %	17.1%	14.3%	9.1%
Untimely			
Count		1	2
Col %		3.6%	6.1%
Did not trust results because of Exxon involvement			
Count		1	1
Col %		3.6%	3.0%

(continued)

Table VII-51. Subsistence Food Safety Information, Seldovia

	STUDY YEAR		
	1991	1992	1993
Personal observations contradicted advice or findings			
Count	1	1	
Col %	2.9%	3.6%	
Heard about damaged resources which contradicted advice			
Count			1
Col %			3.0%
Believe information was deliberately withheld			
Count	3		1
Col %	8.6%		3.0%
There were not enough tests			
Count	1	1	3
Col %	2.9%	3.6%	9.1%
Personal responsibility to keep informed			
Count			2
Col %			6.1%

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
OCS EFFECT: FISH			
No Response Count Col %	1 1.6%		
Do Not Know Count Col %	6 9.4%	13 20.0%	6 9.2%
Decrease Count Col %	28 43.8%	28 43.1%	32 49.2%
No Change Count Col %	27 42.2%	23 35.4%	26 40.0%
Increase Count Col %	2 3.1%	1 1.5%	1 1.5%
OCS EFFECT: SHELLFISH			
No Response Count Col %	1 1.6%		
Do Not Know Count Col %	6 9.4%	15 23.1%	7 10.8%
Decrease Count Col %	31 48.4%	27 41.5%	32 49.2%
No Change Count Col %	24 37.5%	23 35.4%	26 40.0%
Increase Count Col %	2 3.1%		
OCS EFFECT: MARINE MAMMALS			
No Response Count Col %	1 1.6%		

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
OCS EFFECT: LAND MAMMALS			
No Response Count Col %	1 1.6%		
Do Not Know Count Col %	8 12.5%	13 20.0%	11 16.9%
Decrease Count Col %	23 35.9%	17 26.2%	16 24.6%
No Change Count Col %	32 50.0%	35 53.8%	38 58.5%
OCS EFFECT: BIRDS			
No Response Count Col %	1 1.6%		
Do Not Know Count Col %	7 10.9%	12 18.5%	10 15.4%
Decrease Count Col %	27 42.2%	27 41.5%	25 38.5%

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
No Change Count Col %	29 45.3%	26 40.0%	30 46.2%
OCS DEVELOPMENT = MORE JOBS? Do Not Know Count Col %	2 3.1%	8 12.3%	9 13.8%
No Count Col %	32 50.0%	21 32.3%	29 44.6%
Yes Count Col %	30 46.9%	36 55.4%	27 41.5%
CONTAIN AND CLEANUP SMALL OIL SPILL Do Not Know Count Col %	2 3.1%	8 12.3%	10 15.4%
No Count Col %	20 31.3%	29 44.6%	24 36.9%
Maybe Count Col %	21 32.8%	28 43.1%	31 47.7%
Yes Count Col %	21 32.8%		
CONTAIN AND CLEANUP LARGE OIL SPILL Do Not Know Count Col %	2 3.1%	6 9.2%	2 3.1%
No Count Col %	44 68.8%	50 76.9%	53 81.5%
Maybe Count Col %	13 20.3%	9 13.8%	10 15.4%

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
Yes Count Col %	5 7.8%		
ARE YOU IN FAVOR OF THE SEARCH FOR OIL? No Response Count Col %		1 1.5%	
Do Not Know Count Col %		4 6.2%	2 3.1%
No Count Col %		29 44.6%	34 52.3%
Yes Count Col %		31 47.7%	29 44.6%
OPINION ON SEARCH FOR OIL No Response Count Col %		1 1.5%	3 4.6%
Do Not Know Count Col %		4 6.2%	1 1.5%
Reduce dependency on foreign oil/enhance national security Count Col %		1 1.5%	2 3.1%
Create more jobs in the community Count Col %		11 16.9%	14 21.5%
We can live in balance with the environment Count Col %		3 4.6%	2 3.1%
Increase state revenues Count		2	1

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
Col %			
Energy needed Count Col %		3 4.6%	3 4.6%
Conditional: in favor of search/development but not locally Count Col %		1 1.5%	1 1.5%
Need to know extent of resource availability and reserves Count Col %		1 1.5%	2 3.1%
Conditions: in favor when necessary Count Col %			1 1.5%
Generalized: good for everyone Count Col %		2 3.1%	
Beneficial to the economy Count Col %		15 23.1%	12 18.5%
Environmental conditions mitigate impact Count Col %		1 1.5%	
Because it is there Count Col %			2 3.1%
Conditional upon technological advancement Count Col %			2 3.1%
Not making sufficient use of current resources Count Col %		3 4.6%	2 3.1%

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
Environmental conditions (non-pollution/non-biological) Count Col %			1 1.5%
Adverse experiences with other development Count Col %		3 4.6%	1 1.5%
Pollution concerns and impacts Count Col %		14 21.5%	21 32.5%
Aesthetic reasons Count Col %		2 3.1%	2 3.1%
In favor of on-shore development instead of off-shore Count Col %		1 1.5%	1 1.5%
Status quo - leave it the way it is Count Col %			6 6.2%
Should explore alternative energy sources, conservation Count Col %		4 6.2%	2 3.1%
Adverse impact on subsistence and commercial fishing Count Col %		3 4.6%	1 1.5%
Distrust of the oil industry Count Col %		3 4.6%	3 4.6%
Potential damage to renewable resources Count Col %		5 7.7%	11 16.9%
Against any development			

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count Col %			1 1.5%
Disastrous - multi-faceted Count Col %			2 3.1%
Uncertainties with development Count Col %			1 1.5%
Fatalistic - no choice in matter Count Col %			1 1.5%
Not enough research on impacts Count Col %		1 1.5%	
Not economically feasible to search/develop off-shore Count Col %		1 1.5%	
Technology needs improvement Count Col %			1 1.5%
Do not think there is oil in the area Count Col %			2 3.1%
Against population increases Count Col %		2 3.1%	1 1.5%
Conditional: in favor if done carefully Count Col %			1 1.5%
ARE YOU IN FAVOR OF THE DEVELOPMENT AND PRODUCTION OF OIL? No Response Count Col %		2 3.1%	

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %		4 6.2%	2 3.1%
No Count Col %		30 46.2%	32 49.2%
Yes Count Col %		29 44.6%	31 47.7%
OPINION ON DEVELOPMENT AND PRODUCTION No Response Count Col %		2 3.1%	2 3.1%
Do Not Know Count Col %		4 6.2%	1 1.5%
Reduce dependency on foreign oil/enhance national security Count Col %		1 1.5%	1 1.5%
Create more jobs in the community Count Col %		13 20.0%	19 29.2%
We can live in balance with the environment Count Col %		2 3.1%	2 3.1%
Increase state revenues Count Col %		5 7.7%	3 4.6%
Energy needed Count Col %		2 3.1%	4 6.2%
Generalized: good for everyone Count Col %		1 1.5%	

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
Beneficial to the economy Count Col %		15 23.1%	13 20.0%
Positive experiences with development Count Col %		1 1.5%	
Because it is there Count Col %			2 3.1%
Conditional upon technological advancement Count Col %			2 3.1%
Not making sufficient use of current resources Count Col %		3 4.6%	2 3.1%
Environmental conditions (non-pollution/non-biological) Count Col %			1 1.5%
Adverse experiences with other development Count Col %		3 4.6%	1 1.5%
Pollution concerns and impacts Count Col %		14 21.5%	21 32.3%
Aesthetic reasons Count Col %		2 3.1%	2 3.1%
In favor of on-shore development instead of off-shore Count Col %		2 3.1%	
Status quo - leave it the way it is			

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
Count Col %		5 7.7%	
Should explore alternative energy sources, conservation Count Col %		4 6.2%	3 4.6%
Adverse impact on subsistence and commercial fishing Count Col %		3 4.6%	
Distrust of the oil industry Count Col %		3 4.6%	2 3.1%
Potential damage to renewable resources Count Col %		5 7.7%	11 16.9%
Against any development Count Col %			2 3.1%
No benefit to local economy Count Col %			1 1.5%
Disastrous - multi-faceted Count Col %			2 3.1%
Fatalistic - no choice in matter Count Col %			1 1.5%
Not enough research on impacts Count Col %		1 1.5%	
Not economically feasible to search/develop off-shore Count Col %		1 1.5%	

(continued)

Table VII-52. OCS Development Effects, Seldovia

	STUDY YEAR		
	1991	1992	1993
Technology needs improvement Count Col %			1 1.5%
Do not think there is oil in the area Count Col %			1 1.5%
Against population increases Count Col %		2 3.1%	
Unspecified ecological impacts Count Col %			1 1.5%
Conditional: in favor if done carefully Count Col %			1 1.5%

Figure VII-15. Seldovia: Respondents' Assessments of Resource Status in 1991 Compared to 1988

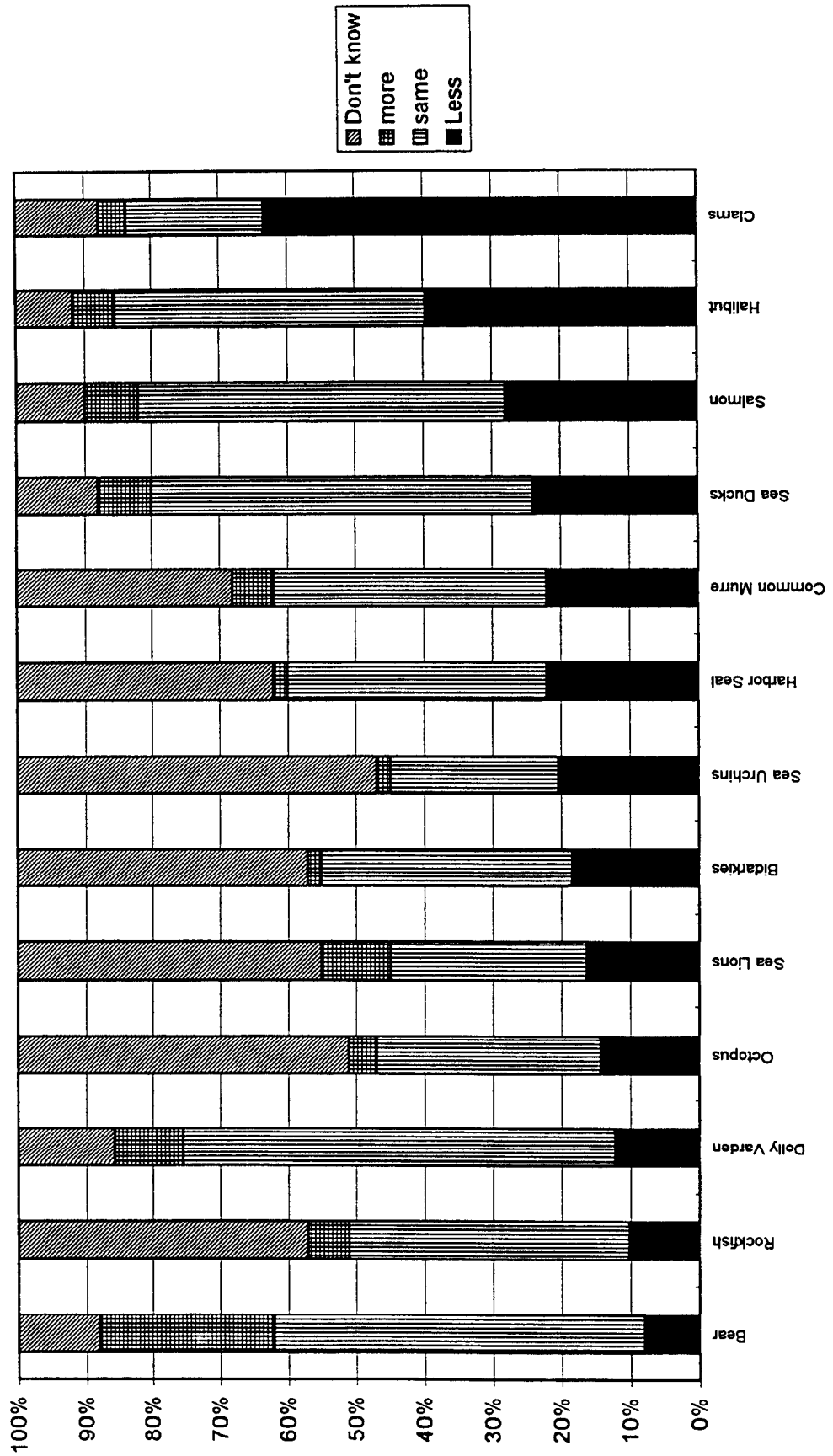


Figure VII-16. Seldovia: Respondents' Assessments of Resource Status in 1992 Compared to 1988

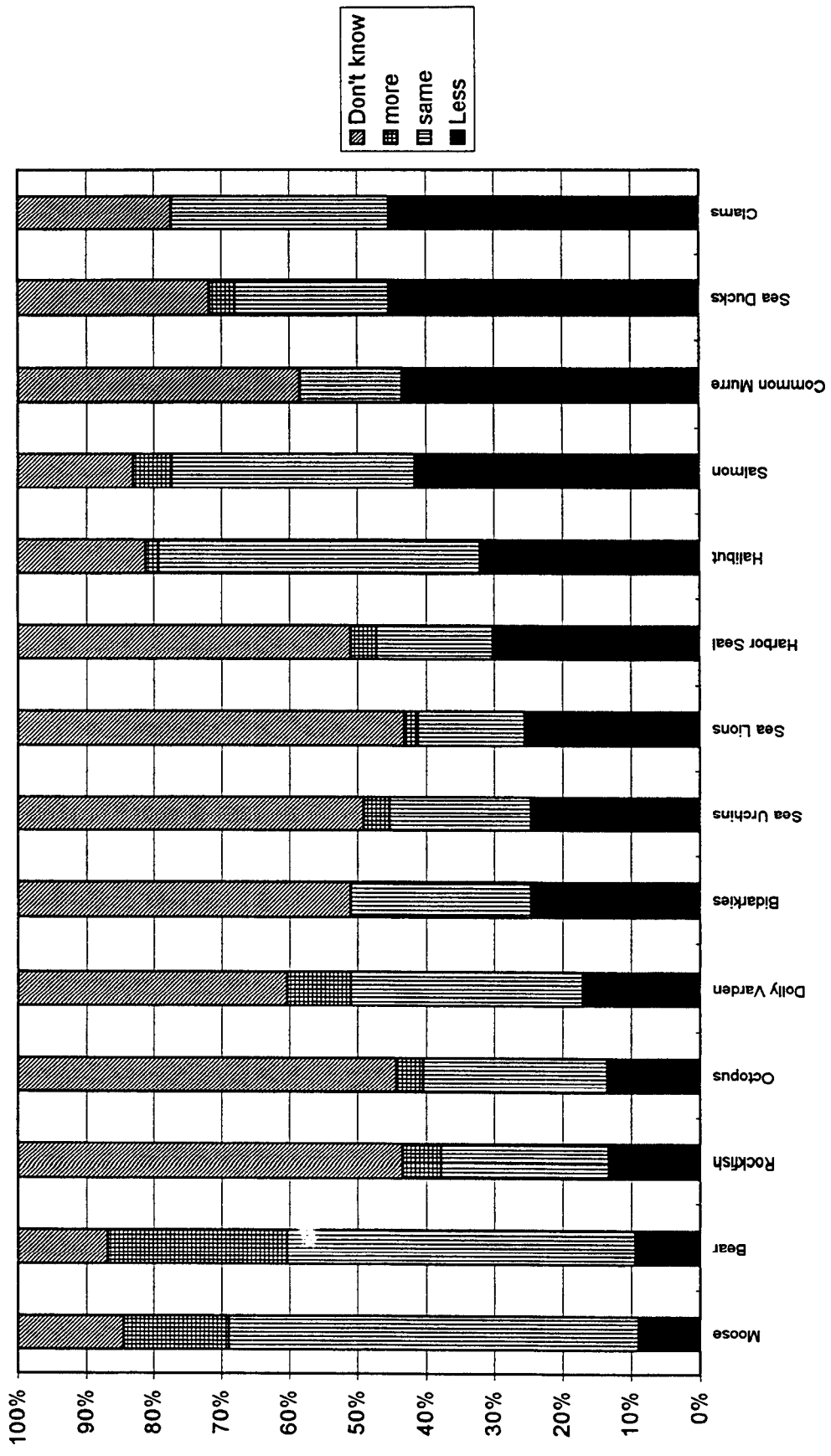
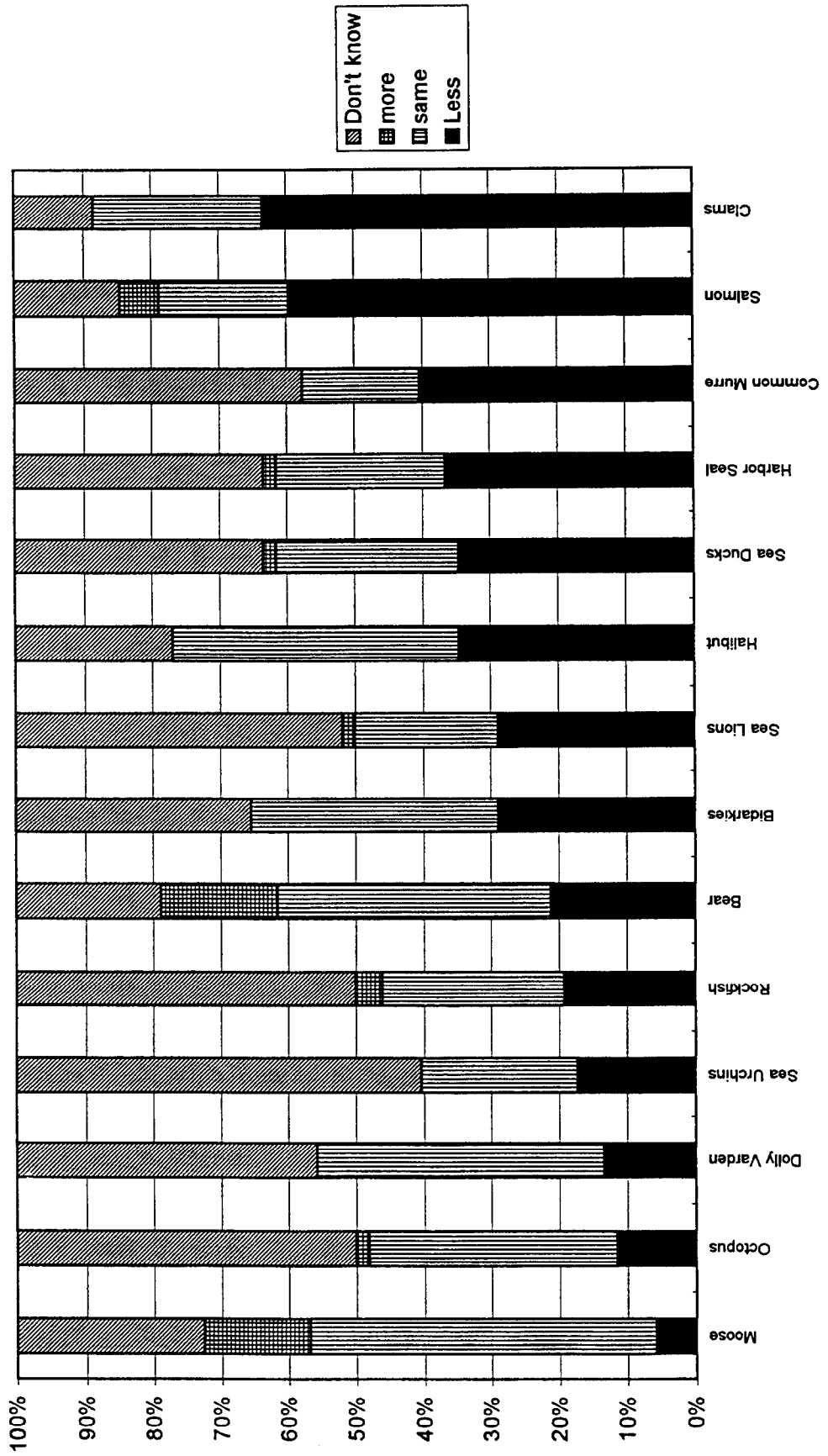


Figure VII-17. Seldovia: Respondents' Assessments of Resource Status in 1993 Compared to 1988



CHAPTER VIII: PORT GRAHAM

by
Ronald T. Stanek

COMMUNITY BACKGROUND

Port Graham is located near the tip of the lower Kenai Peninsula on the south shore of Kachemak Bay in Southcentral Alaska. The community has no road access, however, it is readily accessible by boat and small aircraft from nearby communities. While the waters of outer Kachemak Bay are ice-free, the inner portion of Port Graham bay often has skim ice during very cold winter months. The climate of the area is maritime with moderate amounts of rainfall, and weather conditions are often highly variable with persistent fog, high winds, or clear and calm conditions.

A summary of the prehistory and history of the lower Cook Inlet area is provided in Stanek (1985:31-51). Detailed discussions of the Gulf of Alaska archaeology can be found in de Laguna (1934), Jacobson (1977), Workman (1980), Workman, Lobdell, and Workman (1980), Lobdell (1981), and Workman and Workman (1985). Briefly, the prehistory of the Kachemak Bay area is a complex series of movements of two cultural groups, the Pacific Eskimos and Athabaskan Indians. The cultural traditions are typified by five cultural sequences currently dated from before 400 B.C. to A.D. 1800. Recorded history of the area covers the past 245 years, and can be divided into three periods: European exploration between 1741 and 1791 during which time trading posts were established on Kodiak and at Alexandrovsk (English Bay); the Russian period between 1780 and 1867 when the primary focus was exploitation and trade of sea otter pelts and the introduction of the Russian Orthodox Church; and the American period from 1867 to the present, which was characterized by the development of the commercial fishing industry, the establishment of Native village governing bodies, and the creation of Native regional and local profit corporations and the transfer of land entitlements to those organizations.

Braund and Behnke (1980) describe Port Graham as primarily a commercial fishing community. Since the *Exxon Valdez* oil spill, however, the local cannery has closed, and salmon runs in lower Cook Inlet have declined dramatically making commercial fishing far less significant than it was 10 years earlier. The oil and gas industry and tourism have not played a significant role in the economy of Port Graham as they have in other Kenai Peninsula communities. The cash economy has become more diversified, drawing on small construction projects, transfer payments, a salmon hatchery, logging, administrative jobs, a small amount of commercial fishing, and Native corporation dividends to sustain itself. In spite of this diversification, an increasing number of young job seekers have been forced to leave the community to find employment.

The Division of Subsistence had previously conducted research in Port Graham in 1983, 1988, 1990, and 1991 pertaining to resource harvest and use activities (Stanek 1985, forthcoming a; Fall 1992a). The research in 1983 differs from that of the more recent years in that it was based on a system

of monthly harvest report calendars, while the later projects were based on comprehensive household interviews relying on retrospective recall of the previous year's activities. All the surveys attempted to interview 100 percent of the households and typically achieved about 85.0 percent.

RESEARCH METHODS

For this study, fieldwork occurred in Port Graham in all three study years.¹ Port Graham is notable in that a very large percentage of the interviews in all three years was done by local assistants. The study year for which data were collected ran from April through March. Hence, the first year pertains to the period April 1991 through March 1992, the second study year is April 1992 through March 1993, and the third study year covers April 1993 through March 1994.

For all three study years, the sampling goal for Port Graham was 100 percent of the households permanently residing in the community during at least six months of the previous year. Unlike some other project study communities, Seldovia and Kenai for example, there was no panel of households with members previously interviewed as part of the Minerals Management Service-sponsored Social Indicators (SI) research project (see Chapter I). In this case, interviewees for the social effects questionnaires (SEQ) were selected by using a set of random number and gender sheets. Because of the SEQ requirement for the same person in each household to be interviewed throughout the project, these individuals were retained whenever possible as the interviewees over the three-year study period.

Table I-4; Table I-5; Table I-6; and Table VIII-1 show the total sample achievement for the three study years. The interviews took place during approximately the same time for each of the three years. In the first year, interviews were done between April 17th and June 1st. There were 49 (84.5 percent) of the total 58 occupied households interviewed with the harvest survey. Two households (3.9 percent) declined to be interviewed, and seven households (12.0 percent) were temporarily out of the community. On the average, the length of each harvest survey was 0.92 hours (55 minutes) (Table I-7), and ranged in length from 0.17 hours to 2.00 hours. In addition, SEQ interviews required an average of 0.92 hours (Table I-8) and ranged from 0.32 hours to 2.83 hours.

In the second field season, the Port Graham interviews took place between March 30th and May 31st. There were 61 occupied households, and harvest interviews were completed in 48 of them (78.7 percent). Social effects interviews were completed in 47 (82.76 percent) of the 58 permanent households attempted. The average length of harvest interviews (0.57 hours) decreased by 0.35 hours (38 percent) in the second year due to the removal of a series of harvest assessment questions. The range of time was 0.25 hours to 1.80 hours. A reduction and revision of the SEQ resulted in a shorter average time of 0.52 hours, a decrease of 0.29 hours (31.5 percent) from the first year.

¹ For more detail on sampling methods and the conduct of fieldwork, see the series of interim reports prepared at the close of each field season (Fall and Utermohle 1992, 1993a, and 1994).

In the third year, interviews were conducted between March 21 and April 7. This was substantially faster than the previous two years, and was due in part to an early start date, cold weather which kept people at home, and no unforeseen interruptions. The interview goal was 61 households which was slightly higher than the previous year. A total of 51 households (83.6 percent of the goal) completed the harvest survey and 47 households completed the SEQ.

Refusal rates for the three-year period increased slightly each year. A variety of reasons were given by households declining interviews including the feeling that the information might be used to make undesirable hunting and fishing regulations, while others felt the questions too intrusive or intimidating. Several household heads were too ill to participate.

DEMOGRAPHY

1991/92 Study Year

The 1991/92 survey interviewed 49 households. Based on a sample population of 136 people, the estimated community population for Port Graham was 160.9 people (Table VIII-2). This estimate was 5.1 persons less than the 1990 U.S. Census figure of 166 people (Fig. VIII-1). The average household size in the community was just over two and one-half (2.8) people and ranged from one to seven people. Figure VIII-2 and Table VIII-3 show the Port Graham population breakdown for 1991/92 with 54.4 percent males and 45.6 percent females. The average age of the population was 32.5 years and the range in ages was 0.31 years to 80.0 years. The sampled population resided in the community an average of 23.4 years, while the range of residency was 0.13 years to 78.7 years. Ethnically, the population was 83.8 percent Alaska Native (134.9 people), comparable to the 1990 census.

1992/93 Study Year

In the second study year, 48 households were interviewed. Virtually the same population characteristics persisted (Table VIII-2). The 1992/93 sampled population totaled 138 people, and the estimated community population was 166.8 people. The average household size increased by one-tenth, and the range in size was the same as in the first year. The sex and age structure changed by only hundredths of a percentage point (Fig. VIII-3, Table VIII-4). Length of residency averaged the same as in 1991/92 and while the minimum length of residency decreased by two-tenths, the maximum stayed the same. The ethnic composition of Port Graham based on the sampled households showed some difference from the year before, with the percentage of household heads being Alaska Native increasing from 93.9 percent in 1991/92 to 100 percent in year two. This was largely due to the refusal of several non-Natives to be interviewed. However, these household heads still remained in the community. As a consequence of this sampling bias the estimated Alaska Native population increased by almost ten points to 92.8 percent and the estimated number increased by 20 people.

1993/94 Study Year

The third study year (1993/94) found three additional households in Port Graham, and a corresponding increase of three households in the sample size (57 households). Consequently, the sampled population increased by eight people and the estimated community population also went up by eight people to 174.6 (Table VIII-2). The only other characteristic changing by several percentage points was the Alaska Native contingent, decreasing by three percent and falling between the two previous study years to 89.7 percent. All other population characteristics remained virtually the same as the previous two study years (Fig. VIII-4, Table VIII-5).

CASH ECONOMY

1991/92 Study Year

In the 1991/92 study year, there were an estimated 106.5 adults of employment age (16 years or older) in Port Graham (Table VIII-6). Of this potential workforce, 72.4 percent (76.9 people) worked an average of eight months in a total of 119.5 jobs, averaging 1.6 jobs per person. Employees held between one and four jobs, and worked between one and twelve months during the year, while 38.5 percent worked year-round.

At the household level, 49.7 (85.7 percent) of the 58 occupied households in the community held at least one job. Employed households, had as many as six jobs and as few as one job, while they averaged 1.6 jobs each. Overall, in each employed household about 1.6 persons held jobs, and between one and three persons were employed.

The origin of jobs by industry in 1991/92 (Fig. VIII-5) shows twice as many jobs as any other category coming from commercial fishing (24.0 percent). The manufacturing industry including logging and canneries provided the second largest percentage of jobs (13.0 percent). The services sector was third largest job provider with 12.0 percent.

Expenses for food in Port Graham households during 1991/92 were almost one-quarter (24.7 percent) of the total annual household income (Table I-101). Households reported spending an average of \$483.26 a month, while most households spent about \$500.00 per month. Although the average monthly food expense was comparable to the neighboring communities of Seldovia and Nanwalek, it was twice the percentage of annual income compared to Seldovia and one-third higher than that of Nanwalek.

During this first study year, the average Port Graham household received an income of \$24,306.94, and each person received an average of \$8,757.65 total annual income (Table VIII-7). Households averaged an income of \$15,965.33 from jobs, for a per capita average of \$5,752.21. Households took in an annual amount of other income averaging \$8,341.61, the per capita average was \$3,005.43.

As far as earned income sources are concerned, fishing contributed the largest household average (\$5,451.81), and a per capita amount of \$1,964.25. Within the fishing sector, commercial fishing earnings averaged \$4,625.27 per household (\$1,666.46 per capita) and hatchery enhancement averaged \$826.53 per household or \$287.79 per capita.

Government was the second largest contributor to earned income with a household average of \$4,013.27 and a per capita average of \$1,445.96. Among the three types of government, local government provided the most money (\$3,417.35 per household, \$1,231.25 per person). Federal and state government provided \$432.65 and \$163.27, respectively, to the average amount earned per household. Five other employment sectors were sources of lesser amounts of income in 1991/92.

Income from other sources came primarily by way of the Alaska Permanent Fund with the average household amount of \$2,413.00. Native corporation dividends averaged \$1,591.40 per household, while social security had an average amount of \$1,348.86 per household. Other sources such as food stamps, longevity bonus, public assistance, and others (Table VIII-8) each provided an average of less than \$1,000.00 dollars per household.

Finally, as relates to the financial condition of households, respondents were asked to assess their overall financial situation since the *Exxon Valdez* oil spill (March 1989), providing a relative rating of "better than, about the same, or worse than before the spill" (Table I-103). There were 16.3 percent (eight households) which indicated their financial situation as better than before the spill. Just over two-fifths, 40.8 percent (20 households) indicated their situation was about the same, and a nearly equal portion, although the largest, (42.9 percent) said their situation was worse than before the spill. One major financial impact of oil spill cleanup employment came with a debt of back income taxes owed by boat owners who contracted equipment. Either unknowingly or through misunderstanding, many boat owners did not deduct sufficient money for taxes as is done by employers for hourly wage employment. Consequently, many households still faced large tax debts in 1992.

1992/93 Study Year

During 1992/93 there was a slight increase in the employment level of seven people over the previous year, raising the total of employed adults to 84.6 people in Port Graham (76.1 percent) of the total 111.2 estimated employment-aged adults (Table VIII-6). Employed adults held a total of 135.3 jobs during the year and averaged 1.6 jobs per person, equal to the prior year. Comparable to 1991/92, in the second year each household worked an average of eight months, and a slight decrease of six percent occurred in the percentage of households with year-round employment (32.9 percent).

Port Graham's second year household employment picture remained almost identical to the first year. The number of employed households increased by one (1.8 percent), while the mean number of jobs increased by seven-tenths and the maximum number of jobs held by a household increased by two. The number of employed adults per household increased very slightly by two-tenths percent.

Although the employment levels rose slightly in the second year, the proportions of jobs in each sector shifted considerably (Fig. VIII-6). The services sector, for example, more than doubled to 37.9 jobs (28.0 percent). Hatcheries, Finance, Insurance, Real Estate (F.I.R.E.), and retail trade, canneries, federal and state government also gained jobs. Logging lost 6.5 jobs, while local government and local education also lost jobs.

Average household income increased by \$986.35 (4.5 percent) to \$25,293.27 in 1992/93 (Table VIII-10). All the increase (\$1,588.25 or 10.1 percent) occurred in the earned income category, while other income decreased by \$601.89 (7.2 percent). Several sectors which contributed small amounts to earned income commercial fishing with the average amount per household increasing \$353.38 (6.1 percent). The average amount from commercial fishing decreased slightly, while the average household earnings from fishery enhancement doubled. The shifts in income-earning sectors are reflected above by the numbers of jobs in each sector. Other sector incomes varied slightly with some increasing and others decreasing, however, with such small numbers of jobs in each sector, not interviewing one or two individuals would result in such changes.

In 1992/93, income from other sources decreased by \$601.89, however, large variations from the previous year occurred within individual categories (Table VIII-11). For example, Bureau of Indian Affairs (BIA) grant money was absent in the first year and present in the second, Native corporation dividends increased by almost \$1,300.00 in the second year, while unemployment, longevity bonus, adult public assistance, and social security all decreased by almost half in the second year.

1993/94 Study Year

The 1993/94 study year showed only modest changes in employment patterns in Port Graham compared to the two previous years (Table VIII-6). The total number of adults in the population increased by 12 people over the 1992/93 year. The number of employed people remained the same as the year before (83.7 people), but was a smaller percentage of the population (67.9 percent) than a year earlier. The total number of jobs in Port Graham fell midway among the three years at 123.2, and the mean number of jobs per adult fell to 1.5 per person. The mean number of months employed remained about the same at around eight per adult, and the percentage of adults holding full-time jobs rose by almost five percent over the second year to 37.1 percent.

At the household level, although the sample size increased by three households, there was a decrease of just over five percent in the proportion of households employed. Apparently the added households brought no new jobs to the employment rolls as the number of employed adults dropped slightly to 82.4 percent from 1992/93.

Like the two previous years, 1993/94 showed some major shifts in several job sectors (Fig. VIII-7). Most notably was the 13.0 percent increase in the F.I.R.E. sector and a comparable decline in the services sector. There was a complete loss of forestry jobs in the manufacturing sector, and a two percent decline in commercial fishing. Most other sectors changed by only a percentage point or two.

The income picture for 1993/94 experienced some interesting changes (Table VIII-12). Whereas the total average household income increased to a three-year high (\$28,084.33), an increase of \$2,791.04 (11.0 percent) over the previous year, earned income declined by \$358.56 per household. Taking up the slack was a \$3,149.59 increase per household in other income, bringing this source to the highest in the three year period.

Among the sources of earned income, commercial fishing and hatcheries had large losses with a \$734.94 decline overall. Government on the other hand increased by \$751.43 (57.6 percent) over the previous year. As mentioned above, F.I.R.E. sector jobs increased markedly, likewise that sector's contribution to wage income also climbed by \$581.53 (80.6 percent). Over the three study years this sector experienced a steady increase in annual income contributions.

As already pointed out, other income (Table VIII-13) was responsible for the large increase in total annual income. Among these sources, Native corporation dividends produced \$2,200.36 per household more in 1993/94 than the previous year, and \$3,474.46 (218.3 percent) more than year one. The bulk of the increase resulted from Seldovia Native Association's (SNA) distribution of earnings from the sale of timber rights to the State of Alaska. Several Port Graham households have members who are shareholders in SNA.

In the 1993/94 study year, the "monthly expenses for food" question was reinstated and found Port Graham households' average to have dropped only slightly (\$4.93 per household) (Table I-102), while the percentage of total household income spent on food stayed about the same at 21.8 percent.

RESOURCE USES: 1991/92

Participation in Hunting, Fishing, and Gathering Activities

Levels of participation in wild resource harvesting and processing activities were determined for the entire sample population and expanded to the total estimated community population (Table VIII-15). Estimated population participation levels were determined for hunting or processing any kind of game, fishing or processing any kind of fish or shellfish, trapping or processing any furbearer, gathering or processing any plants. Household participation levels were determined for each individual resource, and will be discussed in the next section on use and harvests levels.

For the 1991/92 estimated population of 161.0 persons in Port Graham, there were 140.9 (87.5 percent) who hunted, fished, or gathered wild resources. An equal percentage (87.5 percent) processed at least one resource. Individual resource categories had the following levels of participation. There were 42.6 persons (26.5 percent) who hunted game, and 65.1 persons (40.4 percent) who processed some kind of game. A large number of persons, 117 (72.8 percent) fished for finfish or collected some kind of shellfish. The largest number of persons, 124.3 (77.2 percent) gathered wild plants, while the same number 123.1 (76.5 percent) processed plants. The smallest number of persons hunted or trapped furbearers (2.4 persons, 1.5 percent).

Harvest Quantities and Composition

Table VIII-14 shows resource harvest and use characteristics of Port Graham. On average, each household used 22 different types of resources, attempted to harvest 15.2, and actually harvested 13.6 kinds. Resource sharing activity indicates households, on the average, receiving 13.4 different types of resources and giving away 10.2 resources. In terms of amounts of resources harvested, the household average was 779.6 pounds (280.9 pounds per capita) of usable weight, and the range of harvest was zero to 2,573.5 pounds. Household participation levels for all wild resources were high; 100 percent of the households used at least one resource, while 95.9 percent attempted to harvest, and 95.9 percent harvested at least one resource.

Households estimated the annual amount of meat, fish, and fowl derived from wild resources (Table I-104). Nearly half the households (49.0 percent; 24 households) estimated between 26 and 50 percent of their annual consumption was wild resources. The second largest group, 34.7 percent (17 households), estimated that 1 to 25 percent was wild resources, while 12.2 percent (six households) estimated the amount to be between 51 and 75 percent. No households estimated all their meat, fish, and fowl came from the wild, and two households reported that none of their foods was of wild origin.

Sharing of resources within the community also showed similarly high levels of participation with 98.0 percent receiving and 87.8 percent giving. A certain amount of resource sharing took place with other communities (Table VIII-16). Port Graham households shared with 21 other locations. Most commonly, sharing occurred with their immediate neighbors in Nanwalek, with an estimated 20.4 percent of the households receiving some resource from Nanwalek, and 14.3 percent giving at least one resource to that community. Although salmon was the resource which most commonly came from Nanwalek, with 14.3 percent of the households receiving, all six other resource categories were shared at some level. The other communities with which Port Graham residents often shared included Seward, Seldovia, Homer, and Anchorage. Interestingly, almost all sharing with Seward was receiving hooligan, a fish not harvested near Port Graham. Sharing with Anchorage involved giving salmon and plants to relatives living there. Sharing with twelve other communities was at levels involving one or two households exchanging one or more resources, mostly with relatives. Even the exchange with communities outside Alaska was with children attending school or other relatives in permanent residency.

In terms of harvest quantities (Table VIII-19), an estimated total 45,216.9 pounds of resources taken by Port Graham resulted in a mean household harvest of 779.6 pounds, and a per capita harvest of 280.9 pounds. Data collected by three previous Division of Subsistence studies can be used for comparison with 1991/92 (Fig. VIII-8). Information from 1987 shows high levels of participation in use, harvest, and sharing activities occurring that year, with the per capita harvest of 227.4 pounds of edible resources (Stanek 1990). In 1989, the year of the *Exxon Valdez* oil spill, the per capita harvest level dropped by over 100.0 pounds to 122.3 pounds. Following the spill, harvest levels increased to 214.0 pounds in 1990, and 280.9 pounds per household in 1991/92, slightly higher than the 1987 level.

Similarly, the variety of different resources harvested by the community or diet breadth, decreased in 1989, and in 1991/92 returned to levels slightly higher than those in 1987. Much of the relatively rapid return to pre-spill harvest levels had to do with the dramatic decrease in cash employment and a need to rely on wild foods, and an expressed "greater appreciation" of wild foods and Alutiiq traditions as a result of the spill.

Fish, including salmon and non-salmon species, were used by 100 percent of the households in Port Graham, while 87.8 percent attempted and actually harvested fish. The distribution of fish among households involved 93.9 percent which received fish and 75.5 percent which gave fish to other households. All fish accounted for 37,387.5 pounds of the total community resource harvest (82.8 percent). The contribution of fish to the household average was 644.6 pounds, and to the per capita total, 232.3 pounds.

For salmon only, 100 percent of the households used at least one kind of salmon, while 83.7 percent attempted to harvest, and 83.7 percent actually harvested salmon. Sharing of salmon involved 83.7 percent of the households which received it and 71.4 percent which gave it away. Salmon harvesters produced a total of 21,338.4 pounds for a household mean of 367.9 pounds and a per capita amount of 132.6 pounds. There was an estimated total harvest of 5,870 salmon taken by the community. The harvest was composed of 2,763 pink, 1,564 coho, 638 chum, 560 sockeye, and 346 chinook. Despite the in-season closures on sockeye salmon, especially good runs of pink and silver salmon to the Port Graham and English Bay drainages in 1991 contributed to the relatively high harvests.

The methods of salmon harvest by Port Graham residents are reported in Table VIII-20, Table VIII-21, Table VIII-22, and Table VIII-23. Methods by which the majority of each species of salmon were caught varied, but overall, the primary method used was rod and reel with 68.1 percent of the total harvest caught by that method. Subsistence set gillnet was the other method used to catch the bulk (27.2 percent) of the remaining harvest. Dip netting and removal from commercial catch provided 0.7 percent and 4.0 percent, respectively.

To preserve salmon, Port Graham households used eight different methods (Table I-106). Although there is no estimate of the quantities preserved by each method, relative percentages of households using each method are provided. Also, a detailed description of preservation and preparation methods for salmon is available in Stanek (1985:141-144). Almost all households interviewed (95.9 percent), reported freezing as one method, and this usually involved freezing not only fresh fish but also other preserved products in order to maintain freshness and extend shelf-life. Three-fourths (75.5 percent) of the respondents reported using cold smoking and the same percentage used drying. Although cold smoking requires extensive drying, the two methods are often used separately. Kippering, which involves a hot smoke curing, was used by 46.9 percent. Salting was reported by 67.4 percent and was usually used to preserve king and silver salmon. Pickling was reported by 40.8 percent of the households, and canning was used by 36.7 percent. Lastly, fermenting was reported by 16.3

percent of the respondents who use this method primarily for making a traditional food out of salmon roe. A few people ferment salmon flesh. One household did not specify any particular preservation method. Although several preservation methods could be used in combination, on average, 4.6 different methods were used by each household.

Non-salmon fish including cod, halibut, flounder, greenling, herring, rockfish, char, and trout, were used by 98.0 percent of Port Graham households. There were 81.6 percent which attempted to catch non-salmon fish, and 77.6 percent which actually caught some fish. The distribution of the harvest occurred among 89.8 percent of the households which received non-salmon fish and 69.4 percent which gave it away. There was a total harvest of 16,049.1 pounds which yielded a household average of 276.7 pounds, and a per capita amount of 99.7 pounds. Among all the non-salmon species, halibut accounted for the largest portion of the harvest with 8,841.3 pounds (54.9 percent). The Dolly Varden harvest was the second largest portion with 2,026.7 pounds (12.6 percent). Three species of cod produced the third largest quantity of non-salmon fish with 1,413.9 pounds (8.8 percent). Flounder produced the fourth largest amount with 1,272.5 pounds (7.9 percent), while rockfish was fifth with 1,272.4 pounds (7.8 percent), and herring and herring roe were seventh with 1,018.6 pounds (6.4 percent). The remaining 271.6 pounds (1.7 percent) was composed of greenling, sculpin, smelt, and sole.

In contrast to salmon, the methods used to catch the majority (55.7 percent, 8,944.6 pounds) of the non-salmon fish included set gillnet, seine, handline, or longline. In addition, fishermen using rod and reel caught 24.9 percent (3,991.5 pounds) of the harvest, and 19.4 percent (3,112.6 pounds) was removed from commercial catches (Table VIII-24; Table VIII-25). Subsistence gear was also the method used by the majority of Port Graham households (63.3 percent), while rod and reel was used by 44.9 percent and removal from commercial catch was used by 18.4 percent of the households (Table VIII-26).

Game resources used by Port Graham residents included such resources as black bear, deer, goat, moose, hare, and porcupine. Overall, game was used by 77.6 percent of the households. Slightly more than one-fourth (26.5 percent) attempted the harvest of game, however, just 12.2 percent were successful. Despite this participation level, game was received by 75.5 percent of the households and distributed by 30.6 percent of the community households. The total amount of game harvested was 526.1 pounds amounting to 9.1 pounds per household, and 3.3 pounds per capita. Black bear contributed the largest portion to the harvest at 411.9 pounds (78.3 percent), goat provided 85.8 pounds (16.3 percent), and porcupine 28.4 pounds (5.4 percent).

Marine mammal harvests included harbor seal and sea lion which were used by 75.5 percent and 30.6 percent of the households, respectively. Together, these two species totaled 2,367.3 pounds of edible product. The only other marine mammals reported were four sea otters used by 2.0 percent of the households, only for fur. Although Port Graham residents reported their hunting areas had a scarcity of harbor seals and sea lions, in 1991 there was a near doubling of pre-spill harvests. At least part of the reason for the increase may be due to the previously mentioned appreciation and awareness of wild resources and traditions, and two individuals who were very active hunters during 1991.

Birds and eggs harvested by Port Graham residents were used by just over half the households (53.1 percent). While slightly over one-third (34.7 percent) of the households harvested birds and eggs, only a few more (36.7 percent) attempted a harvest. Nearly equal percentages, 28.6 percent which received and 24.5 percent which gave away, participated in sharing bird products. As a category of resources, birds and eggs accounted for a relatively small portion of the mean household harvest at 5.0 pounds, as well as the per capita harvest with 1.8 pounds. There was a total of 288.9 pounds of birds and eggs harvested. The largest amount of bird products came from ducks with 239.2 pounds (82.8 percent). The only other groups of birds harvested were grouse with 27.3 pounds (9.5 percent) and seabirds with 7.1 pounds (2.5 percent). Egg harvests, all gull eggs, produced 15.3 pounds total, or 5.3 percent of birds and eggs combined.

One of the most important resource groups harvested by Port Graham residents was marine invertebrates. Their importance is indicated by the household levels of use (95.9 percent), the level of harvest and attempting to harvest (79.6 percent each), and the degree of sharing (89.8 percent receiving and 69.4 percent giving). A total of 3,475.1 pounds (7.7 percent of the community harvest) of invertebrates was harvested by the community, providing a household average of 59.9 pounds and a per capita average of 21.6 pounds. The relative amounts of invertebrates harvested were as follows: bivalves including clams, cockles, mussels, and horse clams (1,730.8 pounds), chitons (1,020.1 pounds), octopus (554.0 pounds), snails (77.4 pounds), and crab (87.7 pounds). Additional small quantities of whelks, limpets, and sea urchins were also harvested.

Lastly, the community harvest of plants and berries totaled 1,171.9 pounds, for a household average of 20.2 pounds and per capita amount of 7.3 pounds. Berries made up the largest portion of the harvest with 858.2 pounds, seaweed and kelp totaled 162.8 pounds, while plants, greens, and mushrooms totaled 150.9 pounds. Not included in the edible foods, 188.2 cords of wood were harvested in 1991/92. The use of plants for medicinal purposes was asked in the study, and 30.6 percent of the households responded with some type of use (Table I-108; Table I-109). Although 12 groups or species of plants used for medicines are listed here, this is not all the plants used by the community, and a more complete listing along with their uses can be found in Russell (1991). For all but two groups the specific uses were not given, while "pine" pitch (spruce) and cranberries were indicated as used for coughs and colds.

In addition to wild resources harvested through non-commercial means, there were 3,920.4 pounds removed of salmon and non-salmon finfish from commercial harvests (Table VIII-20). These harvests provided 8.7 percent of the community's total fish harvest. The total amount of salmon removed was 807.8 pounds or 3.8 percent of the community salmon harvest. Sockeye salmon provided the largest portion of the total fish harvest with 390.2 pounds (10.0 percent). Non-salmon finfish totaled 3,113.0 pounds or 6.9 percent of the total community resource harvest. Halibut provided the largest quantity with 1,662.8 pounds. Red rockfish and cod also provided 580.0 pounds and 573.8 pounds, respectively.

From the standpoint of the overall composition of the 1991/92 harvest (Table VIII-17; Table VIII-18), salmon made up 47.2 percent, non-salmon fish 35.5 percent, marine invertebrates 7.7 percent, marine mammals 5.2 percent, and plants 2.6 percent, game 1.2 percent, and birds and eggs composed 0.6 percent. Compared to 1987, the relative composition of the harvest by each category listed above remained about the same (Fig. VIII-10). Although plants showed a decrease of 4.9 percent, this change could easily be due to annual variations in available quantities of berries.

Looking at the pattern in harvest quantities for the four years of estimates, there was a decline in response to the *Exxon Valdez* oil spill and then a recovery in 1990 and 1991/92 to equal or slightly higher levels in four of seven categories. Although several categories of resources including salmon, and marine mammals were particularly high in 1991/92, annual salmon seasons are subject to closures on sockeyes which has resulted in the harvest of alternative species. Marine mammal harvests are subject to a long-term decline owing to decreases in their populations.

1991/92 Household Assessments of Change In Wild Resource Use

In this study, Port Graham households were asked to assess any changes in their 1991/92 subsistence use levels against their uses of the previous year (1990) and the year before the oil spill. The overall assessment for all resource categories (Table I-58; Fig. VIII-11) found half the households (50.0 percent, 22 households) indicating they used less than before the spill, and 34.1 percent indicating their uses as the same. Seven households (15.9 percent), indicated higher use levels, while three households were not in the community and two households gave no response or did not know. For comparison with the previous year (1990) (Table I-57), just over half (51.0 percent; 25 households) indicated using less, 38.8 percent (19 households) indicated using the same, and 10.2 percent (five households) indicated higher use levels.

Each resource group also received an assessment of change for the year before the oil spill, and Port Graham surveys had the following results: for salmon (Table I-10), fish other than salmon (Table I-16), marine mammals (Table I-34), and marine invertebrates (Table I-46), between 35.7 percent and 52.4 percent of the households reported less, between 23.9 percent and 39.1 percent reported the same, between 10.7 percent and 18.6 percent reported higher, and between one and three households gave no response; for large game (Table I-22), small game and furbearers (Table I-28), birds (Table I-40), and plants (Table I-52), between 2.3 percent and 37.8 percent reported less, between 46.7 and 77.3 percent reported the same, between 2.3 percent and 13.0 percent reported higher, and from two to six households didn't know or did not respond. For this evaluation of change, there were two households not present during the year of comparison.

For comparisons with the previous year, Port Graham households reported the following: salmon (Table I-9), other fish (Table I-15), marine mammals (Table I-33), and marine invertebrates (Table I-45), between 30.6 percent and 49.0 percent reported less, between 34.7 percent and 49.0 percent reported no change, and between 4.1 percent and 20.4 percent reported higher uses; for large

game (Table I-21), small game and furbearers (Table I-27), birds (Table I-39), and plants (Table I-51), between 6.4 percent and 33.3 percent reported less use, between 53.1 percent and 74.5 percent reported the same, and between 6.4 percent and 20.4 percent reported higher usage. From one to two households did not respond or did not know.

In summary, the assessment for change responses followed a pattern corresponding to resource groups being either terrestrial or aquatic. For the year before the spill, water-based resources received the largest number of responses indicating less usage, a moderate number of the same amount of use, and the least number of responses indicating higher levels of use. Land-based resources received the highest percentages of responses for the same amount of use during the year before the spill, the second highest percentage for less use, and the lowest amount of responses for higher use.

In comparison with 1990, both land and water-based resource groups had very similar groupings of responses. The highest percentages of Port Graham households responded with "the same" or "no change" in use levels, the second largest percentage reported they had "less" use, and the least amount reported "higher" use levels.

1991/92 Discarded Wild Resources

Harvesters at Port Graham occasionally find wild resources which do not appear normal and these are usually discarded. In this study, 20.4 percent of the respondents (10 households) reported discarding resources for a variety of reasons (Table I-107). The groups of resources in which abnormalities were found and the percentages of households discarding something from each resource group were as follows: salmon (4.1 percent); non-salmon fish (2.0 percent); unspecified fish (4.1 percent); marine mammals (2.0 percent); birds (4.1 percent); marine invertebrates (6.1 percent); and plants (2.0 percent). Abnormal appearance was the single largest reason for which 18.4 percent discarded resources, and the remaining 2.0 percent gave no specific reason. Within the 18.4 percent, 6.1 percent gave an apparent, nonspecific pathological reason for discarding. As to the perceived reasons for the abnormalities, most respondents (14.3 percent) did not know the reasons, while 8.2 percent thought it was due to oil contamination, and 2.0 percent thought it due to improper handling. No one reported normal variation or disease as the reason for the abnormality. As to whether the abnormalities were known prior to the oil spill, 18.4 percent reported they had not heard of the unusual condition before the spill and 2.0 percent had heard of the abnormality.

RESOURCE USES: 1992/93

Participation in Hunting, Fishing, and Gathering Activities

The estimated Port Graham population in 1992/93 (166.8 people) was 5.8 persons more than in 1991/92. Table VIII-15 shows that overall, 93.5 percent (155.9 people) attempted to harvest at least one type of resource, while 92.0 percent (153.4 people) processed at least one type of resource. These two

estimates represent 6.0 percent and 4.5 percent increases, respectively, above the 1991/92 levels. The pattern of participation in 1992/93 was the same as in 1991/92, that is, the highest numbers of people participated in plant gathering, the second highest in fishing, the third highest in hunting, and the fourth highest in harvesting furbearers. The highest level of participation in harvest was with plants where 88.4 percent attempted to gather plants and 84.1 percent processed plants. There was a 14.2 percent increase in plant gatherers, and a 11.2 percent increase in processors. Fishermen had the next highest participation levels with 82.6 percent attempting, and 85.5 percent processing. The 1992/93 levels were 9.8 percent higher for fish harvesters and 9.0 percent higher for processors. Hunters were the third highest in level of participation with 217 percent of the population involved in attempting to take some type of game animal including marine mammals. Because of the high levels of sharing game products, almost twice as many people (43.5 percent) processed game resources. Typical for lower Cook Inlet communities, the lowest level of participation was in attempting to take furbearers, where only 2.9 percent attempted to hunt or trap them, and 3.6 percent processed furbearers in 1992/93.

Harvest Quantities and Composition

In 1992/93, wild resource harvest and use levels were at their normally high levels among Port Graham households with 100 percent of the sample (48 households) using at least one resource, attempting to harvest a resource, harvesting a resource, and receiving a resource (Table VIII-14). These levels are 4.1 percent higher than the previous year. All but one household (97.9 percent) gave away resources in 1992/93, and this is a slight increase (10.1 percent) over 1991/92. The wild resource use information in 1992/93 does not include estimates of the percentage of meat, fish, and fowl made up of wild fish and game, nor does it include information on sharing with other communities as in 1991/92.

As far as the numbers and pounds of resources used is concerned, the pounds harvested per household in Port Graham increased only slightly from 779.6 pounds to 784.1 pounds while per capita amounts decreased by 8.1 pounds to 272.7 pounds. The mean number of resources used per household remained about the same at 22.1, although the minimum per household increased from two to eight and the maximum decreased from 43.0 to 39.0. While the mean number of resources per household stayed the same (14.8), the minimum number of resources attempted increased from zero to one, while the maximum decreased from 47 to 44. Likewise, the mean number of resources actually harvested per household stayed the same, while the minimum increased from zero to one and the maximum decreased from 41 to 33. The mean numbers of resources shared remained about the same for the two study years. In addition, the mean number of resources received per household in 1992/93 remained about the same at 14.0, while the mean number given away also remained about the same at 11.1 resources.

Harvests of fish in 1992/93 dropped by 3.9 percent or 26.2 pounds per household below 1991/92 levels (Table VIII-27; Table VIII-17; Fig. VIII-12). The majority of this decrease occurred in the salmon harvest which dropped 7.9 percent or 60.8 pounds per household. Non-salmon fish showed an increase of 13.0 percent or 35.6 pounds per household. Responsible for the majority of this increase was halibut

with a 27.6 percent increase or 41.7 pounds and Dolly Varden with a 125.8 percent or 43.9 pounds per household increase over 1991/92. Although game showed a 19.8 percent increase in pounds harvested over 1991, it contributed only 1.8 pounds more per household. Marine mammal harvests were up 44.8 percent or 27.7 pounds per household. Marine invertebrates increased by 14.7 percent and were 8.8 pounds above the 1991 household level. Lastly, plant harvests were up by 46.6 percent, adding 4.4 pounds to the 1991/92 levels for a 1992/93 total of 10.7 pounds per household. Furbearers and birds had no substantial changes in amounts produced between 1991/92 and 1992/93.

Overall, there was little change in the proportions of salmon harvested by different gear types between 1991/92 and 1992/93 (Table VIII-29; Table VIII-30; and Table VIII-31). However, the majority of the salmon harvest (62.4 percent; 191.5 pounds per household) occurred in the rod and reel fishery, and while the percentage of pounds by gear type in 1992/93 was nearly identical to 1991/92, the mean pounds per household decreased by 60.5 pounds (16.5 percent). Subsistence gear, specifically setnets, harvested 30.6 percent (93.9 pounds per household or 30.5 pounds less) of the salmon in 1992/93 and 33.8 percent in 1991/92. Although removal from commercial catch doubled in 1992/93, the increase was only 3.2 percent of the total salmon harvest. There were 21.7 pounds per household harvested in 1992/93 and 13.9 pounds in 1991/92. As far as which methods people chose to use, there was a 12.2 percent increase in rod and reel usage during 1992/93. The percentages of users of the two other methods remained about the same as in 1991/92.

Nearly equal amounts of non-salmon fish were harvested by rod and reel (54.3 percent; 9,843.8 pounds) and subsistence gear including handline (45.5 percent; 8,245.7 pounds) (Table VIII-32; Table VIII-33; and Table VIII-34). The remaining 0.13 percent (24.2 pounds of halibut) was taken from commercial harvests (Table VIII-28). Similar to salmon fishermen, 75.0 percent of fishermen used rod and reel and 52.0 percent used subsistence gear, while 2.1 percent removed halibut from commercial harvests.

RESOURCE USES: 1993/94

Participation in Hunting, Fishing, and Gathering Activities

In 1993/94, participation levels wild in resource use-related activities for Port Graham maintained the same rankings among resource groups as in the previous two study years (Table VIII-15) with plant gathering having the highest level of participants followed by fishing, and then hunting. No trapping occurred in Port Graham in 1993/94. Overall, there was a slight (2.4 percent) increase to 95.9 percent of population which participated in some type of activity.

In their fishing efforts, most Port Graham households (82.4 percent) used rod and reel gear to catch salmon (Table VIII-37; Table VIII-38; Table VIII-39), just over half (51.0 percent) used setnets or picked up salmon by hand. While fishing for non-salmon fish most households (60.9 percent) again used

rod and reel, but 41.2 percent used subsistence gear, and 7.8 percent removed fish from commercial harvests (Table VIII-40; Table VIII-41; Table VIII-42).

Resource Use, Harvest Quantities, and Composition

Characteristics of resource harvest and use took a slight downturn from the previous year's levels, with all features except use and receiving any resource decreasing a few percentage points. Attempting to harvest and harvesting any resource declined by two percent, and giving away any resource dropped by 7.7 percent (Table VIII-14).

In terms of the number of resources per household, every feature declined slightly compared to the previous two years. The mean number of resources used per household dropped by 1.7 items below 1992/93, the mean number attempted dropped by 3.1 items compared to the other two years, and the mean number harvested decreased by 2.7 items. The mean numbers of resources given and received dropped slightly.

Per capita harvests also decreased by 60.6 pounds to 212.1 pounds, and household levels decreased to 607.3 pounds, 176.7 pounds below the 1992/93 estimates, and slightly less compared to the estimates for 1991/92 (Table VIII-35). A decrease in the salmon harvest accounted for the majority of the reduction in total annual household harvests. Correspondingly, there was a shift in household estimates of the annual amount of meat, fish, and fowl derived from wild resources (Table I-105) showing increases over 1991/92 levels in percentages of households in the 26-50 percent and 51-75 percent categories and a decrease in the next lowest and highest categories.

The composition of the 1993/94 harvest nearly the same as in the previous years (Table VIII-18; Fig. VIII-13). Salmon ranked highest with 45.9 percent of the total harvest, other fish next with 34.3 percent, marine invertebrates third with 7.5 percent, wild plants including berries at 6.0 percent was fourth (the only change from the previous two years), and marine mammals, land mammals, and birds and eggs were 5th, 6th, and 7th, respectively.

Typically, the bulk of the fish harvest at Port Graham in recent years has come from rod and reel harvest, and 1993/94 was no different (Table VIII-37; Table VIII-38; Table VIII-39; Table VIII-40; Table VIII-41; Table VIII-42). Compared to the previous two study years, a big decrease occurred in the amount of resources removed from commercial sources with less than one percent during 1993/94 (Table VIII-36).

Assessments of Change in Wild Resource Use

In the 1993/94 study year, Port Graham households were asked to provide an assessment of their uses and harvest of wild resources as in the first study year. [Compared to the previous year and to the year before the *Exxon Valdez* oil spill (Table I-95)]. While the almost half (45.8 percent) reported harvests as being the same as the previous year, slightly less than half (48.8 percent) of the sampled households reported harvests lower than before the oil spill (Fig. VIII-15). This estimate was 1.2 percent

lower than the percentage of households reporting lower harvests in 1991/92. In 1992/93, there was an increase in those households reporting their harvests as the same levels, and a decrease in those reporting higher harvests. Most often (83.3 percent), households noted decreased resource abundance as the reason for lower harvests (Table I-98). Secondly, they reported food conditions or safety concerns (33.3 percent) as the reason for lower harvests.

For individual resource groups (Fig. VIII-11), all the major groups (salmon, other fish, and marine invertebrates) had more households in 1993/94 than 1991/92 reporting lower harvests. However, for all resource groups, fewer households in 1993/94 than 1989/90 reported lower harvests. Reasons for lower harvests in 1993/94 varied among groups. For salmon (Table I-66) most households (82.4 percent) reported lower resource abundance as the reason for lower harvests. Other fish harvests were reported lower for reasons of abundance by 83.3 percent of those households sampled (Table I-70). Marine mammals also (Table I-82) were reported lower by 91.2 percent of those responding because of lower abundance. All other groups, except land mammals (Table I-74), were reported lower for reasons of abundance. Harvests of large land mammals were reported lower by equal proportions of those who responded for reasons of residents' lack of effort, lower interest, lower resource abundance, or time to pursue the activity.

DISCUSSION

Patterns of Wild Resource Uses

Wild resource harvest levels have been estimated using comprehensive interview surveys in Port Graham during six study years (Fig. VIII-9). Overall harvests (Fig. VIII-8) fluctuated by as much as 129.4 percent between the year of the oil spill and 1991/92 when harvests reached their highest per capita levels. During and immediately following the oil spill per capita resource harvests dropped nearly half. By 1991/92 per capita harvests surpassed the single pre-spill measurement by nearly one-fourth (23.4 percent). Interestingly, Port Graham residents achieved slightly higher per capita harvests in 1991/92 than their neighbors in Nanwalek and nearly equaled their harvests in 1992/93 (Table XXIII-4). In part, greater confidence in the safety of wild foods by Port Graham residents might account for the comparable harvest estimates. In 1991/92, greater numbers of households in Nanwalek assessed their harvests as lower than before the oil spill than did in Port Graham for reasons of lower resource abundance and food safety concern. In the sixth year of study results, 1993/94, Port Graham's per capita harvests decreased by 23.9 percent. Most likely, this decrease was due to the deaths of three key resource harvesters, and several other community members. Lowered resource abundance was also reported as a factor in the decline.

Additional comparisons of per capita data for each resource category revealed the following. In 1992/93, salmon harvests were within 11 pounds of the 1987 and 1990 levels, 67.2 pounds above the 1989 level, and 25.8 pounds below the 1991/92 levels. Except for 1989, when oil spill cleanup activities

and fear of contamination prevented many harvest activities (Fall 1992), the 1992/93 levels may have been strongly influenced by salmon run strength in the Port Graham and English Bay rivers. In 1991/92, for example, there were strong local runs of pink and coho salmon and harvest levels of those species were very high. In 1987 and 1990, salmon run strengths were poor to moderate. Likewise, salmon harvest levels were relatively low, and comparable between those years. In 1991/92, pink salmon runs were poor in the Port Graham River, and coho salmon runs were only of moderate strength.

Harvests of non-salmon fish in 1992/93 increased slightly for the third year following the oil spill. Accounting for the bulk of the harvest were halibut and Dolly Varden. In recent years, Dollies have become increasingly popular with Port Graham residents as an early season source of fresh fish and bait. Several extended periods of good weather during the spring of 1992 may have been the main factor which influenced the increased halibut harvest taken predominantly with rod and reel.

Land mammal harvests have remained low and are an indication of the low numbers of accessible big game animals in the area. Bird harvests, especially ducks, have remained low since the spill and may be an indication not only of low numbers, but decreased levels of hunter effort in response to lower numbers of birds.

Marine mammal harvests during 1990/91 and 1991/92 increased rapidly relative to 1989 and 1990 levels in spite of reports of decreasing numbers of animals in local populations. The exact reason for the increased harvest is not certain, but a heightened awareness and pursuit of Alutiiq cultural values among several households greatly increased those households' harvests.

Plant harvests increased by two-thirds the previous year's amount, but determining the exact reasons for the increase is difficult. Plants and greens and seaweed and kelp increased by large proportions while berries increased only slightly. This is mostly likely an indication of good spring weather for seaweed to grow and easy access to picking on prime seaweed rocks.

Like its neighbor Nanwalek, Port Graham also shows marked consistency over the six-year period with regard to the composition of wild resource harvests (Fig. VIII-9), even in the wake of the *Exxon Valdez* oil spill. For the same reasons as in Nanwalek, that is, established harvest practices, cultural preferences, accessibility, affinity for traditional use areas, and relative abundance of local resources, Port Graham's consistency persists. Fortunately, the degree of oiling in the vicinity of Port Graham did not have as dramatic an impact on resource harvests as, for example, in Chenega Bay. Additional factors influencing resource harvest activities include both perceived and real impacts of the spill. In the following section some of these impacts will be discussed relative to their potential to influence resource uses.

Comparisons with other Communities

The unique location of Port Graham at the tip of the Kenai Peninsula with immediate and easy access to abundant marine resources makes it directly comparable with few other Southcentral communities other than Nanwalek and Seldovia owing to the similarity of their locations. As mentioned

above, the composition of harvests in Port Graham and Nanwalek are basically the same (Chapter IX). A slightly higher proportion of nonsalmon fish in Port Graham's harvests is due to the availability of boat docking and landing facilities making fishing areas accessible at almost any time. This is not the situation in Nanwalek, where boat launching opportunities are considerably restricted. On the other hand, in Nanwalek, salmon is typically a larger proportion of the harvest than other fish because of the ready access to a salmon stream.

Seldovia, by comparison to Port Graham, is more similarly situated to the ocean by virtue of access through a boat harbor. Its local runs of salmon are relatively small. Also, the proportion of non-salmon fish in the harvest is like that of Port Graham. In contrast, marine invertebrates compose over twice the proportion of the harvest in Seldovia than they do in both Port Graham and Nanwalek. In this case, Seldovia has much greater access to clam and cockle beds than do Port Graham and Nanwalek.

In other comparisons, Port Graham's household average for resources used is equal to Nanwalek, whereas the number of resources harvested is slightly lower. It is notable that while these two communities receive the same average number of resources per household, on average Port Graham gives away a few less (Fig. XXIII-25; Fig. XXIII-26).

For sake of analysis in this study, it is noteworthy that Kenai which is located on the upper Kenai Peninsula and does not have ready access to the abundance of marine resources in the lower inlet, contrasts sharply in resource harvest practices with those of Port Graham. Kenai residents on average harvest and use only about one-third as many resources as Port Graham, and half as many as Seldovia (Table XXIII-4; Fig. XXIII-22; Fig. XXIII-24). Its per capita pounds harvested are just less than one-third those of Port Graham. However, apparently because of the abundance of moose, caribou, and wetlands on the upper peninsula, Kenai had over twice the harvest of land mammals of Port Graham and waterfowl harvests which were only slightly less per capita. Similarly, other Kenai Peninsula communities harvest considerably less pounds and use fewer resources than Port Graham (see Chapter VII; Chapter VI).

The Exxon Valdez Oil Spill and Port Graham

This final section discusses selected findings about wild resource use relative to immediate conditions and the possible long-term effects of the *Exxon Valdez* oil spill and future outer continental shelf development for Nanwalek. The questions chosen for discussion are divided into three topical areas: respondents' perception of food safety; respondents' assessments of their participation in subsistence and community activities; and respondents' predictions of the future conditions of the natural and human environments. While the former two topical areas are indicators of social effects of the *Exxon Valdez* oil spill in the past and present, the latter focuses on responses about future outer continental shelf (OCS) development.

Chapter I discussed findings about the safety of eating wild resources which may have been contaminated by oil. Clearly, issues of food safety were of primary concern in many communities (Fall

1991, 1993) and were no less so in Port Graham where wild foods are a common part of the daily diet (Table VIII-43). Regarding respondents' perception of food safety, when asked whether they thought they were adequately informed about the safety of eating wild foods after the oil spill (Table VIII-51; Fig. I-9), half thought they were in first study year, but in the following two study years positive responses fell to 31.9 percent and 39.6 percent, respectively. In both Port Graham and Nanwalek, the Oil Spill Health Task Force (Walker and Field 1991) made concerted efforts to address concerns about food safety by providing bulletins with findings of foods testing projects.

To further understand community concerns about wild food safety, questions were asked about resources which were key elements of subsistence harvests. For example, respondents were asked whether clams were safe for children to eat (Table VIII-44; Fig. I-4), less than half (43.2 percent) thought they were in 1991/92, and confidence jumped to 69.6 percent and 61.0 percent over the following two years. Port Graham households responded to the same question about seals; the majority felt throughout the three study years that seals were safe to eat (Fig. I-5). Responses to questions of clam and seal edibility demonstrated a slightly diminishing concern about safety. Also of interest is the contrast between Port Graham and Seldovia respondents' feelings about resource edibility. Whereas Port Graham residents experienced light oiling on their beaches and one-fourth to one-third expressed concern about edibility, Seldovia had no oil wash ashore on its beaches and none to a very small percentage expressed concern.

Another measure of the impact of oil pollution on wild foods was respondents' perceptions of relative abundance of resource between time periods (Table VIII-45). For most water-based resources except halibut, respondents thought there were currently fewer of some species than before the spill.

The second category of questions measured current involvement in resource use activities and satisfaction with the community. Although there appears to be increased dissatisfaction with living in Port Graham over the three years of this study, over 80.0 percent of respondents liked living there either more or the same since the spill (Table VIII-49; Fig. I-8). Interestingly, feelings fluctuated over the three year period, while 15.6 percent said they liked it less in 1991/92, attitudes improved in 1992/93, but went back to liking it less in 1993/94. This seems to be a pattern in several other study communities such as Cordova, Seldovia, Kodiak, and Kenai. Relative to some other communities in the spill area, such as Cordova and Chenega Bay, Port Graham residents generally liked living where they did, and it would take something other than an oil spill to cause residents to move away. For instance, in 1991/92, 84.8 percent said they would live in the area when they were old, and 69.6 percent said they would rather not live in another community. Residents' participation in political activities may be another measure of their liking for the community (Table VIII-48). The majority of people (59.1 percent) did not change their views of community leaders as a result of the spill, while the views of almost one-third (29.5 percent) of the respondents did change. The vast majority of residents, over 70.0 percent, continue to be active in local and statewide elections.

It was very clear that opinions about participation in subsistence activities by children were somewhat unsure as reflected by the changing percentages of Port Graham households' responses during all three study years (Table VIII-46; Fig. I-6). This feeling was somewhat different than in Nanwalek where a high percentage (87.5 percent) of adults worked on cleanup jobs in 1989 (Stanek forthcoming).

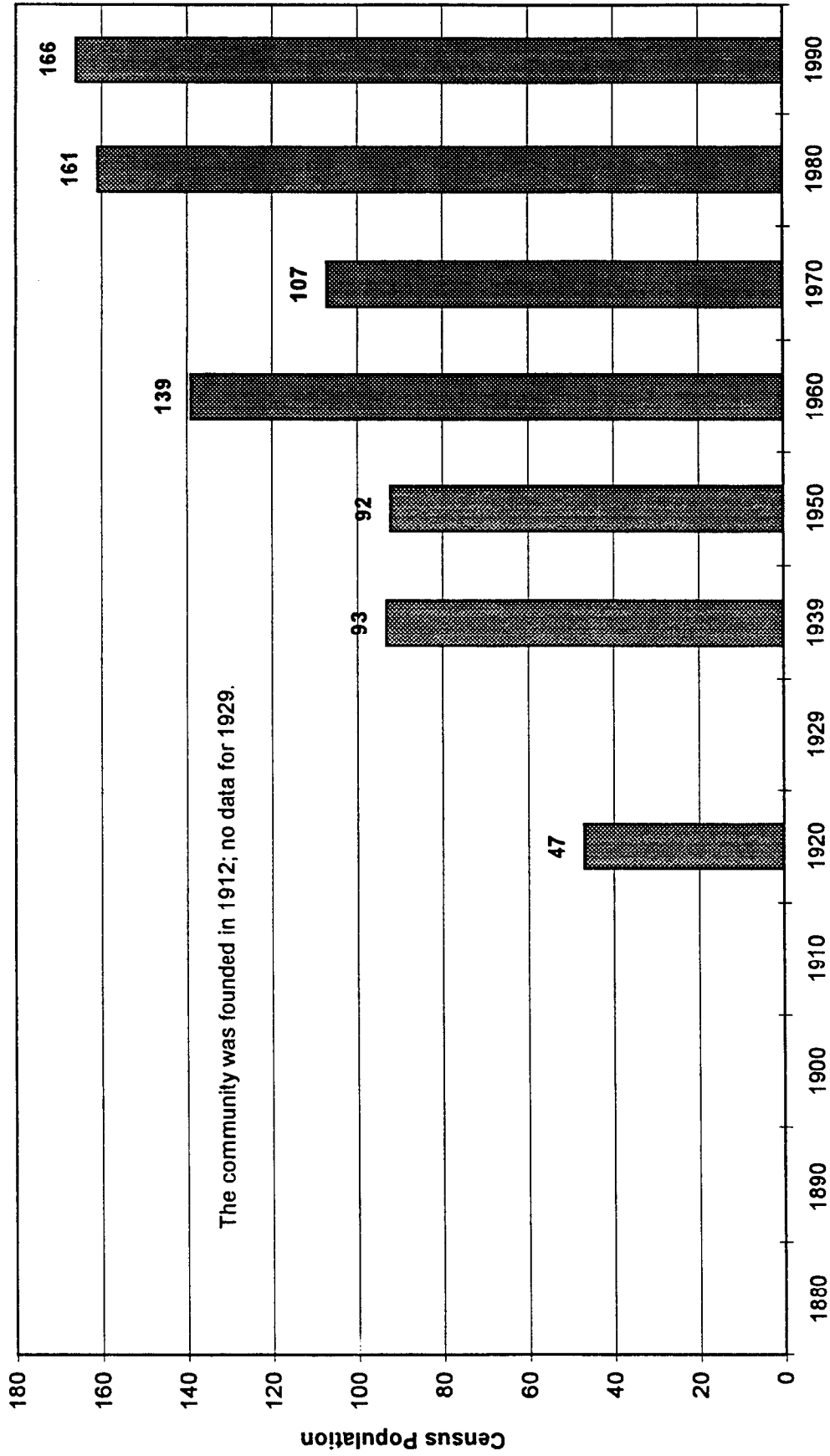
In another question measuring the likely effects of the spill, respondents were asked to compare current levels of sharing with levels before the spill (Table VIII-47). Two years following the spill found one-third (32.6 percent) of households reporting less sharing than before the spill (Fig. I-7) while almost 70.0 percent reported the same or more sharing. In the third year, almost twenty percent fewer households reported less sharing than before the spill. By the third year, an inexplicable decline of 111.8 percent of the households (28.6 percent) reported less sharing. Interestingly, a similar but less pronounced pattern of response occurred in Ouzinkie, Kodiak, and Kenai, while a more pronounced pattern occurred in Nanwalek.

The last series of questions examined here deal with the perspective respondents had relative to impacts oil development might have on populations of wildlife and the human condition. Predictably, Nanwalek respondents echoed their concerns expressed during earlier inquiries about offshore oil and gas development in the 1980s (Braund and Behnke 1980:228). As to how OCS development would affect wild resources, the majority of responses predicted lower populations (Table IX-52) of fish (Fig. I-10), marine invertebrates (Fig. I-11), marine mammals (Fig. I-13), and birds, especially waterfowl and marine birds (Fig. I-14). Understandably, Port Graham respondents were somewhat less inclined to predict lowered land mammal populations, however, their responses were tempered with the knowledge that animals such as black bears and mountain goats utilize shorelines and intertidal areas in search of food during certain times of the year. Not surprisingly, Nanwalek residents mirrored Port Graham's responses about impacts to wildlife.

Port Graham respondents' skepticism about impacts of OCS development carried over to their predictions about impacts on job availability. Just over half (Fig. I-15) predicted more jobs would result from OCS development in the region. This is somewhat more optimistic than views in Nanwalek. Attitudes about job availability fluctuated throughout the three-year study.

In addition to the few variables mentioned above, there were many other elements of the social and economic environments covered by this study. Only time and money have precluded a more extensive examination into the nature of those other factors' influence upon resource use in Port Graham. In addition, many other unstudied variables such as health, language, and education have still to be factored into the resource use equation.

Figure VIII-1. Port Graham Census Population, 1880 - 1990



Sources: Rollins 1978; Alaska Department of Labor 1991

Table VIII-1. Sample Participation: Port Graham 1992, 1993, and 1994

VARIABLE	1992 TOTAL HOUSEHOLDS	1993 TOTAL HOUSEHOLDS	1994 TOTAL HOUSEHOLDS
Estimated Household Structures	67	69	69
Non-Residential Structures	0	0	0
Estimated Households	67	69	69
Interview Goal:	55	61	61
Households Interviewed	49	48	51
Failed to Contact/Unavailable	7	5	2
Refused	2	5	8
Vacant Residential Structures	9	8	8
Seasonal Households**	0	0	0
Non-Resident Household ***	0	3	0
Invalid Households and Vacancies	9	11	8
Total Households Attempted:	67	69	69
Refusal Rate:	3.92%	9.4%	13.6%
Non-Perm. HH Rate ("Vacancy Rate"):	13.4%	15.9%	11.6%
Interview Goal (Percentage)	89.1%	78.7%	83.61%
Social Effects Surveys Completed	46	47	47
Total Permanent Households	58	5800.00%	6100.00%
Percentage Interviewed	84.48%	82.76%	0.836
Percentage of Total Households	100.00%	1.000	1.000
Interview Weighting Factor	1.184	1.21	1.196078431

NOTES:

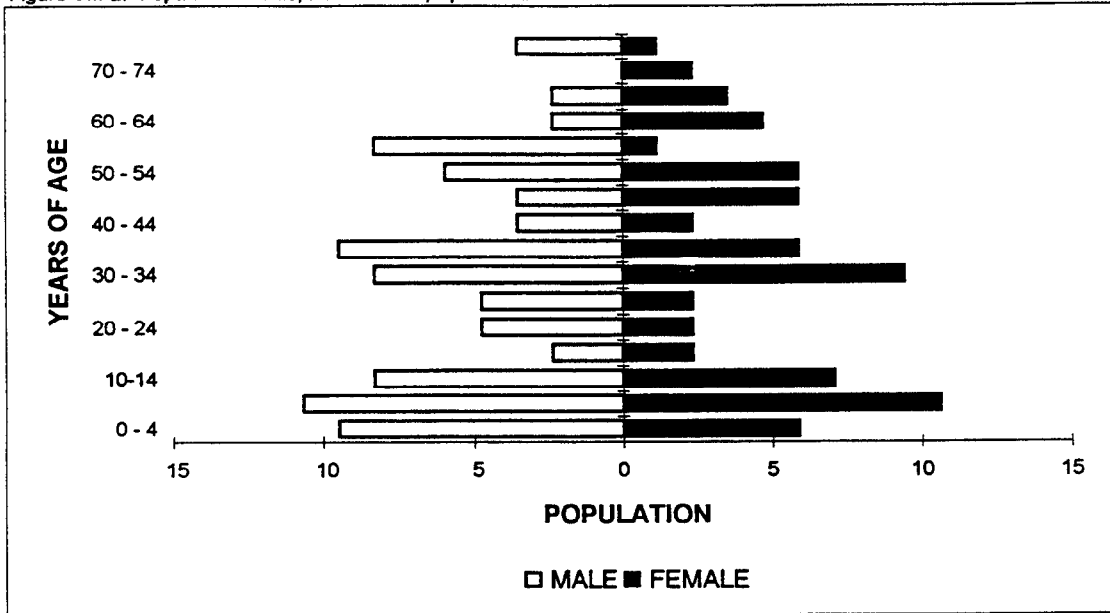
- * Seasonal households are households which maintain a permanent domicile elsewhere where they spend the majority of their time.
- ** Non-resident households are households which were not present during the study year or which were resident less than the required number of months.

Table VIII-2 . Demographic Characteristics of Households, Port Graham,
April 1992, April 1993, and April 1994

Characteristics	1991/92	1992/93	1993/94
Sampled Households	49	48	51
Number of Households in the Community	58	58	61
Percentage of Households Sampled	84.48	82.76	83.61
Household Size			
Mean	2.78	2.88	2.86
Minimum	1	1	1
Maximum	7	7	7
Sample Population	136	138	146
Estimated Community Population	160.98	166.75	174.63
Age			
Mean	32.53	32.26	32.65
Minimum	0.31	0.35	1.57
Maximum	79.95	78.21	79.21
Median	33.00	33.25	32.47
Length of Residency - Population			
Mean	23.35	23.64	21.17
Minimum	0.125	0.35	0.13
Maximum	78.72	78.21	79.21
Length of Residency - Household Heads			
Mean	32.43	32.54	30.49
Minimum	0.625	0.625	0.63
Maximum	78.72	78.21	79.21
Sex			
Males			
Number	87.59	91.83	95.69
Percentage	54.41	55.07	54.79
Females			
Number	73.39	74.92	78.94
Percentage	45.59	44.93	45.21
Alaska Native			
Households (Either Head)			
Number	54.45	58.00	58.61
Percentage	93.88	100.00	96.08
Estimated Population			
Number	134.94	154.67	156.69
Percentage	83.82	92.75	89.73

SOURCE: Alaska Department of Fish and Game, Division of Subsistence,
Household Survey, 1992, 1993, and 1994.

Figure VIII-2. Population Profile, Port Graham, April 1992



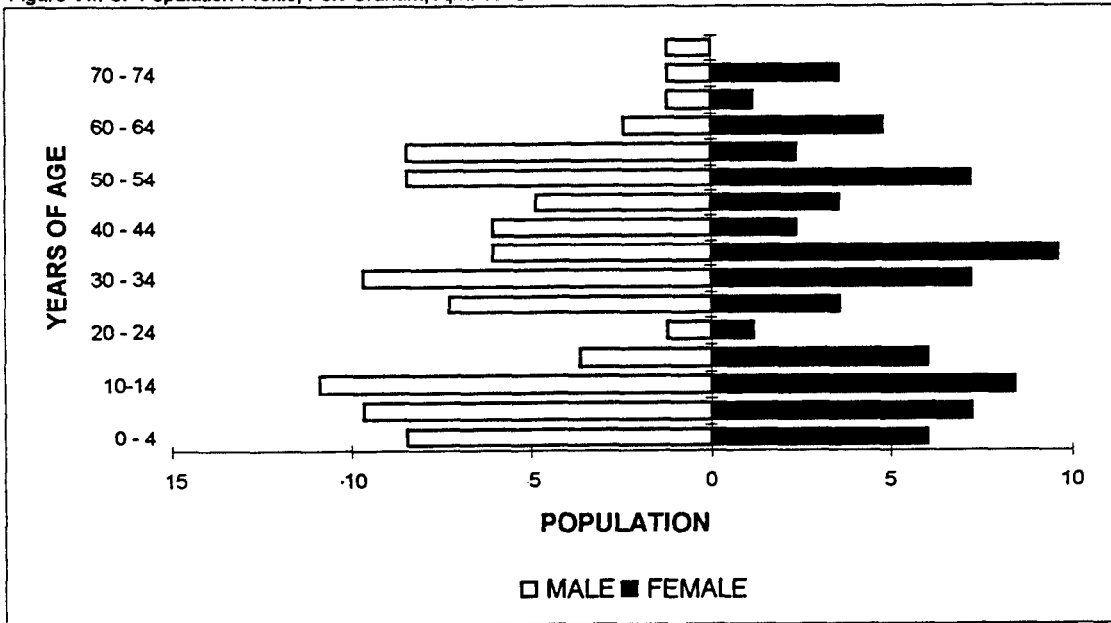
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VIII-3. Population Profile, Port Graham, April 1992

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	9.47	10.81%	10.81%	5.92	8.06%	8.06%	15.39	9.56%	9.56%
5 - 9	10.65	12.16%	22.97%	10.65	14.52%	22.58%	21.31	13.24%	22.79%
10 - 14	8.29	9.46%	32.43%	7.10	9.68%	32.26%	15.39	9.56%	32.35%
15 - 19	2.37	2.70%	35.14%	2.37	3.23%	35.48%	4.73	2.94%	35.29%
20 - 24	4.73	5.41%	40.54%	2.37	3.23%	38.71%	7.10	4.41%	39.71%
25 - 29	4.73	5.41%	45.95%	2.37	3.23%	41.94%	7.10	4.41%	44.12%
30 - 34	8.29	9.46%	55.41%	9.47	12.90%	54.84%	17.76	11.03%	55.15%
35 - 39	9.47	10.81%	66.22%	5.92	8.06%	62.90%	15.39	9.56%	64.71%
40 - 44	3.55	4.05%	70.27%	2.37	3.23%	66.13%	5.92	3.68%	68.38%
45 - 49	3.55	4.05%	74.32%	5.92	8.06%	74.19%	9.47	5.88%	74.26%
50 - 54	5.92	6.76%	81.08%	5.92	8.06%	82.26%	11.84	7.35%	81.62%
55 - 59	8.29	9.46%	90.54%	1.18	1.61%	83.87%	9.47	5.88%	87.50%
60 - 64	2.37	2.70%	93.24%	4.73	6.45%	90.32%	7.10	4.41%	91.91%
65 - 69	2.37	2.70%	95.95%	3.55	4.84%	95.16%	5.92	3.68%	95.59%
70 - 74	0.00	0.00%	95.95%	2.37	3.23%	98.39%	2.37	1.47%	97.06%
75 - 79	3.55	4.05%	100.00%	1.18	1.61%	100.00%	4.73	2.94%	100.00%
80 - 84	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
85 - 89	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
90 - 94	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
95 - 99	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
100 - 104	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
Missing	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
TOTAL	87.59	54.41%		73.39	45.59%		160.98	100.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure VIII-3. Population Profile, Port Graham, April 1993



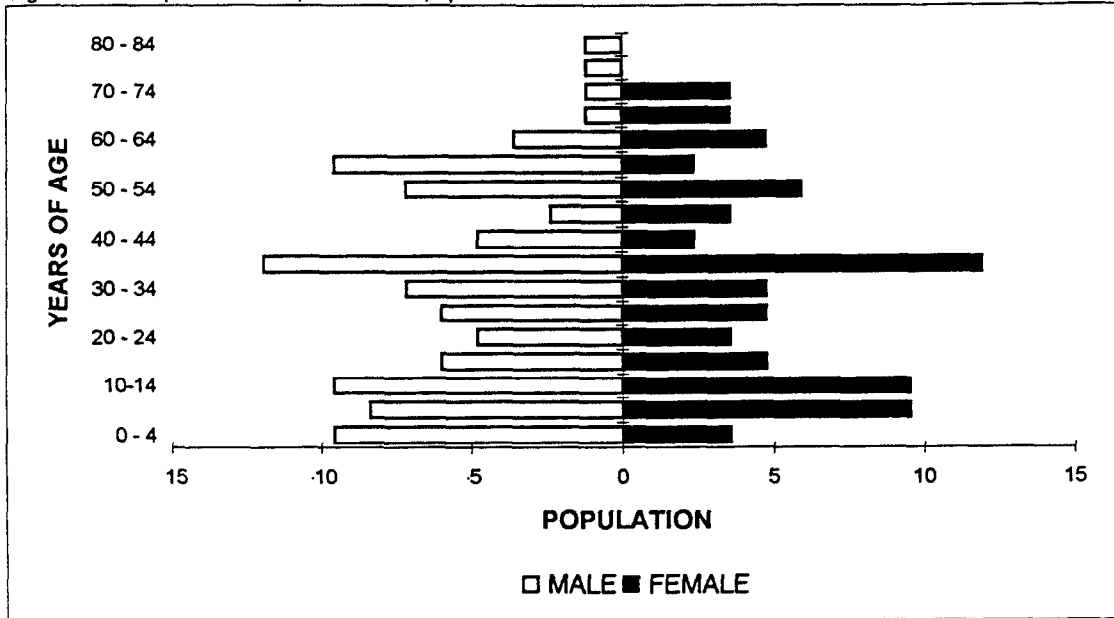
SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VIII-4. Population Profile, Port Graham, April 1993

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	8.46	9.21%	9.21%	6.04	8.06%	8.06%	14.50	8.70%	8.70%
5 - 9	9.67	10.53%	19.74%	7.25	9.68%	17.74%	16.92	10.14%	18.84%
10 - 14	10.88	11.84%	31.58%	8.46	11.29%	29.03%	19.33	11.59%	30.43%
15 - 19	3.63	3.95%	35.53%	6.04	8.06%	37.10%	9.67	5.80%	36.23%
20 - 24	1.21	1.32%	36.84%	1.21	1.61%	38.71%	2.42	1.45%	37.68%
25 - 29	7.25	7.89%	44.74%	3.63	4.84%	43.55%	10.88	6.52%	44.20%
30 - 34	9.67	10.53%	55.26%	7.25	9.68%	53.23%	16.92	10.14%	54.35%
35 - 39	6.04	6.58%	61.84%	9.67	12.90%	66.13%	15.71	9.42%	63.77%
40 - 44	6.04	6.58%	68.42%	2.42	3.23%	69.35%	8.46	5.07%	68.84%
45 - 49	4.83	5.26%	73.68%	3.63	4.84%	74.19%	8.46	5.07%	73.91%
50 - 54	8.46	9.21%	82.89%	7.25	9.68%	83.87%	15.71	9.42%	83.33%
55 - 59	8.46	9.21%	92.11%	2.42	3.23%	87.10%	10.88	6.52%	89.86%
60 - 64	2.42	2.63%	94.74%	4.83	6.45%	93.55%	7.25	4.35%	94.20%
65 - 69	1.21	1.32%	96.05%	1.21	1.61%	95.16%	2.42	1.45%	95.65%
70 - 74	1.21	1.32%	97.37%	3.63	4.84%	100.00%	4.83	2.90%	98.55%
75 - 79	1.21	1.32%	98.68%	0.00	0.00%	100.00%	1.21	0.72%	99.28%
80 - 84	0.00	0.00%	98.68%	0.00	0.00%	100.00%	0.00	0.00%	99.28%
85 - 89	0.00	0.00%	98.68%	0.00	0.00%	100.00%	0.00	0.00%	99.28%
90 - 94	0.00	0.00%	98.68%	0.00	0.00%	100.00%	0.00	0.00%	99.28%
95 - 99	0.00	0.00%	98.68%	0.00	0.00%	100.00%	0.00	0.00%	99.28%
100 - 104	0.00	0.00%	98.68%	0.00	0.00%	100.00%	0.00	0.00%	99.28%
Missing	1.21	1.32%	100.00%	0.00	0.00%	100.00%	1.21	0.72%	100.00%
TOTAL	91.83	55.07%		74.92	44.93%		166.75	100.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure VIII-4. Population Profile, Port Graham, April 1994



SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-5. Population Profile, Port Graham, April 1994

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	9.57	10.00%	10.00%	3.59	4.55%	4.55%	13.16	7.53%	7.53%
5 - 9	8.37	8.75%	18.75%	9.57	12.12%	16.67%	17.94	10.27%	17.81%
10 - 14	9.57	10.00%	28.75%	9.57	12.12%	28.79%	19.14	10.96%	28.77%
15 - 19	5.98	6.25%	35.00%	4.78	6.06%	34.85%	10.76	6.16%	34.93%
20 - 24	4.78	5.00%	40.00%	3.59	4.55%	39.39%	8.37	4.79%	39.73%
25 - 29	5.98	6.25%	46.25%	4.78	6.06%	45.45%	10.76	6.16%	45.89%
30 - 34	7.18	7.50%	53.75%	4.78	6.06%	51.52%	11.96	6.85%	52.74%
35 - 39	11.96	12.50%	66.25%	11.96	15.15%	66.67%	23.92	13.70%	66.44%
40 - 44	4.78	5.00%	71.25%	2.39	3.03%	69.70%	7.18	4.11%	70.55%
45 - 49	2.39	2.50%	73.75%	3.59	4.55%	74.24%	5.98	3.42%	73.97%
50 - 54	7.18	7.50%	81.25%	5.98	7.58%	81.82%	13.16	7.53%	81.51%
55 - 59	9.57	10.00%	91.25%	2.39	3.03%	84.85%	11.96	6.85%	88.36%
60 - 64	3.59	3.75%	95.00%	4.78	6.06%	90.91%	8.37	4.79%	93.15%
65 - 69	1.20	1.25%	96.25%	3.59	4.55%	95.45%	4.78	2.74%	95.89%
70 - 74	1.20	1.25%	97.50%	3.59	4.55%	100.00%	4.78	2.74%	98.63%
75 - 79	1.20	1.25%	98.75%	0.00	0.00%	100.00%	1.20	0.68%	99.32%
80 - 84	1.20	1.25%	100.00%	0.00	0.00%	100.00%	1.20	0.68%	100.00%
85 - 89	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
90 - 94	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
95 - 99	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
100 - 104	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
Missing	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
TOTAL	95.69	54.79%		78.94	45.21%		174.63	100.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-6. Employment Characteristics, Port Graham, 1991/92, 1992/93, and 1993/94

Characteristics	1991/92	1992/93	1993/94
ADULTS			
Total	106.53	111.17	123.20
Employed			
Number	76.94	84.58	83.73
Percentage	72.22	76.09	67.96
Jobs			
Number	119.55	135.33	123.20
Mean	1.55	1.60	1.47
Minimum	1	1	1
Maximum	4	4	4
Months Employed			
Mean	8.08	8.14	7.97
Minimum	1	1	1
Maximum	12	12	12
Year-Round	38.46	32.86	37.14
HOUSEHOLDS			
Total	58.00	58.00	61.00
Employed			
Number	49.71	50.75	50.24
Percentage	85.71	87.50	82.35
Jobs per Employed Household			
Mean	2.40	2.67	2.45
Minimum	1	1	1
Maximum	6	8	10
Employed Adults			
Mean	1.55	1.67	1.67
Minimum	1	1	1
Maximum	3	3	4

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994.

Table VIII-7. Community, Household, and Per Capita Income, All Sources and by Employer Type, Port Graham, 1991/92

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$1,409,802.37	\$24,306.94	\$8,757.65
Earned Income	\$925,989.13	\$15,965.33	\$5,752.21
Agriculture, Forestry, and Fishing	316,204.71	5,451.81	1,964.25
Agriculture	0.00	0.00	0.00
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	316,204.71	5,451.81	1,964.25
Hatchery/Enhancement	47,938.78	826.53	297.79
Commercial Fishing	268,265.93	4,625.27	1,666.46
Hunting/Trapping	0.00	0.00	0.00
Mining	0.00	0.00	0.00
Construction	0.00	0.00	0.00
Manufacturing	67,418.66	1,162.39	418.80
Cannery	21,306.12	367.35	132.35
Other Manufacturing	0.00	0.00	0.00
Logging/Timber	46,112.54	795.04	286.45
Transportation, Communications, and Utilities	20,714.29	357.14	128.68
Trade	74,429.39	1,283.27	462.35
Wholesale	0.00	0.00	0.00
Retail	74,429.39	1,283.27	462.35
Finance, Insurance, and Real Estate	66,048.98	1,138.78	410.29
Services	148,403.72	2,558.68	921.88
Government	232,769.39	4,013.27	1,445.96
Federal	25,093.88	432.65	155.88
State	9,469.39	163.27	58.82
Local	198,206.12	3,417.35	1,231.25
Local Government	78,655.10	1,356.12	488.60
Local Education	119,551.02	2,061.22	742.65
Unknown	AMT UNK	AMT UNK	AMT UNK
Other Income	\$483,813.24	\$8,341.61	\$3,005.43

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VIII-8. Community, Household, and Per Capita Other Income by Source, Port Graham, 1991/92

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$483,813.24	\$8,341.61	\$3,005.43
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	4.08	AMT UNK	AMT UNK	AMT UNK
Adult Public Assistance	16.33	27,891.13	480.88	173.26
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	4.08	12,854.69	221.63	79.85
Longevity Bonus	12.24	31,959.18	551.02	198.53
Social Security	22.45	78,234.05	1,348.86	485.99
Workman's Comp./Insurance	4.08	AMT UNK	AMT UNK	AMT UNK
Energy Assistance	32.65	8,080.54	139.32	50.20
Supplemental Security Income	8.16	14,942.69	257.63	92.82
Food Stamps	20.41	11,972.86	206.43	74.38
Unemployment	38.78	43,454.78	749.22	269.94
Native Corporation Dividend	48.98	92,301.46	1,591.40	573.37
Dividend/Interest	10.20	AMT UNK	AMT UNK	AMT UNK
Child Support	0.00	0.00	0.00	0.00
Rental Income	0.00	0.00	0.00	0.00
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	97.96	139,954.00	2,413.00	869.39
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	0.00	0.00	0.00	0.00
Housing Allowances/Off-Base Allowances	0.00	0.00	0.00	0.00
Women, Infants, and Children Program	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Other	6.12	22,167.84	382.20	137.71

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure VI:-5. Employment by Industry, Port Graham 1991/92

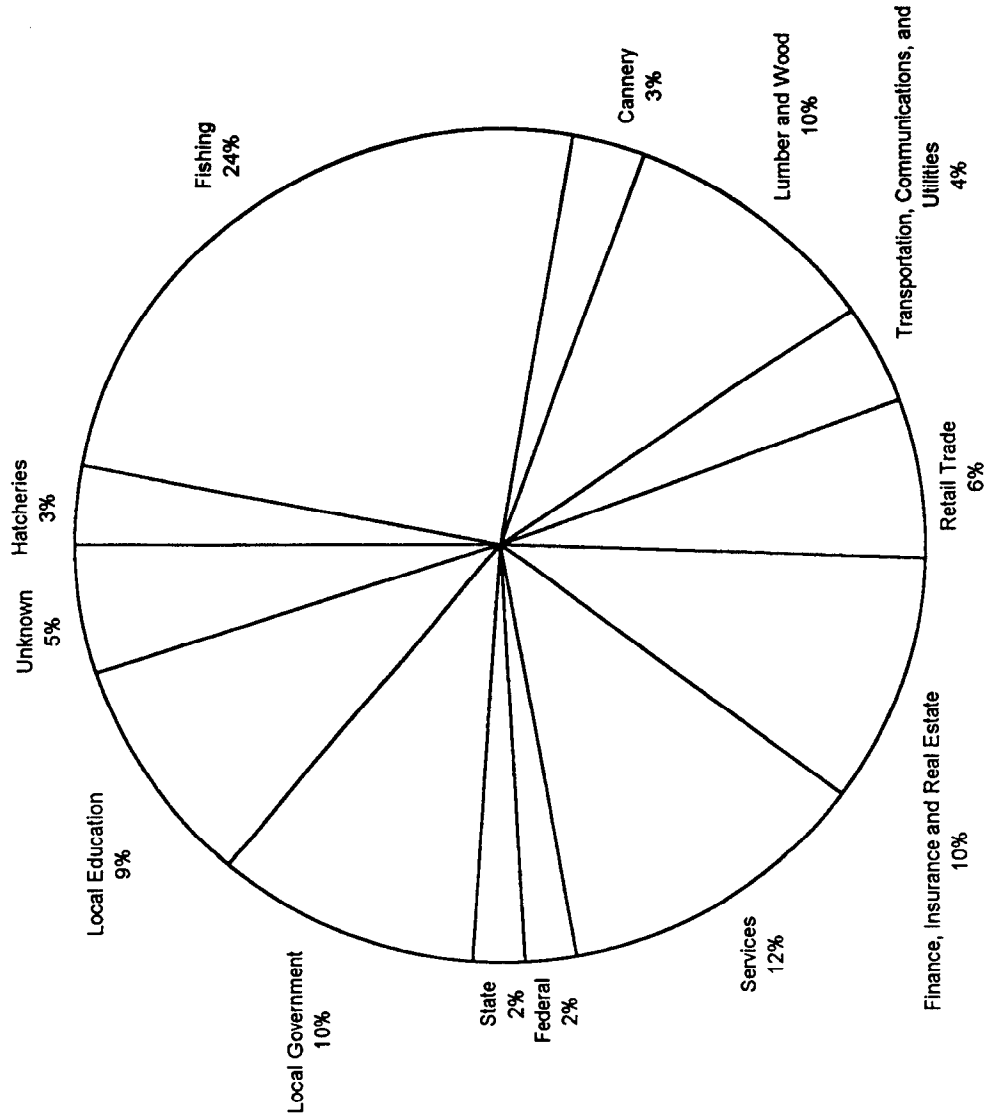


Table VIII-9. Subsistence Equipment Expenses and Use, Port Graham 1991/92

<p>This information was not collected in Port Graham.</p>

Table VIII-10. Community, Household, and Per Capita Income, All Sources and by Employer Type, Port Graham, 1992/93

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$1,467,011.07	\$25,293.29	\$8,797.67
Earned Income	\$1,018,107.59	\$17,553.58	\$6,105.59
Agriculture, Forestry, and Fishing	375,167.36	6,468.40	2,249.88
Agriculture	0.00	0.00	0.00
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	375,167.36	6,468.40	2,249.88
Hatchery/Enhancement	116,000.00	2,000.00	695.65
Commercial Fishing	259,167.36	4,468.40	1,554.23
Hunting/Trapping	0.00	0.00	0.00
Mining	0.00	0.00	0.00
Construction	0.00	0.00	0.00
Manufacturing	47,487.50	818.75	284.78
Cannery	11,600.00	200.00	69.57
Other Manufacturing	0.00	0.00	0.00
Logging/Timber	35,887.50	618.75	215.22
Transportation, Communications, and Utilities	26,462.50	456.25	158.70
Trade	42,412.50	731.25	254.35
Wholesale	0.00	0.00	0.00
Retail	42,412.50	731.25	254.35
Finance, Insurance, and Real Estate	120,229.17	2,072.92	721.01
Services	189,392.31	3,265.38	1,135.79
Government	216,956.25	3,740.63	1,301.09
Federal	19,937.50	343.75	119.57
State	10,875.00	187.50	65.22
Local	186,143.75	3,209.38	1,116.30
Local Government	99,325.00	1,712.50	595.65
Local Education	86,818.75	1,496.88	520.65
Unknown	0.00	0.00	0.00
Other Income	\$448,903.49	\$7,739.72	\$2,692.07

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VIII-11. Community, Household, and Per Capita Other Income by Source, Port Graham, 1992/93

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$448,903.49	\$7,739.72	\$2,692.07
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	2.08	1,203.50	20.75	7.22
Adult Public Assistance	10.42	15,950.00	275.00	95.65
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	4.17	17,716.58	305.46	106.25
Longevity Bonus	12.50	15,104.17	260.42	90.58
Social Security	18.75	47,218.04	814.10	283.17
Workman's Comp./Insurance	2.08	386.67	6.67	2.32
Energy Assistance	25.00	6,725.58	115.96	40.33
Supplemental Security Income	8.33	19,281.78	332.44	115.63
Food Stamps	12.50	5,108.83	88.08	30.64
Unemployment	14.58	14,587.00	251.50	87.48
Native Corporation Dividend	81.25	166,199.00	2,865.50	996.70
Dividend/Interest	0.00	0.00	0.00	0.00
Child Support	0.00	0.00	0.00	0.00
Rental Income	0.00	0.00	0.00	0.00
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	95.83	137,247.33	2,366.33	823.07
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	6.25	2,175.00	37.50	13.04
Housing Allowances/Off-Base Allowances	0.00	0.00	0.00	0.00
Women, Infants, and Children Program	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure VIII-6. Employment by Industry, Port Graham, 1992/93

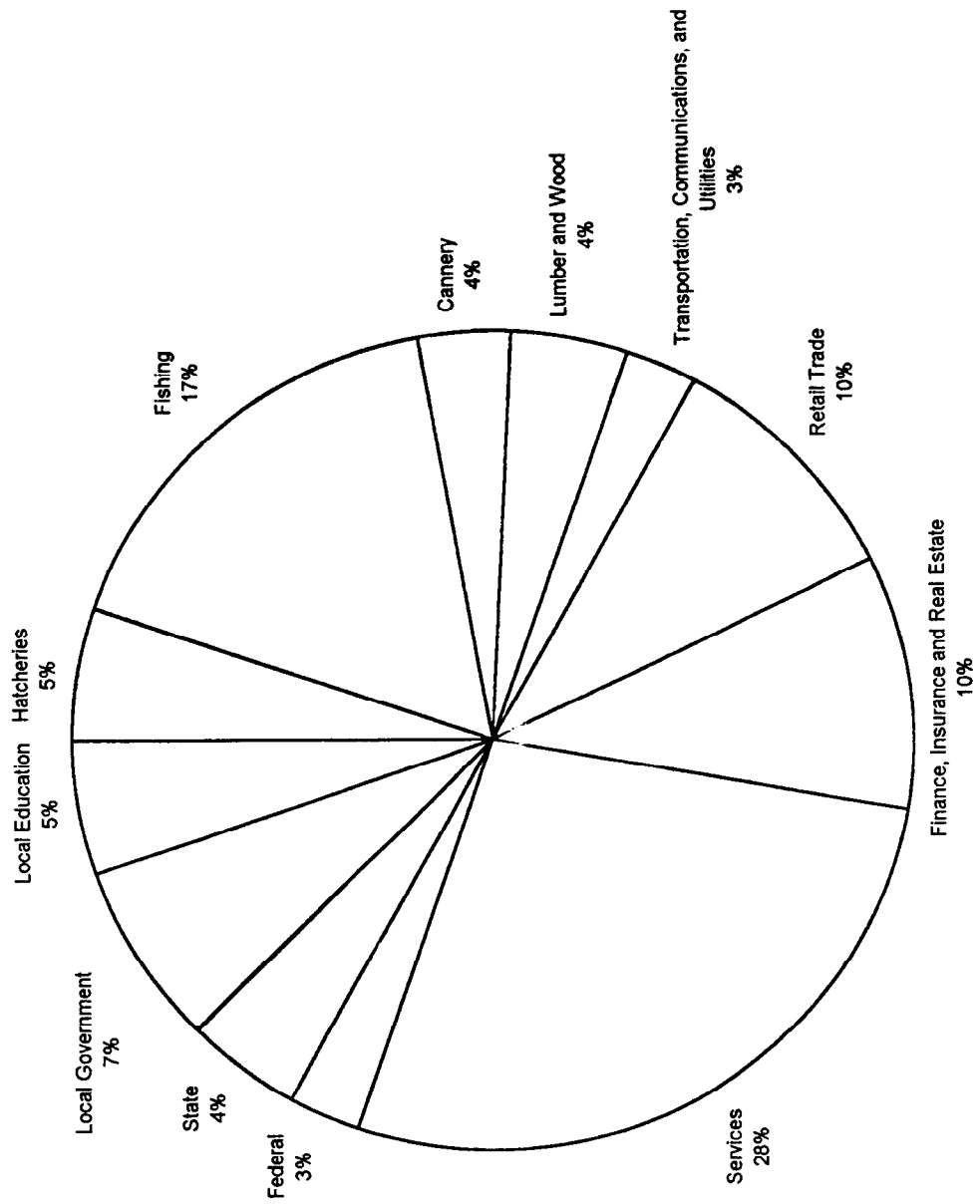


Table VIII-12. Community, Household, and Per Capita Income, All Sources and by Employer Type, Port Graham, 1993/94

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$1,713,144.29	\$28,084.33	\$9,810.28
Earned Income	\$1,048,896.14	\$17,195.02	\$6,006.48
Agriculture, Forestry, and Fishing	264,549.77	4,336.88	1,514.94
Agriculture	0.00	0.00	0.00
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	264,549.77	4,336.88	1,514.94
Hatchery/Enhancement	100,789.54	1,652.29	577.17
Commercial Fishing	163,760.22	2,684.59	937.77
Hunting/Trapping	0.00	0.00	0.00
Mining	0.00	0.00	0.00
Construction	0.00	0.00	0.00
Manufacturing	25,340.12	415.41	145.11
Cannery	24,981.29	409.53	143.05
Other Manufacturing	358.82	5.88	2.05
Logging/Timber	0.00	0.00	0.00
Transportation, Communications, and Utilities	26,026.67	426.67	149.04
Trade	49,398.04	809.80	282.88
Wholesale	0.00	0.00	0.00
Retail	49,398.04	809.80	282.88
Finance, Insurance, and Real Estate	227,459.43	3,728.84	1,302.54
Services	97,695.69	1,601.57	559.45
Government	358,426.43	5,875.84	2,052.52
Federal	37,111.92	608.39	212.52
State	AMT UNK	AMT UNK	AMT UNK
Local	321,314.51	5,267.45	1,840.00
Local Government	37,843.92	620.39	216.71
Local Education	283,470.59	4,647.06	1,623.29
Unknown	AMT UNK	AMT UNK	AMT UNK
Other Income	\$664,248.15	\$10,889.31	\$3,803.80

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-13. Community, Household, and Per Capita Other Income by Source, Port Graham, 1993/94

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$664,248.15	\$10,889.31	\$3,803.80
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	5.88	29,423.53	482.35	168.49
Adult Public Assistance	3.92	5,595.25	91.73	32.04
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	7.84	17,068.84	279.82	97.74
Longevity Bonus	17.65	29,602.94	485.29	169.52
Social Security	21.57	51,553.85	845.15	295.22
Workman's Comp./Insurance	1.96	AMT UNK	AMT UNK	AMT UNK
Energy Assistance	7.84	1,483.14	24.31	8.49
Supplemental Security Income	9.80	27,772.94	455.29	159.04
Food Stamps	15.69	27,167.25	445.36	155.57
Unemployment	19.61	26,122.35	428.24	149.59
Native Corporation Dividend	92.16	309,017.63	5,065.86	1,769.58
Dividend/Interest	1.96	78.94	1.29	0.45
Child Support	0.00	0.00	0.00	0.00
Rental Income	0.00	0.00	0.00	0.00
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	92.16	136,539.35	2,238.35	781.89
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	0.00	0.00	0.00	0.00
General Assistance Grant	5.88	2,822.15	46.26	16.16
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Supplemental Union Benefits	0.00	0.00	0.00	0.00
Gifts	0.00	0.00	0.00	0.00
Medicare/Medicaid	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Figure VIII-7. Employment by Industry, Port Graham, 1993/94

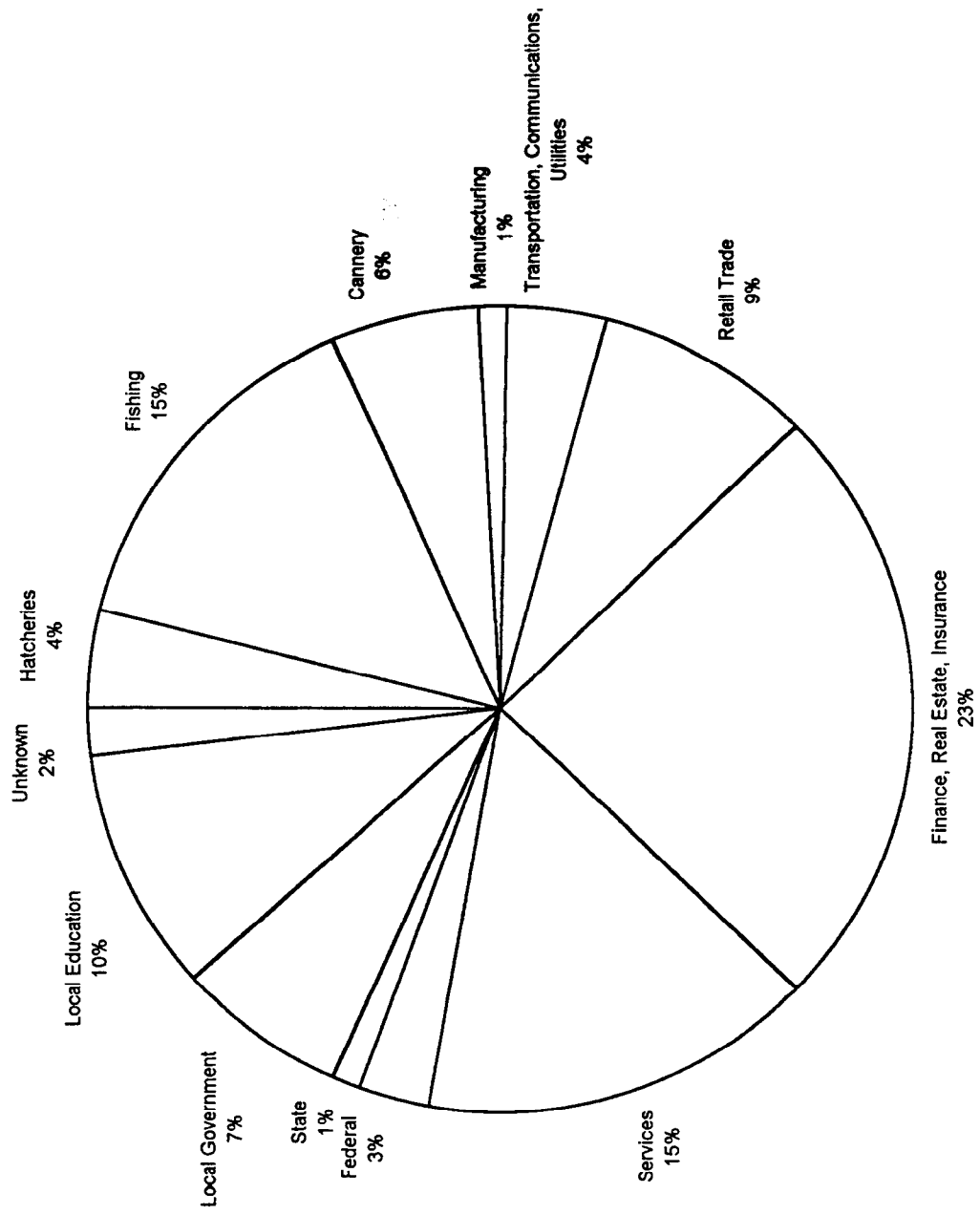


Table VIII-14. Characteristics of Resource Harvest and Use, Port Graham, 1991/92, 1992/93, and 1993/94

Study Year	1991/92	1992/93	1993/94
Mean Number Of Resources Used Per Household	21.96	22.10	19.37
Minimum	2	8	6
Maximum	43	39	36
95 % Confidence Limit (+/-)	4.63	4.10	3.94
Median	22	23	18
Mean Number Of Resources Attempted To Harvest Per Household	14.69	14.79	11.57
Minimum	0	1	0
Maximum	47	44	25
95 % Confidence Limit (+/-)	7.55	6.75	6.59
Median	12	13.5	12
Mean Number Of Resources Harvested Per Household	13.61	13.60	10.92
Minimum	0	1	0
Maximum	41	33	24
95 % Confidence Limit (+/-)	7.57	6.36	6.93
Median	11	13	10
Mean Number Of Resources Received Per Household	13.39	14.02	13.00
Minimum	0	2	1
Maximum	27	33	29
95 % Confidence Limit (+/-)	5.54	6.12	5.72
Median	14	12.5	12
Mean Number Of Resources Given Away Per Household	10.20	11.13	9.86
Minimum	0	0	0
Maximum	30	37	26
95 % Confidence Limit (+/-)	9.34	9.38	8.30
Median	9	9	9
Mean Household Harvest, Pounds	779.60	784.05	607.29
Minimum	0.00	4.00	0.00
Maximum	2,573.51	3,163.43	6,940.39
Total Pounds Harvested	45,216.98	45,475.05	37,044.49
Community Per Capita Harvest, Pounds	280.89	272.71	212.13
Percent Using Any Resource	100.00	100.00	100.00
Percent Attempting To Harvest Any Resource	95.92	100.00	98.04
Percent Harvesting Any Resource	95.92	100.00	98.04
Percent Receiving Any Resource	97.96	100.00	100.00
Percent Giving Away Any Resource	87.76	97.92	90.20
Number Of Households In Sample	49	48	51
Number of Resources Available	115	133	146

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994

Table VIII-15. Participation in the Harvest and Processing of Wild Resources, Port Graham, 1991/92, 1992/93, and 1993/94

Study Year			1991/92	1992/93	1993/94
Total Number of People			160.98	166.75	174.63
GAME	Hunt	Number	42.61	36.25	39.47
		Percentage	26.47	21.74	22.60
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	65.10	72.50	71.76
		Percentage	40.44	43.48	41.10
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
FISH	Fish	Number	117.18	137.75	148.31
		Percentage	72.79	82.61	84.93
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	123.10	142.58	151.90
		Percentage	76.47	85.51	86.99
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
FURBEARERS	Hunt or Trap	Number	2.37	4.83	0.00
		Percentage	1.47	2.90	0.00
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	4.73	6.04	0.00
		Percentage	2.94	3.62	0.00
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
PLANTS	Gather	Number	124.29	147.42	161.47
		Percentage	77.21	88.41	92.47
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	123.10	140.17	160.27
		Percentage	76.47	84.06	91.78
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
ANY RESOURCE	Attempt	Number	140.86	155.88	167.45
		Percent	87.50	93.48	95.89
	Process	Number	140.86	153.46	167.45
		Percent	87.50	92.03	95.89

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994.

Table VIII-16. Percentage of Households Sharing Resources by Community Port Graham, 1991/92

Community	Salmon		Non-Salmon Fish		Marine Invertebrates		Game		Marine Mammals		Birds and Eggs		Plants and Berries*		Any Resource	
	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave
All Communities	83.67	71.43	89.80	69.39	89.80	69.39	75.51	30.61	71.43	26.53	28.57	24.49	67.35	67.35	97.96	87.76
Anchorage	0.00	26.53	2.04	20.41	2.04	20.41	2.04	0.00	0.00	0.00	0.00	0.00	0.00	14.29	6.12	34.69
Big Delta	0.00	0.00	0.00	0.00	0.00	2.04	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	2.04
Big Lake	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
Cantwell	0.00	2.04	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	2.04
Elim	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00
Nanwalek	14.29	8.16	2.04	8.16	4.08	4.08	2.04	2.04	4.08	6.12	2.04	2.04	6.12	6.12	20.41	14.29
Fort Wainwright	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
Homer	0.00	8.16	2.04	6.12	8.16	4.08	4.08	0.00	0.00	0.00	0.00	0.00	0.00	2.04	14.29	12.24
Juneau	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00
Kenai	0.00	2.04	2.04	4.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	4.08
Ketchikan	0.00	4.08	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.08
Kodiak City	0.00	0.00	2.04	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.08	0.00
Ninilchik	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
Port Alsworth	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00
Port Graham	79.59	69.39	87.76	63.27	87.76	63.27	67.35	26.53	67.35	24.49	28.57	22.45	61.22	59.18	97.96	85.71
Seldovia	2.04	6.12	2.04	4.08	12.24	2.04	0.00	0.00	4.08	0.00	0.00	2.04	2.04	4.08	18.37	10.20
Seward	0.00	2.04	20.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.41	2.04
Soldotna	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
Chenega (Old Village)	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	0.00
Upper Cook Inlet	0.00	0.00	0.00	0.00	6.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.12	0.00
Other U.S.	0.00	8.16	0.00	4.08	0.00	0.00	0.00	4.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.24
Community Unknown	0.00	0.00	0.00	0.00	0.00	0.00	4.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.08	0.00

Plants and Berries includes sharing of wood and help for fertilizer

Note: Percentages are based upon valid responses.

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992.

Table VIII-17. Subsistence Harvests in Pounds Usable Weight per Person by Resource Category, Port Graham, 1987, 1989, 1990/91, 1991/92, 1992/93, and 1993/94

	Pounds Usable Weight per Person					
	1987	1989	1990/91	1991/92	1992/93	1993/4
Salmon	96.2	39.9	95.0	132.6	106.8	97.4
Other Fish	77.9	59.7	92.8	99.7	108.6	72.7
Marine Invertebrates	16.6	8.6	14.5	21.6	23.9	16.0
Land Mammals	5.4	0.4	1.5	3.3	4.1	4.1
Marine Mammals	12.3	8.9	3.3	14.7	16.9	8.7
Birds and Eggs	3.2	2.0	1.1	1.8	1.7	0.7
Wild Plants	15.8	2.8	5.7	7.3	10.7	12.7
All Resources	227.4	122.3	214.0	280.9	272.7	212.1

Table VIII-18. Composition of Resource Harvests by Resource Category, Port Graham, 1987, 1989, 1990/91, 1991/92, 1992/93, and 1993/94

	Percentage of Total Harvest					
	1987	1989	1990/91	1991/92	1992/93	1993/4
Salmon	42.3%	32.6%	44.4%	47.2%	39.2%	45.9%
Other Fish	34.3%	48.9%	43.4%	35.5%	39.8%	34.3%
Marine Invertebrates	7.3%	7.0%	6.8%	7.7%	8.8%	7.5%
Land Mammals	2.4%	0.3%	0.7%	1.2%	1.5%	1.9%
Marine Mammals	5.4%	7.3%	1.5%	5.2%	6.2%	4.1%
Birds and Eggs	1.4%	1.6%	0.5%	0.6%	0.6%	0.3%
Wild Plants	6.9%	2.3%	2.7%	2.6%	3.9%	6.0%

Figure VIII-8. Harvests of Wild Resources for Home Use, Pounds Usable Weight per Capita, Port Graham, 1987, 1989, 1990/91, 1991/92, 1992/93, and 1993/94

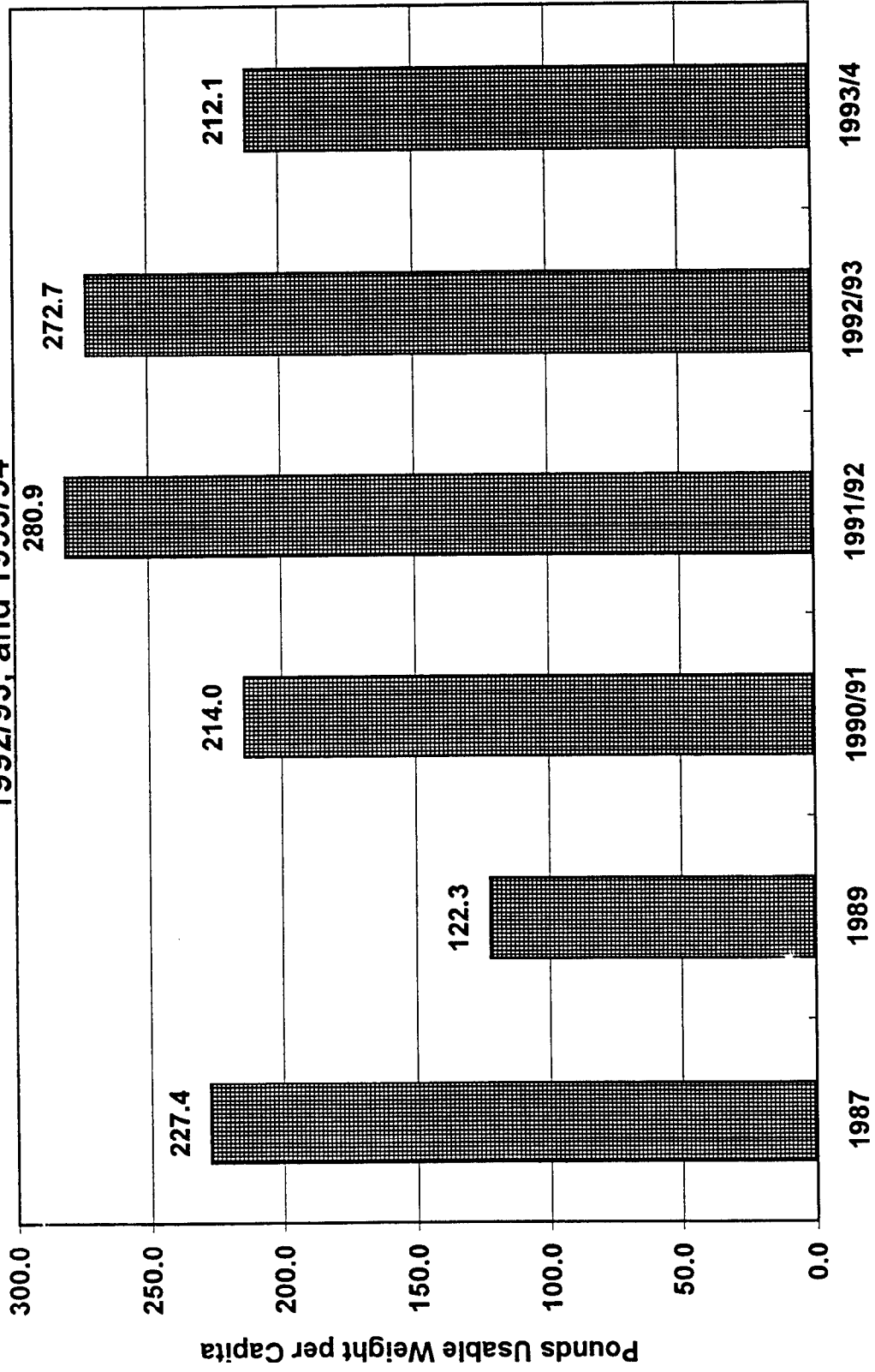


Figure VIII-9. Per Capita Harvests of Wild Resources by Resource Category, Port Graham, 1987, 1989, 1990/91, 1991/92, 1992/93, 1993/94

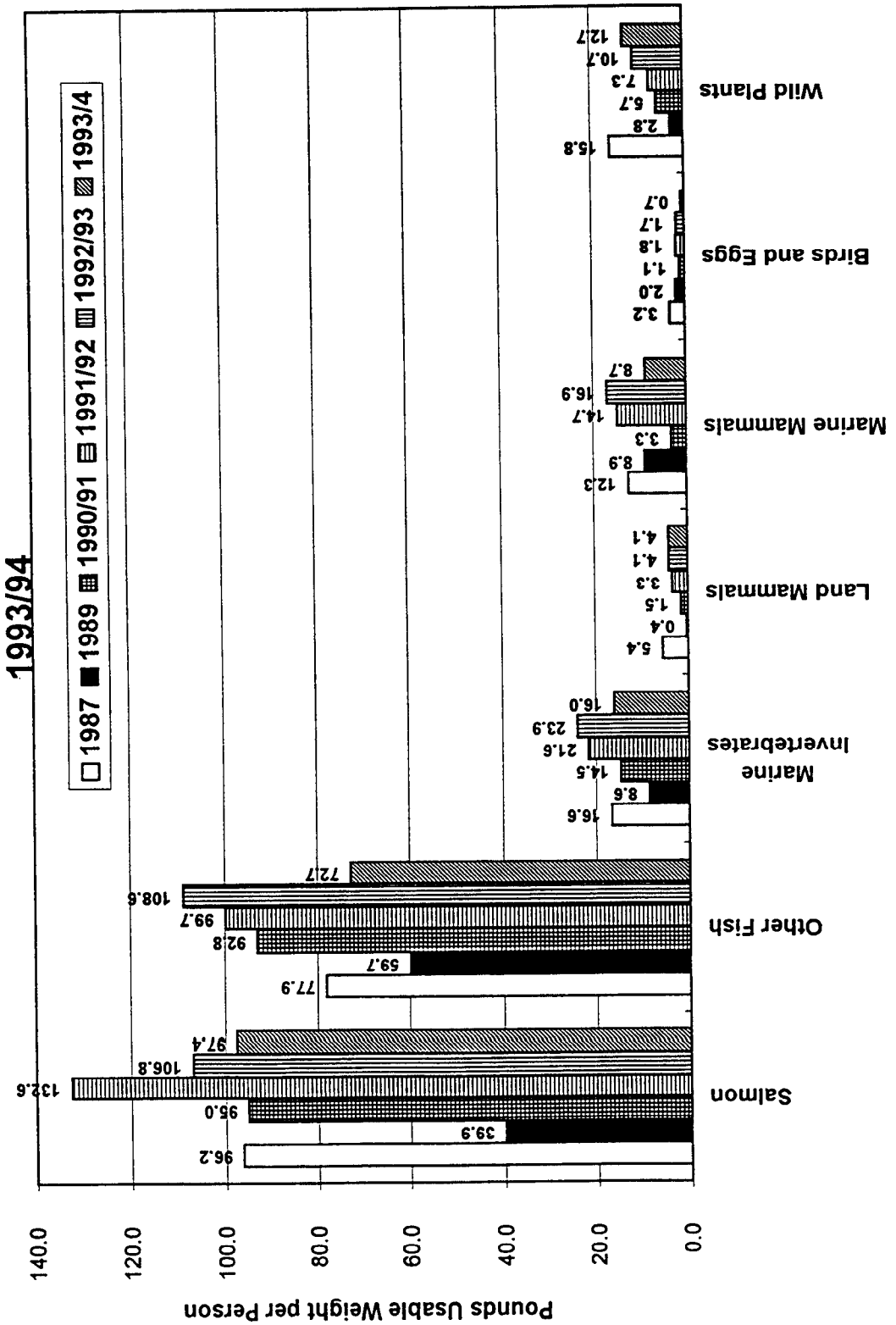


Figure VIII-10. Composition of Wild Resource Harvests by Resource Category, Port Graham, 1991/92

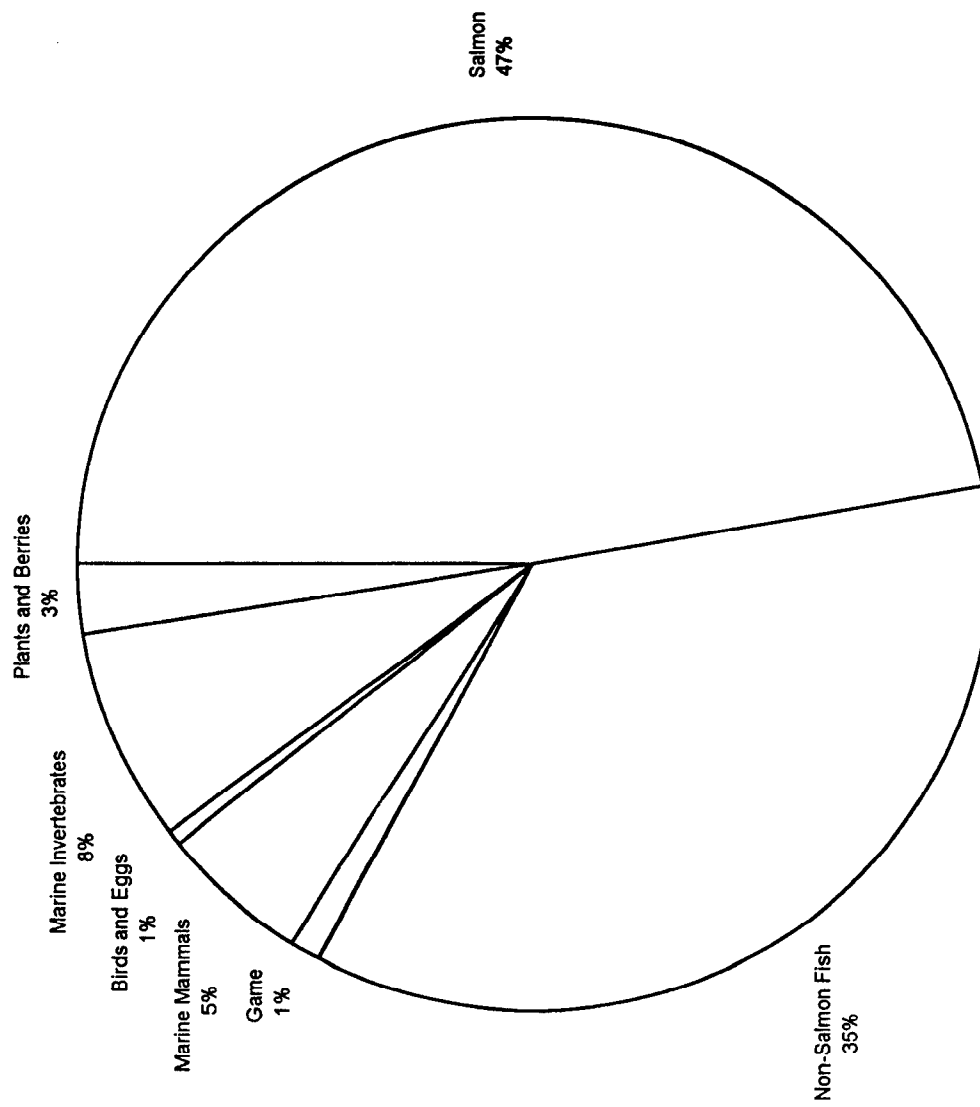


Figure VIII-11. Percentage of Port Graham Households Reporting Lower Levels of Uses of Wild Resources Compared to 1988, the Year Before the Exxon Valdez Oil Spill

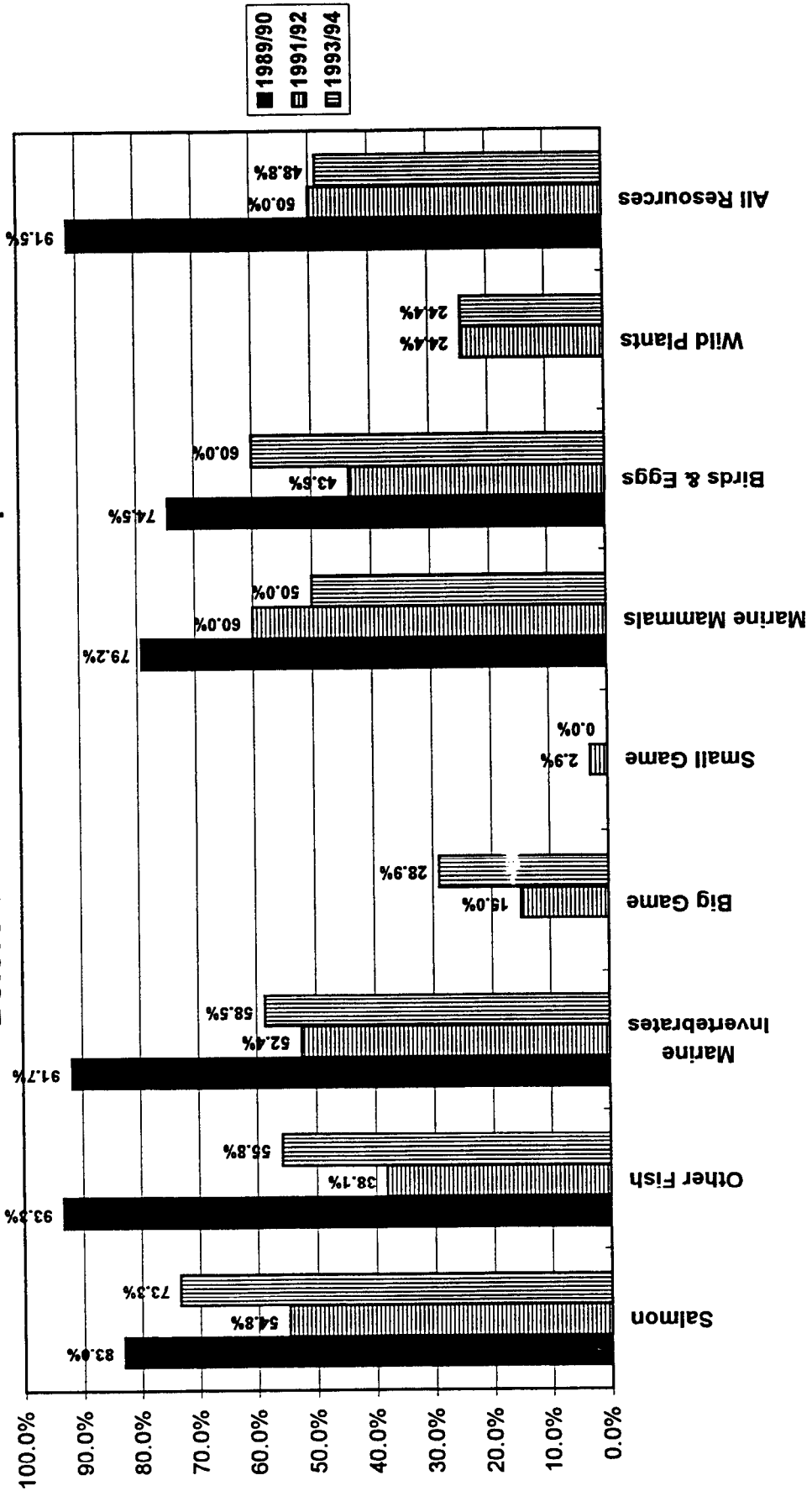


Table VIII-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1991/92

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	100.0	95.9	98.0	87.8	280.89	45,216.98	779.60	280.89	5,870.38	101.21	10.38%	11.24%
Fish	100.0	87.8	87.8	93.9	75.5	37,387.50	644.61	232.25	638.00	11.00	9.98%	11.07%
Salmon	100.0	83.7	83.7	83.7	71.4	21,338.35	367.90	132.55	1,563.63	11.00	11.40%	12.33%
Chum Salmon	83.7	71.4	71.4	46.9	49.0	3,540.90	61.05	22.00	346.18	26.96	11.41%	12.57%
Coho Salmon	98.0	77.6	77.6	59.2	59.2	7,739.98	133.45	48.08	2,762.69	5.97	16.73%	17.73%
Chinook Salmon	85.7	61.2	55.1	65.3	53.1	3,067.13	52.88	19.05	559.88	47.63	16.41%	16.55%
Pink Salmon	95.9	75.5	75.5	59.2	61.2	5,249.12	90.50	32.61			13.35%	14.76%
Sockeye Salmon	77.6	57.1	53.1	51.0	36.7	1,741.22	30.02	10.82			15.75%	16.51%
Non-Salmon Fish	98.0	81.6	77.6	89.8	69.4	16,049.16	276.71	99.70			14.06%	14.54%
Cod	44.9	28.6	28.6	26.5	26.5	1,355.21	23.37	8.42	871.93	15.03	41.63%	34.07%
Pacific Tomcod	20.4	10.2	10.2	14.3	6.1	265.73	4.58	1.65	531.47	9.16	63.79%	64.51%
Pacific Cod (Gray)	40.8	26.5	26.5	16.3	26.5	1,089.47	18.78	6.77	340.46	5.87	37.62%	38.73%
Unknown Cod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	12.2	12.2	6.1	10.2	2.0	58.71	1.01	0.36	18.94	0.33	45.50%	45.65%
Greenling	18.4	10.2	10.2	10.2	6.1	139.67	2.41	0.87	40.24	0.69	40.25%	44.29%
Lingcod	10.2	6.1	6.1	6.1	6.1	132.57	2.29	0.82	33.14	0.57	47.31%	46.66%
Unknown Greenling	8.2	4.1	4.1	4.1	0.0	7.10	0.12	0.04	7.10	0.12	67.04%	67.72%
Flounder	44.9	26.5	26.5	24.5	24.5	1,272.44	21.94	7.90	424.15	7.31	25.87%	27.49%
Unknown Flounder	44.9	26.5	26.5	24.5	24.5	1,272.44	21.94	7.90	424.15	7.31	25.87%	27.49%
Sole	2.0	2.0	2.0	0.0	2.0	1.18	0.02	0.01	1.18	0.02	79.20%	79.87%
Sole, Unknown	2.0	2.0	2.0	0.0	2.0	1.18	0.02	0.01	1.18	0.02	79.20%	79.87%
Halibut	95.9	65.3	61.2	73.5	57.1	8,841.33	152.44	54.92	417.04	7.19	14.29%	14.63%
Herring	55.1	24.5	20.4	40.8	26.5	906.72	15.63	5.63	151.12 gal	2.61	38.93%	38.23%
Herring Roe	38.8	14.3	14.3	26.5	18.4	111.86	1.93	0.69	15.98 gal	0.28	35.33%	35.86%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	46.9	30.6	30.6	26.5	26.5	1,191.38	20.54	7.40	525.95	9.07	32.83%	41.01%
Black Rockfish (black bass)	34.7	24.5	24.5	14.3	24.5	547.46	9.44	3.40	364.97	6.29	27.60%	28.40%
Red Rockfish	26.5	12.2	12.2	20.4	10.2	643.92	11.10	4.00	160.98	2.78	58.53%	59.22%
Sculpin	6.1	6.1	6.1	2.0	2.0	20.12	0.35	0.13	40.24	0.69	70.07%	71.42%
Irish Lord	6.1	6.1	6.1	2.0	2.0	20.12	0.35	0.13	40.24	0.69	70.07%	71.42%
Smelt	53.1	6.1	4.1	49.0	20.4	110.60	1.91	0.69	34.03 gal	0.59	59.68%	60.57%
Eulachon (Hooligan, Candlefish)	53.1	6.1	4.1	49.0	20.4	110.60	1.91	0.69	34.03 gal	0.59	59.68%	60.57%
Unknown Smelt	2.0	0.0	0.0	2.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Wolf Eel (Wolfish)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shark	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VIII-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1991/92

Resource Name	Percentage of Households			Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Walleye Pollock (Whiting)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Trout and Char	67.3	51.0	51.0	28.6	26.5	2,039.94	35.17	12.67	1,457.10	25.12	29.27%	28.10%
Char	63.3	51.0	51.0	24.5	26.5	2,026.69	34.94	12.59	1,447.63	24.96	29.45%	28.29%
Dolly Varden	63.3	51.0	51.0	24.5	26.5	2,026.69	34.94	12.59	1,447.63	24.96	29.45%	28.29%
Trout	14.3	10.2	10.2	4.1	2.0	13.26	0.23	0.08	9.47	0.16	35.64%	35.49%
Rainbow Trout	8.2	6.1	6.1	2.0	2.0	6.63	0.11	0.04	4.73	0.08	47.65%	47.29%
Steelhead	6.1	4.1	4.1	2.0	0.0	6.63	0.11	0.04	4.73	0.08	55.42%	55.53%
Game	77.6	26.5	12.2	75.5	30.6	526.14	9.07	3.27	13.02	0.22	32.96%	35.54%
Big Game	77.6	26.5	10.2	75.5	28.6	497.73	8.58	3.09	8.29	0.14	36.15%	37.29%
Black Bear	42.9	20.4	10.2	36.7	18.4	411.92	7.10	2.56	7.10	0.12	35.95%	36.77%
Brown Bear	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Caribou	8.2	2.0	0.0	8.2	2.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Deer	12.2	0.0	0.0	12.2	2.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goat	6.1	6.1	2.0	4.1	2.0	85.82	1.48	0.53	1.18	0.02	79.20%	79.28%
Moose	67.3	16.3	0.0	67.3	16.3	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sheep, Dall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Small Game/Furbearer	10.2	10.2	4.1	6.1	2.0	28.41	0.49	0.18	4.73	0.08	62.22%	80.46%
Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Beaver	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Coyote	0.0	2.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Hare	2.0	4.1	2.0	0.0	0.0	0.00	0.00	0.00	1.18	0.02	79.20%	0.00%
Snowshoe Hare	2.0	4.1	2.0	0.0	0.0	0.00	0.00	0.00	1.18	0.02	79.20%	0.00%
Land Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mink	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Muskral	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	8.2	6.1	2.0	6.1	2.0	28.41	0.49	0.18	3.55	0.06	79.20%	80.46%
Weasel	0.0	4.1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tree Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VIII-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1991/92

Resource Name	Percentage of Households					Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Allt	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Marine Mammals	77.6	28.6	18.4	71.4	26.5	2,367.35	40.82	14.71	36.69	0.63	34.77%	35.56%
Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	75.5	28.6	18.4	69.4	24.5	1,657.14	28.57	10.29	29.59	0.51	35.39%	35.63%
Harbor Seal	75.5	28.6	18.4	69.4	24.5	1,657.14	28.57	10.29	29.59	0.51	35.39%	35.63%
Steller Sea Lion	30.6	6.1	6.1	26.5	8.2	710.20	12.24	4.41	3.55	0.06	44.76%	43.85%
Sea Otter	2.0	2.0	2.0	0.0	0.0	0.00	0.00	0.00	3.55	0.06	79.20%	0.00%
Birds and Eggs	53.1	36.7	34.7	28.6	24.5	288.93	4.98	1.79	359.84	6.20	31.26%	31.41%
Birds	51.0	36.7	34.7	22.4	24.5	273.67	4.72	1.70	308.94	5.33	30.04%	31.31%
Upland Game Birds	24.5	26.5	20.4	4.1	6.1	27.34	0.47	0.17	39.06	0.67	25.52%	25.16%
Grouse	24.5	26.5	20.4	4.1	6.1	27.34	0.47	0.17	39.06	0.67	25.52%	25.16%
Ptarmigan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Migratory Birds	38.8	20.4	20.4	18.4	18.4	246.32	4.25	1.53	269.88	4.65	34.19%	34.64%
Waterfowl	36.7	20.4	20.4	16.3	18.4	239.22	4.12	1.49	267.51	4.61	34.50%	35.62%
Ducks	36.7	20.4	20.4	16.3	18.4	239.22	4.12	1.49	267.51	4.61	34.50%	35.62%
Eider	4.1	4.1	4.1	0.0	4.1	9.47	0.16	0.06	5.92	0.10	56.56%	55.33%
Eider, Large	4.1	4.1	4.1	0.0	4.1	9.47	0.16	0.06	5.92	0.10	56.56%	55.33%
Common Eiders	4.1	4.1	4.1	0.0	4.1	9.47	0.16	0.06	5.92	0.10	56.56%	55.33%
Scoter	16.3	12.2	12.2	4.1	10.2	53.27	0.92	0.33	59.18	1.02	38.31%	39.18%
Scoter, White-winged	8.2	8.2	8.2	0.0	4.1	20.24	0.35	0.13	22.49	0.39	50.48%	50.99%
Scoter, Black	8.2	8.2	8.2	0.0	8.2	33.02	0.57	0.21	36.69	0.63	40.44%	41.37%
Scoter, Surf	4.1	0.0	0.0	4.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harlequin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goldeneye	30.6	18.4	18.4	12.2	14.3	56.82	0.98	0.35	71.02	1.22	42.06%	43.28%
Bufflehead	2.0	2.0	2.0	0.0	2.0	0.95	0.02	0.01	2.37	0.04	79.20%	78.09%
Merganser	14.3	12.2	12.2	2.0	10.2	15.98	0.28	0.10	17.76	0.31	34.74%	35.28%
Scaup	2.0	2.0	2.0	0.0	2.0	2.13	0.04	0.01	2.37	0.04	79.20%	78.69%
Mallard	32.7	20.4	20.4	12.2	16.3	81.67	1.41	0.51	81.67	1.41	41.03%	41.99%
Pintail	6.1	6.1	6.1	0.0	4.1	15.15	0.26	0.09	18.94	0.33	53.58%	52.93%
Wigeon	2.0	2.0	2.0	0.0	0.0	1.66	0.03	0.01	2.37	0.04	79.20%	80.46%
Teal	4.1	4.1	4.1	0.0	2.0	1.42	0.02	0.01	4.73	0.08	55.42%	55.53%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	2.0	2.0	2.0	0.0	0.0	0.71	0.01	0.00	1.18	0.02	79.20%	80.46%
Ducks, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VIII-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1991/92

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Brant	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sandhill Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	4.1	2.0	2.0	2.0	2.0	7.10	0.12	0.04	2.37	0.04	79.20%	79.28%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	4.1	2.0	2.0	2.0	2.0	7.10	0.12	0.04	2.37	0.04	79.20%	79.28%
Puffins	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	16.3	4.1	4.1	14.3	2.0	15.27	0.26	0.09	50.90	0.88	73.77%	73.86%
Seabird Eggs	16.3	4.1	4.1	14.3	2.0	15.27	0.26	0.09	50.90	0.88	73.77%	73.86%
Gull Eggs	16.3	4.1	4.1	14.3	2.0	15.27	0.26	0.09	50.90	0.88	73.77%	73.86%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Invertebrates	95.9	79.6	79.6	89.8	69.4	3,475.17	59.92	21.59	0.00	0.00	16.95%	16.77%
Clams	85.7	42.9	42.9	75.5	44.9	1,482.62	25.56	9.21	494.21 gal	8.52	25.53%	25.22%
Butter Clams	83.7	40.8	40.8	69.4	44.9	943.75	16.27	5.86	314.58 gal	5.42	25.83%	24.75%
Razor Clams	32.7	8.2	8.2	28.6	8.2	74.57	1.29	0.46	24.86 gal	0.43	45.41%	45.11%
Pacific Littleneck Clams (Steamers)	44.9	24.5	24.5	28.6	16.3	464.30	8.01	2.88	154.77 gal	2.67	46.13%	46.82%
Pinkneck Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Horse Clams (Gaper)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Cockles	34.7	18.4	18.4	22.4	14.3	134.23	2.31	0.83	44.74 gal	0.77	29.67%	30.02%
Geoducks	8.2	10.2	6.1	2.0	4.1	37.29	0.64	0.23	12.43 gal	0.21	75.40%	74.27%
Scallops	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mussels	26.5	18.4	18.4	8.2	12.2	77.23	1.33	0.48	51.49 gal	0.89	38.53%	38.90%
Crabs	28.6	16.3	16.3	16.3	14.3	87.71	1.51	0.54	120.73	2.08	34.96%	34.33%
Dungeness Crab	20.4	16.3	16.3	4.1	14.3	82.03	1.41	0.51	117.18	2.02	35.83%	36.21%
King Crab	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tanner Crab	14.3	2.0	2.0	12.2	2.0	5.68	0.10	0.04	3.55	0.06	79.20%	78.09%

Table VIII-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1991/92

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	
Tanner Crab, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Chitons (bidarkis)	91.8	75.5	73.5	65.3	49.0	1,020.08	17.59	6.34	263.36 gal	4.54	17.25%	17.80%	
Chitons (large)	18.4	20.4	16.3	12.2	10.2	100.03	1.72	0.62	33.34 gal	0.57	30.04%	31.03%	
Chitons (small)	85.7	71.4	69.4	59.2	44.9	920.05	15.86	5.72	230.01 gal	3.97	19.59%	19.53%	
Chitons (unknown)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Octopus	75.5	51.0	49.0	46.9	34.7	553.96	9.55	3.44	138.49	2.39	20.47%	20.32%	
Sea Urchin	4.1	10.2	4.1	0.0	0.0	0.59	0.01	0.00	1.18 gal	0.02	66.83%	66.34%	
Shrimp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Snails	61.2	51.0	51.0	24.5	30.6	77.39	1.33	0.48	51.60 gal	0.89	16.78%	17.96%	
Wheik	4.1	4.1	4.1	0.0	0.0	1.85	0.03	0.01	14.20	0.24	67.04%	66.67%	
Limpets	4.1	4.1	4.1	0.0	2.0	2.22	0.04	0.01	1.48 gal	0.03	64.99%	65.09%	
Plants and Berries	93.9	89.8	89.8	67.3	61.2	1,171.88	20.20	7.28	292.97 gal	5.05	11.93%	11.93%	
Berries	83.7	81.6	81.6	26.5	46.9	858.16	14.80	5.33	214.54 gal	3.70	12.50%	12.19%	
Plants/Greens/Mushrooms	51.0	49.0	49.0	10.2	12.2	150.94	2.60	0.94	37.74 gal	0.65	26.71%	27.36%	
Seaweed/Kelp (Food)	73.5	46.9	46.9	57.1	30.6	162.78	2.81	1.01	40.69 gal	0.70	18.00%	18.25%	
Wood	79.6	75.5	73.5	30.6	26.5	0.00	0.00	0.00	188.20 crd	3.24	14.97%	0.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VIII-20. Estimated Amount of Resources Removed From Commercial Harvest, Port Graham, 1991/92

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		3,920.80	9.60	8.67
Fish		3,920.80	10.49	8.67
Salmon	237.92	807.82	3.79	1.79
Chum Salmon	5.92	32.85	0.93	0.07
Coho Salmon	16.57	82.03	1.06	0.18
Chinook Salmon	18.94	167.80	5.47	0.37
Pink Salmon	71.02	134.94	2.57	0.30
Sockeye Salmon	125.47	390.21	22.41	0.86
Non-Salmon Fish		3,112.97	19.40	6.88
Cod	137.90	441.27	32.56	0.98
Pacific Cod (Gray)	137.90	441.27	40.50	0.98
Greenling	33.14	132.57	94.92	0.29
Lingcod	33.14	132.57	100.00	0.29
Flounder	78.90	236.71	18.60	0.52
Unknown Flounder	78.90	236.71	18.60	0.52
Hallibut	78.45	1,663.22	18.81	3.68
Rockfish	184.46	639.20	53.65	1.41
Black Rockfish (black bass)	39.46	59.20	10.81	0.13
Red Rockfish	145.00	580.00	90.07	1.28

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VIII-21. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Fort Graham, 1991/92

Resource	Percent Base	Subsistence Methods										Removed from Commercial Catch	Rod and Reel	Any Method				
		Net		Dip Net		Subsistence Gear		Any Method		Lbs.					No.	Lbs.	No.	Lbs.
		No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.							
Salmon	total	27.18	33.28	0.71	0.47	27.89	33.75	4.05	3.79	68.06	62.46							
Chum Salmon	gear type	10.68	13.32	14.29	32.74	10.77	13.59	2.49	4.07	11.41	18.98							
	resource total	26.72	26.72	0.93	0.93	27.64	27.64	0.93	0.93	71.43	71.43							
Coho Salmon	gear type	2.90	4.43	0.10	0.15	3.00	4.59	0.10	0.15	7.76	11.85							
	resource total	23.29	25.91	0.00	0.00	22.71	25.55	6.97	10.15	29.42	43.65							
Chinook Salmon	gear type	23.77	23.77	0.00	0.00	23.77	23.77	1.06	1.06	75.17	75.17							
	resource total	6.33	8.62	0.00	0.00	6.33	8.62	0.28	0.38	20.02	27.27							
Pink Salmon	gear type	19.06	37.94	0.00	0.00	18.58	37.42	7.96	20.77	0.58	1.54							
	resource total	87.86	87.86	0.00	0.00	87.86	87.86	5.47	5.47	6.67	6.67							
Sockeye Salmon	gear type	5.18	12.63	0.00	0.00	5.18	12.63	0.32	0.79	0.39	0.96							
	resource total	36.72	15.68	65.71	67.26	37.96	16.39	29.85	16.70	51.81	29.51							
Sockeye Salmon	gear type	21.21	21.21	1.29	1.29	22.49	22.49	2.57	2.57	74.94	74.94							
	resource total	9.98	5.22	0.60	0.32	10.59	5.53	1.21	0.63	35.27	18.43							
Sockeye Salmon	gear type	10.24	7.15	0.00	0.00	9.98	7.05	52.74	48.30	6.78	6.32							
	resource total	29.18	29.18	0.00	0.00	29.18	29.18	22.41	22.41	48.41	48.41							
Sockeye Salmon	gear type	2.78	2.38	0.00	0.00	2.78	2.38	2.14	1.63	4.62	3.95							
	resource total	2.78	2.38	0.00	0.00	2.78	2.38	2.14	1.63	4.62	3.95							

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VIII-22. Estimated Salmon Harvest by Gear Type and Species, Port Graham, 1991/92

Harvest Units	Subsistence Methods												Removed from Commercial Catch		Rod and Reel		Any Method	
	Net			Dip Net			Subsistence Gear Any Method			Total	HH Mean	Total						
	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	
Salmon	1,595.53	27.51	41.43	0.71	1,636.96	28.22	7,101.75	122.44	100.32	1.73	7,202.07	237.92	4.10	3,995.50	68.89	5,870.38	101.21	
	pounds											807.82	13.93	13,328.46	229.80	21,338.35	367.90	
Chum Salmon	170.45	2.94	5.92	0.10	176.37	3.04	945.99	16.31	32.85	0.57	978.84	5.92	0.10	455.71	7.86	638.00	11.00	
	pounds											32.85	0.57	2,529.21	43.61	3,540.90	61.05	
Coho Salmon	371.67	6.41	0.00	0.00	371.67	6.41	1,839.78	31.72	0.00	0.00	1,839.78	16.57	0.29	1,175.39	20.27	1,563.63	26.96	
	pounds											82.03	1.41	5,818.17	100.31	7,739.98	133.45	
Chinook Salmon	304.14	5.24	0.00	0.00	304.14	5.24	2,694.72	46.46	0.00	0.00	2,694.72	18.94	0.33	23.09	0.40	346.18	5.97	
	pounds											167.80	2.89	204.61	3.53	3,067.13	52.88	
Pink Salmon	585.92	10.10	35.51	0.61	621.43	10.71	1,113.24	19.19	67.47	1.16	1,180.71	71.02	1.22	2,070.24	35.69	2,762.69	47.63	
	pounds											134.94	2.33	3,933.47	67.82	5,249.12	90.50	
Sockeye Salmon	163.35	2.82	0.00	0.00	163.35	2.82	508.01	8.76	0.00	0.00	508.01	125.47	2.16	271.06	4.67	559.88	9.65	
	pounds											390.21	6.73	843.00	14.53	1,741.22	30.02	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VIII-23. Percentage of Households Harvesting Salmon by Gear Type and Species, Port Graham, 1991/92

Resource	Subsistence Methods			Removed from Commercial Catch	Rod and Reel	Any Method
	Net	Dip Net	Any Subsistence Gear			
Salmon	51.02	2.04	51.02	16.33	79.59	83.67
Chum Salmon	22.45	2.04	22.45	2.04	61.22	71.43
Coho Salmon	24.49	0.00	24.49	6.12	69.39	77.55
Chinook Salmon	51.02	0.00	51.02	4.08	8.16	55.10
Pink Salmon	22.45	2.04	22.45	2.04	71.43	75.51
Sockeye Salmon	26.53	0.00	26.53	10.20	28.57	53.06

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VIII-24. Estimated Harvest of Fish Other than Salmon by Gear Type, Port Graham, 1991/92

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	8,944.53	154.22	3,112.97	53.67	3,991.66	68.82	0.00	0.00	16,049.16	276.71
Lingcod	0.00	0.00	132.57	2.29	0.00	0.00	0.00	0.00	132.57	2.29
Pacific Tuna Cod	263.37	4.54	0.00	0.00	2.37	0.04	0.00	0.00	265.73	4.58
Pacific Cod (Gray)	429.91	7.41	441.27	7.61	218.29	3.76	0.00	0.00	1,089.47	18.78
Sablefish (Black Cod)	14.68	0.25	0.00	0.00	44.03	0.76	0.00	0.00	58.71	1.01
Unknown Flounder	467.56	8.06	236.71	4.08	568.16	9.80	0.00	0.00	1,272.44	21.94
Sole, Unknown	1.18	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.18	0.02
Hallbut	4,845.63	83.55	1,663.22	28.67	2,332.48	40.22	0.00	0.00	8,841.33	152.44
Herring	864.11	14.90	0.00	0.00	42.61	0.73	0.00	0.00	906.72	15.63
Herring Roe	111.86	1.93	0.00	0.00	0.00	0.00	0.00	0.00	111.86	1.93
Black Rockfish (black bass)	112.44	1.94	59.20	1.02	375.82	6.48	0.00	0.00	547.46	9.44
Red Rockfish	59.18	1.02	580.00	10.00	4.73	0.08	0.00	0.00	643.92	11.10
Irish Lord	11.84	0.20	0.00	0.00	8.29	0.14	0.00	0.00	20.12	0.35
Eulachon (Hooligan, Candlefish)	110.60	1.91	0.00	0.00	0.00	0.00	0.00	0.00	110.60	1.91
Unknown Greenling	0.00	0.00	0.00	0.00	7.10	0.12	0.00	0.00	7.10	0.12
Dolly Varden	1,652.17	28.49	0.00	0.00	374.51	6.46	0.00	0.00	2,026.69	34.94
Rainbow Trout	0.00	0.00	0.00	0.00	6.63	0.11	0.00	0.00	6.63	0.11
Steelhead	0.00	0.00	0.00	0.00	6.63	0.11	0.00	0.00	6.63	0.11

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VIII-25. Percentage of Fish Other Than Salmon Harvested by Gear Type, Port Graham, 1991/92

Resource	Percent Base	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing
		Lbs.	Lbs.	Lbs.	Lbs.
Non-Salmon Fish	resource	55.73	19.40	24.87	0.00
Lingcod	resource	0.00	100.00	0.00	0.00
Pacific Tom Cod	resource	99.11	0.00	0.89	0.00
Pacific Cod (Gray)	resource	39.46	40.50	20.04	0.00
Sablefish (Black Cod)	resource	25.00	0.00	75.00	0.00
Unknown Flounder	resource	36.75	18.60	44.65	0.00
Sole, Unknown	resource	100.00	0.00	0.00	0.00
Halibut	resource	54.81	18.81	26.38	0.00
Herring	resource	95.30	0.00	4.70	0.00
Herring Roe	resource	100.00	0.00	0.00	0.00
Black Rockfish (black bass)	resource	20.54	10.81	68.65	0.00
Red Rockfish	resource	9.19	90.07	0.74	0.00
Irish Lord	resource	58.82	0.00	41.18	0.00
Eulachon (Hooligan, Candlefish)	resource	100.00	0.00	0.00	0.00
Unknown Greenling	resource	0.00	0.00	100.00	0.00
Dolly Varden	resource	81.52	0.00	18.48	0.00
Rainbow Trout	resource	0.00	0.00	100.00	0.00
Steelhead	resource	0.00	0.00	100.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table VIII-26. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Port Graham, 1991/92

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	63.27	18.37	44.90	0.00	77.55
Lingcod	0.00	6.12	0.00	0.00	6.12
Pacific Tom Cod	8.16	0.00	2.04	0.00	10.20
Pacific Cod (Gray)	12.24	6.12	12.24	0.00	26.53
Sablefish (Black Cod)	2.04	0.00	4.08	0.00	6.12
Unknown Flounder	12.24	2.04	16.33	0.00	26.53
Sole, Unknown	2.04	0.00	0.00	0.00	2.04
Halibut	42.86	14.29	22.45	0.00	61.22
Herring	18.37	0.00	2.04	0.00	20.41
Herring Roe	14.29	0.00	0.00	0.00	14.29
Black Rockfish (black bass)	10.20	2.04	16.33	0.00	24.49
Red Rockfish	2.04	12.24	2.04	0.00	12.24
Irish Lord	2.04	0.00	6.12	0.00	6.12
Eulachon (Hooligan, Candlefish)	4.08	0.00	0.00	0.00	4.08
Unknown Greenling	0.00	0.00	4.08	0.00	4.08
Dolly Varden	28.57	0.00	30.61	0.00	51.02
Rainbow Trout	0.00	0.00	6.12	0.00	6.12
Steelhead	0.00	0.00	4.08	0.00	4.08

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure VIII-12. Composition of Wild Resource Harvests by Resource Category, Port Graham, 1992/93

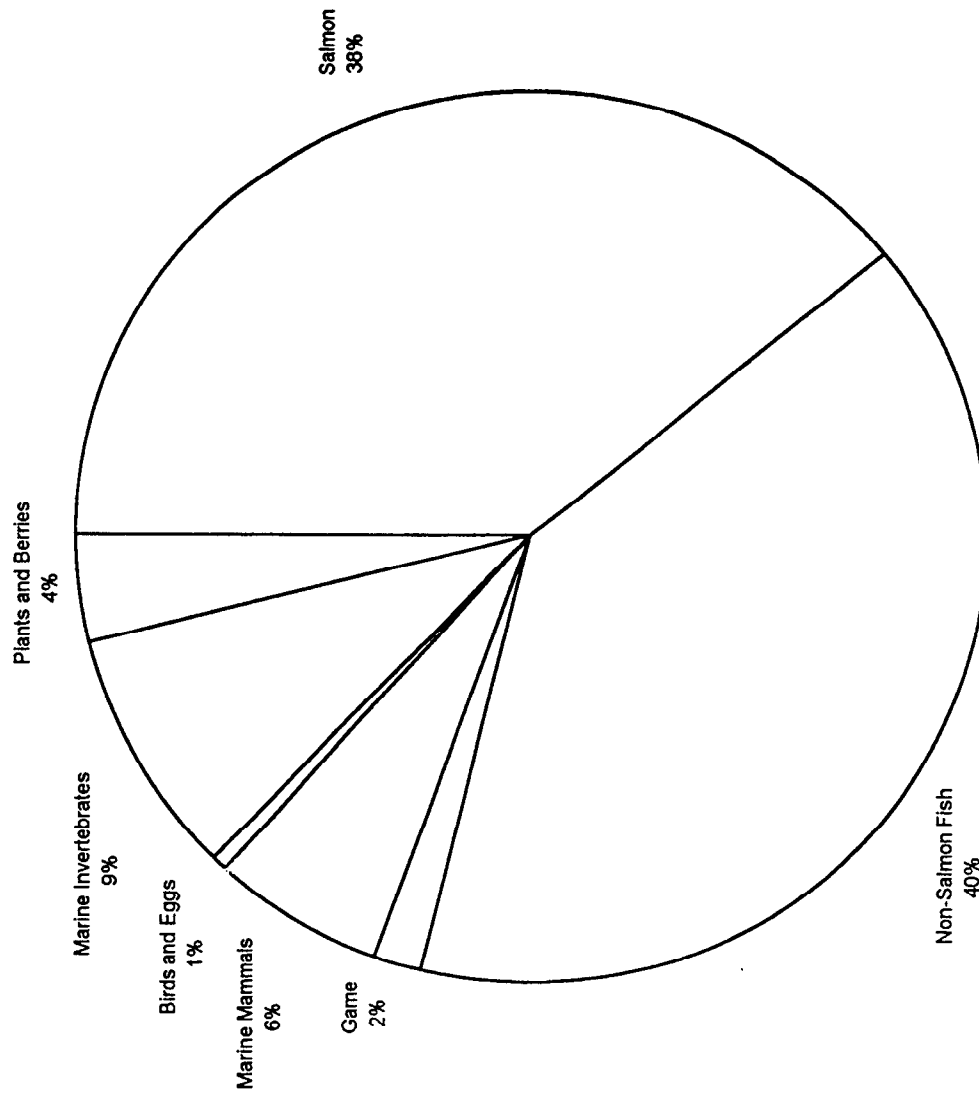


Table VIII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	100.0	100.0	100.0	100.0	97.9	45,475.05	784.05	272.71			10.51%	11.37%
Fish	100.0	93.8	93.8	97.9	85.4	35,922.81	619.36	215.43			11.02%	12.21%
Salmon	100.0	93.8	93.8	91.7	77.1	17,809.04	307.05	106.80	4,624.78	79.74	9.69%	10.80%
Chum Salmon	87.5	75.0	70.8	43.8	56.3	3,074.00	53.00	18.43	640.42	11.04	14.89%	16.61%
Coho Salmon	97.9	85.4	79.2	70.8	62.5	5,849.78	100.86	35.08	1,193.83	20.58	12.15%	12.81%
Chinook Salmon	87.5	64.6	58.3	60.4	52.1	2,404.92	41.46	14.42	272.36	4.70	16.16%	15.50%
Pink Salmon	97.9	89.6	89.6	47.9	68.8	4,329.23	74.64	25.96	1,874.13	32.31	12.42%	14.34%
Sockeye Salmon	87.5	70.8	64.6	52.1	37.5	2,151.10	37.09	12.90	644.04	11.10	18.52%	18.49%
Landlocked Salmon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Non-Salmon Fish	95.8	85.4	85.4	89.6	77.1	18,113.77	312.31	108.63			15.90%	16.85%
Pike	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cod	60.4	43.8	37.5	39.6	41.7	809.83	13.96	4.86	503.88	8.69	48.44%	29.22%
Pacific Tomcod	22.9	12.5	6.3	16.7	14.6	148.63	2.56	0.89	297.25	5.13	73.51%	73.79%
Pacific Cod (Gray)	56.3	37.5	33.3	29.2	37.5	661.20	11.40	3.97	206.63	3.56	23.81%	25.23%
Unknown Cod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	4.2	4.2	2.1	2.1	2.1	44.95	0.78	0.27	14.50	0.25	83.53%	83.68%
Greenling	6.3	4.2	4.2	2.1	4.2	22.96	0.40	0.14	12.08	0.21	63.12%	62.39%
Lingcod	2.1	2.1	2.1	0.0	2.1	14.50	0.25	0.09	3.63	0.06	83.53%	84.90%
Unknown Greenling	4.2	2.1	2.1	2.1	2.1	8.46	0.15	0.05	8.46	0.15	83.53%	84.90%
Flounder	43.8	25.0	20.8	29.2	25.0	576.38	9.94	3.46	192.13	3.31	26.26%	27.67%
Unknown Flounder	43.8	25.0	20.8	29.2	25.0	576.38	9.94	3.46	192.13	3.31	26.26%	27.67%
Sole	6.3	4.2	4.2	2.1	4.2	24.17	0.42	0.14	24.17	0.42	58.43%	58.64%
Sole, Unknown	6.3	4.2	4.2	2.1	4.2	24.17	0.42	0.14	24.17	0.42	58.43%	58.64%
Halibut	91.7	72.9	70.8	64.6	60.4	11,255.45	194.06	67.50	530.92	9.15	14.81%	16.15%
Herring	56.3	16.7	12.5	52.1	25.0	307.69	5.31	1.85	51.28 gal	0.88	36.33%	35.37%
Herring Roe	18.8	4.2	4.2	16.7	8.3	25.38	0.44	0.15	3.63 gal	0.06	61.73%	60.52%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	50.0	29.2	27.1	37.5	25.0	383.04	6.60	2.30	203.00	3.50	26.27%	26.45%
Black Rockfish (black bass)	33.3	25.0	22.9	18.8	18.8	257.38	4.44	1.54	171.58	2.96	28.98%	28.67%
Red Rockfish	31.3	12.5	10.4	22.9	10.4	125.67	2.17	0.75	31.42	0.54	44.51%	45.83%
Yellow Eye Rockfish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sculpin	6.3	6.3	6.3	0.0	2.1	33.23	0.57	0.20	66.46	1.15	48.29%	50.01%
Irish Lord	6.3	6.3	6.3	0.0	0.0	29.00	0.50	0.17	58.00	1.00	48.03%	49.67%
Unknown Sculpin	2.1	2.1	2.1	0.0	2.1	4.23	0.07	0.03	8.46	0.15	83.53%	84.90%
Smelt	62.5	2.1	2.1	60.4	16.7	1.10	0.02	0.01	0.34 gal	0.01	83.53%	84.29%

Table VIII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1992/93

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Alt	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	
Eulachon (Hooligan, Candlefish)	62.5	2.1	2.1	60.4	16.7	1.10	0.02	0.01	0.34 gal	0.01	83.53%	84.29%	
Unknown Smelt	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Wolf Eel (Wolffish)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Shark	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Walleye Pollock (Whiting)	2.1	2.1	0.0	2.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Skates	2.1	2.1	2.1	0.0	0.0	18.13	0.31	0.11	3.63	0.06	83.53%	84.29%	
Tuna/Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Grayling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Sheefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Unknown Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Trout and Char	68.8	62.5	60.4	33.3	45.8	4,611.48	79.51	27.66	3,293.92	56.79	46.69%	46.69%	
Char	64.6	58.3	56.3	27.1	43.8	4,569.19	78.78	27.40	3,263.71	56.27	47.15%	47.14%	
Arctic Char	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Dolly Varden	64.6	58.3	56.3	27.1	43.8	4,589.19	78.78	27.40	3,263.71	56.27	47.15%	47.14%	
Lake Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Trout	22.9	14.6	14.6	12.5	10.4	42.29	0.73	0.25	30.21	0.52	39.66%	39.13%	
Rainbow Trout	12.5	6.3	6.3	10.4	6.3	28.76	0.50	0.17	20.54	0.35	55.07%	54.46%	
Steelhead	12.5	8.3	8.3	4.2	6.3	13.53	0.23	0.08	9.67	0.17	47.97%	48.09%	
Unknown Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Game	64.6	29.2	10.4	60.4	25.0	683.92	11.79	4.10	18.13	0.31	52.28%	50.34%	
Big Game	62.5	29.2	8.3	60.4	25.0	683.92	11.79	4.10	7.25	0.13	42.79%	50.34%	
Bison	6.3	0.0	0.0	6.3	4.2	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Black Bear	33.3	12.5	4.2	33.3	16.7	140.17	2.42	0.84	2.42	0.04	58.43%	57.75%	
Brown Bear	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Caribou	18.8	4.2	4.2	14.6	10.4	543.75	9.38	3.26	4.83	0.08	58.43%	62.20%	
Deer	10.4	4.2	0.0	10.4	2.1	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Elk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Goat	6.3	6.3	0.0	6.3	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Moose	33.3	10.4	0.0	33.3	10.4	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Sheep, Dall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Small Game/Furbearer	4.2	2.1	2.1	2.1	0.0	0.00	0.00	0.00	10.88	0.19	83.53%	0.00%	
Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Beaver	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	

Table VIII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1992/93

Resource Name	Percentage of Households						Pounds Harvested		Amount Harvested		95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Coyote	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Hare	0.0	2.1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Snowshoe Hare	0.0	2.1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Land Otter	0.0	2.1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mink	0.0	2.1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Muskrat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Weasel	4.2	2.1	2.1	2.1	0.0	0.00	0.00	0.00	7.25	0.13	83.53%	0.00%
Wolf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	2.1	2.1	2.1	0.0	0.0	0.00	0.00	0.00	3.63	0.06	83.53%	0.00%
Tree Squirrel	2.1	2.1	2.1	0.0	0.0	0.00	0.00	0.00	3.63	0.06	83.53%	0.00%
Feral Animals	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Reindeer - Feral	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Mammals	93.8	31.3	25.0	87.5	41.7	2,822.67	48.67	16.93	49.54	0.85	34.57%	32.84%
Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	93.8	31.3	25.0	87.5	41.7	2,097.67	36.17	12.58	37.46	0.65	28.94%	28.73%
Harbor Seal	93.8	31.3	25.0	87.5	41.7	2,097.67	36.17	12.58	37.46	0.65	28.94%	28.73%
Unknown Seal	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Sea Lion	22.9	8.3	4.2	20.8	12.5	725.00	12.50	4.35	3.63	0.06	61.73%	60.52%
Sea Otter	4.2	2.1	2.1	4.2	0.0	0.00	0.00	0.00	8.46	0.15	83.53%	0.00%
Birds and Eggs	62.5	33.3	33.3	43.8	18.8	277.80	4.79	1.67	338.33	5.83	31.10%	31.24%
Birds	56.3	33.3	33.3	33.3	18.8	275.98	4.76	1.66	332.29	5.73	31.45%	31.36%
Upland Game Birds	8.3	10.4	8.3	0.0	2.1	8.46	0.15	0.05	12.08	0.21	47.69%	48.37%
Grouse	8.3	8.3	8.3	0.0	2.1	8.46	0.15	0.05	12.08	0.21	47.69%	48.37%
Plarmigan	0.0	4.2	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Migratory Birds	54.2	31.3	31.3	33.3	18.8	267.53	4.61	1.60	320.21	5.52	32.46%	32.20%
Waterfowl	54.2	31.3	31.3	33.3	18.8	257.86	4.45	1.55	315.38	5.44	32.95%	33.31%
Ducks	54.2	31.3	31.3	33.3	18.8	257.86	4.45	1.55	315.38	5.44	32.95%	33.31%
Elder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elder, Large	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VIII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Common Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	10.4	8.3	8.3	6.3	4.2	10.88	0.19	0.07	12.08	0.21	44.60%	45.67%
Scoter, White-winged	4.2	4.2	4.2	0.0	4.2	7.61	0.13	0.05	8.46	0.15	59.05%	60.98%
Scoter, Black	6.3	4.2	4.2	6.3	0.0	3.26	0.06	0.02	3.63	0.06	61.73%	59.95%
Scoter, Surf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Harlequin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goldeneye	31.3	27.1	25.0	12.5	14.6	102.47	1.77	0.61	128.08	2.21	43.24%	44.14%
Buffhead	6.3	4.2	4.2	4.2	4.2	10.15	0.18	0.06	25.38	0.44	63.79%	62.81%
Merganser	14.6	12.5	12.5	2.1	6.3	34.80	0.60	0.21	38.67	0.67	53.85%	52.96%
Scaup	4.2	2.1	2.1	2.1	2.1	10.88	0.19	0.07	12.08	0.21	83.53%	82.43%
Mallard	39.6	22.9	20.8	22.9	14.6	77.33	1.33	0.46	77.33	1.33	33.54%	33.49%
Pintail	4.2	6.3	4.2	0.0	4.2	7.73	0.13	0.05	9.67	0.17	65.61%	65.41%
Wigeon	2.1	2.1	0.0	2.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Teal	2.1	2.1	2.1	0.0	0.0	3.63	0.06	0.02	12.08	0.21	83.53%	83.06%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Ducks, Unknown	2.1	0.0	0.0	2.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Brant	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Lesser	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sandhill Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	4.2	4.2	4.2	4.2	0.0	9.67	0.17	0.06	4.83	0.08	58.43%	65.80%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	2.1	2.1	2.1	0.0	0.0	7.25	0.13	0.04	2.42	0.04	83.53%	83.68%
Puffins	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gulls	2.1	2.1	2.1	0.0	0.0	2.42	0.04	0.01	2.42	0.04	83.53%	83.68%

Table VIII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	16.7	2.1	2.1	14.6	2.1	1.81	0.03	0.01	6.04	0.10	83.53%	83.68%
Seabird Eggs	16.7	2.1	2.1	14.6	2.1	1.81	0.03	0.01	6.04	0.10	83.53%	83.68%
Gull Eggs	16.7	2.1	2.1	14.6	2.1	1.81	0.03	0.01	6.04	0.10	83.53%	83.68%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Invertebrates	100.0	89.6	89.6	95.8	79.2	3,985.63	68.72	23.90	584.92 gal	10.08	13.92%	13.63%
Clams	95.8	50.0	50.0	87.5	54.2	1,754.75	30.25	10.52	485.03 gal	8.36	20.39%	20.48%
Butter Clams	89.6	43.8	43.8	81.3	50.0	1,455.08	25.09	8.73	12.08 gal	0.21	21.03%	21.23%
Razor Clams	29.2	4.2	4.2	27.1	6.3	36.25	0.63	0.22	86.20 gal	1.49	58.43%	59.08%
Pacific Littleneck Clams (Steamers)	43.8	22.9	22.9	33.3	18.8	258.61	4.46	1.55	0.00 gal	0.00	0.00%	0.00%
Softshell Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Pinkneck Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Horse Clams (Gaper)	4.2	4.2	4.2	0.0	4.2	4.82	0.08	0.03	1.61 gal	0.03	70.78%	70.34%
Unknown Clams	2.1	0.0	0.0	2.1	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Cockles	43.8	22.9	20.8	29.2	14.6	118.43	2.04	0.71	39.48 gal	0.68	29.20%	29.27%
Scallops	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mussels	16.7	14.6	14.6	4.2	8.3	20.39	0.35	0.12	13.59 gal	0.23	38.21%	39.03%
Crabs	18.8	2.1	2.1	16.7	6.3	10.15	0.18	0.06	14.50	0.25	83.53%	83.68%
Dungeness Crab	16.7	2.1	2.1	14.6	6.3	10.15	0.18	0.06	14.50	0.25	83.53%	83.68%
King Crab	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tanner Crab	8.3	0.0	0.0	8.3	2.1	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tanner Crab, Unknown	8.3	0.0	0.0	8.3	2.1	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Crabs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Chitons (bidarkis)	95.8	83.3	83.3	72.9	62.5	1,363.00	23.50	8.17	342.26 gal	5.90	16.03%	15.62%
Chitons (large)	22.9	16.7	16.7	8.3	8.3	18.13	0.31	0.11	6.04 gal	0.10	38.91%	37.88%
Chitons (small)	95.8	83.3	83.3	70.8	62.5	1,344.88	23.19	8.07	336.22 gal	5.80	16.15%	15.75%
Octopus	79.2	54.2	50.0	50.0	43.8	604.17	10.42	3.62	151.04	2.60	16.86%	15.70%
Sea Urchin	8.3	8.3	8.3	2.1	0.0	2.67	0.05	0.02	5.34 gal	0.09	59.43%	58.38%
Shrimp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Snails	64.6	54.2	54.2	31.3	39.6	84.88	1.46	0.51	56.59 gal	0.98	18.15%	19.32%
Whelk	4.2	4.2	4.2	2.1	4.2	2.72	0.05	0.02	1.81 gal	0.03	61.73%	61.65%
Limpets	6.3	6.3	6.3	2.1	2.1	24.47	0.42	0.15	16.31 gal	0.28	74.37%	73.97%
Oyster	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Plants and Berries	97.9	97.9	97.9	56.3	68.8	1,782.24	30.73	10.69	445.56 gal	7.68	10.57%	10.61%

Table VIII-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recy	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Berries	95.8	91.7	91.7	25.0	37.5	1,167.73	20.13	7.00	291.93 gal	5.03	10.50%	11.22%
Plants/Greens/Mushrooms	43.8	37.5	37.5	10.4	16.7	214.55	3.70	1.29	53.64 gal	0.92	21.95%	21.49%
Seaweed/Kelp (Food)	79.2	54.2	54.2	45.8	50.0	399.96	6.90	2.40	99.99 gal	1.72	21.11%	20.35%
Wood	81.3	66.7	66.7	31.3	22.9	0.00	0.00	0.00	201.19 crd	3.47	17.16%	0.00%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VIII-28. Estimated Amount of Resources Removed From Commercial Harvest, Port Graham, 1992/93

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		1,282.18	3.21	2.82
Fish		1,282.18	3.57	2.82
Salmon	300.88	1,258.10	7.06	2.77
Chum Salmon	33.83	162.40	5.28	0.36
Coho Salmon	41.08	201.31	3.44	0.44
Chinook Salmon	33.83	298.75	12.42	0.66
Pink Salmon	44.71	103.28	2.39	0.23
Sockeye Salmon	147.42	492.37	22.89	1.08
Non-Salmon Fish		24.08	0.13	0.05
Halibut	1.14	24.08	0.21	0.05

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VIII-29. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Port Graham, 1992/93

Resource	Percent Base	Subsistence Methods										Removed from Commercial Catch		Rod and Reel		Any Method				
		Net			Dip Net			Subsistence Gear				No.		Lbs.		No.		Lbs.		
		No.	Lbs.	%	No.	Lbs.	%	No.	Lbs.	%	No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.		
Salmon	total	27.56	30.54	0.03	0.03	0.03	27.59	30.57				6.51	7.06	65.90	62.37					
Chum Salmon	gear type	8.25	9.28	100.00	8.33	9.38						11.24	12.91	16.41	21.62					
	resource total	16.42	16.42	0.19	0.19	16.60	2.87				5.28	0.91	78.11	13.48			13.85	17.26		
Coho Salmon	gear type	24.08	27.65	0.00	0.00	24.05	27.62				13.65	16.00	27.75	37.32						
	resource total	25.71	25.71	0.00	0.00	25.71	8.44				3.44	1.13	70.85	23.27			25.81	32.85		
Chinook Salmon	gear type	13.93	28.84	0.00	0.00	13.92	28.81				11.24	23.75	2.00	4.84						
	resource total	65.22	65.22	0.00	0.00	65.22	8.81				12.42	1.68	22.36	3.02			5.89	13.50		
Pink Salmon	gear type	32.51	17.60	0.00	0.00	32.48	17.59				14.86	8.21	46.42	29.43						
	resource total	22.11	22.1	0.00	0.00	22.11	5.38				2.39	0.58	75.50	18.35			40.52	24.31		
Sockeye Salmon	gear type	21.23	16.62	0.00	0.00	21.21	16.61				49.00	39.14	7.41	6.79						
	resource total	42.03	42.03	0.00	0.00	42.03	5.08				22.89	2.76	35.08	4.24			13.93	12.08		
Landlocked Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	0.00						
	resource total	0.00	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00	0.00			0.00	0.00		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VIII-30. Estimated Salmon Harvest by Gear Type and Species, Port Graham, 1992/93

Species	Harvest Units	Subsistence Methods										Removed from Commercial Catch		Rod and Reel		Any Method	
		Net		Dip Net		Subsistence Gear Any Method		Total	HH Mean	HH	Total	HH Mean	Total	HH Mean	Total	HH Mean	
		Total	HH Mean	Total	HH Mean	Total	HH Mean										
Salmon	numbers	1,274.79	21.98	1.21	0.02	1,276.00	22.00	300.88	5.19	3,047.90	52.55	4,624.78	79.74	17,809.04	307.05		
	pounds	5,438.35	93.76	5.80	0.10	5,444.15	93.86	1,258.10	21.69	11,106.78	191.50	17,809.04	307.05				
Chum Salmon	numbers	105.13	1.81	1.21	0.02	106.33	1.83	33.83	0.58	500.25	8.63	640.42	11.04	3,074.00	53.00		
	pounds	504.60	8.70	5.80	0.10	510.40	8.80	162.40	2.80	2,401.20	41.40	3,074.00	53.00				
Coho Salmon	numbers	306.92	5.29	0.00	0.00	306.92	5.29	41.08	0.71	845.83	14.58	1,193.83	20.58	5,849.78	100.86		
	pounds	1,503.89	25.93	0.00	0.00	1,503.89	25.93	201.31	3.47	4,144.58	71.46	5,849.78	100.86				
Chinook Salmon	numbers	177.63	3.06	0.00	0.00	177.63	3.06	33.83	0.58	60.90	1.05	272.36	4.70	2,404.92	41.46		
	pounds	1,568.43	27.04	0.00	0.00	1,568.43	27.04	298.75	5.15	537.75	9.27	2,404.92	41.46				
Pink Salmon	numbers	414.46	7.15	0.00	0.00	414.46	7.15	44.71	0.77	1,414.96	24.40	1,874.13	32.31	4,329.23	74.64		
	pounds	957.40	16.51	0.00	0.00	957.40	16.51	103.28	1.78	3,268.55	56.35	4,329.23	74.64				
Sockeye Salmon	numbers	270.67	4.67	0.00	0.00	270.67	4.67	147.42	2.54	225.96	3.90	644.04	11.10	2,151.10	37.09		
	pounds	904.03	15.59	0.00	0.00	904.03	15.59	492.37	8.49	754.70	13.01	2,151.10	37.09				
Landlocked Salmon	numbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	pounds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VIII-31. Percentage of Households Harvesting Salmon by Gear Type and Species, Port Graham, 1992/93

Resource	Net Dip Net		Any Subsistence Gear		Removed from Commercial Catch	Rod and Reel	Any Method
Salmon	58.33	2.08	58.33	14.58	91.67	93.75	
Chum Salmon	18.75	2.08	20.83	4.17	64.58	70.83	
Coho Salmon	22.92	0.00	22.92	6.25	72.92	79.17	
Chinook Salmon	47.92	0.00	47.92	10.42	16.67	58.33	
Pink Salmon	20.83	0.00	20.83	4.17	87.50	89.58	
Sockeye Salmon	41.67	0.00	41.67	12.50	22.92	64.58	
Landlocked Salmon	0.00	0.00	0.00	0.00	0.00	0.00	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VIII-32. Estimated Harvest of Fish Other than Salmon by Gear Type, Port Graham, 1992/93

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	8,245.74	142.17	24.08	0.42	9,843.95	169.72	0.00	0.00	18,113.77	312.31
Lingcod	0.00	0.00	0.00	0.00	14.50	0.25	0.00	0.00	14.50	0.25
Pacific Tom Cod	148.63	2.56	0.00	0.00	0.00	0.00	0.00	0.00	148.63	2.56
Pacific Cod (Gray)	259.07	4.47	0.00	0.00	402.13	6.93	0.00	0.00	661.20	11.40
Sablefish (Black Cod)	44.95	0.78	0.00	0.00	0.00	0.00	0.00	0.00	44.95	0.78
Unknown Flounder	181.25	3.13	0.00	0.00	395.13	6.81	0.00	0.00	576.38	9.94
Sole, Unknown	12.08	0.21	0.00	0.00	12.08	0.21	0.00	0.00	24.17	0.42
Halibut	3,364.49	58.01	24.08	0.42	7,866.88	135.64	0.00	0.00	11,255.45	194.06
Herring	220.69	3.81	0.00	0.00	87.00	1.50	0.00	0.00	307.69	5.31
Herring Roe	25.38	0.44	0.00	0.00	0.00	0.00	0.00	0.00	25.38	0.44
Black Rockfish (black bass)	7.25	0.13	0.00	0.00	250.13	4.31	0.00	0.00	257.38	4.44
Red Rockfish	33.83	0.58	0.00	0.00	91.83	1.58	0.00	0.00	125.67	2.17
Irish Lord	16.92	0.29	0.00	0.00	12.08	0.21	0.00	0.00	29.00	0.50
Unknown Sculpin	4.23	0.07	0.00	0.00	0.00	0.00	0.00	0.00	4.23	0.07
Eulachon (Hooligan, Candlefish)	1.10	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.02
Unknown Greenling	8.46	0.15	0.00	0.00	0.00	0.00	0.00	0.00	8.46	0.15
Skates	18.13	0.31	0.00	0.00	0.00	0.00	0.00	0.00	18.13	0.31
Dolly Varden	3,887.45	67.03	0.00	0.00	681.74	11.75	0.00	0.00	4,569.19	78.78
Rainbow Trout	0.00	0.00	0.00	0.00	28.76	0.50	0.00	0.00	28.76	0.50
Steelhead	11.84	0.20	0.00	0.00	1.69	0.03	0.00	0.00	13.53	0.23

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VIII-33. Percentage of Fish Other Than Salmon Harvested by Gear Type, Port Graham, 1992/93

Resource	Percent Base	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing
		Lbs.	Lbs.	Lbs.	Lbs.
Non-Salmon Fish	resource	45.52	0.13	54.35	0.00
Lingcod	resource	0.00	0.00	100.00	0.00
Pacific Tom Cod	resource	100.00	0.00	0.00	0.00
Pacific Cod (Gray)	resource	39.18	0.00	60.82	0.00
Sablefish (Black Cod)	resource	100.00	0.00	0.00	0.00
Unknown Flounder	resource	31.45	0.00	68.55	0.00
Sole, Unknown	resource	50.00	0.00	50.00	0.00
Hailbut	resource	29.89	0.21	69.89	0.00
Herring	resource	71.72	0.00	28.28	0.00
Herring Roe	resource	100.00	0.00	0.00	0.00
Black Rockfish (black bass)	resource	2.82	0.00	97.18	0.00
Red Rockfish	resource	26.92	0.00	73.08	0.00
Irish Lord	resource	58.33	0.00	41.67	0.00
Unknown Sculpin	resource	100.00	0.00	0.00	0.00
Eulachon (Hooligan, Candlefish)	resource	100.00	0.00	0.00	0.00
Unknown Greenling	resource	100.00	0.00	0.00	0.00
Skates	resource	100.00	0.00	0.00	0.00
Dolly Varden	resource	85.08	0.00	14.92	0.00
Rainbow Trout	resource	0.00	0.00	100.00	0.00
Steelhead	resource	87.50	0.00	12.50	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table VIII-34. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Port Graham, 1992/93

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	52.08	2.08	75.00	0.00	85.42
Lingcod	0.00	0.00	2.08	0.00	2.08
Pacific Tom Cod	6.25	0.00	0.00	0.00	6.25
Pacific Cod (Gray)	14.58	0.00	18.75	0.00	33.33
Sablefish (Black Cod)	2.08	0.00	0.00	0.00	2.08
Unknown Flounder	6.25	0.00	14.58	0.00	20.83
Sole, Unknown	2.08	0.00	2.08	0.00	4.17
Hallibut	31.25	2.08	45.83	0.00	70.83
Herring	10.42	0.00	2.08	0.00	12.50
Herring Roe	4.17	0.00	0.00	0.00	4.17
Black Rockfish (black bass)	4.17	0.00	18.75	0.00	22.92
Red Rockfish	4.17	0.00	6.25	0.00	10.42
Irish Lord	4.17	0.00	2.08	0.00	6.25
Unknown Sculpin	2.08	0.00	0.00	0.00	2.08
Eulachon (Hooligan, Candlefish)	2.08	0.00	0.00	0.00	2.08
Unknown Greenling	2.08	0.00	0.00	0.00	2.08
Skates	2.08	0.00	0.00	0.00	2.08
Dolly Varden	20.83	0.00	43.75	0.00	56.25
Rainbow Trout	0.00	0.00	6.25	0.00	6.25
Steelhead	6.25	0.00	2.08	0.00	8.33

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure VIII-13. Composition of Wild Resource Harvests by Resource Category, Port Graham, 1993/94

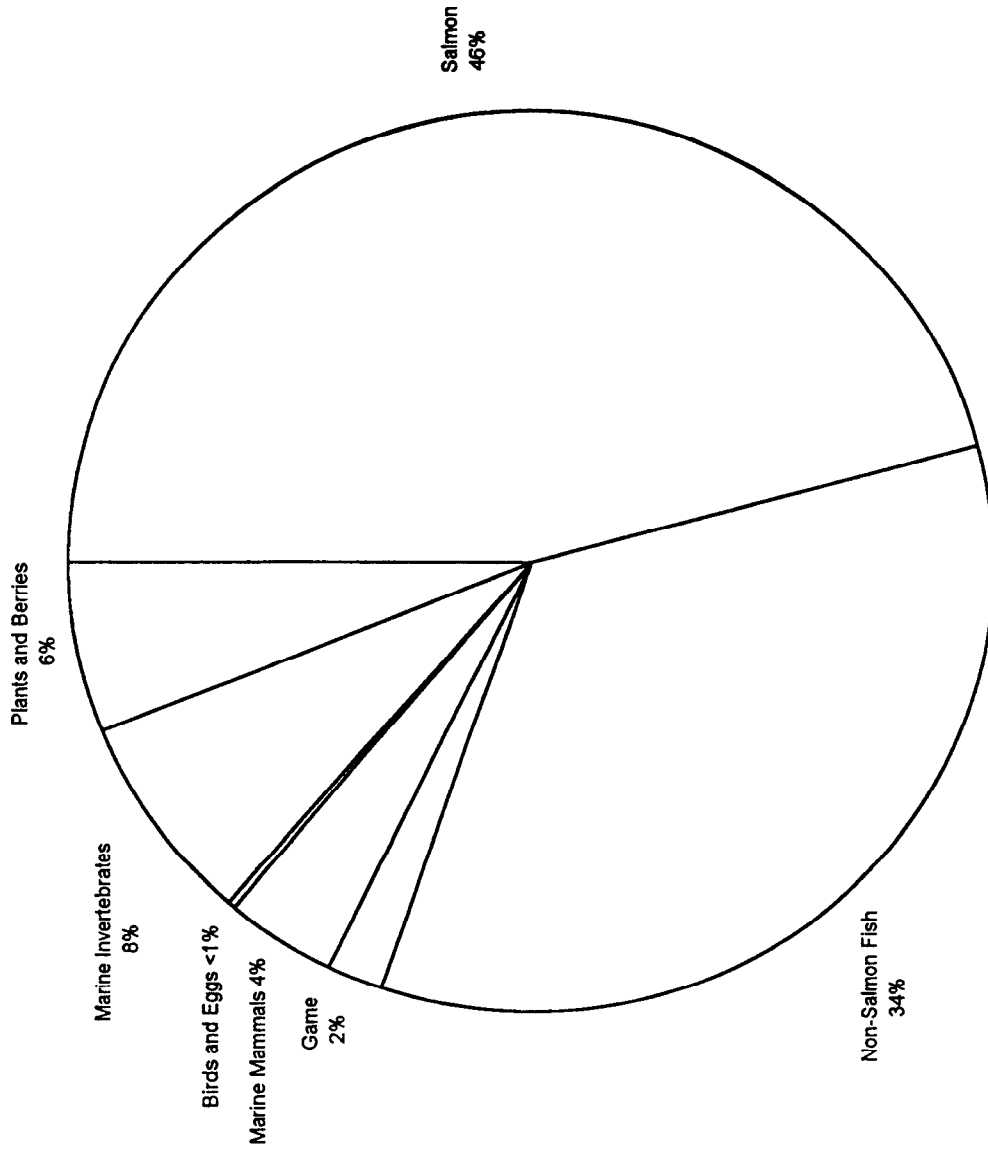


Table VIII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1993/94

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	100.0	98.0	98.0	100.0	90.2	37,044.49	607.29	212.13			18.53%	18.58%
Fish	100.0	99.7	82.4	94.1	74.5	29,698.58	486.86	170.07	4,547.49	74.55	22.27%	22.54%
Salmon	100.0	88.2	82.4	78.4	74.5	17,006.12	278.79	97.39			11.41%	12.17%
Chum Salmon	78.4	58.8	54.9	39.2	39.2	2,589.27	42.45	14.83			18.90%	19.04%
Coho Salmon	88.2	68.6	66.7	54.9	56.9	4,397.38	72.09	25.18			15.29%	14.97%
Chinook Salmon	94.1	64.7	60.8	62.7	56.9	4,298.99	70.48	24.62	497.57	8.16	17.59%	17.30%
Pink Salmon	94.1	82.4	76.5	56.9	64.7	3,623.95	59.41	20.75	1,839.57	30.16	12.01%	12.20%
Sockeye Salmon	84.3	58.8	54.9	54.9	52.9	2,076.73	34.04	11.89	653.06	10.71	17.83%	17.29%
Landlocked Salmon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Salmon	7.8	5.9	5.9	2.0	0.0	19.80	0.32	0.11	5.98	0.10	47.92%	46.50%
Non-Salmon Fish	98.0	76.5	70.6	88.2	68.6	12,692.46	208.07	72.68			38.81%	39.27%
Pike	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sturgeon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cod	60.8	27.5	27.5	54.9	33.3	413.25	6.77	2.37	180.61	2.96	26.26%	29.20%
Pacific Tomcod	54.9	9.8	7.8	52.9	21.6	30.50	0.50	0.17	61.00	1.00	53.41%	54.22%
Pacific Cod (Gray)	31.4	23.5	23.5	9.8	19.6	382.75	6.27	2.19	119.61	1.96	29.61%	31.12%
Unknown Cod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	9.8	3.9	3.9	5.9	5.9	118.65	1.95	0.68	38.27	0.63	76.31%	77.09%
Greenling	13.7	11.8	11.8	2.0	11.8	57.41	0.94	0.33	43.06	0.71	39.56%	40.35%
Kelp Greenling	2.0	2.0	2.0	0.0	2.0	14.35	0.24	0.08	14.35	0.24	81.33%	80.96%
Lingcod	3.9	2.0	2.0	2.0	3.9	19.14	0.31	0.11	4.78	0.08	81.33%	82.65%
Unknown Greenling	7.8	7.8	7.8	0.0	5.9	23.92	0.39	0.14	23.92	0.39	51.65%	52.71%
Flounder	33.3	17.6	17.6	21.6	23.5	412.65	6.76	2.36	137.55	2.25	32.19%	33.37%
Unknown Flounder	33.3	17.6	17.6	21.6	23.5	412.65	6.76	2.36	137.55	2.25	32.19%	33.37%
Sole	2.0	2.0	2.0	0.0	2.0	1.20	0.02	0.01	1.20	0.02	81.33%	82.65%
Sole, Unknown	2.0	2.0	2.0	0.0	2.0	1.20	0.02	0.01	1.20	0.02	81.33%	82.65%
Hallbut	96.1	68.6	60.8	64.7	60.8	4,512.80	73.98	25.84	212.87	3.49	15.49%	16.23%
Herring	39.2	9.8	9.8	37.3	17.6	204.53	3.35	1.17	34.09 gal	0.56	45.05%	46.08%
Herring Roe	7.8	3.9	3.9	5.9	2.0	35.58	0.58	0.20	5.08 gal	0.08	76.60%	77.93%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	41.2	23.5	21.6	29.4	21.6	333.32	5.46	1.91	172.24	2.82	31.72%	30.97%
Black Rockfish (black bass)	27.5	17.6	17.6	13.7	15.7	197.35	3.24	1.13	131.57	2.16	33.27%	34.35%
Red Rockfish	23.5	9.8	7.8	19.6	7.8	105.25	1.73	0.60	26.31	0.43	46.11%	45.68%
Unknown Rockfish	2.0	2.0	2.0	0.0	0.0	30.72	0.50	0.18	14.35	0.24	81.33%	82.09%
Sea Bass	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VIII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1993/94

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Alt	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	
Sculpin	3.9	3.9	3.9	2.0	2.0	10.76	0.18	0.06	21.53	0.35	57.29%	58.28%	
Irish Lord	2.0	2.0	2.0	0.0	0.0	4.78	0.08	0.03	9.57	0.16	81.33%	82.65%	
Unknown Sculpin	2.0	2.0	2.0	2.0	2.0	5.98	0.10	0.03	11.96	0.20	81.33%	81.52%	
Smelt	21.6	2.0	0.0	21.6	5.9	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Eulachon (Hooligan, Candlefish)	21.6	2.0	0.0	21.6	5.9	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Unknown Smelt	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Wolf Eel (Wolffish)	3.9	2.0	2.0	2.0	2.0	4.78	0.08	0.03	9.57	0.16	81.33%	81.52%	
Shark	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Walleye Pollock (Whiting)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Skates	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Graying	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Sheefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Unknown Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Trout and Char	66.7	49.0	49.0	37.3	39.2	6,587.52	107.99	37.72	4,705.37	77.14	72.21%	72.43%	
Char	62.7	47.1	47.1	35.3	37.3	6,570.78	107.72	37.63	4,693.41	76.94	72.40%	72.62%	
Arctic Char	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Dolly Varden	62.7	47.1	47.1	35.3	37.3	6,570.78	107.72	37.63	4,693.41	76.94	72.40%	72.62%	
Lake Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Trout	7.8	3.9	3.9	3.9	2.0	16.75	0.27	0.10	11.96	0.20	73.48%	74.26%	
Rainbow Trout	5.9	3.9	3.9	2.0	2.0	16.75	0.27	0.10	11.96	0.20	73.48%	74.26%	
Steelhead	3.9	0.0	0.0	3.9	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Unknown Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Game	72.5	19.6	9.8	68.6	23.5	710.95	11.65	4.07	7.18	0.12	36.97%	35.51%	
Big Game	72.5	19.6	9.8	68.6	23.5	710.95	11.65	4.07	7.18	0.12	36.97%	35.51%	
Bison	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Black Bear	15.7	2.0	2.0	15.7	5.9	69.37	1.14	0.40	1.20	0.02	81.33%	82.09%	
Brown Bear	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Caribou	23.5	5.9	5.9	19.6	7.8	538.24	8.82	3.08	3.59	0.06	46.00%	44.66%	
Deer	15.7	2.0	2.0	15.7	3.9	103.34	1.69	0.59	2.39	0.04	81.33%	80.38%	
Elk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Goat	0.0	3.9	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Moose	54.9	3.9	0.0	54.9	9.8	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Sheep, Dall	3.9	2.0	0.0	3.9	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Small Game/Furbearer	2.0	0.0	0.0	2.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	

Table VIII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1993/94

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Beaver	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Coyote	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Hare	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Snowshoe Hare	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Land Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mink	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Muskrat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	2.0	0.0	0.0	2.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Weasel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tree Squirrel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Feral Animals	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Reindeer - Feral	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Mammals	80.4	25.5	21.6	78.4	33.3	1,511.84	24.78	8.66	57.41	0.94	49.56%	33.87%
Whale	3.9	0.0	0.0	3.9	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	2.0	0.0	0.0	2.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whale	2.0	0.0	0.0	2.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	78.4	23.5	17.6	76.5	29.4	1,272.63	20.86	7.29	22.73	0.37	28.65%	28.36%
Harbor Seal	78.4	23.5	17.6	76.5	29.4	1,272.63	20.86	7.29	22.73	0.37	28.65%	28.36%
Unknown Seal	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Sea Lion	33.3	3.9	2.0	31.4	7.8	239.22	3.92	1.37	1.20	0.02	81.33%	80.38%
Sea Otter	5.9	5.9	5.9	0.0	2.0	0.00	0.00	0.00	33.49	0.55	67.57%	0.00%
Birds and Eggs	45.1	25.5	25.5	29.4	27.5	123.00	2.02	0.70	148.31	2.43	26.70%	26.67%
Birds	43.1	25.5	25.5	27.5	25.5	123.00	2.02	0.70	148.31	2.43	26.70%	26.67%
Upland Game Birds	15.7	13.7	13.7	5.9	7.8	12.56	0.21	0.07	17.94	0.29	34.88%	33.92%
Grouse	15.7	13.7	13.7	5.9	7.8	12.56	0.21	0.07	17.94	0.29	34.88%	33.92%
Ptarmigan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Migratory Birds	37.3	19.6	19.6	23.5	19.6	110.45	1.81	0.63	130.37	2.14	29.22%	29.11%
Waterfowl	37.3	19.6	19.6	23.5	19.6	96.09	1.58	0.55	125.59	2.06	29.57%	30.09%
Ducks	37.3	19.6	19.6	23.5	19.6	96.09	1.58	0.55	125.59	2.06	29.57%	30.09%

Table VIII-35. Estimated Harvest and Use of Fish, Marine Mammals, and Bird and Plant Resources, Port Graham, 1993/94

Resource Name	Use	Percentage of Households			Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
		Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Elder	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elder, Small	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Eiders	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Spectacled Eiders	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elder, Large	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
King Eiders	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Eiders	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elder, Unknown	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	11.8	7.8	5.9	7.8	12.92	0.21	0.07	14.35	0.24	56.93%	56.40%
Scoter, White-winged	5.9	3.9	3.9	2.0	4.31	0.07	0.02	4.78	0.08	56.93%	58.01%
Scoter, Black	3.9	2.0	3.9	2.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter, Surf	2.0	2.0	0.0	2.0	8.61	0.14	0.05	9.57	0.16	81.33%	80.38%
Hailequin	5.9	2.0	3.9	2.0	3.59	0.06	0.02	7.18	0.12	81.33%	81.52%
Goldeneye	11.8	9.8	9.8	7.8	24.88	0.41	0.14	31.10	0.51	41.04%	39.76%
Bufflehead	13.7	9.8	9.8	7.8	10.05	0.16	0.06	25.12	0.41	44.31%	42.40%
Merganser	15.7	9.8	9.8	9.8	13.99	0.23	0.08	15.55	0.25	40.79%	39.69%
Scaup	3.9	0.0	0.0	3.9	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mallard	25.5	1.8	11.8	17.6	22.73	0.37	0.13	22.73	0.37	45.73%	44.64%
Pintail	2.0	0.0	0.0	2.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wigeon	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Teal	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Gadwall	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canvasback	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Ducks, Unknown	2.0	2.0	0.0	2.0	7.94	0.13	0.05	9.57	0.16	81.33%	79.81%
Geese	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Brant	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
White-fronted Geese	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Lesser	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Unknown	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese, Unknown	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Swan	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VIII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1993/94

Resource Name	Percentage of Households			Pounds Harvested		Amount Harvested		95% Conf Limit (+/-)			
	Use	Att	Harv	Recy	Give	Total	Mean HH	Total	Mean HH	Harvest	Percapita
Sandhill Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	3.9	3.9	3.9	0.0	2.0	14.35	0.24	4.78	0.08	56.93%	57.21%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	3.9	3.9	3.9	0.0	2.0	14.35	0.24	4.78	0.08	56.93%	57.21%
Puffins	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	5.9	0.0	0.0	5.9	3.9	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs	5.9	0.0	0.0	5.9	3.9	0.00	0.00	0.00	0.00	0.00%	0.00%
Gull Eggs	5.9	0.0	0.0	5.9	3.9	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Waterfowl Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Duck Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Duck Eggs, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Invertebrates	100.0	82.4	80.4	92.2	72.5	2,786.18	45.68	15.95	17.84%	17.05%	17.05%
Abalone	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Clams	96.1	45.1	41.2	88.2	51.0	1,179.63	19.34	6.76	28.84%	27.99%	27.99%
Butter Clams	84.3	39.2	37.3	78.4	41.2	911.41	14.94	5.22	33.15%	32.64%	32.64%
Razor Clams	25.5	5.9	5.9	23.5	13.7	53.82	0.88	0.31	46.00%	46.35%	46.35%
Pacific Littleneck Clams (Steamers)	33.3	17.6	17.6	21.6	19.6	209.01	3.43	1.20	34.98%	33.00%	33.00%
Softshell Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Pinkneck Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Horse Clams (Gaper)	3.9	3.9	2.0	2.0	0.0	1.79	0.03	0.01	0.01	81.33%	79.81%
Unknown Clams	3.9	2.0	2.0	2.0	2.0	3.59	0.06	0.02	0.02	81.33%	81.52%
Cockles	7.8	3.9	3.9	3.9	3.9	35.88	0.59	0.21	0.20	58.10%	57.58%
Scallops	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Mussels	13.7	11.8	11.8	3.9	5.9	13.90	0.23	0.08	0.15	37.67%	37.74%
Crabs	21.6	2.0	2.0	21.6	9.8	3.35	0.05	0.02	0.08	81.33%	79.81%
Dungeness Crab	9.8	2.0	2.0	9.8	5.9	3.35	0.05	0.02	0.08	81.33%	79.81%
King Crab	5.9	0.0	0.0	5.9	2.0	0.00	0.00	0.00	0.00	0.00%	0.00%
King Crab, Unknown	5.9	0.0	0.0	5.9	2.0	0.00	0.00	0.00	0.00	0.00%	0.00%
Tanner Crab	15.7	0.0	0.0	15.7	5.9	0.00	0.00	0.00	0.00	0.00%	0.00%

Table VIII-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Port Graham, 1993/94

Resource Name	Percentage of Households			Pounds Harvested			Amount Harvested			95% Cont Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Tanner Crab, Unknown	15.7	0.0	0.0	15.7	5.9	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Crabs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Chitons (bidarkis)	96.1	68.6	68.6	72.5	60.8	999.92	16.39	5.73	249.98 gal	4.10	15.02%	14.69%
Chitons (large)	2.0	0.0	0.0	2.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Chitons (small)	96.1	68.6	68.6	72.5	60.8	999.92	16.39	5.73	249.98 gal	4.10	15.02%	14.69%
Octopus	72.5	47.1	41.2	54.9	41.2	480.82	7.88	2.75	120.21	1.97	21.06%	20.43%
Sea Urchin	2.0	0.0	0.0	2.0	2.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Shrimp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Snails	47.1	35.3	33.3	25.5	19.6	63.69	1.04	0.36	42.46 gal	0.70	21.27%	22.34%
Wheik	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Limpets	2.0	2.0	2.0	2.0	2.0	8.97	0.15	0.05	5.98 gal	0.10	81.33%	82.65%
Oyster	3.9	0.0	0.0	3.9	2.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Plants and Berries	96.1	92.2	92.2	68.6	62.7	2,213.94	36.29	12.68	553.49 gal	9.07	11.93%	10.38%
Berries	96.1	88.2	88.2	49.0	54.9	1,973.53	32.35	11.30	493.38 gal	8.09	13.20%	11.58%
Plants/Greens/Mushrooms	41.2	39.2	39.2	5.9	9.8	120.80	1.98	0.69	30.20 gal	0.50	20.43%	21.22%
Seaweed/Kelp (Food)	56.9	29.4	29.4	41.2	31.4	119.61	1.96	0.68	29.90 gal	0.49	24.61%	24.33%
Bull Kelp	56.9	29.4	29.4	41.2	31.4	119.61	1.96	0.68	29.90 gal	0.49	24.61%	24.33%
Fertilizer	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Vegetative Fertilizer	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Seaweed/Kelp (Non-food)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Wood	68.6	58.8	58.8	21.6	23.5	0.00	0.00	0.00	155.49 crd	2.55	13.49%	0.00%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-36. Estimated Amount of Resources Removed From Commercial Harvest, Port Graham, 1993/94

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		293.33	0.90	0.79
Fish		293.33	0.99	0.79
Salmon	43.06	146.93	0.86	0.40
Coho Salmon	2.39	10.76	0.24	0.03
Chinook Salmon	1.20	10.33	0.24	0.03
Sockeye Salmon	37.08	117.91	5.68	0.32
Unknown Salmon	2.39	7.92	40.00	0.02
Non-Salmon Fish		146.40	1.15	0.40
Sablefish (Black Cod)	2.39	7.42	6.25	0.02
Hallbut	4.07	86.36	1.91	0.23
Rockfish	13.16	52.63	15.79	0.14
Red Rockfish	13.16	52.63	50.00	0.14

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-37. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Port Graham, 1993/94

Resource	Percent Base	Subsistence Methods										Removed from Commercial Catch		Rod and Reel		Any Method	
		Setnet		Handpick		Subsistence Gear Any Method		No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.
	total	31.43	39.60	1.05	0.55	32.48	40.16	0.95	0.86	66.57	58.98						
Chum Salmon	gear type	11.80	11.29	0.00	0.00	11.42	11.14	0.00	0.00	13.39	18.23						
	resource total	29.38	29.38	0.00	0.00	29.38	29.38	0.00	0.00	70.63	70.63					12.62	15.23
Coho Salmon	gear type	21.26	20.30	0.00	0.00	20.57	20.02	5.56	7.33	22.17	30.11						
	resource total	31.09	31.09	0.00	0.00	31.09	31.09	0.24	0.24	68.67	68.67					21.49	25.86
Chinook Salmon	gear type	25.77	47.26	0.00	0.00	24.94	46.61	2.78	7.03	4.23	11.02						
	resource total	74.04	74.04	0.00	0.00	74.04	74.04	0.24	0.24	25.72	25.72					10.94	25.28
Pink Salmon	gear type	25.86	10.81	100.00	100.00	28.26	12.04	0.00	0.00	46.98	27.93						
	resource total	20.09	20.09	2.60	2.60	22.69	22.69	0.00	0.00	77.31	77.31					40.45	21.31
Sockeye Salmon	gear type	15.15	10.22	0.00	0.00	14.66	10.08	86.11	80.25	13.20	12.67						
	resource total	33.15	33.15	0.00	0.00	33.15	33.15	5.68	5.68	61.17	61.17					14.36	12.21
Landlocked Salmo	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
	resource total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					0.00	0.00
Unknown Salmon	gear type	0.17	0.12	0.00	0.00	0.16	0.12	5.56	5.39	0.04	0.04						
	resource total	40.00	40.00	0.00	0.00	40.00	40.00	40.00	40.00	20.00	20.00					0.13	0.12
	total	0.05	0.05	0.00	0.00	0.05	0.05	0.05	0.05	0.03	0.02						

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-38. Estimated Salmon Harvest by Gear Type and Species, Port Graham, 1993/94

Harvest Units	Subsistence Methods												Removed from Commercial Catch			Rod and Reel			Any Method		
	Setnet			Handpick			Subsistence Gear Any Method			Total	HH Mean	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean			
	Total	HH Mean	HH Mean	Total	HH Mean	HH Mean	Total	HH Mean	HH Mean												
Salmon numbers pounds	1,429.31 6,735.07	23.43 110.41	23.43 110.41	47.84 94.25	0.78 1.55	0.78 1.55	1,477.16 6,829.32	24.22 111.96	24.22 111.96	43.06 146.93	0.71 2.41	0.71 2.41	3,027.27 10,029.87	49.63 164.42	49.63 164.42	4,547.49 17,006.12	74.55 278.79	74.55 278.79			
Chum Salmon numbers pounds	168.65 760.60	2.76 12.47	2.76 12.47	0.00 0.00	0.00 0.00	0.00 0.00	168.65 760.60	2.76 12.47	2.76 12.47	0.00 0.00	0.00 0.00	0.00 0.00	405.47 1,828.67	6.65 29.98	6.65 29.98	574.12 2,589.27	9.41 42.45	9.41 42.45			
Coho Salmon numbers pounds	303.80 1,367.12	4.98 22.41	4.98 22.41	0.00 0.00	0.00 0.00	0.00 0.00	303.80 1,367.12	4.98 22.41	4.98 22.41	2.39 10.76	0.04 0.18	0.04 0.18	671.00 3,019.50	11.00 49.50	11.00 49.50	977.20 4,397.38	16.02 72.09	16.02 72.09			
Chinook Salmon numbers pounds	368.39 3,182.91	6.04 52.18	6.04 52.18	0.00 0.00	0.00 0.00	0.00 0.00	368.39 3,182.91	6.04 52.18	6.04 52.18	1.20 10.33	0.02 0.17	0.02 0.17	127.98 1,105.75	2.10 18.13	2.10 18.13	497.57 4,298.99	8.16 70.48	8.16 70.48			
Pink Salmon numbers pounds	369.59 728.09	6.06 11.94	6.06 11.94	47.84 94.25	0.78 1.55	0.78 1.55	417.43 822.34	6.84 13.48	6.84 13.48	0.00 0.00	0.00 0.00	0.00 0.00	1,422.14 2,801.61	23.31 45.93	23.31 45.93	1,839.57 3,623.95	30.16 59.41	30.16 59.41			
Sockeye Salmon numbers pounds	216.49 688.44	3.55 11.29	3.55 11.29	0.00 0.00	0.00 0.00	0.00 0.00	216.49 688.44	3.55 11.29	3.55 11.29	37.08 117.91	0.61 1.93	0.61 1.93	399.49 1,270.38	6.55 20.83	6.55 20.83	653.06 2,076.73	10.71 34.04	10.71 34.04			
Landlocked Salmon numbers pounds	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00			
Unknown Salmon numbers pounds	2.39 7.92	0.04 0.13	0.04 0.13	0.00 0.00	0.00 0.00	0.00 0.00	2.39 7.92	0.04 0.13	0.04 0.13	2.39 7.92	0.04 0.13	0.04 0.13	1.20 3.96	0.02 0.06	0.02 0.06	5.98 19.80	0.10 0.32	0.10 0.32			

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-39. Percentage of Households Harvesting Salmon by Gear Type and Species, Port Graham, 1993/94

Resource	Subsistence Methods				Removed from Commercial Catch	Rod and Reel	Any Method
	Setnet	Handpick	Subsistence Gear	Any			
Salmon	49.02	1.96	50.98		5.88	82.35	82.35
Chum Salmon	17.65	0.00	17.65		0.00	50.98	54.90
Coho Salmon	19.61	0.00	19.61		1.96	64.71	66.67
Chinook Salmon	47.06	0.00	47.06		1.96	23.53	60.78
Pink Salmon	21.57	1.96	23.53		0.00	72.55	76.47
Sockeye Salmon	17.65	0.00	17.65		3.92	43.14	54.90
Landlocked Salmon	0.00	0.00	0.00		0.00	0.00	0.00
Unknown Salmon	1.96	0.00	1.96		1.96	1.96	5.88

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-40. Estimated Harvest of Fish Other than Salmon by Gear Type, Port Graham, 1993/94

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	8,182.55	134.14	146.40	2.40	4,363.51	71.53	0.00	0.00	12,692.46	208.07
Lingcod	19.14	0.31	0.00	0.00	0.00	0.00	0.00	0.00	19.14	0.31
Pacific Tom Cod	29.90	0.49	0.00	0.00	0.60	0.01	0.00	0.00	30.50	0.50
Pacific Cod (Gray)	199.03	3.26	0.00	0.00	183.72	3.01	0.00	0.00	382.75	6.27
Sablefish (Black Cod)	0.00	0.00	7.42	0.12	111.24	1.82	0.00	0.00	118.65	1.95
Unknown Flounder	53.82	0.88	0.00	0.00	358.82	5.88	0.00	0.00	412.65	6.76
Sole, Unknown	1.20	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.02
Halibut	1,345.83	22.06	86.36	1.42	3,080.62	50.50	0.00	0.00	4,512.80	73.98
Herring	204.53	3.35	0.00	0.00	0.00	0.00	0.00	0.00	204.53	3.35
Herring Roe	35.58	0.58	0.00	0.00	0.00	0.00	0.00	0.00	35.58	0.58
Black Rockfish (black bass)	28.71	0.47	0.00	0.00	168.65	2.76	0.00	0.00	197.35	3.24
Red Rockfish	28.71	0.47	52.63	0.86	23.92	0.39	0.00	0.00	105.25	1.73
Unknown Rockfish	0.00	0.00	0.00	0.00	30.72	0.50	0.00	0.00	30.72	0.50
Irish Lord	4.78	0.08	0.00	0.00	0.00	0.00	0.00	0.00	4.78	0.08
Unknown Sculpin	5.98	0.10	0.00	0.00	0.00	0.00	0.00	0.00	5.98	0.10
Kelp Greenling	0.00	0.00	0.00	0.00	14.35	0.24	0.00	0.00	14.35	0.24
Unknown Greenling	21.53	0.35	0.00	0.00	2.39	0.04	0.00	0.00	23.92	0.39
Wolf Eel (Wolfish)	4.78	0.08	0.00	0.00	0.00	0.00	0.00	0.00	4.78	0.08
Dolly Varden	6,197.36	101.60	0.00	0.00	373.42	6.12	0.00	0.00	6,570.78	107.72
Rainbow Trout	1.67	0.03	0.00	0.00	15.07	0.25	0.00	0.00	16.75	0.27

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-41. Percentage of Fish Other Than Salmon Harvested by Gear Type, Port Graham, 1993/94

Resource	Percent Base	Subsistence Gear Lbs.	Removed from Commercial Catch Lbs.	Rod and Reel Lbs.	Ice Fishing Lbs.
Non-Salmon Fish	resource	64.47	1.15	34.38	0.00
Lingcod	resource	100.00	0.00	0.00	0.00
Pacific Tom Cod	resource	98.04	0.00	1.96	0.00
Pacific Cod (Gray)	resource	52.00	0.00	48.00	0.00
Sablefish (Black Cod)	resource	0.00	6.25	93.75	0.00
Unknown Flounder	resource	13.04	0.00	86.96	0.00
Sole, Unknown	resource	100.00	0.00	0.00	0.00
Hallibut	resource	29.82	1.91	68.26	0.00
Herring Roe	resource	100.00	0.00	0.00	0.00
Black Rockfish (black bass)	resource	14.55	0.00	85.45	0.00
Red Rockfish	resource	27.27	50.00	22.73	0.00
Unknown Rockfish	resource	0.00	0.00	100.00	0.00
Irish Lord	resource	100.00	0.00	0.00	0.00
Unknown Sculpin	resource	100.00	0.00	0.00	0.00
Kelp Greenling	resource	0.00	0.00	100.00	0.00
Unknown Greenling	resource	90.00	0.00	10.00	0.00
Wolf Eel (Wolffish)	resource	100.00	0.00	0.00	0.00
Dolly Varden	resource	94.32	0.00	5.68	0.00
Rainbow Trout	resource	10.00	0.00	90.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table VIII-42. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Port Graham, 1993/94

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	41.18	7.84	60.78	0.00	70.59
Lingcod	1.96	0.00	0.00	0.00	1.96
Pacific Tom Cod	5.88	0.00	1.96	0.00	7.84
Pacific Cod (Gray)	9.80	0.00	17.65	0.00	23.53
Sablefish (Black Cod)	0.00	1.96	1.96	0.00	3.92
Unknown Flounder	3.92	0.00	13.73	0.00	17.65
Sole, Unknown	1.96	0.00	0.00	0.00	1.96
Hallbut	23.53	5.88	43.14	0.00	60.78
Herring	9.80	0.00	0.00	0.00	9.80
Herring Roe	3.92	0.00	0.00	0.00	3.92
Black Rockfish (black bass)	3.92	0.00	13.73	0.00	17.65
Red Rockfish	1.96	3.92	1.96	0.00	7.84
Unknown Rockfish	0.00	0.00	1.96	0.00	1.96
Irish Lord	1.96	0.00	0.00	0.00	1.96
Unknown Sculpin	1.96	0.00	0.00	0.00	1.96
Kelp Greenling	0.00	0.00	1.96	0.00	1.96
Unknown Greenling	3.92	0.00	3.92	0.00	7.84
Wolf Eel (Wolfish)	1.96	0.00	0.00	0.00	1.96
Dolly Varden	17.65	0.00	37.25	0.00	47.06
Rainbow Trout	1.96	0.00	1.96	0.00	3.92

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Figure VIII-14. Composition of Harvests by Resource Category, Port Graham, 1987, 1989, 1990/91, 1991/92, 1992/93, 1993/94

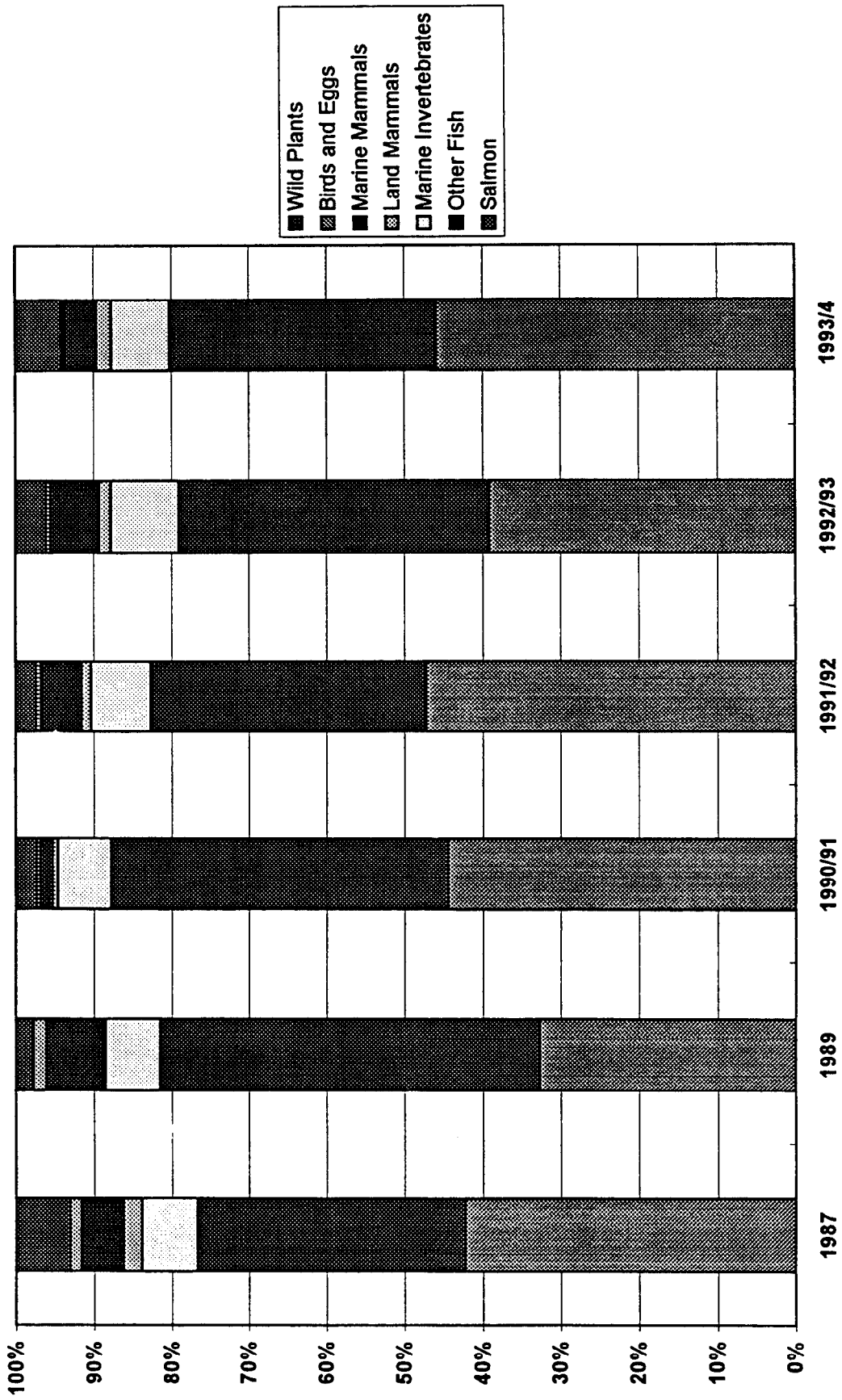


Table VIII-43. Uses of Wild Foods, Port Graham

	STUDY YEAR		
	1991	1992	1993
ANY WILD FOODS EATEN YESTERDAY?			
No	24 52.2%	13 27.7%	22 46.8%
Yes	22 47.8%	34 72.3%	25 53.2%
WILD FOODS AS MAIN PART OF A MEAL			
No	31 67.4%	25 53.2%	31 66.0%
Yes	15 32.6%	22 46.8%	16 34.0%
HARVEST OF WILD FOODS BY RESPONDENT			
No	40 87.0%	37 78.7%	43 91.5%
Yes	6 13.0%	10 21.3%	4 8.5%
WF HARVESTED BY RELATIVE IN HH			
No	43 93.5%	38 80.9%	43 91.5%
Yes	3 6.5%	9 19.1%	4 8.5%
WF HARVESTED BY RELATIVE IN ANOTHER HH			
No	38 82.6%	35 74.5%	35 74.5%
Yes	8 17.4%	12 25.5%	12 25.5%
WF HARVESTED BY RELATIVE IN ANOTHER COMM.			
No	45 97.8%	46 97.9%	45 95.7%
Yes	1 2.2%	1 2.1%	2 4.3%
WF HARVESTED BY FRIEND IN HH			
No	45 97.8%	45 95.7%	46 97.9%
Yes	1 2.2%	2 4.3%	1 2.1%
WF HARVESTED BY FRIEND IN COMMUNITY			
No	41 89.1%	41 87.2%	43 91.5%
Yes	5 10.9%	6 12.8%	4 8.5%
WF HARVESTED BY FRIEND IN ANOTHER COMM.			
No	46 100.0%	46 97.9%	47 100.0%
Yes		1 2.1%	

Table VIII-43. Uses of Wild Foods, Port Graham

	STUDY YEAR		
	1991	1992	1993
ANY WILD FOODS EATEN YESTERDAY?			
No	24 52.2%	13 27.7%	22 46.8%
Yes	22 47.8%	34 72.3%	25 53.2%
WILD FOODS AS MAIN PART OF A MEAL			
No	31 67.4%	25 53.2%	31 66.0%
Yes	15 32.6%	22 46.8%	16 34.0%
HARVEST OF WILD FOODS BY RESPONDENT			
No	40 87.0%	37 78.7%	43 91.5%
Yes	6 13.0%	10 21.3%	4 8.5%
WF HARVESTED BY RELATIVE IN HH			
No	43 93.5%	38 80.9%	43 91.5%
Yes	3 6.5%	9 19.1%	4 8.5%
WF HARVESTED BY RELATIVE IN ANOTHER HH			
No	38 82.6%	35 74.5%	35 74.5%
Yes	8 17.4%	12 25.5%	12 25.5%
WF HARVESTED BY RELATIVE IN ANOTHER COMM.			

(continued)

Table VIII-44. Safety of Using Subsistence Foods, Port Graham

	STUDY YEAR		
	1991	1992	1993
DO YOU EAT BIDARKIES?			
No Count Col %	2 4.3%	2 4.3%	2 4.3%
Yes Count Col %	45 95.7%	45 95.7%	45 95.7%
IS EATING BIDARKIES IMPORTANT TO YOU?			
No Count Col %	8 17.4%		
Yes Count Col %	38 82.6%		
BIDARKIE HARVEST AREAS SAFE?			
Do Not Know Count Col %	4 10.5%	6 13.3%	1 2.2%
Not Safe Count Col %	7 18.4%	3 6.7%	8 17.8%
Safe Count Col %	27 71.1%	36 80.0%	36 80.0%
WHY BIDARKIES NOT SAFE TO EAT			
No Response Count Col %	2 33.3%		
Oil pollution or fear of contamination Count Col %	3 50.0%	1 33.3%	2 25.0%
Do not trust food safety information Count Col %		1 33.3%	1 12.5%
Pollution from non-oil spill source Count			1

(continued)

Table VIII-44. Safety of Using Subsistence Foods, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %			12.5%
Unsure about safety Count Col %	1 16.7%		3 37.5%
Safe to eat if you know which ones to take Count Col %		1 33.3%	
Nonspecific concern Count Col %			1 12.5%
DO YOU EAT CLAMS?			
Yes Count Col %		47 100.0%	47 100.0%
ARE CLAMS SAFE FOR CHILDREN TO EAT?			
Do Not Know Count Col %	9 20.9%	4 8.7%	5 10.6%
Not Safe Count Col %	15 34.9%	10 21.7%	13 27.7%
Safe Count Col %	19 44.2%	32 69.6%	29 61.7%
WHY CLAMS NOT SAFE TO EAT			
No Response Count Col %	2 18.2%		1 7.1%
Fearful of PSP poisoning Count Col %			4 36.4%
Oil pollution or fear of contamination Count Col %	5 45.5%	7 70.0%	9 64.3%

(continued)

Table VIII-44. Safety of Using Subsistence Foods, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %	50.0%		
Oil pollution or fear of contamination Count	5	4	3
Col %	50.0%	80.0%	33.3%
Do not trust food safety information Count		1	1
Col %		20.0%	11.1%
Pollution from non-oil spill source Count			1
Col %			11.1%
Unsure about safety Count			4
Col %			44.4%

Table VIII-44. Safety of Using Subsistence Foods, Port Graham

	STUDY YEAR		
	1991	1992	1993
Do not trust food safety information Count		1	
Col %		10.0%	
Unsure about safety Count		2	3
Col %		20.0%	21.4%
Nonspecific concern Count			1
Col %			7.1%
DO YOU EAT SEAL OIL OR SEAL MEAT? NO		1	4
Count		2.1%	8.5%
Col %			
Yes		46	43
Count		97.9%	91.5%
Col %			
IS EATING SEAL MEAT OR OIL IMPORTANT? NO	7		
Count	15.2%		
Col %			
Yes	39		
Count	84.8%		
Col %			
ARE SEALS FROM HARVEST AREAS SAFE TO EAT? Do Not Know	3	8	2
Count	7.7%	17.4%	4.7%
Col %			
Not Safe	12	5	9
Count	30.8%	10.9%	20.9%
Col %			
Safe	24	33	32
Count	61.5%	71.7%	74.4%
Col %			
WHY SEAL NOT SAFE TO EAT No Response	5		
Count			

(continued)

Table VIII-45. Resource Population Statuses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Same Count Col %	23 51.1%	13 28.3%	11 26.8%
More Count Col %	8 17.8%	21 45.7%	9 22.0%
COMPARED TO 1988: HARBOR SEAL			
Do Not Know Count Col %	3 6.7%	7 15.2%	4 9.8%
Less Count Col %	37 82.2%	37 80.4%	31 75.6%
Same Count Col %	5 11.1%	1 2.2%	4 9.8%
More Count Col %		1 2.2%	2 4.9%
COMPARED TO 1988: SEA LIONS			
No Response Count Col %		1 2.2%	
Do Not Know Count Col %	9 20.0%	8 17.4%	7 17.1%
Less Count Col %	26 57.8%	33 71.7%	29 70.7%
Same Count Col %	9 20.0%	3 6.5%	4 9.8%
More Count Col %	1 2.2%	1 2.2%	1 2.4%

(continued)

Table VIII-45. Resource Population Statuses, Port Graham

	STUDY YEAR		
	1991	1992	1993
COMPARED TO 1988: DEER			
No Response Count Col %		1 4.5%	
Do Not Know Count Col %		13 59.1%	4 30.8%
Less Count Col %		6 27.3%	3 23.1%
Same Count Col %		2 9.1%	5 38.5%
More Count Col %			1 7.7%
COMPARED TO 1988: MOOSE			
Do Not Know Count Col %		13 28.9%	12 30.0%
Less Count Col %		10 22.2%	12 30.0%
Same Count Col %		13 28.9%	13 32.5%
More Count Col %		9 20.0%	3 7.5%
COMPARED TO 1988: BEAR			
Do Not Know Count Col %	4 8.9%	5 10.9%	5 12.2%
Less Count Col %	10 22.2%	7 15.2%	16 39.0%

(continued)

Table VIII-45. Resource Population Statuses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Same Count Col %	20 44.4%	22 47.8%	14 34.1%
More Count Col %	12 26.7%	13 28.5%	13 31.7%
COMPARED TO 1988: CLAMS Do Not Know Count Col %	7 15.6%	3 6.5%	5 12.2%
Less Count Col %	29 64.4%	33 71.7%	28 68.3%
Same Count Col %	9 20.0%	8 17.4%	7 17.1%
More Count Col %	4 8.9%	2 4.5%	1 2.4%
COMPARED TO 1988: BIDARKIES Do Not Know Count Col %	4 8.9%	3 6.5%	3 7.3%
Less Count Col %	26 57.8%	34 73.9%	27 65.9%
Same Count Col %	14 31.1%	6 13.0%	12 29.5%
More Count Col %	1 2.2%	3 6.5%	2 4.9%
COMPARED TO 1988: SEA URCHINS Do Not Know Count Col %	15 33.3%	16 34.8%	13 31.7%

(continued)

Table VIII-45. Resource Population Statuses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Less Count Col %	22 48.9%	26 56.5%	25 61.0%
Same Count Col %	8 17.8%	2 4.3%	2 4.9%
More Count Col %		2 4.3%	1 2.4%
COMPARED TO 1988: OCTOPUS Do Not Know Count Col %	8 17.8%	5 10.9%	4 9.8%
Less Count Col %	15 33.3%	28 60.9%	21 51.2%
Same Count Col %	18 40.0%	12 26.1%	15 36.6%
More Count Col %	4 8.9%	1 2.2%	1 2.4%

Table VIII-45. Resource Population Statuses, Port Graham

	STUDY YEAR		
	1991	1992	1993
More Count Col %	2 4.4%	2 4.3%	3 7.3%
COMPARED TO 1988: HALIBUT Do Not Know Count Col %	1 2.2%	6 13.0%	5 12.2%
Less Count Col %	10 22.2%	14 30.4%	18 43.9%
Same Count Col %	31 68.9%	21 45.7%	15 36.6%
More Count Col %	3 6.7%	5 10.9%	3 7.3%
COMPARED TO 1988: ROCKFISH Do Not Know Count Col %	20 45.5%	19 42.2%	17 41.5%
Less Count Col %	5 11.4%	11 24.4%	13 31.7%
Same Count Col %	18 40.9%	14 31.1%	9 22.0%
More Count Col %	1 2.3%	1 2.2%	2 4.9%
COMPARED TO 1988: DOLLY VARDEN Do Not Know Count Col %	7 15.6%	6 13.0%	5 12.2%
Less Count Col %	6 13.3%	5 10.9%	9 22.0%

(continued)

Table VIII-45. Resource Population Statuses, Port Graham

	STUDY YEAR		
	1991	1992	1993
COMPARED TO 1988: SEA DUCKS Do Not Know Count Col %	10 22.2%	9 19.6%	4 9.8%
Less Count Col %	22 48.9%	24 52.2%	26 63.4%
Same Count Col %	12 26.7%	9 19.6%	9 22.0%
More Count Col %	1 2.2%	4 8.7%	2 4.9%
COMPARED TO 1988: COMMON MURRE Do Not Know Count Col %	13 29.5%	24 52.2%	11 26.8%
Less Count Col %	18 40.9%	16 34.8%	23 56.1%
Same Count Col %	13 29.5%	4 8.7%	5 12.2%
More Count Col %	2 4.3%	2 4.3%	2 4.9%
COMPARED TO 1988: SALMON Do Not Know Count Col %	5 11.1%	3 6.5%	1 2.4%
Less Count Col %	21 46.7%	35 76.1%	25 61.0%
Same Count Col %	17 37.8%	6 13.0%	12 29.3%

(continued)

Table VIII-46. Children's Participation in Subsistence, Port Graham

	STUDY YEAR		
	1991	1992	1993
DOES YOUR HOUSEHOLD PROCESS WILD FOODS?			
No Response Count Col %			1 2.1%
No Count Col %		4 4.3%	
Yes Count Col %		45 95.7%	46 97.9%
DO CHILDREN HELP YOUR HH PROCESS WILD FOODS?			
Do Not Know Count Col %			1 2.1%
No Count Col %	27 58.7%	21 44.7%	21 44.7%
Yes Count Col %	19 41.3%	26 55.3%	25 53.2%
DID EVOS AFFECT PARTICIPATION WITH CHILDREN?			
No Response Count Col %			1 2.3%
No Count Col %	27 58.7%	30 65.2%	19 43.2%
Yes Count Col %	19 41.3%	16 34.8%	24 54.5%
WHY EVOS AFFECTED PARTICIPATION WITH CHILDREN			
No Response Count Col %	3 15.8%	1 6.3%	

(continued)

Table VIII-46. Children's Participation in Subsistence, Port Graham

	STUDY YEAR		
	1991	1992	1993
Resources were not available Count Col %	3 15.8%		2 8.3%
Were too busy with other affairs Count Col %	3 15.8%	6 37.5%	11 45.8%
Did not trust foods Count Col %	3 15.8%	3 18.8%	4 16.7%
Afraid to take kids to the beach Count Col %	1 5.3%	1 6.3%	1 4.2%
Less harvesting activity Count Col %	2 10.5%		1 4.2%
Areas were no longer available for harvesting Count Col %		3 18.8%	
Oil pollution threatened everything Count Col %	1 5.3%		2 8.3%
Decreased effort because of the spill Count Col %	1 5.3%	1 6.3%	
Purchased more so nothing available to process Count Col %	1 5.3%		
Heightened awareness and involvement with children Count Col %		1 6.3%	1 4.2%
Did not want to go out because of the oil spill Count			2

(continued)

Table VIII-46. Children's Participation in Subsistence, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %			8.3%
Stress and attitude changes			
Count	1		
Col %	5.3%		

Table VIII-47. Sharing, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %		2.3%	
Less Count Col %	5 16.1%	9 20.9%	16 35.6%
Same Count Col %	20 64.5%	25 58.1%	24 53.3%
More Count Col %	6 19.4%	8 18.6%	5 11.1%
PREV. YEAR: SHARING OF LABOR			
Do Not Know Count Col %		1 2.2%	2 4.4%
Less Count Col %	6 13.6%	8 17.4%	5 11.1%
Same Count Col %	28 63.6%	27 58.7%	23 51.1%
More Count Col %	10 22.7%	10 21.7%	15 33.3%
PRE-OS: SHARING OF WILD RESOURCES			
Less Count Col %	14 31.8%	19 40.4%	12 28.6%
Same Count Col %	19 43.2%	18 38.3%	20 47.6%
More Count Col %	11 25.0%	10 21.3%	10 23.8%
PRE-OS: SHARING OF HUNT/FISH GEAR Do Not Know Count			

(continued)

Table VIII-47. Sharing, Port Graham

	STUDY YEAR		
	1991	1992	1993
DID HOUSEHOLD SHARE?			
Do Not Know Count Col %		1 2.1%	1 2.1%
No Count Col %	7 15.2%	6 12.8%	7 14.9%
Yes Count Col %	39 84.8%	40 85.1%	39 83.0%
PREV. YEAR: SHARING OF WILD RES.			
Less Count Col %	8 17.8%	12 25.5%	11 24.4%
Same Count Col %	27 60.0%	27 57.4%	20 44.4%
More Count Col %	10 22.2%	8 17.0%	14 31.1%
PREV. YEAR: SHARING OF HUNT/FISH GEAR			
Do Not Know Count Col %			1 2.2%
Less Count Col %		10 23.3%	6 13.3%
Same Count Col %	24 77.4%	30 69.8%	27 60.0%
More Count Col %	7 22.6%	3 7.0%	11 24.4%
PREV. YEAR: SHARING OF MONEY Do Not Know Count		1	

(continued)

Table VIII-47. Sharing, Port Graham

	STUDY YEAR		
	1991	1992	1993
Count	10	8	9
Col %	22.2%	17.4%	21.4%

Table VIII-47. Sharing, Port Graham

	STUDY YEAR		
	1991	1992	1993
Count	1	2	2
Col %	2.9%	4.8%	4.8%
Less			
Count	2	11	10
Col %	5.7%	25.6%	23.8%
Same			
Count	24	29	24
Col %	68.6%	67.4%	57.1%
More			
Count	8	3	6
Col %	22.9%	7.0%	14.3%
PRE-OS: SHARING OF MONEY			
Do Not Know			
Count	1	1	1
Col %	2.6%	2.3%	2.4%
Less			
Count	7	12	20
Col %	18.4%	27.3%	47.6%
Same			
Count	22	22	17
Col %	57.9%	50.0%	40.5%
More			
Count	8	9	4
Col %	21.1%	20.5%	9.5%
PRE-OS: SHARING OF LABOR			
Do Not Know			
Count	1		
Col %	2.2%		
Less			
Count	5	13	9
Col %	11.1%	28.3%	21.4%
Same			
Count	29	25	24
Col %	64.4%	54.3%	57.1%
More			

(continued)

Table VIII-48. Political Activities, Port Graham

	STUDY YEAR		
	1991	1992	1993
LAST 3 YRS.: ELDERS INFLUENCE			
Do Not Know Count Col %	3 6.5%		
Decreased Count Col %	25 54.3%		
Same Count Col %	15 32.6%		
Increased Count Col %	3 6.5%		
LAST 4 YRS.: ELDERS INFLUENCE			
Do Not Know Count Col %		3 6.4%	
Decreased Count Col %		24 51.1%	
Same Count Col %		11 23.4%	
Increased Count Col %		9 19.1%	
LAST 5 YRS.: ELDERS INFLUENCE			
Do Not Know Count Col %			2 4.5%
Decreased Count Col %			22 50.0%
Same Count Col %			11 25.0%

(continued)

Table VIII-48. Political Activities, Port Graham

	STUDY YEAR		
	1991	1992	1993
Increased Count Col %			9 20.5%
LAST 5 YRS.: ELDERS INFLUENCE: WHY			
Because of city annexation Count Col %			1 3.2%
Because of the crisis in the community since the oil spill Count Col %			1 3.2%
Fewer elders, traditional people passed away Count Col %			6 19.4%
Elders not as active Count Col %			5 16.1%
Elders dissatisfied, frustrated, bitter Count Col %			2 6.5%
Younger individuals usurping authority Count Col %			3 9.7%
Dissatisfaction with traditional ways Count Col %			1 3.2%
Trying to maintain culture Count Col %			2 6.5%
Elders more aware of the power they hold Count Col %			2 6.5%
More voters, more involved Count Col %			1 3.2%

(continued)

Table VIII-48. Political Activities, Port Graham

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %		1 2.2%	13 30.2%
Less Count Col %		16 34.8%	15 34.9%
Same Count Col %		16 34.8%	15 34.9%
More Count Col %		13 28.3%	15 34.9%
LAST YEAR: ATTEND PUBLIC MEETINGS Never Count Col %		8 17.4%	
Sometimes Count Col %		33 71.7%	
Almost Always Count Col %		5 10.9%	
LAST YEAR: ATTEND PUBLIC MEETINGS Do Not Know Count Col %		2 4.3%	6 12.8%
Never Count Col %		7 14.9%	5 10.6%
1.00 Count Col %		7 14.9%	5 10.6%
2.00 Count Col %		4 8.5%	5 10.6%

(continued)

Table VIII-48. Political Activities, Port Graham

	STUDY YEAR		
	1991	1992	1993
Alcohol and drug problems in community Count Col %			1 3.2%
Non-specific response Count Col %			1 3.2%
Elders unable to keep pace with rapid changes Count Col %			1 3.2%
Community is trying to encourage more elder participation Count Col %			1 3.2%
More active dealing with oil spill problems Count Col %			1 3.2%
A lot of arguing in the community Count Col %			1 3.2%
Other activities occupy elders time and attention Count Col %			1 3.2%
PRE-EVOS: ATTEND PUBLIC MEETINGS Never Count Col %	7 15.2%		
Sometimes Count Col %	32 69.6%		
Almost Always Count Col %	7 15.2%		
PRE-EVOS: ATTEND PUBLIC MEETINGS			

(continued)

Table VIII-48. Political Activities, Port Graham

	STUDY YEAR		
	1991	1992	1993
3.00 Count Col %		6 12.8%	3 6.4%
4.00 Count Col %		4 8.5%	7 14.9%
5.00 Count Col %		6 12.8%	2 4.3%
6.00 Count Col %		4 8.5%	2 4.3%
8.00 Count Col %			4 8.5%
10.00 Count Col %		3 6.4%	2 4.3%
11.00 Count Col %			1 2.1%
12.00 Count Col %		3 6.4%	2 4.3%
15.00 Count Col %		1 2.1%	4 8.5%
20.00 Count Col %			1 2.1%
35.00 Count Col %			1 2.1%
45.00 Count			1

(continued)

Table VIII-48. Political Activities, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %			2.1%
99.00 Count Col %			1 2.1%
VOTE IN LAST CITY COUNCIL ELECTION?			
No Count Col %	12 27.3%		
Yes Count Col %	32 72.7%		
VOTE IN LAST STATE-WIDE ELECTION?			
No Response Count Col %		1 2.1%	
No Count Col %	9 19.6%	7 14.9%	14 29.8%
Yes Count Col %	37 80.4%	39 83.0%	33 70.2%
BELONG TO NATIVE CORPORATION?			
No Count Col %	6 13.0%	3 6.4%	6 12.8%
Yes Count Col %	40 87.0%	44 93.6%	41 87.2%
REGIONAL NATIVE CORPORATION Chugach Alaska Corp.			
Count Col %	37 92.5%	39 88.6%	35 85.4%
Cook Inlet Region, Inc. Count Col %	2 5.0%	4 9.1%	6 14.6%

(continued)

Table VIII-48. Political Activities, Port Graham

	STUDY YEAR		
	1991	1992	1993
Seldovia Native Association Count Col %	1 2.6%	3 6.8%	3 7.5%
VOTE IN LAST NATIVE VILLAGE CORP. ELECTION?			
No Count Col %	4 10.0%	4 9.3%	3 7.5%
Yes Count Col %	36 90.0%	39 90.7%	37 92.5%
HAS VIEW OF LEADER CHANGED SINCE EVOS?			
No Response Count Col %	3 6.7%	1 2.1%	1 2.2%
Do Not Know Count Col %	2 4.4%	2 4.5%	3 6.7%
No Count Col %	27 60.0%	30 63.8%	22 48.9%
Yes Count Col %	13 28.9%	14 29.8%	19 42.2%
WHY POST EVOS VIEW OF LEADERS			
No Response Count Col %	1 7.1%	1 6.7%	2 11.1%
Do Not Know Count Col %			
Trust Count Col %	3 21.4%	4 26.7%	4 22.2%
Awareness/Involvement Count	3	5	7

(continued)

Table VIII-48. Political Activities, Port Graham

	STUDY YEAR		
	1991	1992	1993
Koniag, Inc. Count Col %	1 2.5%		
Sealaska Corp. Count Col %		1 2.3%	
VOTE IN LAST REG. CORP. ELECTION?			
No Response Count Col %	3 7.5%		
No Count Col %	8 20.0%	8 18.2%	7 17.1%
Yes Count Col %	29 72.5%	36 81.8%	34 82.9%
VILLAGE NATIVE CORPORATION None, At Large Count Col %		2 4.5%	1 2.5%
Afognak Native Corporation Count Col %		1 2.3%	
Akhiok-Kaguyak, Incorporated Count Col %	1 2.6%		
Salamantoff Native Association (Kenai) Count Col %			1 2.5%
English Bay Corporation (Nanwalek) Count Col %	2 5.1%	2 4.5%	1 2.5%
Port Graham Corporation Count Col %	35 89.7%	36 81.8%	34 85.0%

(continued)

Table VIII-48. Political Activities, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %	21.4%	33.3%	38.9%
Level headed/reasonable Count Col %		2 13.3%	
Represents concerns Count Col %		2 13.3%	1 5.6%
Concern Count Col %	1 7.1%		3 16.7%
Decisive Count Col %	2 14.3%		
Aware of Animosity Count Col %	1 7.1%	1 6.7%	1 5.6%
Environmental awareness Count Col %		3 20.0%	1 5.6%
Ability to listen Count Col %		1 6.7%	
Sobriety/maturity Count Col %	2 14.3%	1 6.7%	1 5.6%
Issue specific reasons Count Col %	1 7.1%		
New Leadership Count Col %	1 7.1%	6 40.0%	

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Count	1		
Col %	2.2%		
Recreational opportunities			
Count	1		1
Col %	2.2%		2.1%
Pace of Life			
Count	1		1
Col %	2.2%		2.1%
Quality of Life			
Count	3		2
Col %	6.5%		4.3%
Cultural Reasons			
Count	1		
Col %	2.2%		
LIVE HERE: WHERE PERSON IS FROM			
No Response			
Count	15	8	1
Col %	32.6%	17.0%	2.1%
No			
Count			10
Col %			21.3%
Yes			
Count	31	39	36
Col %	67.4%	83.0%	76.6%
LIVE HERE: RELATIVES LIVE HERE			
No Response			
Count		1	1
Col %		2.1%	2.1%
No			
Count	4	1	9
Col %	8.7%	2.1%	19.1%
Yes			
Count	42	45	37
Col %	91.3%	95.7%	78.7%
LIVE HERE: MARRIED PERSON FROM HERE			

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
MAIN REASON MOVED TO COMMUNITY			
No Response			
Count			1
Col %			2.1%
Born or reared here			
Count	22	39	33
Col %	47.8%	83.0%	70.2%
Relatives (family)			
Count	6	3	2
Col %	13.0%	6.4%	4.3%
Married a person born or reared here			
Count	2	4	3
Col %	4.3%	8.5%	6.4%
Friends			
Count	1		
Col %	2.2%		
Employment reasons			
Count	4		2
Col %	8.7%		4.3%
Educational opportunities			
Count	1		1
Col %	2.2%		2.1%
Economic reasons			
Count	1		
Col %	2.2%		
Housing/property			
Count	1		
Col %	2.2%		
Size of the community			
Count		1	
Col %		2.1%	
Crime levels			
Count	1		1
Col %	2.2%		2.1%
Personal freedoms (politics)			

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Yes Count Col %	43 93.5%	43 91.5%	41 87.2%
LIVE HERE: JOB OPPORTUNITIES HERE No Response Count Col %	1 2.2%	1 2.1%	1 2.1%
No Count Col %	22 47.8%	23 48.9%	30 63.8%
Yes Count Col %	23 50.0%	23 48.9%	16 34.0%
LIVE HERE: EDUCATIONAL OPPORTUNITIES No Response Count Col %		1 2.1%	2 4.3%
No Count Col %	26 56.5%	14 29.8%	18 38.3%
Yes Count Col %	20 43.5%	32 68.1%	27 57.4%
LIVE HERE: COST OF LIVING No Response Count Col %		1 2.1%	1 2.1%
No Count Col %	19 41.3%	15 31.9%	23 48.9%
Yes Count Col %	27 58.7%	31 66.0%	23 48.9%
LIVE HERE: HOUSING AVAILABLE No Response Count		1	1

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
No Response Count Col %		1 2.1%	1 2.1%
No Count Col %	23 50.0%	23 48.9%	24 51.1%
Yes Count Col %	23 50.0%	23 48.9%	22 46.8%
LIVE HERE: ALWAYS LIVED HERE No Response Count Col %	1 2.2%	1 2.1%	1 2.1%
No Count Col %	10 21.7%	10 21.3%	15 31.9%
Yes Count Col %	35 76.1%	36 76.6%	31 66.0%
LIVE HERE: FRIENDS LIVE HERE No Response Count Col %		1 2.1%	1 2.1%
No Count Col %	7 15.2%	8 17.0%	4 8.5%
Yes Count Col %	39 84.8%	38 80.9%	42 89.4%
LIVE HERE: HUNTING & FISHING HERE No Response Count Col %		1 2.1%	1 2.1%
No Count Col %	3 6.5%	3 6.4%	5 10.6%

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Count	29	34	27
Col %	63.0%	72.3%	57.4%
LIVE HERE: BEAUTY OF AREA			
No Response			
Count		1	2
Col %		2.1%	4.3%
No			
Count	2	2	2
Col %	4.4%	4.3%	4.3%
Yes			
Count	43	44	43
Col %	95.6%	93.6%	91.5%
LIVE HERE: SIZE OF COMMUNITY			
No Response			
Count		1	2
Col %		2.1%	4.3%
No			
Count	5	5	4
Col %	10.9%	10.6%	8.5%
Yes			
Count	41	41	41
Col %	89.1%	87.2%	87.2%
LIVE HERE: LESS CRIME			
No Response			
Count		1	2
Col %		2.1%	4.3%
No			
Count	4	3	5
Col %	8.7%	6.4%	10.6%
Yes			
Count	42	43	40
Col %	91.3%	91.5%	85.1%
LIVE HERE: LESS DRINKING/DRUGS			
No Response			
Count		1	3
Col %		2.1%	6.4%

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Count			
Col %		2.1%	2.1%
No			
Count	8	11	13
Col %	17.4%	23.4%	27.7%
Yes			
Count	38	35	33
Col %	82.6%	74.5%	70.2%
LIVE HERE: STORES			
No Response			
Count		2	1
Col %		4.3%	2.1%
No			
Count	12	8	17
Col %	26.1%	17.0%	36.2%
Yes			
Count	34	37	29
Col %	73.9%	78.7%	61.7%
LIVE HERE: MEDICAL SERVICES			
No Response			
Count		1	1
Col %		2.1%	2.1%
No			
Count	9	10	17
Col %	19.6%	21.3%	36.2%
Yes			
Count	37	36	29
Col %	80.4%	76.6%	61.7%
LIVE HERE: OTHER SERVICES			
No Response			
Count		1	1
Col %		2.1%	2.1%
No			
Count	17	12	19
Col %	37.0%	25.5%	40.4%
Yes			

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Religious Reasons Count Col %		1 7.1%	1 9.1%
Not here by choice Count Col %		1 7.1%	1 9.1%
This is where they established their home Count Col %		1 7.1%	1 9.1%
Safety (non-criminal) Count Col %		1 7.1%	%
More convenient Count Col %			1 9.1%
People are kind and generous Count Col %			1 9.1%
MAIN REASON REMAINING IN COMMUNITY No Response Count Col %	3 6.5%		1 2.1%
Do Not Know Count Col %	1 2.2%		1 2.1%
Born or reared here Count Col %	9 19.6%	9 19.1%	10 21.3%
Relatives (family) Count Col %	3 6.5%	5 10.6%	8 17.0%
Married a person born or reared here Count Col %		2 4.3%	2 4.3%
Family has always lived here			

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
No Count Col %	11 23.9%	17 36.2%	16 34.0%
Yes Count Col %	35 76.1%	29 61.7%	28 59.6%
LIVE HERE: NECESSARY PERSONAL FREEDOMS No Response Count Col %		1 2.1%	2 4.3%
No Count Col %	2 4.3%	4 8.5%	6 12.8%
Yes Count Col %	44 95.7%	42 89.4%	39 83.0%
LIVE HERE: RECREATIONAL OPPORTUNITIES No Response Count Col %		1 2.1%	2 4.3%
No Count Col %	3 6.5%	8 17.0%	7 14.9%
Yes Count Col %	43 93.5%	38 80.9%	38 80.9%
OTHER REASONS FOR LIVING IN COMMUNITY Pace of Life Count Col %	2 20.0%	2 14.3%	4 36.4%
Quality of Life Count Col %	8 80.0%	7 50.0%	2 18.2%
Cultural Reasons Count Col %		3 21.4%	1 9.1%

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Count Col %		6 12.8%	
Friends Count Col %	3 6.5%	3 6.4%	
Subsistence opportunities Count Col %	2 4.3%		7 14.9%
Employment reasons Count Col %	3 6.5%		1 2.1%
Educational opportunities Count Col %	1 2.2%		
Economic reasons Count Col %	1 2.2%	3 6.4%	1 2.1%
Housing/property Count Col %		2 4.3%	1 2.1%
Medical Services Count Col %		1 2.1%	
Environmental qualities Count Col %	4 8.7%	2 4.3%	2 4.3%
Size of the community Count Col %	4 8.7%	2 4.3%	2 4.3%
Crime levels Count Col %			1 2.1%
Personal freedoms (politics) Count Col %	5 10.9%	2 4.3%	2 4.3%

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Recreational opportunities Count Col %	1 2.2%	1 2.1%	1 2.1%
Pace of Life Count Col %	3 6.5%	3 6.4%	3 6.4%
Quality of Life Count Col %	2 4.3%	3 6.4%	2 4.3%
Religious Reasons Count Col %			1 2.1%
Location Count Col %			1 2.1%
Not here by choice Count Col %	1 2.2%	2 4.3%	
Safety (non-criminal) Count Col %		1 2.1%	
POST-EVOS: CHANGE IN LIKING COMMUNITY No Response Count Col %			1 2.4%
Do Not Know Count Col %		2 4.3%	1 2.4%
Less Count Col %			8 19.0%
Same Count Col %	7 15.9%	6 12.8%	33 70.2%
More Count Col %	31 70.5%		28 66.7%

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Less alcohol Count Col %	1 6.7%		
Increased appreciation of surroundings Count Col %	1 6.7%		3 23.1%
Friends have left Count Col %			1 7.7%
RATHER LIVE IN ANOTHER COMMUNITY No Response Count Col %	1 2.2%	1 2.1%	1 2.1%
Do Not Know Count Col %	1 2.2%	3 6.4%	2 4.3%
No Count Col %	32 69.6%	31 66.0%	30 63.8%
Yes Count Col %	12 26.1%	12 25.5%	14 29.8%
EXPECT TO LIVE IN REGION WHEN OLD No Response Count Col %			1 2.2%
Do Not Know Count Col %		5 10.6%	2 4.3%
No Count Col %	7 15.2%	2 4.3%	7 15.2%
Yes Count Col %	39 84.8%	40 85.1%	36 78.3%

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Count Col %	6 13.6%	6 12.8%	4 9.5%
POST-EVOS: WHY CHANGE IN LIKING COMMUNITY No Response Count Col %		2 15.4%	1 7.7%
Non-specific Count Col %	3 20.0%	1 7.7%	
Oil contamination/fear of oil contamination Count Col %		1 7.7%	2 15.4%
Increased dissension/conflict/violence Count Col %	2 13.3%		
Animals harvest to find/hunt/fish Count Col %	1 6.7%		1 7.7%
More stressful Count Col %	3 20.0%	2 15.4%	3 23.1%
Financial situation worse Count Col %	1 6.7%		2 15.4%
Future of environment uncertain Count Col %		1 7.7%	
Other reasons Count Col %	3 20.0%	5 38.5%	
Improved financial situation Count Col %		1 7.7%	

(continued)

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %	21.4%	10.0%	13.3%
Vulnerable to environmental damage Count	4		3
Col %	28.6%		20.0%
Miscellaneous reasons Count	1	2	
Col %	7.1%	20.0%	
Poor resource management Count			1
Col %			6.7%
CONTINUE TO LIVE HERE IF NO WILD FOOD No Response Count			1
Col %			2.1%
Do Not Know Count	3	7	7
Col %	6.5%	15.2%	14.9%
No Count	8	6	14
Col %	17.4%	13.0%	29.8%
Yes Count	35	33	25
Col %	76.1%	71.7%	53.2%

Table VIII-49. Significance of Place, Port Graham

	STUDY YEAR		
	1991	1992	1993
CONFIDENT ABOUT HUNT/FISH/GATHERING No Response Count			1
Col %			2.1%
Do Not Know Count	1	2	
Col %	2.2%	4.3%	
No Count	13	8	15
Col %	28.3%	17.0%	31.9%
Yes Count	32	37	31
Col %	69.6%	78.7%	66.0%
WHY UNCONFIDENT ABOUT HUNTING/FISHING/GATHERING No Response Count	1	1	
Col %	7.1%	10.0%	
Increased restrictions Count	4	6	8
Col %	28.6%	60.0%	53.3%
Uncertainty about the future Count	3		1
Col %	21.4%		6.7%
Increased development Count	1		
Col %	7.1%		
Uncertainty about food safety Count		1	2
Col %		10.0%	13.3%
Environmental, animal rights, anti-gun interests Count			1
Col %			6.7%
Population pressure Count	3	1	2

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: US COAST GUARD			
No Response Count Col %			3 6.4%
Do Not Know Count Col %	4 8.9%	10 22.2%	12 25.5%
Not Effective Count Col %	16 35.6%	13 28.9%	9 19.1%
Somewhat Count Col %	21 46.7%	15 33.3%	13 27.7%
Effective Count Col %	4 8.9%	7 15.6%	10 21.3%
EFFECTIVENESS EVOS: ADEC			
No Response Count Col %	2 4.4%		3 6.4%
Do Not Know Count Col %	13 28.9%	15 33.3%	15 31.9%
Not Effective Count Col %	8 17.8%	8 17.8%	9 19.1%
Somewhat Count Col %	17 37.8%	18 40.0%	7 14.9%
Effective Count Col %	5 11.1%	4 8.9%	13 27.7%
EFFECTIVENESS EVOS: INSURANCE COMPANIES			
No Response Count Col %	2 4.5%		

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %	26 59.1%		
Not Effective Count Col %	11 25.0%		
Somewhat Count Col %	4 9.1%		
Effective Count Col %	1 2.3%		
EFFECTIVENESS EVOS: LOCAL NATIVE PROFIT			
No Response Count Col %			4 8.7%
Do Not Know Count Col %	11 24.4%	12 26.7%	13 28.3%
Not Effective Count Col %	7 15.6%	6 13.3%	3 6.5%
Somewhat Count Col %	15 33.3%	13 28.9%	11 23.9%
Effective Count Col %	12 26.7%	14 31.1%	15 32.6%
EFFECTIVENESS EVOS: NATIVE NON-PROFITS			
No Response Count Col %	1 2.2%		4 8.5%
Do Not Know Count Col %	7 15.6%	10 22.2%	14 29.8%

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Not Effective Count Col %	4 8.9%	6 13.3%	2 4.3%
Somewhat Count Col %	13 28.9%	13 28.9%	10 21.3%
Effective Count Col %	20 44.4%	16 35.6%	17 36.2%
EFFECTIVENESS EVOS: BOROUGH GOVERNMENT			
No Response Count Col %	2 4.4%		3 6.4%
Do Not Know Count Col %	11 24.4%	19 42.2%	17 36.2%
Not Effective Count Col %	14 31.1%	12 26.7%	11 23.4%
Somewhat Count Col %	13 28.9%	13 28.9%	8 17.0%
Effective Count Col %	5 11.1%	1 2.2%	8 17.0%
EFFECTIVENESS EVOS: VILLAGE CORPORATION			
No Response Count Col %	2 4.4%		4 8.5%
Do Not Know Count Col %	6 13.3%	5 11.4%	10 21.3%
Not Effective Count Col %	3 6.7%	6 13.6%	4 8.5%

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Somewhat Count Col %	16 35.6%	14 31.8%	9 19.1%
Effective Count Col %	18 40.0%	19 43.2%	20 42.6%
EFFECTIVENESS EVOS: CITY COUNCIL			
No Response Count Col %	2 9.1%		3 7.5%
Do Not Know Count Col %	3 13.6%	5 14.3%	7 17.5%
Not Effective Count Col %	3 13.6%	3 8.6%	3 7.5%
Somewhat Count Col %	6 27.3%	14 40.0%	6 15.0%
Effective Count Col %	8 36.4%	13 37.1%	21 52.5%
EFFECTIVENESS EVOS: IRA COUNCIL			
No Response Count Col %			1 4.2%
Do Not Know Count Col %	4 14.3%	7 20.0%	5 20.8%
Not Effective Count Col %	3 10.7%	3 8.6%	4 16.7%
Somewhat Count Col %	11 39.3%	9 25.7%	4 16.7%

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Effective Count Col %	10 35.7%	16 45.7%	10 41.7%
EFFECTIVENESS EVOS: CHAMBER OF COMMERCE No Response Count Col %			1 50.0%
Do Not Know Count Col %		4 80.0%	
Somewhat Count Col %		1 20.0%	
Effective Count Col %			1 50.0%
EFFECTIVENESS EVOS: COMMERCIAL BUSINESSES No Response Count Col %			3 6.7%
Do Not Know Count Col %	5 11.4%	6 14.3%	13 28.9%
Not Effective Count Col %	5 11.4%	7 16.7%	4 8.9%
Somewhat Count Col %	13 29.5%	15 35.7%	7 15.6%
Effective Count Col %	21 47.7%	14 33.3%	18 40.0%
EFFECTIVENESS EVOS: COMMERCIAL FISHING GROUPS No Response			

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Count Col %			4 8.5%
Do Not Know Count Col %	10 22.2%	7 16.7%	9 19.1%
Not Effective Count Col %	6 13.3%	2 4.8%	4 8.5%
Somewhat Count Col %	8 17.8%	13 31.0%	4 8.5%
Effective Count Col %	21 46.7%	20 47.6%	26 55.3%
EFFECTIVENESS EVOS: OTHER BUSINESS GROUPS No Response Count Col %	4 11.4%		
Do Not Know Count Col %	14 40.0%		
Not Effective Count Col %	3 8.6%		
Somewhat Count Col %	7 20.0%		
Effective Count Col %	7 20.0%		
EFFECTIVENESS EVOS: SCHOOLS GROUPS No Response Count Col %	2 4.4%		

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %	11 24.4%		
Not Effective Count Col %	13 28.9%		
Somewhat Count Col %	8 17.8%		
Effective Count Col %	11 24.4%		
EFFECTIVENESS EVOS: CHURCHES Do Not Know Count Col %	10 22.2%		
Not Effective Count Col %	8 17.8%		
Somewhat Count Col %	11 24.4%		
Effective Count Col %	16 35.6%		
EFFECTIVENESS EVOS: HEALTH SERVICES No Response Count Col %			4 8.5%
Do Not Know Count Col %		4 8.9%	9 19.1%
Not Effective Count Col %		3 6.7%	2 4.3%

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Somewhat Count Col %		13 28.9%	9 19.1%
Effective Count Col %		25 55.6%	23 48.9%
EFFECTIVENESS EVOS: MEDICAL PROFESSION Do Not Know Count Col %	6 14.0%		
Not Effective Count Col %	7 16.3%		
Somewhat Count Col %	13 30.2%		
Effective Count Col %	17 39.5%		
EFFECTIVENESS EVOS: HEALTH AIDES Do Not Know Count Col %	4 8.9%		
Not Effective Count Col %	2 4.4%		
Somewhat Count Col %	14 31.1%		
Effective Count Col %	25 55.6%		
EFFECTIVENESS EVOS: SOCIAL WORKERS No Response Count Col %	1 2.2%		4 9.1%

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %	11 24.4%	12 27.9%	14 31.8%
Not Effective Count Col %	9 20.0%	7 16.3%	5 11.4%
Somewhat Count Col %	11 24.4%	13 30.2%	5 11.4%
Effective Count Col %	13 28.9%	11 25.6%	16 36.4%
EFFECTIVENESS EVOS: LOCAL LAW ENFORCEMENT No Response Count Col %			4 8.5%
Do Not Know Count Col %	4 9.1%	10 22.2%	12 25.5%
Not Effective Count Col %	8 18.2%	7 15.6%	3 6.4%
Somewhat Count Col %	12 27.3%	13 28.9%	10 21.3%
Effective Count Col %	20 45.5%	15 33.3%	18 38.3%
EFFECTIVENESS EVOS: STATE LAW ENFORCEMENT No Response Count Col %	2 4.5%		4 9.3%
Do Not Know Count	11	15	15

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %	25.0%	35.7%	34.9%
Not Effective Count Col %	11 25.0%	9 21.4%	4 9.3%
Somewhat Count Col %	8 18.2%	8 19.0%	6 14.0%
Effective Count Col %	12 27.3%	10 23.8%	14 32.6%
EFFECTIVENESS EVOS: EXXON No Response Count Col %			3 6.4%
Do Not Know Count Col %	4 8.9%	8 17.8%	11 23.4%
Not Effective Count Col %	19 42.2%	18 40.0%	20 42.6%
Somewhat Count Col %	15 33.3%	15 33.3%	7 14.9%
Effective Count Col %	7 15.6%	4 8.9%	6 12.8%
EFFECTIVENESS EVOS: VECO No Response Count Col %			3 6.4%
Do Not Know Count Col %	3 6.7%	5 11.1%	9 19.1%
Not Effective Count	7	9	7

(continued)

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %	15.6%	20.0%	14.9%
Somewhat Count Col %	19 42.2%	20 44.4%	15 31.9%
Effective Count Col %	16 35.6%	11 24.4%	13 27.7%
EFFECTIVENESS EVOS: ALYESKA PIPELINE No Response Count Col %	2 4.4%		3 6.4%
Do Not Know Count Col %	18 40.0%	21 46.7%	19 40.4%
Not Effective Count Col %	17 37.8%	15 33.3%	14 29.8%
Somewhat Count Col %	7 15.6%	9 20.0%	6 12.8%
Effective Count Col %	1 2.2%		5 10.6%
EFFECTIVENESS EVOS: VOLUNTEER CLEAN-UP Groups Effective Count Col %		1 100.0%	
EFFECTIVENESS EVOS: FEDERALLY MANDATED SPILL RESPONSE GROUPS Do Not Know Count Col %			3 27.3%
Not Effective Count Col %	2 13.3%		

Table VIII-50. Effectiveness of Oil Spill Responses, Port Graham

	STUDY YEAR		
	1991	1992	1993
Somewhat Count Col %	4 26.7%	3 60.0%	
Effective Count Col %	9 60.0%	2 40.0%	8 72.7%
EFFECTIVENESS EVOS: OTHER MULTI-AGENCY RESPONSE GROUPS FOR EVOS Somewhat Count Col %	2 100.0%		
Effective Count Col %		1 100.0%	
EFFECTIVENESS EVOS: OTHER UNIDENTIFIED Groups Effective Count Col %		1 100.0%	
EFFECTIVENESS EVOS: OILED MAYORS No Response Count Col %			3 6.4%
Do Not Know Count Col %		20 44.4%	23 48.9%
Not Effective Count Col %		9 20.0%	9 19.1%
Somewhat Count Col %		14 31.1%	3 6.4%
Effective Count Col %		2 4.4%	9 19.1%

(continued)

Table VIII-51. Subsistence Food Safety Information, Port Graham

	STUDY YEAR		
	1991	1992	1993
ADEQUATELY INFORMED ABOUT FOOD SAFETY?			
No Response Count Col %		1 2.1%	
Do Not Know Count Col %		2 4.3%	2 4.5%
No Count Col %	13 28.3%	10 21.3%	13 29.5%
Somewhat Count Col %	10 21.7%	19 40.4%	12 27.3%
Yes Count Col %	23 50.0%	15 31.9%	17 38.6%
WHY NOT ADEQUATELY INFORMED			
No Response Count Col %	9 40.9%	12 40.0%	6 24.0%
Lack of clear or definitive advice Count Col %	2 9.1%	1 3.3%	4 16.0%
Received incomplete information Count Col %	1 4.5%	5 16.7%	6 24.0%
Received no information Count Col %	4 18.2%	2 6.7%	
Did not trust or believe advice Count Col %	4 18.2%	5 16.7%	3 12.0%
Untimely Count Col %	1 4.5%	1 3.3%	3 12.0%

(continued)

Table VIII-51. Subsistence Food Safety Information, Port Graham

	STUDY YEAR		
	1991	1992	1993
Communities were inadequately consulted Count Col %		2 6.7%	
Personal observations contradicted advice or findings Count Col %	1 4.5%	2 6.7%	
Got sick from eating wild resources Count Col %		2 6.7%	
Believe information was deliberately withheld Count Col %	2 9.1%	1 3.3%	2 8.0%
There were not enough tests Count Col %		3 10.0%	2 8.0%

Table VIII-52. OCS Development Effects, Port Graham

	STUDY YEAR		
	1991	1992	1993
OCS EFFECT: FISH			
No Response Count Col %	1 2.2%	2 4.3%	
Do Not Know Count Col %	5 10.9%	11 23.4%	8 17.0%
Decrease Count Col %	29 63.0%	22 46.8%	27 57.4%
No Change Count Col %	11 23.9%	11 23.4%	11 23.4%
Increase Count Col %		1 2.1%	1 2.1%
OCS EFFECT: SHELLFISH			
No Response Count Col %	1 2.2%	2 4.3%	
Do Not Know Count Col %	5 10.9%	10 21.3%	8 17.0%
Decrease Count Col %	28 60.9%	23 48.9%	27 57.4%
No Change Count Col %	12 26.1%	11 23.4%	12 25.5%
Increase Count Col %		1 2.1%	
OCS EFFECT: MARINE MAMMALS			
No Response Count Col %	1 2.2%	2 4.3%	

(continued)

Table VIII-52. OCS Development Effects, Port Graham

	STUDY YEAR		
	1991	1992	1993
OCS EFFECT: LAND MAMMALS			
No Response Count Col %	1 2.2%	2 4.3%	
Do Not Know Count Col %	6 13.0%	11 23.4%	9 19.1%
Decrease Count Col %	20 43.5%	14 29.8%	18 38.3%
No Change Count Col %	19 41.3%	19 40.4%	20 42.6%
Increase Count Col %		1 2.1%	
OCS EFFECT: BIRDS			
No Response Count Col %	1 2.2%	2 4.3%	1 2.1%
Do Not Know Count Col %	6 13.0%	11 23.4%	7 14.9%

(continued)

Table VIII-52. OCS Development Effects, Port Graham

	STUDY YEAR		
	1991	1992	1993
Yes Count Col %	13 28.3%		
CONTAIN AND CLEANUP LARGE OIL SPILL No Response Count Col %		1 2.1%	9 19.1%
Do Not Know Count Col %	1 2.2%	9 19.1%	9 19.1%
No Count Col %	31 67.4%	23 48.9%	26 55.3%
Maybe Count Col %	10 21.7%	14 29.8%	12 25.5%
Yes Count Col %	4 8.7%		
ARE YOU IN FAVOR OF THE SEARCH FOR OIL? Do Not Know Count Col %		7 14.9%	4 8.5%
No Count Col %		25 53.2%	31 66.0%
Yes Count Col %		15 31.9%	12 25.5%
OPINION ON SEARCH FOR OIL No Response Count Col %		3 6.4%	1 2.1%
Do Not Know Count Col %		7 14.9%	2 4.3%

(continued)

Table VIII-52. OCS Development Effects, Port Graham

	STUDY YEAR		
	1991	1992	1993
Decrease Count Col %	25 54.3%	19 40.4%	26 55.3%
No Change Count Col %	14 30.4%	14 29.8%	13 27.7%
Increase Count Col %		1 2.1%	
OCS DEVELOPMENT = MORE JOBS? No Response Count Col %	1 2.2%	1 2.1%	
Do Not Know Count Col %	6 13.0%	4 8.5%	5 10.6%
No Count Col %	19 41.3%	14 29.8%	18 38.3%
Yes Count Col %	20 43.5%	28 59.6%	24 51.1%
CONTAIN AND CLEANUP SMALL OIL SPILL No Response Count Col %		1 2.1%	
Do Not Know Count Col %	1 2.2%	10 21.3%	9 19.1%
No Count Col %	15 32.6%	9 19.1%	13 27.7%
Maybe Count Col %	17 37.0%	27 57.4%	25 53.2%

(continued)

Table VIII-52. OCS Development Effects, Port Graham

	STUDY YEAR		
	1991	1992	1993
Col %		2.1%	
Adverse experiences with other development			
Count		3	1
Col %		6.4%	2.1%
Pollution concerns and impacts			
Count		9	11
Col %		19.1%	23.4%
Aesthetic reasons			
Count			2
Col %			4.3%
Adverse impact of security zones and traffic zones			
Count		1	
Col %		2.1%	
Should explore alternative energy sources, conservation			
Count		1	
Col %		2.1%	
Adverse impact on subsistence and commercial fishing			
Count		5	4
Col %		10.6%	8.5%
Distrust of the oil industry			
Count		5	1
Col %		10.6%	2.1%
Potential damage to renewable resources			
Count		1	2
Col %		2.1%	4.3%
Against any development			
Count		1	1
Col %		2.1%	2.1%
No benefit to local economy			
Count		2	2
Col %		4.3%	4.3%

(continued)

Table VIII-52. OCS Development Effects, Port Graham

	STUDY YEAR		
	1991	1992	1993
Reduce dependency on foreign oil/enhance national security			
Count		1	
Col %		2.1%	
Create more jobs in the community			
Count		4	4
Col %		8.5%	8.5%
We can live in balance with the environment			
Count		1	
Col %		2.1%	
Increase state revenues			
Count		1	
Col %		2.1%	
Less habitat destruction with off-shore			
Count		1	
Col %		2.1%	
Energy needed			
Count		1	
Col %		2.1%	
Need to know extent of resource availability and reserves			
Count		1	4
Col %		2.1%	8.5%
Conditions: in favor when necessary			
Count			1
Col %			2.1%
Beneficial to the economy			
Count		4	3
Col %		8.5%	6.4%
Enough technology to do it right			
Count			1
Col %			2.1%
Environmental conditions (non-pollution/non-biological)			
Count		1	

(continued)

Table VIII-52. OCS Development Effects, Port Graham

	STUDY YEAR		
	1991	1992	1993
Disastrous - multi-faceted Count Col %			2 4.3%
Uncertainties with development Count Col %		3 6.4%	
Adverse impact on Native traditions Count Col %			4 8.5%
Technology needs improvement Count Col %		2 4.3%	
Unspecified ecological impacts Count Col %			8 17.0%
Conditional: in favor if done carefully Count Col %			2 4.3%
ARE YOU IN FAVOR OF THE DEVELOPMENT AND PRODUCTION OF OIL? Do Not Know Count Col %		7 14.9%	4 8.5%
No Count Col %		20 42.6%	32 68.1%
Yes Count Col %		20 42.6%	11 23.4%
OPINION ON DEVELOPMENT AND PRODUCTION No Response Count Col %		3 6.4%	
Do Not Know Count Col %		7 14.9%	4 8.5%

(continued)

Table VIII-52. OCS Development Effects, Port Graham

	STUDY YEAR		
	1991	1992	1993
Reduce dependency on foreign oil/enhance national security Count Col %		1 2.1%	
Create more jobs in the community Count Col %		9 19.1%	5 10.6%
We can live in balance with the environment Count Col %		3 6.4%	1 2.1%
Increase state revenues Count Col %		1 2.1%	
Energy needed Count Col %		1 2.1%	
Need to know extent of resource availability and reserves Count Col %		1 2.1%	1 2.1%
Conditions: in favor when necessary Count Col %			1 2.1%
Beneficial to the economy Count Col %		3 6.4%	5 10.6%
Because it is there Count Col %		1 2.1%	
Conditional upon technological advancement Count Col %			1 2.1%
Enough technology to do it right Count			1

(continued)

Table VIII-52. OCS Development Effects, Port Graham

Col %	STUDY YEAR		
	1991	1992	1993
Environmental conditions (non-pollution/non-biological) Count Col %		1 2.1%	2 2.1%
Adverse experiences with other development Count Col %		3 6.4%	
Pollution concerns and impacts Count Col %		8 17.0%	10 21.3%
Aesthetic reasons Count Col %		1 2.1%	3 6.4%
Adverse impact of security zones and traffic zones Count Col %		2 4.3%	
Adverse impact on subsistence and commercial fishing Count Col %		2 4.3%	2 4.3%
Biological (non-pollution) - migration patterns Count Col %			2 4.3%
Distrust of the oil industry Count Col %		2 4.3%	1 2.1%
Potential damage to renewable resources Count Col %		2 4.3%	3 6.4%
Against any development Count Col %		1 2.1%	1 2.1%

(continued)

Table VIII-52. OCS Development Effects, Port Graham

	STUDY YEAR		
	1991	1992	1993
No benefit to local economy Count Col %		3 6.4%	2 4.3%
Disastrous - multi-faceted Count Col %		1 2.1%	1 2.1%
Uncertainties with development Count Col %			
Adverse impact on Native traditions Count Col %			6 12.8%
Technology needs improvement Count Col %		2 4.3%	
Unspecified ecological impacts Count Col %			7 14.9%
Conditional: in favor if done carefully Count Col %			1 2.1%
Non-specific reason against Count Col %			1 2.1%

CHAPTER IX: NANWALEK

by

Ronald T. Stanek

COMMUNITY BACKGROUND

Nanwalek (formerly English Bay) is located on the southern shore of Kachemak Bay about three miles west of Port Graham. A summary of the prehistory and history of the lower Cook Inlet area is provided in Stanek (1985:31-51). Detailed discussions of the Gulf of Alaska archaeology can be found in de Laguna (1934), Jacobsen (1977), Workman (1980), Workman, Lobdell, and Workman (1980), Lobdell (1980), and Workman and Workman (1985). Briefly, the prehistory of the Kachemak Bay area is a complex series of movements of two cultural groups, the Pacific Eskimos and Athabaskan Indians. The cultural traditions are typified by five cultural sequences currently dated from before 400 B.C. to A.D. 1800. Recorded history of the area can be divided into three periods: European exploration between 1741 and 1791 during which time trading posts were established on Kodiak and at Alexandrovsk (English Bay); the Russian period between 1780 and 1867 when the primary focus was exploitation and trade of sea otter pelts and the introduction of the Russian Orthodox Church; and the American period from 1867 to the present, which is characterized by the development of the commercial fishing industry, the establishment of Native village governing bodies, the creation of Native regional and local profit corporations and the transfer of land entitlements to those organizations.

As Braund and Behnke (1980:178) point out, Nanwalek, unlike nearby Port Graham, maintained a degree of isolation by not having a cannery as did Port Graham. Its residents also attempted to retain elements of their past customs thereby remaining considerably more traditional than their neighbors. It was not until 1958 that a school was built, and a Russian Orthodox church had been a focal point since the 1890s. The economy developed with a certain amount of dependence on cash, but subsistence foods were a major part of the economic picture.

The Division of Subsistence conducted research in Nanwalek in 1985, 1988, 1990, and 1991 pertaining to resource harvest and use activities (Stanek 1985, forthcoming a; Fall 1992a). The research from 1985 differs from that of subsequent years in that it was based on a system of monthly harvest report calendars, while the latter were based on comprehensive household interviews relying on retrospective recall of the previous year's activities.

RESEARCH METHODS

As in the neighboring communities of Port Graham and Seldovia, fieldwork in Nanwalek for this project¹ was conducted in all three years. Year one covered the period April 1991 through March 1992, year two was April 1992 through March 1993, and year three included April 1993 through March 1994.

During all study years, the sampling goal was 100 percent of the households permanently residing in the community during at least six of the previous 12 months. As in Port Graham, there were no panel households with members previously interviewed as part of the MMS-sponsored Social Indicators (SI) research project (see Chapter I). Therefore, interviewees for the social effects questionnaires (SEQ) were selected by using a set of random number sheets which also designated the sex of the individual chosen. These same people were to be interviewed with the social effects survey instrument in each year of the study.

In Table IX-1 are listed the sample achievements for each of the three study years. All interviews took place at approximately the same time during each study year. For the first year, interviews were completed between April 17th and June 30th. There were 70.7 percent (29) of the 41 households which completed both the harvest and social effects surveys. In the second year, surveys occurred between March 28th and May 15. There were 32 households out of 41 which completed the survey (78.1 percent). The third study year picked up one more household for 33 households, but the total number of households residing in the community decreased to 37, giving an 89.2 percent sample. Interviews were conducted April 2nd through April 29th.

The average lengths of harvest interviews (Table I-5) over the three years gradually decreased from 1.26 hours in 1992, to 0.71 hours in 1993, and 0.66 hours in 1994. This may be due in part to a reduction in number of questions, but is undoubtedly also due to a greater familiarity with the questions by the interviewers and interviewees. Social effects surveys followed a similar pattern, requiring 0.99 hours in 1991/92, 0.74 hours in year two, and 0.56 hours in the third year.

DEMOGRAPHY

1991/92 Study Year

The demographic characteristics of Nanwalek households are presented in Table IX-2, and Figure IX-1. From the total 41 households in the community, the 29 sampled households (70.7 percent) had a mean size of 3.9 persons, and ranged in size from one to nine. There were 114 persons in the sample population, 70.7 percent of the estimated community population of 161.2 persons. The sample population had a mean age of 25.0 years, and ranged in age from newborn to 77.5 years with a median age of 20.9 years. The majority of the population was male (52.6 percent), while females were 47.4

¹ For further detail on sampling methods and the conduct of fieldwork, see the series of interim reports prepared at the close of each field season (Fall and Utermohle 1992, 1993a, and 1994).

percent (Table IX-3; Fig. IX-2). The length of residency for household heads averaged 26.4 years, while the shortest term of residency was one-half year and the longest 58.1 years. The ethnic composition for the estimated community population was 90.4 percent Alaska Native, and for one or the other household head, 93.1 percent were Native. The remaining percentage was classified only as non-Native. Compared with 1987, there was an increase of one occupied household and nine persons. The percentage of households with either the head or spouse Alaska Native decreased by 9.9 percent from 100 percent in 1987 (Stanek 1990), while the average length of residency decreased by 17.1 years.

Nanwalek's population has increased steadily since the 1940s when there were 48 persons (Braund and Behnke 1980), to the estimated 161.2 persons in 1992. This later population estimate was three more people than appeared in the 1990 U.S. Census estimate (Fig. IX-1).

In the early 1980s, a Housing and Urban Development (HUD) housing project built about 20 new homes to meet the growing population needs. Today, those houses are fully occupied and there is need for more housing. Even though there is little economic incentive to live in Nanwalek many young people chose to remain there because of the personal freedoms, subsistence opportunities, and the relatively safe conditions for raising children. The attraction of family and Alutiiq culture are added incentives. As noted in Braund and Behnke (1980:199), a family can get along in Nanwalek on relatively little cash. Many families occupy homes they built themselves because they could afford the outlay for building materials or were able to acquire small home construction grants.

1992/93 Study Year

In the second study year, 1992/93, three additional households were in the sample of 32 households which contained 133 people, and the average household size increased to 4.2 people. This raised the population estimate to 170.4 people in 41 households, an increase of nine people over the year before (Table IX-2). The age structure of the population remained virtually the same (Fig. IX-3; Table IX-4). The average age decreased slightly to 23.7 years as did the median to 18.4 years. The oldest person was 77.3 years.

The average length of residency for the population increased by less than one year, with the longest residing person living there 81.1 years. For household heads, the mean time in the community was 30.2 years, an increase of four years over 1991/92.

Most of the population was males, 53.4 percent, the same as the previous year, while females were 46.6 percent, also the same. Alaska Natives were again the ethnic majority of the population (89.5 percent), while 93.8 percent of one or the other household heads were Native.

1993/94 Study Year

In the third study year, one more household appeared in the sample (33), whereas four households had moved away from the community, making the total 37 resident households (Table IX-2). The sample population decreased to 126 people, and the estimated community total decreased by 29

people to 141.3 people. Most of these households had moved to Homer or Anchorage in search of job training and employment.

The age structure of the population returned to near what it was for the first year with 26.2 years the average age and 19.7 years the median age (Fig. IX-4; Table IX-5). The population's sex composition had shifted to a slightly higher percentage of males (56.4 percent) than females (43.7 percent).

The average length of residency remained around 18 years, and the maximum length of residency was 79.5 years. The average length of residency of any household head remained about the same as in previous years (25.6 years). As expected, ethnic composition remained the same as in the two previous study years.

CASH ECONOMY

1991/92 Study Year

Table IX-6 provides information on Nanwalek residents' employment characteristics. In the total estimated population, 97.6 persons 16 years of age or older were of employment age. Of this total, 67.9 persons (69.6 percent) were employed. Employed adults held a total of 84.8 jobs, and averaged 1.3 jobs per person with a range of one to three jobs. The length of employment averaged 7.0 months with a minimum of one month and a maximum of 12 months. For those employed, 8.5 persons (12.5 percent) were employed during 12 months of the year. At the household level, 35.3 households (86.2 percent) had employed adults. The number of jobs per household ranged from one to five, with a mean of 2.4 jobs. In each household, a range of one to three adults were employed, averaging 1.9 adults employed per household. The duration of employment for heads of household ranged from one month to twelve months, and averaged 7.5 months. Compared to 1987, the average length of time worked increased by 1.7 months.

The estimated 84.8 jobs held by Nanwalek residents made up 12 different industrial types (Fig. IX-5). The majority of jobs were in the manufacturing sector (32.0 percent) and involved work on a timbering project on English Bay Corporation lands. The service sector held 15.0 percent of the jobs, while local government (education) accounted for 12.0 percent with jobs such as teachers, teacher's assistants, clerical, and labor. With a road resurfacing project in the community, 7.0 percent of the jobs were located in the construction sector. Hatcheries and retail trade each held 7.0 percent, transportation, communications, and utilities (T.C.U.) (3.0 percent), finance, insurance, and real estate (F.I.R.E.) (5.0 percent), and federal government had 3.0 percent. Non-education local government positions were 5.0 percent, while state government and commercial fishing each had 2.0 percent. The estimated number of jobs in the community increased from 1987 to 1991/92 by 12 jobs. The most significant changes occurred in the commercial fishing and manufacturing (timber and logging) sectors providing 34 percent of the jobs. While the former decreased by 22.7 percent, the latter increased by 7.0 percent. With the

closure of the cannery at Port Graham, that part of the manufacturing sector was down from 27.3 percent in 1987, to 0.9 percent (Stanek forthcoming b). The road resurfacing project contributed a new sector (construction) to the job market in 1991/92.

Cash income from both earned and unearned sources was determined for the total estimated Nanwalek population based on incomes reported by respondents (Table IX-7). From all sources, earned and unearned income combined, the average household income was \$28,614.97. The average household earned income only from all sources was \$20,979.58. The breakdown of average household earned income from each source (standardized Department of Labor categories) was as follows: government provided the largest amount (\$9,266.21) and included federal (\$20.69), state (\$41.38), and local (\$9,204.14); timber and logging (\$5,045.09) was the second largest; local services including health care, social workers, and day care provided the third largest amount to earned income with \$2,755.17; construction, (\$1,351.72); finance insurance and real estate (\$1,206.90); hatchery and enhancement (\$486.21; retail trade (\$471.72); commercial fishing (\$224.14); transportation, communications, and utilities (\$172.41). The low amount generated by commercial fishing reflected the extremely poor production of the fishing industry in lower Cook Inlet during recent years and the very few limited entry permit holders in the community. Although timber and logging produced a substantial amount of earned income in 1991/92, logging on English Bay Corporation lands ended in the summer of 1992, drying up that source for the near future.

Other income (unearned) from non-employment sources is presented in Table IX-8, and produced an average per household of \$7,635.39. The highest of all unearned income sources by twice any other source was the Alaska Permanent Fund Dividend averaging \$3,128.72 per household. The next highest source was Native corporation dividends with an average \$1,603.31 per household. The only other source to pay more than one thousand dollars per household was social security with \$1,111.17.

Monthly expenses for food were provided by 26 of the 29 households interviewed (Table I-101). An estimated 18.5 percent of the total household income was spent on food. Household food expenses ranged from as little as \$125.00 to as much as \$1,000.00 monthly, with an average of \$484.00 per month and a median of \$400.00 per month.

In this study, a one-time assessment of equipment was made to determine the capital and annual costs of items used to harvest and preserve foods harvested for subsistence use (Table IX-9). Since this was the first time for such an assessment, no previous comparable data are available for Nanwalek. On average Nanwalek households owned 7.6 different types of equipment with 87.0 percent of the use of these items for subsistence purposes. The resulting value of the equipment for subsistence purposes was \$8,619.07 per household. From the standpoint of equipment sharing, 69.0 percent of the households reported borrowing some type of equipment, and 93.1 percent reported lending at least one equipment item. Household interviews revealed that a large amount of new equipment was purchased by Nanwalek households with money earned on the oil spill clean-up. As might be expected, the items

with the highest average cost per household were skiffs (\$2,139.25) and ATVs or 3- and 4-wheel motorcycles (\$2,072.59). These two items also incurred the highest annual average operating cost for fuel at \$25.86 and \$166.08, respectively. Among a large number of other equipment items are several high-value items. Their description and annual cost per household were as follows: cabins (\$447.93), guns (\$440.80), freezers (\$430.24), fishing tackle (\$363.61), and smoke house and drying rack (\$311.90). Highway vehicles and boats with inboard motors both appeared in the survey as high-valued items, such that even their limited use for subsistence purposes resulted in high costs.

Finally, as relates to the financial condition of households, respondents were asked to assess their overall financial situation since the oil spill, providing a relative rating of "better than, about the same, or worse than before the spill" (Table I-103). There were 10.3 percent (three households) which indicated their financial situation as better than before the spill. Just half, 48.3 percent (14 households) indicated their situation was about the same, and almost one-third (31.0 percent) said their situation was worse than before the spill. Three households, 10.3 percent, provided no information.

1992/93 Study Year

Although the total number of employment-age persons did not change from 1991/92 (Table IX-6), the number of persons employed did increase by 11.6 persons (17.1 percent) (4.4 households; 10.7 percent). In addition, the total number of jobs held by Nanwalek residents in 1992/93 increased by 37.8 jobs (41.9 percent). While the mean number of months employed decreased slightly, the percentage of persons employed year round increased 54.4 percent. The increase in number of jobs in the community during 1992/93 not only appears in the total number of jobs available, but also in the mean number of jobs worked per household, an increase over 1991 of 0.50 jobs. Slight increases also occurred in mean and maximum numbers of adults employed.

Several job sectors had substantial increases in the proportion of jobs during the 1992/93 study year (Figure IX-6). The services sector appears to be the area responsible for the majority of growth with 30.0 percent of the jobs and a 15.0 percent increase over the previous year. Local government non-education increased by 4.0 percent, commercial fishing stayed about the same (3.0 percent), and federal and state government each increased by 2.0 percent and 1.0 percent, respectively. The agricultural, forestry, and fishing sector appeared in 1992/93 with several jobs in a local fisheries enhancement program. Two employment sectors which decreased substantially were manufacturing, down by 12.0 percent because of the loss of logging jobs, and local government education, down by 3.0 percent.

Despite an overall increase in jobs in Nanwalek during 1992/93, cash incomes decreased from 1991 levels (Table IX-10). Overall, there was a substantial (\$6,155.41; 21.5 percent) decrease in the average household total income, a \$4,452.38 decrease in earned income, and a \$1,700.03 decrease in other household income. Correspondingly, 1992/93 per capita incomes decreased \$1,875.45 overall, \$1,360.44 in earned cash income, and \$515.01 in other income. It is not exactly clear what caused this

\$252,372.06 (21.5 percent) decrease in total community income, but a closer look at employment sources might give some answers.

Among all the sources of cash income, there were some substantial changes in the amounts some employer types contributed to the community during 1992/93. One of the most notable decreases was in local government which suffered a \$103,579.35 loss. Manufacturing, having lost the timber and logging project at Koyuktolik Bay, suffered an \$87,692.56 (42.4 percent) loss in income. The other major loss was in construction which provided \$9,096.88 in 1992/93, but over \$55,000 in 1991/92. The other areas showing losses were government, which decreased by \$86,350.21, F.I.R.E. with a \$20,000 loss, and commercial fishing which lost \$6,563.31 total and \$160.08 per household.

The remaining earned income sources increased by varying amounts and accounted for some substantial gains. Among those sources showing gains were services, which increased by \$1,330.99 (48.3 percent), and forestry and fishing yielded a \$248.79 mean household increase accounted for by the sockeye enhancement project. Transportation, communication, and utilities added \$161.97 to mean incomes, state government added another \$262.79 above last year's amount, the federal government added \$157.44 more than the previous year, and retail trade added \$47.66 to the average household income.

From 11 sources of unearned income (Table IX-11) in 1992/93, one less than 1991/92, Nanwalek households received an average of \$5,932.00, and saw a \$515.01 decrease from the prior year. Nine sources were nearly the same in both years, three sources from the prior year produced no income in 1992/93, and two new sources (Bureau of Indian Affairs grants and other unidentified) were reported only in 1992/93. One source, other, was reported no income amount was given. As in 1991/92, the Alaska Permanent Fund provided the largest average amount to each household with \$2,832.19. Unemployment provided the second largest amount in both years with \$1,169.50, but it was \$430.00 less in 1992/93. Native corporation dividends provided slightly less in 1992/93 with \$450.00. Social security had the largest loss in 1992/93 at \$715.17 and produced only \$395.63 per household.

1993/94 Study Year

By the third year of study, the Nanwalek employment scene had again changed dramatically (Table IX-6). The number of employment-age adults had dropped to 85.2 as a number of households had moved away in search of employment. The number of adults employed fell below both previous years' levels, although the percentage of employed adults remained between the two previous years. The average number of jobs per person, 1.2 jobs, was comparable to the first year as was the maximum number of jobs held per person (three). On average, the number of months employed was 7.4, a slight increase over the previous year which was probably a result of the increased influence of permanent jobs. The third year showed the highest percentage of workers holding year round jobs (26.8 percent; 16.8 people), but this is only about one more worker than the previous year (15.4) and twice as many as the first year (8.4).

Household employment characteristics showed a downturn with the fewest households employed in three years (32.5). The mean number of jobs held per household also reached its lowest level at 2.3, while the average number of adults employed per household equaled 1991/92 levels.

In 1993/94, the logging industry had completely disappeared from the employment picture (Fig. IX-7) as logging companies moved away during the previous year. The entire manufacturing and construction sectors dropped out, while the retail trade and F.I.R.E. sectors were nearly zero. Dominating the employer categories were the service industries with 31.0 percent of the jobs. Although this appears as an increase over the previous year, it was actually 11 fewer jobs than 1992/93, but twice as many as the first year.

Initially, the 1993/94 income picture looked bright in Nanwalek with a 32.4 percent increase in total income from all sources to \$29,730.80 (Table IX-12). However, household earned income continued to plummet by 21.9 percent in this third year to \$13,040.44, while per capita income dropped by \$561.12 (14.1 percent). Responsible for over half (\$7,300.54) the total earned income was government, and most of that came from the local school. The services sector contributed one-fifth of the earned income, while fisheries, hatcheries, and the oil and gas industry each provided about 10.0 percent to the total earned income amount.

Most significant was the amount of money from other income (Table IX-13) which was nearly triple the second year amount and over twice that of the first year at \$16,690.37 per household. Native corporation dividends contributed the largest proportion (53.9 percent) with \$9,001.99 per household and \$2,357.66 per capita. The majority of this money originated in the Seldovia Native Association's (SNA) (several Nanwalek residents are SNA shareholders) land settlement with the State of Alaska. Additional other income sources included the Alaska Permanent Fund with \$3,217.37, unemployment (\$1,159.07), social security and SSI with \$539.64 and \$649.70 respectively, and several other smaller sources.

Monthly expenses for food (Table I-102) decreased by 0.6 percent to 16.2 percent of the total household income. The median amount spent stayed the same, but the average amount spent increased by almost \$30.00 while the range in amounts spent spread from \$50.00 to \$1,450.00.

In summary, the Nanwalek economy, like Port Graham's, has dramatically shifted away from commercial fishing as its focus to a reliance on short-term and temporary jobs in construction and repair of local homes and roads, a short-term logging project, services, and local government for cash employment. Unearned income sources such as the Alaska Permanent Fund, Native Corporation dividends, social security, and unemployment benefits contributed over one-third of annual household income. Interestingly, despite the large cash influx from the oil spill clean-up work and subsequent logging work, over three-fourths of the households considered their financial situation the same or worse than before the spill. The closing of local fisheries due to low escapements, and the closure of the Port Graham cannery have nearly eliminated commercial fishing as an income source. Several setnet permit holders in the community have not fished in many years. The only prospect for the return of commercial fishing to the immediate vicinity of Nanwalek is the success of a four-year old sockeye enhancement

project on the English Bay River. The first fish from the project were due to return in 1994, and a substantial increase in run size did occur, but not enough to allow a commercial harvest. Also, plans for a cold storage facility at either Nanwalek or Port Graham may breathe new life into the fishery as a viable income source. In addition, a small amount of timber on nearby Native allotment lands could be sold in the next year or two, and might provide a substantial influx of cash to a few households in the community.

RESOURCE USES: 1991/92

Participation in Hunting, Fishing, and Gathering Activities, and Use of Resources

Levels of participation in wild resource harvesting and processing activities were determined for the sample population and expanded to the total estimated community population. Individual participation levels for the estimated population were determined for the categories of hunting or processing any kind of game, fishing or processing any kind of fish or shellfish, trapping or processing any furbearer, gathering or processing any plants. Household participation levels were determined for each individual resource, and will be discussed in the next section on use and harvests levels.

For the total 161.2 persons in Nanwalek's estimated population, there were 145.6 (90.3 percent) who hunted, fished, or gathered wild resources (Table IX-15). An equal percentage (91.2 percent) processed at least one wild resource. For individual resource categories: 32.5 persons (20.2 percent) hunted game and 50.9 persons (31.6 percent) processed some kind of game; nearly five times as many persons, 142.8 (88.6 percent) fished for finfish or collected some kind of shellfish giving this category the highest level of participation; exactly the same number processed fish or shellfish; the next largest number of persons (137.1 persons, 85.1 percent) gathered wild plants, while a smaller number (132.9 persons, 82.5 percent) processed plants; no one trapped furbearers, and only 1.4 persons (0.9 percent) processed them.

Table IX-14 provides household participation levels in any use or harvest activity. For any resource, 100.0 percent of the households in Nanwalek used and attempted to harvest at least one resource. Sharing of resources also showed the same high levels of participation with 100 percent receiving and giving.

Households estimated their annual percentage of meat, fish, and fowl derived from wild resources (Table I-104). Slightly over one-third of the households (34.5 percent; 10 households) estimated between 1 and 25 percent of their annual consumption was wild resources. Just less than one-third 31.0 percent; 9 households) estimated that 26 to 50 percent was wild resources, while 24.1 percent (seven households) estimated the amount to be between 51 and 75 percent. Two households estimated 76 to 99 percent came from wild foods. No households estimated all their meat, fish, and fowl came from the wild, and no households reported that none of their foods was of wild origin.

This relatively high dependence on wild foods at Nanwalek is in part responsible for the return of the harvest to pre-spill levels discussed below. In addition, respondents reported increased confidence in the edibility of the resources, and that in spite of any lingering concerns of contamination, their hunger for Native foods was more than they could tolerate and they had to take the risk.

Sharing of resources within the community also showed similarly high levels of participation with 100 percent receiving and 100 percent giving (Table IX-16). As could be expected, most sharing activity went on within Nanwalek itself with 90.6 percent receiving and 84.4 percent giving to other households in the community. The households that provided information about sharing with other communities identified 12 other locations. Contrary to what might be expected, most sharing outside the community did not occur with their immediate neighbors in Port Graham, but instead went on with Homer. Just over one-third (34.4 percent) of Nanwalek households received resources from Homer, and 9.4 percent gave at least one resource to that community. In this case, the large percentage of households receiving game from Homer is a result of meat from road-killed moose being sent to the community. Port Graham was a source of resources for the second largest group of recipients (15.6 percent), and the community to which 12.5 percent gave resources. Not surprisingly, Anchorage was where the largest group (34.4 percent) gave resources yet no households received from there. Most of this one-way exchange was to relatives and friends living in Anchorage and was often in exchange for a place to stay during visits to the city. The other communities with which a few Nanwalek residents shared included Seward, Kodiak, and places outside Alaska. Six other communities were involved in sharing at levels of one or two households exchanging one or two resources, mostly with relatives.

Harvest Quantities and Composition

Table IX-14 and Table IX-19 show wild resource harvest and use characteristics for Nanwalek. On average, in 1991/92 each household used 21.2 different types of resources, attempted to harvest 14.9 different types, and harvested 14 types. Resource sharing activities among households involved receiving an average of 12.8 different resources, and giving away 9.9 resources. In terms of the amounts of edible weight harvested, an estimated total of 41,715.90 pounds of resources were harvested by the community. Each household's average harvest was 1,017.5 pounds of edible food (258.8 pounds per capita), and ranged from eight pounds to 3,719.8 pounds.

Data from three previous Division of Subsistence studies can be compared with those of 1991/92 (Fig. IX-8). Participation and use levels in 1987 were comparable with those in 1991/92, while per capita levels were 30 pounds higher in 1987 (Stanek 1990). In 1989, the year of the *Exxon Valdez* oil spill, per capita harvest levels dropped by more than half the 1987 level. Following the spill, harvest levels increased to slightly in 1990/91 to 181.3 pounds, and nearly reached 1987 levels during 1991/92. In terms of the variety of resources used during the four study years, there were 25 different types used in 1987, half that many in 1989, and a return to near previous levels in 1990/91 and 1991/92.

The following is a discussion of individual groups of wild resources and their levels of use and harvest in Nanwalek in 1991/92 (Table IX-9). Fish, including salmon and non-salmon species, were used by 100 percent of the households and harvested by 96.6 percent. The distribution of fish among households also involved 89.7 percent which received fish and 93.1 percent that gave fish to other households. All fish accounted for 33,572.9 pounds of the community harvest (80.5 percent) (Fig. IX-10). The contribution of fish to the household average was 818.9 pounds, and to the per capita total, 208.3 pounds.

For salmon, 100 percent of the households used at least one kind, while 96.6 percent attempted to harvest salmon, and the same percentage successfully harvested some. Sharing of salmon involved 72.4 percent of the households which received it and 86.2 which gave it away. Salmon harvesters produced a total of 20,241.9 pounds for a household mean of 493.7 pounds and a per capita amount of 125.6 pounds. There was an estimated total harvest of 6,994 salmon by the community. The harvest was composed of 3,996 pink, 1,415 coho, 1,407 sockeye, 89 chinook, and 86 chum.

The methods of salmon harvest used by Nanwalek residents in 1991/92 are reported in Table IX-21, Table IX-22, and Table IX-23. Nearly two-thirds (64.7 percent; 4,527 salmon) of the total salmon harvest numbers were taken with rod and reel. In addition, the majority of Nanwalek households (89.7 percent) used this method. Subsistence gillnet was the other most commonly used method by which 34.5 percent of the households caught 1,999 salmon, 28.6 percent of the total harvest. Other unidentified methods were used by 10.3 percent (three households) to catch 270 salmon (3.9 percent of the harvest). One household (3.4 percent) used a dip net to harvest 198 salmon (2.8 percent).

To preserve salmon in 1991/92, Nanwalek households used nine different methods (Table I-104). Although there is no estimate of the quantities preserved by each method, relative percentages of households using each method are provided. Also, a detailed description of salmon preservation and preparation methods is available in Stanek (1985:141-144). Almost all households interviewed (87.5 percent), reported freezing as one method, and this usually involved freezing not only fresh fish but also other preserved products in order to maintain freshness and extend shelf-life. Just over three-fourths (78.1 percent) of the respondents reported using cold smoking and the same percentage used drying. Although cold smoking requires extensive drying, the latter is also used separately. Kippering, which involves hot smoke curing, was used by 15.6 percent. Salting was reported by 62.5 percent and was usually used to preserve king and silver salmon. Pickling was reported by 31.3 percent of the households, and canning was used by 43.8 percent. Lastly, fermenting was reported by 34.4 percent of the respondents who use this method primarily for making a traditional food out of salmon roe. A few people ferment salmon flesh. Several households did not specify any particular preservation method. Although several preservation methods could be used in combination to make a single product, on average, each household used 4.4 different methods to preserve salmon.

Non-salmon fish including cod, halibut, flounder, greenling, herring, rockfish, char, and trout were used by 100 percent of Nanwalek's households. There were 86.2 percent which attempted to catch non-

salmon fish, and 82.8 percent which actually caught some fish. The distribution of the harvest occurred among 86.2 percent of the households which received non-salmon fish and 69.0 percent which gave it away. There was a total harvest of 13,330.9 pounds which yielded a household average of 325.1 pounds, and a per capita amount of 82.7 pounds. Among all the non-salmon species, halibut accounted for the largest portion of the harvest with 5,871.6 pounds (44.0 percent). The Dolly Varden harvest produced the second largest amount of non-salmon fish with 4,475.2 pounds (33.6 percent). Two species of cod represented the third largest quantity of non-salmon fish with 1,283.5 pounds (9.6 percent). Flounder produced the fourth largest amount with 462.3 pounds (3.5 percent), while trout was fifth with 322.6 pounds. The remaining poundage (318.1 pounds, 2.4 percent) was composed of greenling and sculpin.

In contrast to Port Graham, over two-thirds (68.9 percent) of Nanwalek households (Table IX-26) used rod and reel to catch the majority (57.9 percent; 7,716.9 pounds) of their non-salmon fish harvest (Table IX-24; Table IX-25). Subsistence methods including set gillnet, seine, handline, or longline were used to catch 41.4 percent. A small amount of the harvest was caught by ice fishing (0.7 percent) with either handline or rod and reel. There was no removal from commercial sources.

The only game resource harvested by Nanwalek residents in 1991/92 was black bear. Other game species which were used included brown bear, goat, moose, and porcupine. In spite of the harvest being relatively low, 93.1 percent of the households reported using some wild game products. Three-fourths of the households (75.9 percent) reported using black bear, while 34.5 percent hunted, and 13.8 percent harvested bears.

Marine mammal harvests included only harbor seal which was taken by 17.2 percent of the households. There were many households reporting use of sea lion (51.7 percent). For the two species of marine mammals, 72.4 percent reported using them. The harbor seal harvest totaled 1,029.2 pounds of edible product. This was only one-fourth the reported 1987 harvest. Respondents attributed the low harvest to the scarcity of seals, and near absence of sea lions. One Nanwalek resident reported that they hardly see any seals around since the oil spill, saying, "We used to get them in Dogfish Bay. Now there's nothing."

Birds and eggs harvested by Nanwalek residents were used by just over half the households (55.2 percent). While 41.4 attempted and harvested birds and eggs, 37.9 percent received them, and 34.5 percent gave them away. As a category of resources, birds and eggs accounted for an overall household harvest at 15.0 pounds, and produced a total community harvest of 616.8 pounds. The largest amount of production from birds came from ducks with 429.8 pounds (69.7 percent). The other groups of birds harvested were grouse and ptarmigan with 14.8 pounds, and seabirds with 36.8 pounds. Egg harvests, all gull eggs, produced 134.0 pounds total harvest (21.7 percent).

Like Port Graham, one of the most important resource groups harvested by Nanwalek residents was marine invertebrates. The importance of this resource is demonstrated in part by the high household levels of use (100 percent), and by the level of harvest and attempting to harvest (89.7

percent each), and also the degree of sharing (79.3 percent receiving and 69.0 percent giving). A total of 3,929.5 pounds (9.4 percent of the community resource harvest) of invertebrates were harvested by the community, providing a household average of 95.8 pounds and a per capita average of 24.4 pounds. The relative amounts of invertebrates harvested were as follows: bivalves including clams, cockles, and mussels (1,645.1 pounds), chitons (1,790.5 pounds), octopus (424.1 pounds), and snails (68.9 pounds).

Lastly, plants and berries together yielded 2,075.6 pounds for the community, for a household average of 43.7 pounds and per capita amount of 11.1 pounds (5.0 percent of the total community harvest). Berries made up the largest portion of the harvest with 1,374.2 pounds; plants, greens, and mushrooms totaled 450.4 pounds; while seaweed and kelp totaled 251.0 pounds. Not included with edible foods were 208.5 cords of wood harvested for heating, smoking fish, and building in 1991/92. The use of plants for medicinal purposes was asked in the study, and 79.3 percent of the households responded with the use of some type of plant (Table I-108; Table I-109). Although seven groups or species of plants used for medicines are listed here, this is not all the plants used by the community, and a more complete listing along with their uses can be found in Russell (1991). For all but one group, the specific uses most often given were for relief of colds and coughs. Other uses included treatment for arthritis, leukemia, and tuberculosis.

From the standpoint of the overall composition of the 1991/92 harvest (Fig. IX-10), salmon made up 48.5 percent, non-salmon fish 32.0 percent, marine invertebrates 9.4 percent, marine mammals 2.5 percent, plants 4.9 percent, game (1.2 percent) and birds and eggs at 1.5 percent. Compared to 1987, the relative composition of the harvest by each category listed above changed considerably in some areas. For example, salmon increased by 11.0 percent, non-salmon fish decreased by 5.0 percent, land mammals decreased 2.0 percent, and marine mammals decreased by 5.0 percent. Shellfish increased slightly (1.6 percent), while birds and plants remained about the same. Looking at the pattern in harvest quantities for the four years of measurement, there was a decline immediately after the *Exxon Valdez* oil spill and a recovery in 1990 and 1991/92, although equal or slightly higher levels of harvest compared to 1987 occurred in only two of seven resource categories (Table IX-17, Table IX-18, Fig. IX-9).

1991/92 HOUSEHOLD ASSESSMENTS OF CHANGE

In this study, households were asked to assess changes in their 1991/92 overall subsistence use levels with their uses of the previous year and the year before the oil spill. The overall assessment for all resource categories found just over half the households (57.7 percent) indicated they used less than before the spill, and 30.8 percent indicated they used the same (Table I-58) (Fig. IX-11). Three households (10.3 percent) indicated higher use levels, while an equal number (three households) were either not in the community, gave no response, or did not know. In the year of the oil spill, 1989/90, nearly every household (97.0 percent) reported lower uses. For comparison with the previous year (1990) (Table I-57), 19.2 percent (five households) indicated using less, 50.0 percent (13 households)

indicated using the same, and 30.8 percent (nine households) indicated higher use levels. Three households (10.3 percent) were not in the community during 1990.

Each resource group also received an assessment of change for the year before the oil spill, and Nanwalek surveys had the following results: for salmon (Table I-10), fish other than salmon (Table I-16), marine mammals (Table I-34), and marine invertebrates (Table I-46), between 51.7 percent and 69.0 percent of the households reported less, between 17.2 percent and 27.6 percent reported the same, between 3.4 percent and 10.3 percent reported higher, and one household gave no response; for large game (Table I-22), small game and furbearers (Table I-28), birds (Table I-40), and plants (Table I-52), between 6.9 percent and 37.9 percent reported less, between 41.4 percent and 69.0 percent reported the same, between 3.4 percent and 6.9 percent reported higher, and from three to five households did not know or did not respond.

In comparison with the previous year, Nanwalek households reported the following: salmon (Table I-9), other fish (Table I-15), marine mammals (Table I-33), and marine invertebrates (Table I-45), between 24.1 percent and 37.9 percent reported less, between 24.1 percent and 48.3 percent reported no change, and between 10.3 percent and 37.9 percent reported higher uses; for large game (Table I-21), small game and furbearers (Table I-27), birds (Table I-39), and plants (Table I-51), between 6.9 percent and 17.2 percent reported less use, between 44.8 percent and 72.4 percent reported the same, and between 6.9 percent and 24.1 percent reported higher usage.

In summary, the assessment for change in use responses from Nanwalek households followed a pattern based on whether the resources were either terrestrial or aquatic. For example, in the year before the spill, water-based resources received the largest number of responses indicating less usage, a moderate number of responses indicated the same amount of use, and the least number of responses indicated higher levels of use. Land-based resources received the highest percentages of responses for the same amount of use during the year before the spill, the second highest percentage of responses for less use, and the lowest amount of responses for higher use. In comparison with last year, both land and water-based resource groups had very similar grouping of responses. The highest percentages of Nanwalek households responded to the same or no change in use level, the next largest percentage said they had less use, and the least amount said they had higher use.

1991/92 DISCARDED WILD RESOURCES

Harvesters at Nanwalek occasionally find resources which do not appear normal and these are usually discarded. In this study 48.3 percent of the respondents (14 households) reported discarding resources for a variety of reasons (Table I-107). The groups of resources in which abnormalities were found and the percentages of households discarding something from each resource group were as follows: salmon (31.0 percent), non-salmon fish (10.3 percent), game (3.4 percent), birds (3.4 percent), marine invertebrates (17.2 percent), unspecified resource (3.4 percent). Abnormal appearance was the

reason the single largest group (55.2 percent) gave for discarding resources. Fear of contamination was the other reason given by 13.8 percent. Within the 55.2 percent who listed abnormalities, 31.0 percent gave an apparent, nonspecific pathological reason for discarding resources. As to the perceived reasons for the abnormalities, most respondents (55.2 percent) did not know the reasons, while 20.7 percent thought it was due to oil contamination, and 3.4 percent thought it due to improper handling. Nobody reported normal variation or disease as the reason for abnormality. As to whether the abnormalities were known prior to the oil spill, 41.4 percent reported they had not heard of the condition before the spill and 6.9 percent were missing responses.

RESOURCE USES: 1992/93

Participation in Hunting, Fishing, and Gathering Activities

Overall in 1992/93 and 1991/92 were essentially the same in the percentages of the population attempting to harvest any type of resource, while a decrease occurred among those processing any type of resource (Table IX-15). Within categories, however, more modest changes are evident. For example, in 1992/93, 3.3 more persons attempted to harvest some type of game animal and 17.0 more persons processed some type of game. This increase in activity is supported by the increased amount of game resources harvested. Interestingly, in spite of the slight decrease in the percentage of households fishing and processing in 1992/93, there was an increase in the percentage of persons who attempted and processed. Plant harvesting remained relatively unchanged, and processing activity declined.

Although 96.9 percent of the households attempted to harvest salmon, not every household tried for every species of salmon (Table IX-31). The largest percentages of households harvested coho salmon (84.4 percent) and sockeye salmon (84.4 percent). Smaller numbers tried for pink salmon (78.2 percent) chinook salmon (31.3 percent) and chum (31.3 percent). Likewise, for fish other than salmon, 90.6 percent of the households harvested at least one type of fish and the most commonly harvested type were Dolly Varden (81.3 percent), halibut (78.2 percent), and gray cod (53.2 percent) (Table IX-34).

When fishermen attempted to catch salmon or other species of fish they selected several methods. For salmon, the vast majority selected rod and reel (96.9 percent), but some chose a net (31.3 percent), a seine (6.3 percent), or a dipnet (3.2 percent). Among salmon species certain types of gear were more popular than others. The preferred method of catching chinook salmon was by net (18.8 percent), a net was also often used for catching chum salmon (12.5 percent). For fish other than salmon, most households chose rod and reel (87.2 percent), but they commonly used several other methods for a variety of species.

Harvest Quantities and Composition

Overall, there was very little change in Nanwalek's resource use and harvest characteristics from 1991/92 to 1992/93 (Table IX-14). A slight increase in the 1992/93 mean household harvest of 142.2

pounds to 1,159.7 pounds (14.8 percent), or 20.2 pounds per capita (7.8 percent) to 279.0 pounds, will be analyzed in the following discussion of the major resource groups.

Typically, the two resource groups which most often influence changes in harvest levels in Nanwalek are salmon and non-salmon fish (Table IX-17, Table IX-27). In 1992/93, these two groups equalized each other in their effects in that salmon decreased by 4.0 pounds per capita, and non-salmon fish increased by 5.7 pounds per capita. Overall, fish increased by only 1.6 pounds per capita. Salmon and non-salmon fish remained in similar proportions of the harvest as in 1991/92 (Table IX-18, Fig. IX-12). Interestingly, game (land mammals) and marine mammals together had the most impact on changes in overall per capita harvests. Not too surprisingly, however, the two moose taken in 1992/93 increased the game harvests by 11.4 pounds per person above 1991/92 when no moose were taken. This amount alone accounted for over half the total per capita increase in game harvests. Marine mammals accounted for the remainder of the increase by adding 10.4 pounds per capita to the 1991/92 level. While no Steller sea lions were reported during 1991/92, in 1992/93 there were 6.4 animals or 7.5 pounds per capita added to the harvest. Harbor seal also added 2.9 pounds per capita. These two groups became equal proportions of the total resource harvest at 5.9 percent each. The remaining three resource groups including birds and eggs, marine invertebrates, and plants showed no or only very small changes in per capita amounts harvested. Although the per capita amounts harvested for these three groups were very similar to their 1991/92 levels, their proportions of the total harvest became smaller as a function of the increased portions of game and marine mammals.

Detailed information on methods of harvest for salmon was collected during this study (Tables IX-29; Table IX-30; and Table IX-31). Basically, the majority of the salmon harvested by Nanwalek residents was caught by rod and reel. In 1992/93, three-fourths of the total number of salmon were taken by this method, while the balance of the harvest was caught by subsistence setnets. A small portion of the harvest was taken with seines. Although the portion of the 1992/93 salmon harvest taken on rod and reel was 11.5 percent higher than in 1991/92, this is not beyond normal variations (see Stanek 1989). By comparison, the total number of salmon harvested was lower in 1992/93 than in 1991/92, but due to the larger catch of coho salmon, the total edible weight harvested was just over one thousand pounds more in 1992/93.

For non-salmon fish (Table IX-32; Table IX-33; and Table IX-34), just over one-half (54.0 percent) of the 1992/93 harvest was taken by rod and reel, while subsistence gear accounted for the bulk of the remainder (43.9 percent). These proportions are almost exactly the same as for the previous year. The proportion of households using rod and reel to harvest non-salmon fish was 18.6 percent higher. The amount by which the 1992/93 household harvest is higher than 1991/92 harvest (42.3 pounds) is 13.0 percent of the 1991/92 average household harvest. A very small amount was taken from commercial catches (0.22 percent) (Table IX-28).

RESOURCE USES: 1993/94

Participation in Hunting, Fishing, and Gathering Activities

Measured at the household level, essentially all resource use and harvest characteristics remained the same as in the previous two years (Table IX-14, Fig. IX-8). A slight increase in per capita harvests to 304.9 pounds and mean household harvests to 1,164.1 pounds continued the three-year pattern. Interestingly, the minimum and maximum household harvests increased substantially over the previous two years to 123.4 pounds and 5,433.5 pounds respectively. Similar to the first year of the study, the percentage of meat, fish, and fowl came from wild resources was estimated to be 1 to 25 percent for 21.9 percent of the household, 26 to 50 percent for 43.8 percent of the households, 51 to 75 percent for 28.2 percent of the households, and 76 to 99 percent for 6.3 percent of the households. No one said all or none of their annual food came from the wild (Table I-104).

At the individual level, 91.3 percent of the estimated population (the highest in three years) hunted, gathered, or fished for some type of resource (Table IX-15). Slightly less than that, 89.7 percent, processed some type of resource. Although plant gathering received the highest participation level in 1993/94, this year was that activity's lowest level in the three-year study. Fishing and fish processing received the second highest participation levels at 81.0 percent and 74.6 percent, respectively. Hunting and game processing were the third highest in participation levels, while hunting or trapping furbearers appeared for the first time 1993/94.

In their fishing efforts, most Nanwalek households (93.9 percent) continued to use rod and reel as the preferred method to harvest salmon (Table IX-39). In particular, coho salmon, pink salmon, and sockeye salmon were fished with rod and reel by 84.9 percent, 75.8 percent, and 81.8 percent of households respectively. Chinook salmon and chum salmon were preferably fished with setnets by 30.3 percent and 21.2 percent of the households, respectively.

When catching fish other than salmon (tomcod, halibut, and Dolly Varden) rod and reel were used by three-fourths of Nanwalek households, but other types of subsistence gear (beach seines, handlines, or skates) were also commonly used by 51.5 percent of the households (Table IX-42).

Harvest Quantities and Composition

The mean household harvest of wild resources in Nanwalek for 1993/94 was 1,164.1 pounds, and the per capita harvest was 304.9 pounds (Table IX-35). Both estimates are higher than the previous two study years (Table IX-14). The composition of the 1993/94 harvest was about the same as the previous year, with only plants and marine mammals changing in their respective ranks (Table IX-17; Table IX-18; Fig. IX-13).

Changes within groups of resources from 1992/93 to 1993/94 included the following: an increase in sockeye harvest of over 100 pounds per capita above both previous years; an average increase of 22.5 pounds per capita harvest of halibut in each of the three years; a tripling of the Pacific tomcod taken

between the second and third years and a 54-fold increase from the first year to the third; a decrease in Dolly Varden harvest by half between the second and third years and by one-third from the year one to year three; a decrease of just over four black bears from the second to third year, and an increase of two and one-half bears from the first to the third year; one moose was taken in 1993/94, whereas two and one-half were harvested in the second year and none in the first year; harbor seal harvest decreased by two in the third year and was up by ten seals from the first year; Stellar sea lion harvest was constant in the second and third years, whereas none were taken in the first year; migratory bird harvest decreased slightly in the third year and was one pound per capita lower than the first year. Essentially no small game or furbearers were taken in any of the three years, although several squirrels were harvested in the second and third years. Scoters typically make up the bulk of the duck harvest and this held true for all three years. Marine invertebrate harvests maintained an almost identical levels over the three years at 24 pounds per capita with chitons and butter clams sustaining the majority of the harvest in all three study years. Lastly, the wild plant harvest varied by only slightly more than a pound between any of the three years. Berries and greens were the two main items in the harvest.

In terms of how most of Nanwalek's fish harvest was caught during 1993/94, Table IX-36, Table IX-37; Table IX-38; Table IX-39; Table IX-40; Table IX-41; and Table IX-42 report percentages and quantities of the harvest by gear type. The majority of salmon (67.7 percent) were caught on rod and reel, and 35.5 percent were caught with some other subsistence method such as setnet or handline. Among species of salmon, gear type specializations did occur, for example chinook and chum salmon were taken primarily with setnets (78.3 percent and 73.3 percent of the harvest respectively) although some rod and reel harvest does occur. Non-salmon fish were caught by gear type similar to salmon, however, there is a much stronger specialization for gear type. Most non-salmon fish were caught on rod and reel (61.0 percent) while 37.6 percent were caught on subsistence gear (longline, handlines, beach seines, or throwlines) and a small amount was caught on commercial gear (primarily longlines). These patterns of gear type usage parallel those of previous study years with roughly similar percentages of the catch taken by each gear type.

During two years of this study and in two prior years, after the oil spill, Nanwalek households were asked to assess their current subsistence uses relative to before the spill (Fig. IX-11) and to last year. In 1989/90 the majority of respondents (97.0 percent) indicated their harvests were lower, and all of those were because of some oil spill-related reason (Stanek forthcoming b). By 1993/94, 66.7 percent of respondents indicated lowered harvests (Table I-95), but of those, 11 households (61.1 percent) indicated a decrease because of oil spill-related reasons. This was a decrease of 30.0 percent between the two years. Among oil spill-related reasons (Table I-98) given in 1993/94, households gave several different reasons. The majority of responses (72.7 percent) indicated a decrease in abundance of resources, just over one-third (36.4 percent) attribute the lower harvest to concerns about food safety conditions (contamination), and 9.1 percent each pointed to their personal economic situation and decreased personal effort. Interestingly, the trend in the first three years of comparison did not continue

into the fourth year when there was an increase in the percentage of households indicating lower harvests in 1993/94 compared to before the oil spill. In addition, an increased number of households said their harvests were higher.

For individual resource categories between years (Fig. IX-11; Fig. IX-13), all categories of resources showed fewer respondents reporting in 1993/94 with lower harvests than before the spill. For example, 97.0 percent of respondents reported lower average use levels in 1989 and 66.7 percent of respondents reported lower levels in 1993/94 - a decrease of 31.3 percent. Some resources showed greater degrees of change than others; non-salmon fish showed the greatest change (51.6 percent). Those resources living in saltwater including fish, marine invertebrates, marine mammals, and waterfowl were harvested by the highest numbers of respondents.

DISCUSSION

Patterns of Wild Resource Uses

Resource harvest levels have been estimated in Nanwalek during six study years (Table IX-17; Fig. IX-8; Fig. IX-9). Overall, harvests during four of the six years ranged from 258.8 pounds to 304.9 pounds, a 17.8 percent variation indicating considerable stability. Immediately after the oil spill, harvests dropped to half their previous "normal" level which was achieved again in 1992/93 and 1993/94.

During the three years of this study, Nanwalek harvests were on a modest but steady increase from oil spill lows, with per capita harvests increasing from 4.1 percent to 8.4 percent annually (Table IX-17). Each year following the spill, confidence in the edibility of wild foods increased. Also, employment conditions worsened; for example, in 1993/94 the logging had ended and there were no employment replacements. Although several households moved away from the community in search of employment, many resident households responded to low employment levels by increasing their harvests of wild foods and picking up work in the services and other sectors.

By 1993/94, the sixth year of study, several observations could be drawn from annual comparisons (Fig. IX-9). Subsistence salmon harvests returned to their pre-spill levels while showing modest changes in response to local run size such as varying numbers of pink and coho salmon. In 1993/94 salmon harvests reached a six-year high (149.4 pounds per capita) as a returning run of enhanced sockeye salmon boosted the sockeye harvest above the five previous estimates. For non-salmon fish, an upward trend in harvest continued. Although it has not reached pre-spill levels, 1993/94 was the highest in five consecutive years, and demonstrated an increased confidence in the safety of eating bottomfish. Notably, weather strongly influences effort in this fishery.

Marine invertebrate harvests continue in a relatively stable trend with little variation in quantities of individual species of shellfish. Land mammals and marine mammals showed relatively large increases in 1992 harvests. However, the size of individual animals can have a big influence when the total number harvested is small, as in this case. Typically, two or three moose are taken by Nanwalek

residents and usually several goats and a number of black bears. Harvests of moose and goats are highly dependent on effort in any given year. Permit regulations have strongly influenced moose harvest in Nanwalek and Port Graham.

Bird and egg harvests dropped below oil spill levels in 1992/93, even though they were near pre-spill levels in 1991/92, and equaled 1990/91 levels again in 1993/94. The bird harvest appears quite stable, but since it is nearly all waterfowl, it is very dependent on the activities of a few hunters who are at the mercy of extreme weather conditions during the late fall and winter months when waterfowl are present.

As mentioned in other descriptions of Nanwalek's resource use, edible plant harvest focuses primarily on berries. Not only is berry harvesting time consuming, berry abundance fluctuates widely from year to year. Notably, in post-spill years berry harvests have climbed back to almost what they were in 1987.

The composition of wild resource harvests at Nanwalek (Table IX-18) shows marked consistency over the six year period, despite the dramatic impact of the *Exxon Valdez* oil spill. In large part this is due to the long-established harvest practices, resource accessibility, cultural preferences, residents' affinity with their traditional use areas, and relative abundance of local resources. Notably, elements of employment, education, housing availability, and food safety were found in this study to strongly influence harvest patterns. In the following section, several additional social and economic factors will be discussed in their capacity to influence resource uses.

Comparisons with other Communities

The use of non-commercial resource harvests for personal consumption is documented in this and other community studies in the Cook Inlet region. Compared to other communities, Nanwalek's per capita harvests during this study were the highest in the region (Table XXIII-4). On average, it also surpasses all other communities in the study, except Chignik Lake, in the number of resources used (Fig. XXIII-22), the number of resources attempted (Fig. XXIII-23), the number of resources harvested (Fig. XXIII-24), and the number of resources given away (Fig. XXIII-26). The average number of resources received by Nanwalek households equals the average number of resources received by households in Port Graham, and far surpasses the average number received by Seldovia households (Fig. XXIII-25).

Comparatively, the percentage of food from wild resources consumed by Nanwalek residents during 1991/92 and 1993/94 was greater in Nanwalek than in either Port Graham or Seldovia (Table I-104; Table I-105). Monthly expenses for food as a percentage of total household income in Nanwalek in 1991/92 and 1993/94 (Table I-101; Table I-102) were lower than Port Graham, but higher than Seldovia. In Nanwalek, patterns of lowered subsistence uses as compared to before the oil spill were similar to patterns in Prince William Sound and Kodiak Island communities (Fig. I-7).

The Exxon Valdez Oil Spill and Nanwalek

Finally, this section discusses selected findings about wild resource use relative to immediate conditions and the possible long term effects of the *Exxon Valdez* oil spill and future outer continental shelf development for Nanwalek. Essentially, the questions chosen for discussion can be divided into three topic areas: respondents' perception of food safety; respondents' assessments of their participation in subsistence and community activities; and respondents' predictions of the future conditions of the natural and human environments. While the former two topic areas are indicators of social effects of the *Exxon Valdez* oil spill in the past and present, the latter focuses on responses about future OCS development.

Chapter I discussed findings about the safety of eating wild resources which may have been contaminated by oil. Clearly, issues of food safety were of primary concern in many communities (Fall 1991, 1993). Regarding respondents' perception of food safety, they were asked whether they thought they were adequately informed about the safety of eating wild foods after the oil spill (Fig. I-9). Nearly two-thirds of the of Nanwalek households responded positively in the first study year. Interestingly, in the following two study years positive responses fell by 22.7 percent each year. A similar pattern of responses occurred in neighboring Port Graham. In both communities, the Oil Spill Health Task Force made concerted efforts to address concerns about food safety by providing bulletins with findings of foods testing projects (Fall 1990b:7).

To further understand community concerns about foods safety, questions were asked about resources which were key elements of subsistence harvests. Respondents were asked whether clams and seals were safe for children to eat (Table IX-44; Table IX-51; Fig. I-4; Fig. I-5). Nanwalek households had slightly different patterns of responses for these two resources, but the majority felt throughout the three study years that clams and seals were safe to eat. Although responses to questions about seal edibility demonstrated a slightly diminishing but continuing concern for safety, responses to questions about the edibility of clams showed a heightened degree of concern. Much of this concern may be in response to declines Nanwalek residents observed in seal and sea lion populations, and to intensified studies to learn about marine mammal health and harvests. But, during the oil spill cleanup, Nanwalek workers saw oiled seals and helped clean shellfish beaches heavily coated in crude oil. Also of interest is the contrast between Nanwalek and Seldovia in respondents' feelings about resource edibility. Whereas both Nanwalek and Port Graham experienced light oiling on their beaches, Seldovia had no oil wash ashore on its beaches and their levels of concern for safety were very low.

The second category of questions measures current involvement in resource use activities and satisfaction with community. Although there appears to be increased dissatisfaction with living in Nanwalek over the three years of this study, well over 80.0 percent of respondents liked living there either more or the same as before the spill (Table IX-49; Fig. I-8). Interestingly, in 1991/92, the year with the lowest percentage of respondents saying they liked it less, there were the lowest employment levels and the highest household and personal income levels. Relative to some other communities in the spill

area, such as Cordova and Chenega Bay, Nanwalek residents liked living where they did, and it would take something even more devastating than an oil spill to cause residents to move away. For instance, in 1992/93 over 75.0 percent said they would live in the area when they were old, and 73.0 percent said they would continue to live in Nanwalek if they were unable to get wild foods because of an oil spill. Residents' participation in political activities may be another measure of their fondness for their community (Table IX-48). On average over the three year study, the majority of people (51.9 percent) did not change their views of community leaders as a result of the spill, while the views of about one-third of the respondents did change. The vast majority of residents who responded, over 80.0 percent, continue to vote in local and statewide elections.

It was very clear that participation in subsistence activities by children was dramatically affected by the oil spill as reflected by over half of Nanwalek households that responded during all three study years (Fig. I-6). On average, more Nanwalek households responded affirmatively than in neighboring communities (Port Graham and Seldovia) as well as in other study communities. It is noteworthy that high percentages (87.5 percent) of adults in Nanwalek were working on cleanup jobs in 1989 (Stanek forthcoming). Of particular interest is that those jobs often kept workers away from the community for extended periods. In turn, children were not able to engage in their normal pattern of subsistence activities accompanied by their parents.

In another question measuring the likely effects of the spill, respondents were asked to compare current levels of sharing with levels before the spill. Two years following the spill found almost half (48.1 percent) of households reporting less sharing than before the spill (Fig. I-7) while over half reported the same or more sharing. In the third year, almost twenty percent more households reported less sharing than before the spill as households mentioned greater independence in resource gathering through having more equipment to go out on their own. By the third year, an inexplicable decline of 27.2 percent of the households (40.7 percent) reported less sharing. Interestingly, a similar but less pronounced pattern of response occurred in Port Graham, Ouzinkie, Kodiak, and Kenai. Nevertheless, a higher percentage of Nanwalek households than in any other community, except Tatitlek, reported less sharing than before the spill.

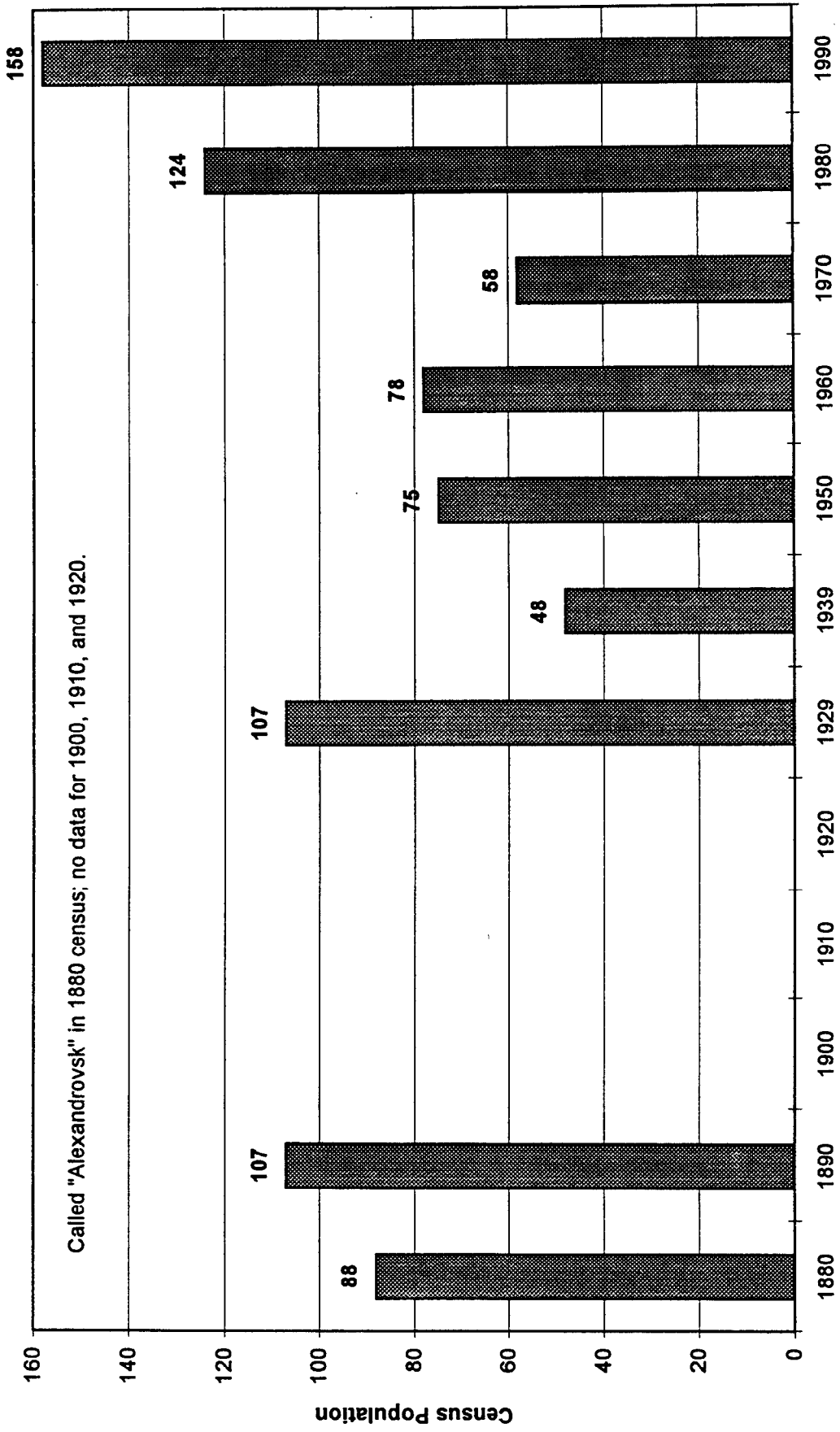
One last measure of current activity levels with wild resource uses asked whether the respondent had eaten any wild foods the previous day (Table IX-43; Fig. I-3). Obviously, this variable is highly dependent upon the time of year it is asked. In the case of Nanwalek, the surveys were asked at the end of winter when wild food reserves were low and spring harvest activities had not gotten into full swing. Mindful of the influence of survey timing, the three-year pattern in Nanwalek may reflect unique local circumstances encountered in each year. These included poor weather conditions in the first year, celebration of the Easter holiday and activities surrounding an elder's death in the second year, and poor weather conditions during a very short survey period in the third year. Despite the effects of survey timing and other influences, percentages of Nanwalek respondents having eaten a wild food on the day before the survey were some of the highest of all communities.

The last series of questions examined here deal with the perspective respondents had relative to impacts oil development might have on populations of wildlife and the human condition. Predictably, Nanwalek respondents echoed their concerns expressed about offshore oil and gas development in the 1980s (Braund and Behnke 1980:228). As to how outer continental shelf (OCS) development would affect wild resources, responses overwhelmingly predicted lower populations (Table IX-52) of fish (Fig. I-10), marine invertebrates (Fig. I-11), marine mammals (Fig. I-13), and birds, especially waterfowl and marine birds (Fig. I-14). Understandably, respondents were somewhat less inclined to predict lowered land mammal populations, however, their responses were tempered with the knowledge that animals such as black bears, and mountain goats utilize shorelines and intertidal areas in search of food during certain times of the year. Not surprisingly, Port Graham residents mirrored Nanwalek's responses about impacts to wildlife.

Nanwalek respondents' skepticism about impacts of OCS development carried over to their predictions about impacts on job availability. Fewer than half (Fig. I-15) predicted more jobs would result from OCS development in the region. What is more, doubts about job availability increased throughout the three-year study, and in the third study year was the second highest of all study communities. On the question of job availability, Port Graham respondents held a somewhat more positive perspective about job prospects with just over half predicting more jobs as a result of OCS development.

In addition to the few variables mentioned above, many other elements of the social and economic environments were covered by this study. Only time and money have precluded a more extensive examination of those factors' influence upon resource use in Nanwalek. In addition, many other unstudied variables such as health, language, and education have still to be factored into the resource use equation.

Figure IX-1. Nanwalek (English Bay) Census Population, 1880 - 1990



Sources: Rollins 1978; Alaska Department of Labor 1991

Table IX-1. Sample Participation: Nanwalek, 1992, 1993, and 1994

VARIABLE	1992 TOTAL HOUSEHOLDS	1993 TOTAL HOUSEHOLDS	1994 TOTAL HOUSEHOLDS
Estimated Household Structures	43	43	43
Non-Residential Structures	0	0	0
Estimated Households	43	43	43
<u>Interview Goal:</u>	43	42	43
Households Interviewed	29	32	33
Failed to Contact/Unavailable	11	8	4
Refused	1	1	0
Vacant Residential Structures	2	1	6
Seasonal Households**	0	0	0
Non-Resident Household ***	0	1	0
Invalid Households and Vacancies	2	2	6
Total Households Attempted:	43	43	43
<u>Refusal Rate:</u>	3.33%	3.03%	0.00%
Non-Perm. HH Rate ("Vacancy Rate"):	4.7%	4.7%	14.0%
Interview Goal (Percentage)	67.4%	76.2%	76.7%
Social Effects Surveys Completed	29	33	31
Total Permanent Households	41	41	37
Percentage Interviewed	70.73%	78.05%	89.19%
Interview Weighting Factor	1.414	1.281	1.121

NOTES:

- * Seasonal households are households which maintain a permanent domicile elsewhere where they spend the majority of their time.
- ** Non-resident households are households which were not present during the study year or which were resident less than the required number of months.

Table IX-2 . Demographic Characteristics of Households, Nanwalek,
April 1992, April 1993, and April 1994

Characteristics	1991/92	1992/93	1993/94
Sampled Households	29	32	33
Number of Households in the Community	41	41	37
Percentage of Households Sampled	70.73	78.05	89.19
Household Size			
Mean	3.93	4.16	3.82
Minimum	1	1	1
Maximum	9	9	10
Sample Population	114	133	126
Estimated Community Population	161.17	170.41	141.27
Age			
Mean	25.02	23.73	26.23
Minimum	0.50	0.27	0.67
Maximum	77.48	77.33	79.51
Median	20.88	18.42	19.69
Length of Residency - Population			
Mean	17.77	18.88	18.53
Minimum	0.50	0.27	0.63
Maximum	58.13	81.13	79.51
Length of Residency - Household Heads			
Mean	26.41	30.15	25.63
Minimum	0.63	0.63	2.13
Maximum	58.13	81.13	64.13
Sex			
Males			
Number	84.83	90.97	79.61
Percentage	52.63	53.38	56.35
Females			
Number	76.34	79.44	61.67
Percentage	47.37	46.62	43.65
Alaska Native			
Households (Either Head)			
Number	38.17	38.44	33.64
Percentage	93.10	93.75	90.91
Estimated Population			
Number	145.62	152.47	125.58
Percentage	90.35	89.47	88.89

SOURCE: Alaska Department of Fish and Game, Division of Subsistence,
Household Survey, 1992, 1993, and 1994.

Figure IX-2. Population Profile, Nanwalek, April 1992

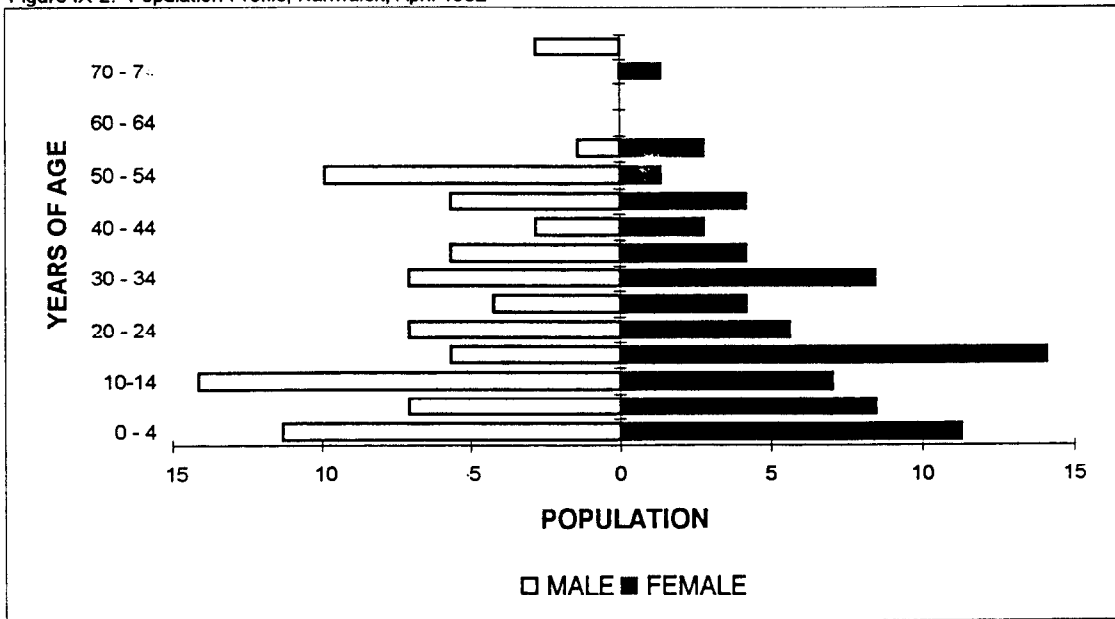


Table IX-3. Population Profile, Nanwalek, April 1992

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	11.31	13.33%	13.33%	11.31	14.81%	14.81%	22.62	14.04%	14.04%
5-9	7.07	8.33%	21.67%	8.48	11.11%	25.93%	15.55	9.65%	23.68%
10-14	14.14	16.67%	38.33%	7.07	9.26%	35.19%	21.21	13.16%	36.84%
15 - 19	5.66	6.67%	45.00%	14.14	18.52%	53.70%	19.79	12.28%	49.12%
20 - 24	7.07	8.33%	53.33%	5.66	7.41%	61.11%	12.72	7.89%	57.02%
25 - 29	4.24	5.00%	58.33%	4.24	5.56%	66.67%	8.48	5.26%	62.28%
30 - 34	7.07	8.33%	66.67%	8.48	11.11%	77.78%	15.55	9.65%	71.93%
35 - 39	5.66	6.67%	73.33%	4.24	5.56%	83.33%	9.90	6.14%	78.07%
40 - 44	2.83	3.33%	76.67%	2.83	3.70%	87.04%	5.66	3.51%	81.58%
45 - 49	5.66	6.67%	83.33%	4.24	5.56%	92.59%	9.90	6.14%	87.72%
50 - 54	9.90	11.67%	95.00%	1.41	1.85%	94.44%	11.31	7.02%	94.74%
55 - 59	1.41	1.67%	96.67%	2.83	3.70%	98.15%	4.24	2.63%	97.37%
60 - 64	0.00	0.00%	96.67%	0.00	0.00%	98.15%	0.00	0.00%	97.37%
65 - 69	0.00	0.00%	96.67%	0.00	0.00%	98.15%	0.00	0.00%	97.37%
70 - 74	0.00	0.00%	96.67%	1.41	1.85%	100.00%	1.41	0.88%	98.25%
75 - 79	2.83	3.33%	100.00%	0.00	0.00%	100.00%	2.83	1.75%	100.00%
80 - 84	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
85 - 89	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
90 - 94	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
95 - 99	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
100 - 104	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
Missing	0.00	0.00%	100.00%	0.00	0.00%	100.00%	0.00	0.00%	100.00%
TOTAL	84.83	52.63%		76.34	47.37%		161.17	100.00%	

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure IX-3. Population Profile, Narwalek, April 1993

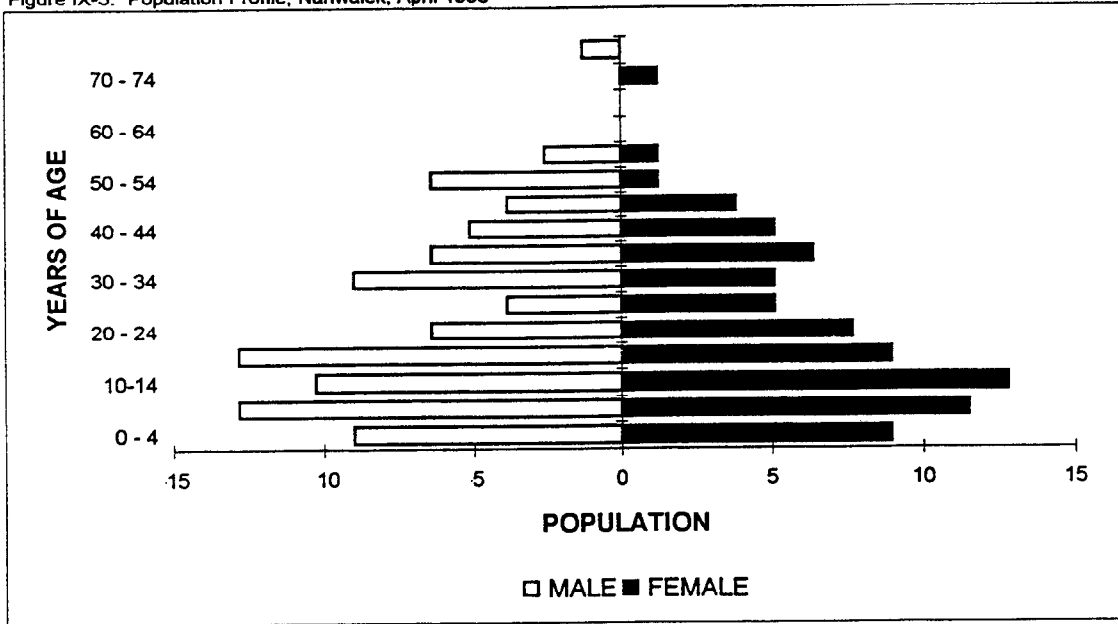


Table IX-4. Population Profile, Narwalek, April 1993

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	8.97	9.86%	9.86%	8.97	11.29%	11.29%	17.94	10.53%	10.53%
5-9	12.81	14.08%	23.94%	11.53	14.52%	25.81%	24.34	14.29%	24.81%
10-14	10.25	11.27%	35.21%	12.81	16.13%	41.94%	23.06	13.53%	38.35%
15 - 19	12.81	14.08%	49.30%	8.97	11.29%	53.23%	21.78	12.78%	51.13%
20 - 24	6.41	7.04%	56.34%	7.69	9.68%	62.90%	14.09	8.27%	59.40%
25 - 29	3.84	4.23%	60.56%	5.13	6.45%	69.35%	8.97	5.26%	64.66%
30 - 34	8.97	9.86%	70.42%	5.13	6.45%	75.81%	14.09	8.27%	72.93%
35 - 39	6.41	7.04%	77.46%	6.41	8.06%	83.87%	12.81	7.52%	80.45%
40 - 44	5.13	5.63%	83.10%	5.13	6.45%	90.32%	10.25	6.02%	86.47%
45 - 49	3.84	4.23%	87.32%	3.84	4.84%	95.16%	7.69	4.51%	90.98%
50 - 54	6.41	7.04%	94.37%	1.28	1.61%	96.77%	7.69	4.51%	95.49%
55 - 59	2.56	2.82%	97.18%	1.28	1.61%	98.39%	3.84	2.26%	97.74%
60 - 64	0.00	0.00%	97.18%	0.00	0.00%	98.39%	0.00	0.00%	97.74%
65 - 69	0.00	0.00%	97.18%	0.00	0.00%	98.39%	0.00	0.00%	97.74%
70 - 74	0.00	0.00%	97.18%	1.28	1.61%	100.00%	1.28	0.75%	98.50%
75 - 79	1.28	1.41%	98.59%	0.00	0.00%	100.00%	1.28	0.75%	99.25%
80 - 84	0.00	0.00%	98.59%	0.00	0.00%	100.00%	0.00	0.00%	99.25%
85 - 89	0.00	0.00%	98.59%	0.00	0.00%	100.00%	0.00	0.00%	99.25%
90 - 94	0.00	0.00%	98.59%	0.00	0.00%	100.00%	0.00	0.00%	99.25%
95 - 99	0.00	0.00%	98.59%	0.00	0.00%	100.00%	0.00	0.00%	99.25%
100 - 104	0.00	0.00%	98.59%	0.00	0.00%	100.00%	0.00	0.00%	99.25%
Missing	1.28	1.41%	100.00%	0.00	0.00%	100.00%	1.28	0.75%	100.00%
TOTAL	90.97	53.38%		79.44	46.62%		170.41	100.00%	

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure IX-4. Population Profile, Nanwalek, April 1994

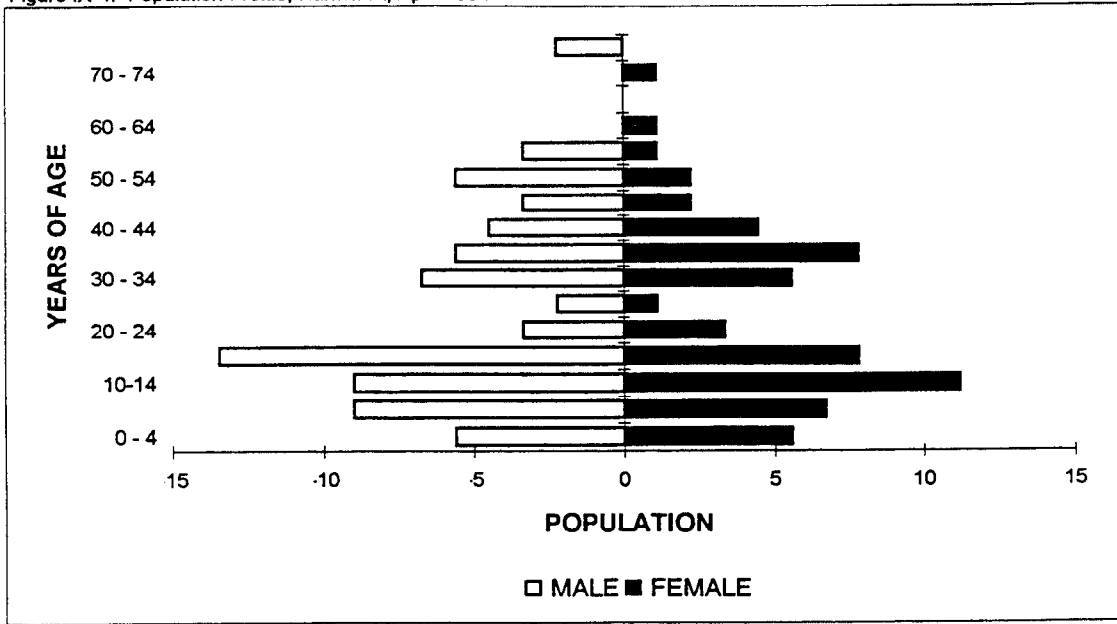


Table IX-5. Population Profile, Nanwalek, April 1994

AGE	MALE			FEMALE			TOTAL		
	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT	NUMBER	PERCENT	CUM. PERCENT
0 - 4	5.61	7.04%	7.04%	5.61	9.09%	9.09%	11.21	7.94%	7.94%
5 - 9	8.97	11.27%	18.31%	6.73	10.91%	20.00%	15.70	11.11%	19.05%
10 - 14	8.97	11.27%	29.58%	11.21	18.18%	38.18%	20.18	14.29%	33.33%
15 - 19	13.45	16.90%	46.48%	7.85	12.73%	50.91%	21.30	15.08%	48.41%
20 - 24	3.36	4.23%	50.70%	3.36	5.45%	56.36%	6.73	4.76%	53.17%
25 - 29	2.24	2.82%	53.52%	1.12	1.82%	58.18%	3.36	2.38%	55.56%
30 - 34	6.73	8.45%	61.97%	5.61	9.09%	67.27%	12.33	8.73%	64.29%
35 - 39	5.61	7.04%	69.01%	7.85	12.73%	80.00%	13.45	9.52%	73.81%
40 - 44	4.48	5.63%	74.65%	4.48	7.27%	87.27%	8.97	6.35%	80.16%
45 - 49	3.36	4.23%	78.87%	2.24	3.64%	90.91%	5.61	3.97%	84.13%
50 - 54	5.61	7.04%	85.92%	2.24	3.64%	94.55%	7.85	5.56%	89.68%
55 - 59	3.36	4.23%	90.14%	1.12	1.82%	96.36%	4.48	3.17%	92.86%
60 - 64	0.00	0.00%	90.14%	1.12	1.82%	98.18%	1.12	0.79%	93.65%
65 - 69	0.00	0.00%	90.14%	0.00	0.00%	98.18%	0.00	0.00%	93.65%
70 - 74	0.00	0.00%	90.14%	1.12	1.82%	100.00%	1.12	0.79%	94.44%
75 - 79	2.24	2.82%	92.96%	0.00	0.00%	100.00%	2.24	1.59%	96.03%
80 - 84	0.00	0.00%	92.96%	0.00	0.00%	100.00%	0.00	0.00%	96.03%
85 - 89	0.00	0.00%	92.96%	0.00	0.00%	100.00%	0.00	0.00%	96.03%
90 - 94	0.00	0.00%	92.96%	0.00	0.00%	100.00%	0.00	0.00%	96.03%
95 - 99	0.00	0.00%	92.96%	0.00	0.00%	100.00%	0.00	0.00%	96.03%
100 - 104	0.00	0.00%	92.96%	0.00	0.00%	100.00%	0.00	0.00%	96.03%
Missing	5.61	7.04%	100.00%	0.00	0.00%	100.00%	5.61	3.97%	100.00%
TOTAL	79.61	56.35%		61.67	43.65%		141.27	100.00%	

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table IX-6. Employment Characteristics, Nanwalek, 1991/92, 1992/93, and 1993/94

Characteristics		1991/92	1992/93	1993/94
ADULTS				
Total		97.55	98.66	85.21
Employed				
	Number	67.86	79.44	62.79
	Percentage	69.57	80.52	73.68
Jobs				
	Number	84.83	115.31	75.12
	Mean	1.25	1.45	1.20
	Minimum	1	1	1
	Maximum	3	4	3
Months Employed				
	Mean	6.98	6.42	7.36
	Minimum	1	1	1
	Maximum	12	12	12
	Year-Round	12.50	19.35	26.79
HOUSEHOLDS				
Total		41.00	41.00	37.00
Employed				
	Number	35.34	39.72	32.52
	Percentage	86.21	96.88	87.88
Jobs per Employed Household				
	Mean	2.40	2.90	2.31
	Minimum	1	1	1
	Maximum	5	10	6
Employed Adults				
	Mean	1.92	2.00	1.93
	Minimum	1	1	1
	Maximum	3	6	6

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994.

Table IX-7. Community, Household, and Per Capita Income, All Sources and by Employer Type, Nanwalek, 1991/92

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$1,173,213.62	\$28,614.97	\$7,279.25
Earned Income	\$860,162.60	\$20,979.58	\$5,336.91
Agriculture, Forestry, and Fishing	29,124.14	710.34	180.70
Agriculture	0.00	0.00	0.00
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	29,124.14	710.34	180.70
Hatchery/Enhancement	19,934.48	486.21	123.68
Commercial Fishing	9,189.56	224.14	57.02
Hunting/Trapping	0.00	0.00	0.00
Mining	0.00	0.00	0.00
Construction	55,420.69	1,351.72	343.86
Manufacturing	206,848.81	5,045.09	1,283.40
Cannery	0.00	0.00	0.00
Other Manufacturing	0.00	0.00	0.00
Logging/Timber	206,848.81	5,045.09	1,283.40
Transportation, Communications, and Utilities	7,068.97	172.41	43.86
Trade	19,340.69	471.72	120.00
Wholesale	0.00	0.00	0.00
Retail	19,340.69	471.72	120.00
Finance, Insurance, and Real Estate	49,482.76	1,206.90	307.02
Services	112,962.07	2,755.17	700.88
Government	379,914.48	9,266.21	2,357.19
Federal	848.28	20.69	5.26
State	1,696.55	41.38	10.53
Local	377,369.66	9,204.14	2,341.40
Local Government	23,921.38	583.45	148.42
Local Education	353,448.28	8,620.69	2,192.98
Unknown	0.00	0.00	0.00
Other Income	\$313,051.02	\$7,635.39	\$1,942.34

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table IX-8. Community, Household, and Per Capita Other Income by Source, Nanwalek, 1991/92

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$313,051.02	\$7,635.39	\$1,942.34
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	0.00	0.00	0.00	0.00
Adult Public Assistance	13.79	7,540.23	183.91	46.78
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	3.45	5,089.66	124.14	31.58
Longevity Bonus	10.34	16,965.52	413.79	105.26
Social Security	13.79	45,558.07	1,111.17	282.67
Workman's Comp./Insurance	3.45	282.76	6.90	1.75
Energy Assistance	27.59	3,930.34	95.86	24.39
Supplemental Security Income	3.45	15,268.97	372.41	94.74
Food Stamps	3.45	848.28	20.69	5.26
Unemployment	48.28	65,735.72	1,603.31	407.86
Native Corporation Dividend	27.59	19,680.00	480.00	122.11
Dividend/Interest	3.45	3,873.79	94.48	24.04
Child Support	0.00	0.00	0.00	0.00
Rental Income	0.00	0.00	0.00	0.00
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	89.66	128,277.69	3,128.72	795.90
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	0.00	0.00	0.00	0.00
Housing Allowances/Off-Base Allowances	0.00	0.00	0.00	0.00
Women, Infants, and Children Program	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure IX-5. Employment by Industry, Nanwalek, 1991/92

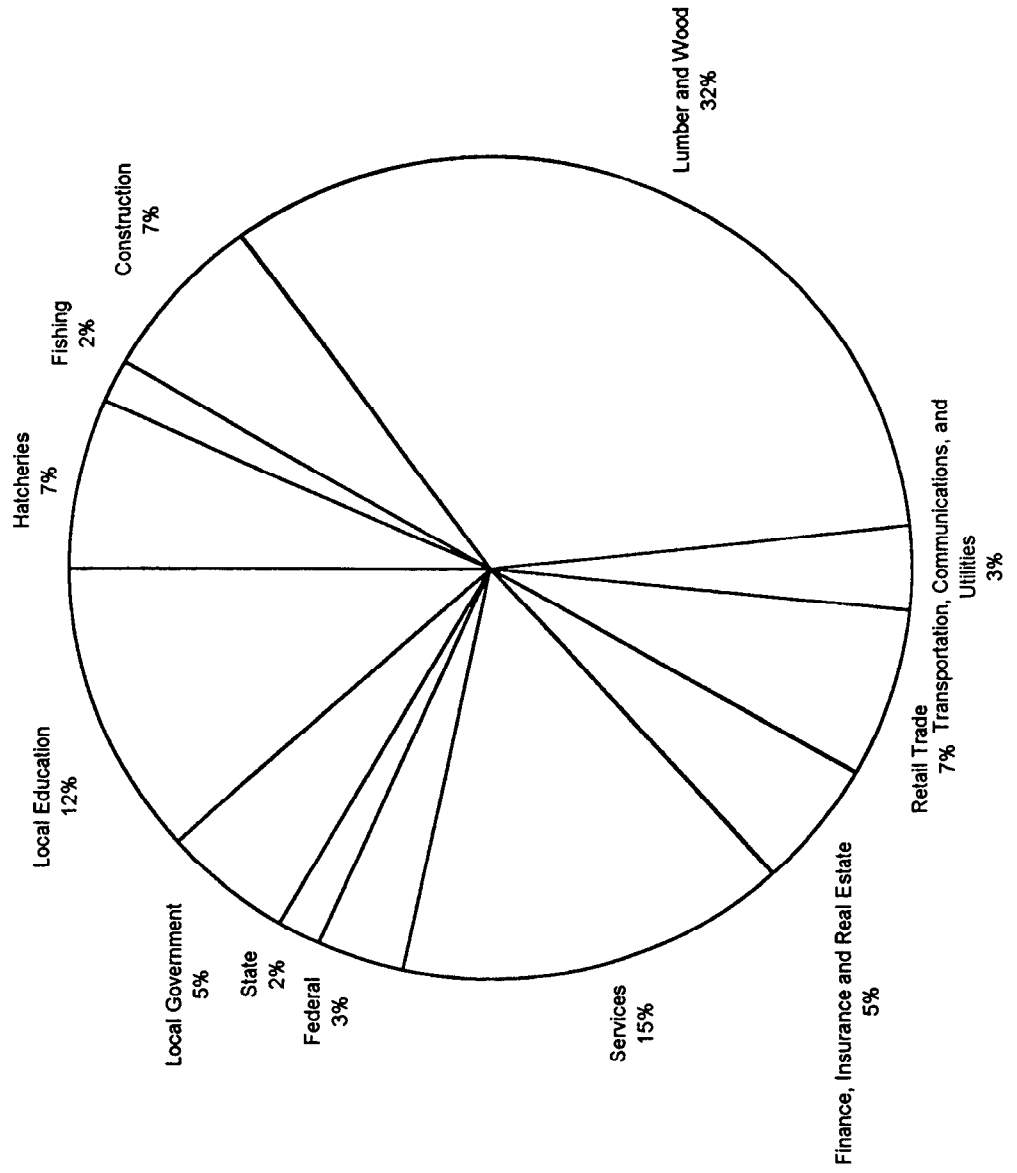


Table IX-9. Subsistence Equipment Expenses and Use, Nanwalek, 1991/92

Sampled Households = 32
Community Households = 41

Equipment Type	Equipment Count		Equipment Cost			Use of Equipment for Subsistence		HH Sharing of Equipment		
	Total	HH Mean	Replacement HH Mean	Annual Fuel HH Mean	Annual Cost HH Mean	% of Cost	Total Cost	HH Mean Cost	% Borrowing	% Lending
All Equipment										
Skiff with outboard	12.81	0.31	\$8,532.98	\$199.13	\$505.50	72.22	\$273,537.69	\$6,671.65	62.50	84.38
Boats with inboard	3.84	0.09	\$2,564.45		\$145.31	81.10	\$90,887.07	\$2,216.76	40.63	28.13
Skiff, manually-propelled	1.28	0.03	\$1,015.63	\$9.38	\$0.00	96.59	\$40,590.00	\$990.00	9.38	0.00
ATV/Motorcycle	17.94	0.44	\$46.88		\$0.00	50.00	\$960.94	\$23.44	0.00	0.00
Snowmachine/snowmobile	1.28	0.03	\$2,040.63	\$140.69	\$109.38	81.78	\$76,808.38	\$1,873.38	21.88	34.38
Highway vehicle	NA	NA	\$93.75	\$3.13	\$2.34	100.00	\$4,067.97	\$99.22	0.00	3.13
Tackle	NA	NA	\$562.50	\$22.50	\$7.19	99.82	\$24,236.77	\$591.14	0.00	3.13
Fishing Nets	8.97	0.22	\$388.82		\$5.63	79.44	\$12,847.20	\$313.35	31.25	43.75
Guns	33.31	0.81	\$156.25		\$7.97	92.39	\$6,220.47	\$151.72	6.25	15.63
Ammunition			\$420.67				\$17,247.60	\$420.67	9.38	12.50
Cabins					\$42.81		\$1,755.31	\$42.81	6.25	12.50
Miscellaneous Camping Equipment	5.13	0.13	\$459.38		\$0.00	88.37	\$16,643.44	\$405.94	6.25	12.50
Fishing/Hunting Camps	NA	NA	\$28.13				\$1,153.13	\$28.13	3.13	0.00
Freezer	24.34	0.59	\$6.25			100.00	\$256.25	\$6.25	0.00	0.00
Miscellaneous freezing supplies			\$394.30				\$16,166.29	\$394.30	25.00	15.63
Canner	2.56	0.06	\$14.38		\$75.99		\$3,115.53	\$75.99	3.13	6.25
Miscellaneous canning supplies					\$55.47		\$589.38	\$14.38	18.75	9.38
Vacuum sealer/Sealer	7.69	0.19	\$48.41				\$2,274.22	\$55.47	6.25	3.13
Miscellaneous sealer supplies					\$12.97		\$1,984.66	\$48.41	0.00	6.25
Smoke house/dry rack			\$292.59				\$531.72	\$12.97	0.00	3.13
Miscellaneous smoker supplies	15.38	0.38			\$40.45		\$11,996.06	\$292.59	15.63	34.38
							\$1,658.53	\$40.45	6.25	6.25

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992.

Table IX-10. Community, Household, and Per Capita Income, All Sources and by Employer Type, Nanwalek, 1992/93

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$920,841.86	\$22,459.56	\$5,403.80
Earned Income	\$677,615.30	\$16,527.20	\$3,976.47
Agriculture, Forestry, and Fishing	32,761.56	799.06	192.26
Agriculture	0.00	0.00	0.00
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	32,761.56	799.06	192.26
Hatchery/Enhancement	30,135.00	735.00	176.84
Commercial Fishing	2,626.56	64.06	15.41
Hunting/Trapping	0.00	0.00	0.00
Mining	AMT UNK	AMT UNK	AMT UNK
Construction	9,096.88	221.88	53.38
Manufacturing	119,156.25	2,906.25	699.25
Cannery	0.00	0.00	0.00
Other Manufacturing	0.00	0.00	0.00
Logging/Timber	119,156.25	2,906.25	699.25
Transportation, Communications, and Utilities	13,709.38	334.38	80.45
Trade	21,294.38	519.38	124.96
Wholesale	0.00	0.00	0.00
Retail	21,294.38	519.38	124.96
Finance, Insurance, and Real Estate	20,500.00	500.00	120.30
Services	167,532.59	4,086.16	983.14
Government	293,564.27	7,160.10	1,722.73
Federal	7,303.13	178.13	42.86
State	12,470.83	304.17	73.18
Local	273,790.31	6,677.81	1,606.69
Local Government	39,962.19	974.69	234.51
Local Education	233,828.13	5,703.13	1,372.18
Unknown	0.00	0.00	0.00
Other Income	\$243,226.56	\$5,932.36	\$1,427.33

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table IX-11. Community, Household, and Per Capita Other Income by Source, Nanwalek, 1992/93

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources		\$243,226.56	\$5,932.36	\$1,427.33
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	0.00	0.00	0.00	0.00
Adult Public Assistance	3.13	AMT UNK	AMT UNK	AMT UNK
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	0.00	0.00	0.00	0.00
Longevity Bonus	3.13	7,687.50	187.50	45.11
Social Security	6.25	16,220.63	395.63	95.19
Workman's Comp./Insurance	0.00	0.00	0.00	0.00
Energy Assistance	21.88	2,862.31	69.81	16.80
Supplemental Security Income	3.13	641.91	15.66	3.77
Food Stamps	3.13	512.50	12.50	3.01
Unemployment	34.38	47,949.50	1,169.50	281.38
Native Corporation Dividend	25.00	18,450.00	450.00	108.27
Dividend/Interest	0.00	0.00	0.00	0.00
Child Support	0.00	0.00	0.00	0.00
Rental Income	0.00	0.00	0.00	0.00
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	87.50	116,119.69	2,832.19	681.43
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	40.63	32,782.53	799.57	192.38
Housing Allowances/Off-Base Allowances	0.00	0.00	0.00	0.00
Women, Infants, and Children Program	0.00	0.00	0.00	0.00
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Other	3.13	AMT UNK	AMT UNK	AMT UNK

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure IX-6. Employment by Industry, Nanwalek, 1992/93

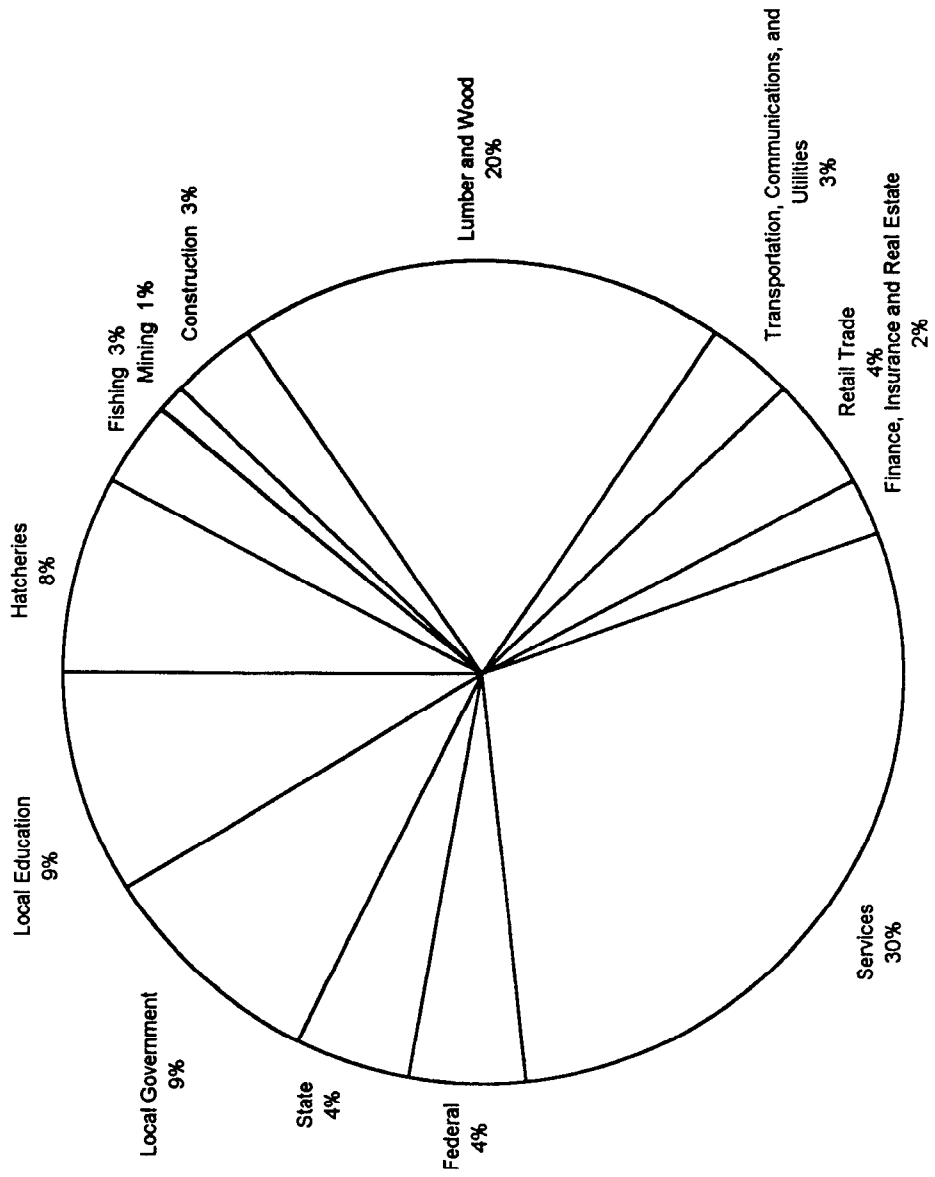


Table IX-12. Community, Household, and Per Capita Income, All Sources and by Employer Type, Nanwalek, 1993/94

INCOME SOURCE	INCOME		
	COMMUNITY TOTAL	AVERAGE HOUSEHOLD	PER CAPITA
All Sources	\$1,100,039.78	\$29,730.80	\$7,786.64
Earned Income	\$482,496.15	\$13,040.44	\$3,415.35
Agriculture, Forestry, and Fishing	52,977.27	1,431.82	375.00
Agriculture	1,850.00	50.00	13.10
Forestry	0.00	0.00	0.00
Fishing, Hunting, Trapping	51,127.27	1,381.82	361.90
Hatchery/Enhancement	46,530.30	1,257.58	329.37
Commercial Fishing	4,596.97	124.24	32.54
Hunting/Trapping	0.00	0.00	0.00
Mining	56,060.61	1,515.15	396.83
Construction	0.00	0.00	0.00
Manufacturing	0.00	0.00	0.00
Cannery	0.00	0.00	0.00
Other Manufacturing	0.00	0.00	0.00
Logging/Timber	0.00	0.00	0.00
Transportation, Communications, and Utilities	0.00	0.00	0.00
Trade	336.36	9.09	2.38
Wholesale	0.00	0.00	0.00
Retail	336.36	9.09	2.38
Finance, Insurance, and Real Estate	4,036.36	109.09	28.57
Services	98,965.52	2,674.74	700.53
Government	270,120.02	7,300.54	1,912.05
Federal	43,951.52	1,187.88	311.11
State	26,684.85	721.21	188.89
Local	199,483.66	5,391.45	1,412.05
Local Government	31,253.79	844.70	221.23
Local Education	168,229.87	4,546.75	1,190.82
Unknown	AMT UNK	AMT UNK	AMT UNK
Other Income	\$617,543.63	\$16,690.37	\$4,371.29

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table IX-13. Community, Household, and Per Capita Other Income by Source, Nanwalek, 1993/94

Source	OTHER INCOME			
	PERCENTAGE REPORTING	COMMUNITY TOTAL	AVERAGE HOUSEHOL	PER CAPITA
All Sources		\$617,543.63	\$16,690.37	\$4,371.29
Exxon Claims	0.00	0.00	0.00	0.00
Aid to Families with Dependent Children	18.18	33,972.73	918.18	240.48
Adult Public Assistance	3.03	AMT UNK	AMT UNK	AMT UNK
Exxon Damages	0.00	0.00	0.00	0.00
Pension/Retirement	3.03	AMT UNK	AMT UNK	AMT UNK
Longevity Bonus	9.09	15,136.36	409.09	107.14
Social Security	6.06	19,966.55	539.64	141.33
Workman's Comp./Insurance	3.03	AMT UNK	AMT UNK	AMT UNK
Energy Assistance	12.12	1,311.07	35.43	9.28
Supplemental Security Income	15.15	24,038.79	649.70	170.16
Food Stamps	24.24	9,395.76	253.94	66.51
Unemployment	33.33	42,885.47	1,159.07	303.57
Native Corporation Dividend	93.94	333,073.46	9,001.99	2,357.66
Dividend/Interest	3.03	AMT UNK	AMT UNK	AMT UNK
Child Support	0.00	0.00	0.00	0.00
Rental Income	0.00	0.00	0.00	0.00
Veteran Disability	0.00	0.00	0.00	0.00
Equipment Leasing	0.00	0.00	0.00	0.00
Rental Assistance	0.00	0.00	0.00	0.00
Fishing Permit Leasing	0.00	0.00	0.00	0.00
Per Diem	0.00	0.00	0.00	0.00
Disability	0.00	0.00	0.00	0.00
Alaska Permanent Fund Dividend	90.91	119,042.57	3,217.37	842.64
Weatherization	0.00	0.00	0.00	0.00
Veteran's Assistance	0.00	0.00	0.00	0.00
Investments/Stocks/Bonds	0.00	0.00	0.00	0.00
Bureau of Indian Affairs Grants	18.18	15,357.24	415.06	108.71
General Assistance Grant	0.00	0.00	0.00	0.00
Foster Care	0.00	0.00	0.00	0.00
Inheritance	0.00	0.00	0.00	0.00
Contest Winnings	0.00	0.00	0.00	0.00
Capital Gains	0.00	0.00	0.00	0.00
ASRC Elder Trust	0.00	0.00	0.00	0.00
Supplemental Union Benefits	0.00	0.00	0.00	0.00
Gifts	0.00	0.00	0.00	0.00
Medicare/Medicaid	0.00	0.00	0.00	0.00
Other	3.03	3,363.64	90.91	23.81

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Figure IX-7. Employment by Industry, Nanwalek, 1993/94

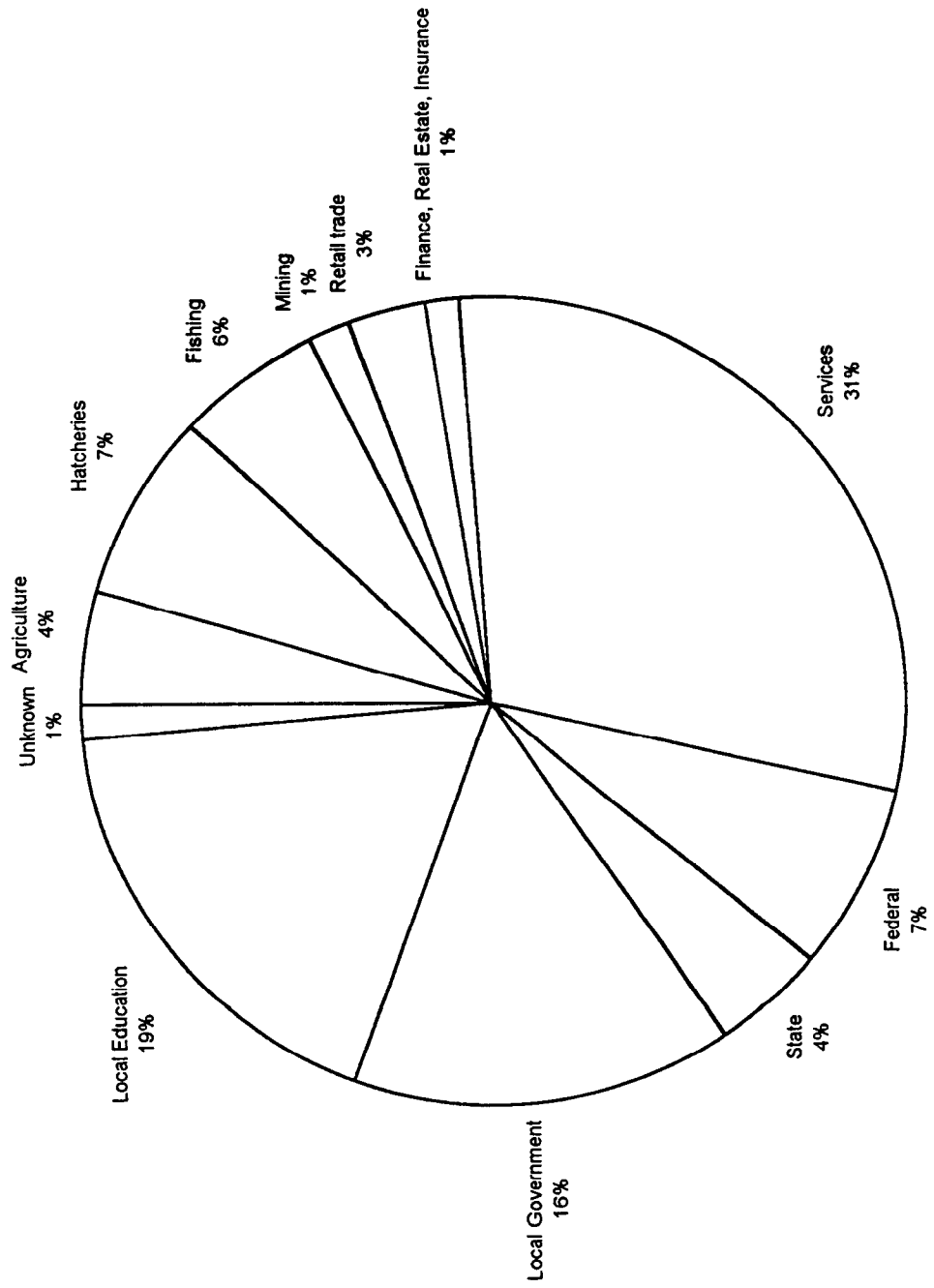


Table IX-14. Characteristics of Resource Harvest and Use, Narwalek, 1991/92, 1992/93, and 1993/94

Study Year:	1991/92	1992/93	1993/94
Mean Number Of Resources Used Per Household	21.17	22.88	22.67
Minimum	12	6	11
Maximum	44	46	47
95 % Confidence Limit (+/-)	8.71	7.18	4.03
Median	18	22	23
Mean Number Of Resources Attempted To Harvest Per Household	14.90	16.69	16.79
Minimum	2	2	6
Maximum	41	44	42
95 % Confidence Limit (+/-)	12.01	9.17	5.75
Median	13	15	14
Mean Number Of Resources Harvested Per Household	14.03	16.06	15.64
Minimum	2	2	6
Maximum	39	40	40
95 % Confidence Limit (+/-)	12.48	8.93	5.98
Median	11	14.5	13
Mean Number Of Resources Received Per Household	12.76	14.06	13.52
Minimum	3	2	4
Maximum	37	38	27
95 % Confidence Limit (+/-)	11.92	11.28	5.92
Median	11	12.5	12
Mean Number Of Resources Given Away Per Household	9.90	12.34	12.88
Minimum	1	0	0
Maximum	37	30	33
95 % Confidence Limit (+/-)	16.65	10.98	7.17
Median	7	11	11
Mean Household Harvest, Pounds	1,017.46	1,159.69	1,164.01
Minimum	8.00	18.75	123.36
Maximum	3,719.80	4,169.45	5,433.52
Total Pounds Harvested	41,715.97	47,547.17	43,068.21
Community Per Capita Harvest, Pounds	258.83	279.02	304.86
Percent Using Any Resource	100.00	100.00	100.00
Percent Attempting To Harvest Any Resource	100.00	100.00	100.00
Percent Harvesting Any Resource	100.00	100.00	100.00
Percent Receiving Any Resource	100.00	100.00	100.00
Percent Giving Away Any Resource	100.00	93.75	96.97
Number Of Households In Sample	29	32	33
Number of Resources Available	115	132	146

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994

Table IX-15. Participation in the Harvest and Processing of Wild Resources, Nanwalek, 1991/92, 1992/93, and 1993/94

Study Year			1991/92	1992/93	1993/94
Total Number of People			161.17	170.41	141.27
GAME	Hunt	Number	32.52	35.88	40.36
		Percentage	20.18	21.05	28.57
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	50.90	67.91	63.91
		Percentage	31.58	39.85	45.24
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
FISH	Fish	Number	142.79	135.81	114.36
		Percentage	88.60	79.70	80.95
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	142.79	117.88	105.39
		Percentage	88.60	69.17	74.60
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
FURBEARERS	Hunt or Trap	Number	0.00	0.00	5.61
		Percentage	0.00	0.00	3.97
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	1.41	2.56	4.48
		Percentage	0.88	1.50	3.17
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
PLANTS	Gather	Number	137.14	146.06	119.97
		Percentage	85.09	85.71	84.92
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
	Process	Number	132.90	120.44	118.85
		Percentage	82.46	70.68	84.13
		Missing	0.00	0.00	0.00
		Missing %	0.00	0.00	0.00
ANY RESOURCE	Attempt	Number	145.62	153.75	128.94
		Percent	90.35	90.23	91.27
	Process	Number	147.03	137.09	126.70
		Percent	91.23	80.45	89.68

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992, 1993, and 1994.

Table IX-16. Percentage of Households Sharing Resources by Community, Nanwalek, 1991/92

Community	Salmon		Non-Salmon Fish		Marine Invertebrates		Game		Marine Mammals		Birds and Eggs		Plants and Berries*		Any Resource	
	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave	Recv	Gave
All Communities	72.41	86.21	86.21	68.97	79.31	68.97	93.10	24.14	68.97	24.14	37.93	34.48	72.41	79.31	100.00	100.00
Anchorage	0.00	24.14	0.00	10.34	0.00	6.90	0.00	0.00	0.00	3.45	0.00	0.00	0.00	6.90	0.00	37.93
Nanwalek	72.41	75.86	86.21	62.07	79.31	65.52	86.21	24.14	68.97	24.14	37.93	31.03	72.41	72.41	100.00	100.00
Homer	3.45	3.45	0.00	3.45	6.90	3.45	34.48	0.00	0.00	0.00	0.00	0.00	0.00	3.45	37.93	10.34
Kenai	0.00	0.00	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	0.00
Ketchikan	0.00	3.45	0.00	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45
Kodiak City	0.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.90
Ninilchik	0.00	3.45	0.00	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45
Port Graham	6.90	3.45	10.34	3.45	0.00	0.00	0.00	0.00	3.45	3.45	3.45	0.00	0.00	6.90	0.00	3.45
Seldovia	0.00	0.00	6.90	0.00	3.45	0.00	0.00	0.00	0.00	3.45	0.00	0.00	0.00	0.00	17.24	13.79
Seward	0.00	0.00	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.34	3.45
Koyuktoik	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	0.00
Eagle River	0.00	0.00	0.00	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45	3.45
Other U.S.	0.00	10.34	0.00	6.90	0.00	6.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45

* Plants and Berries includes sharing of wood and kelp for fertilizer.

Note: Percentages are based upon valid responses.

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992.

Table IX-17. Subsistence Harvests in Pounds Usable Weight per Person by Resource Category, Nanwalek, 1987, 1989, 1990/91, 1991/92, 1992/93, and 1993/94

	Pounds Usable Weight per Person					
	1987	1989	1990/91	1991/92	1992/93	1993/94
Salmon	113.3	60.2	91.5	125.6	121.6	149.4
Other Fish	107.2	30.2	56.4	82.7	88.4	90.1
Marine Invertebrates	18.5	16.0	16.7	24.4	24.8	23.3
Land Mammals	9.0	14.8	1.8	3.1	14.5	8.9
Marine Mammals	22.0	13.0	5.4	6.4	16.8	18.6
Birds and Eggs	4.1	2.5	2.2	3.8	1.7	2.3
Wild Plants	14.7	4.4	7.3	12.9	11.3	12.2
All Resources	288.8	140.9	181.3	258.8	279.0	304.9

Table IX-18. Composition of Resource Harvests by Resource Category, Nanwalek, 1987, 1989, 1990/91, 1991/92, 1992/93, and 1993/94

	Percentage of Total Harvest					
	1987	1989	1990/91	1991/92	1992/93	1993/94
Salmon	39.2%	42.7%	50.5%	48.5%	43.6%	49.0%
Other Fish	37.1%	21.4%	31.1%	32.0%	31.7%	29.6%
Marine Invertebrates	6.4%	11.4%	9.2%	9.4%	8.9%	7.7%
Land Mammals	3.1%	10.5%	1.0%	1.2%	5.2%	2.9%
Marine Mammals	7.6%	9.2%	3.0%	2.5%	6.0%	6.1%
Birds and Eggs	1.4%	1.7%	1.2%	1.5%	0.6%	0.8%
Wild Plants	5.1%	3.1%	4.0%	5.0%	4.1%	4.0%

Figure IX-8. Harvests of Wild Resources for Home Use, Pounds Usable Weight per Capita, Nanwalek, 1987, 1989, 1990/91, 1991/92, 1992/93, and 1993/94

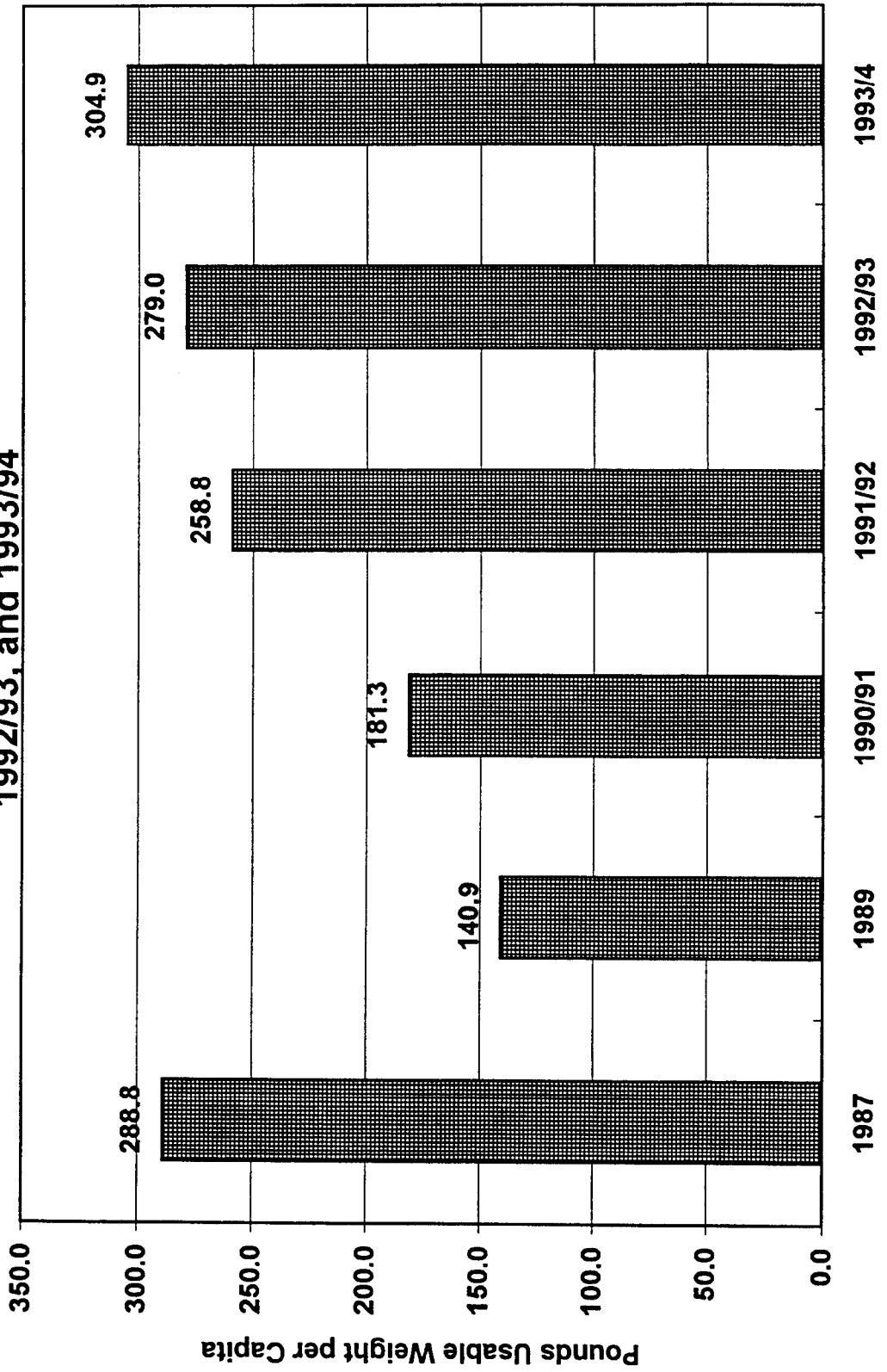


Figure IX-9. Per Capita Harvests of Wild Resources by Resource Category, Nanwalek, 1987, 1989, 1990/91, 1991/92, 1992/93, and 1993/94

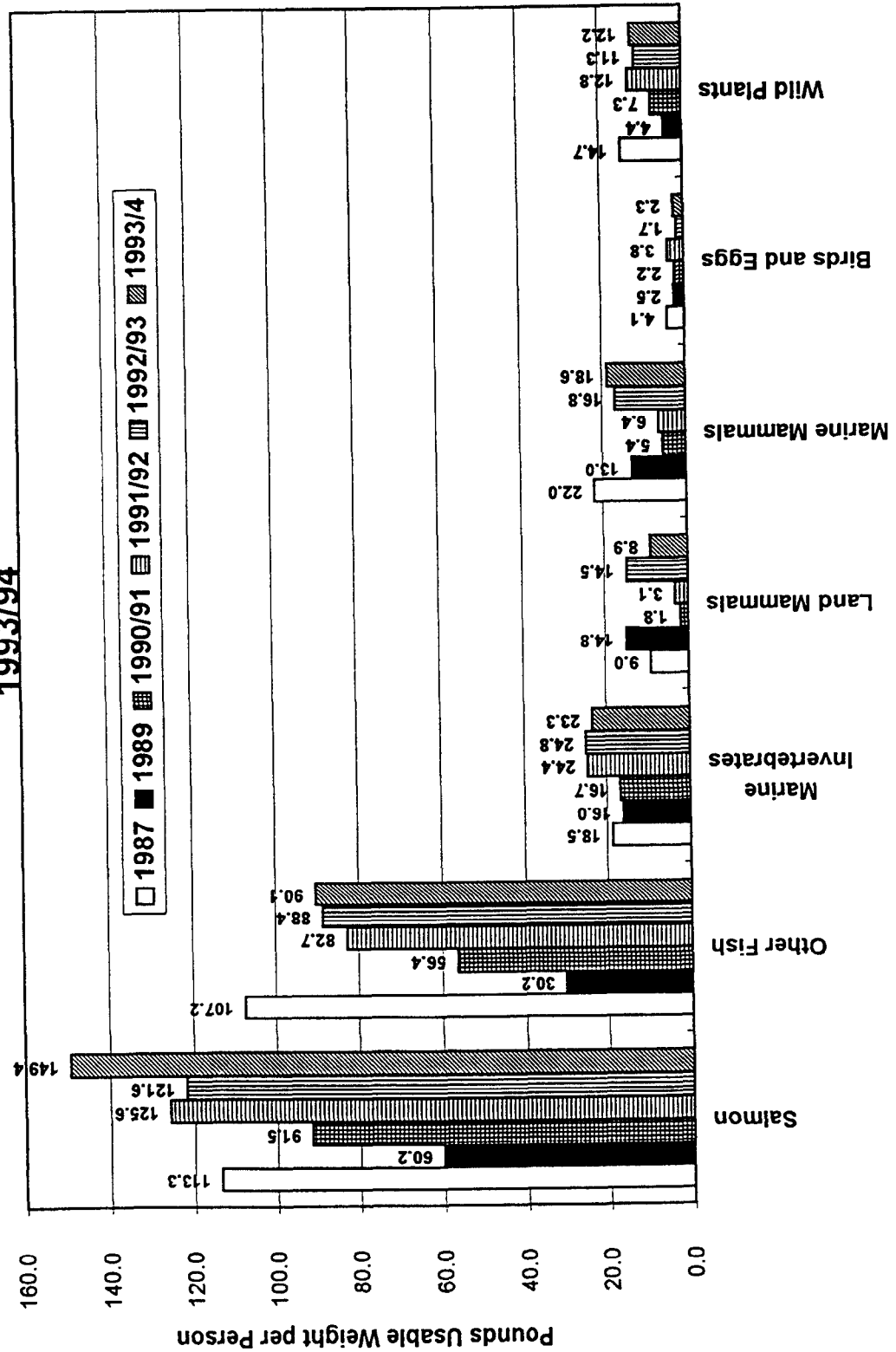


Figure IX-10. Composition of Wild Resource Harvests by Resource Category, Nanwalek, 1991/92

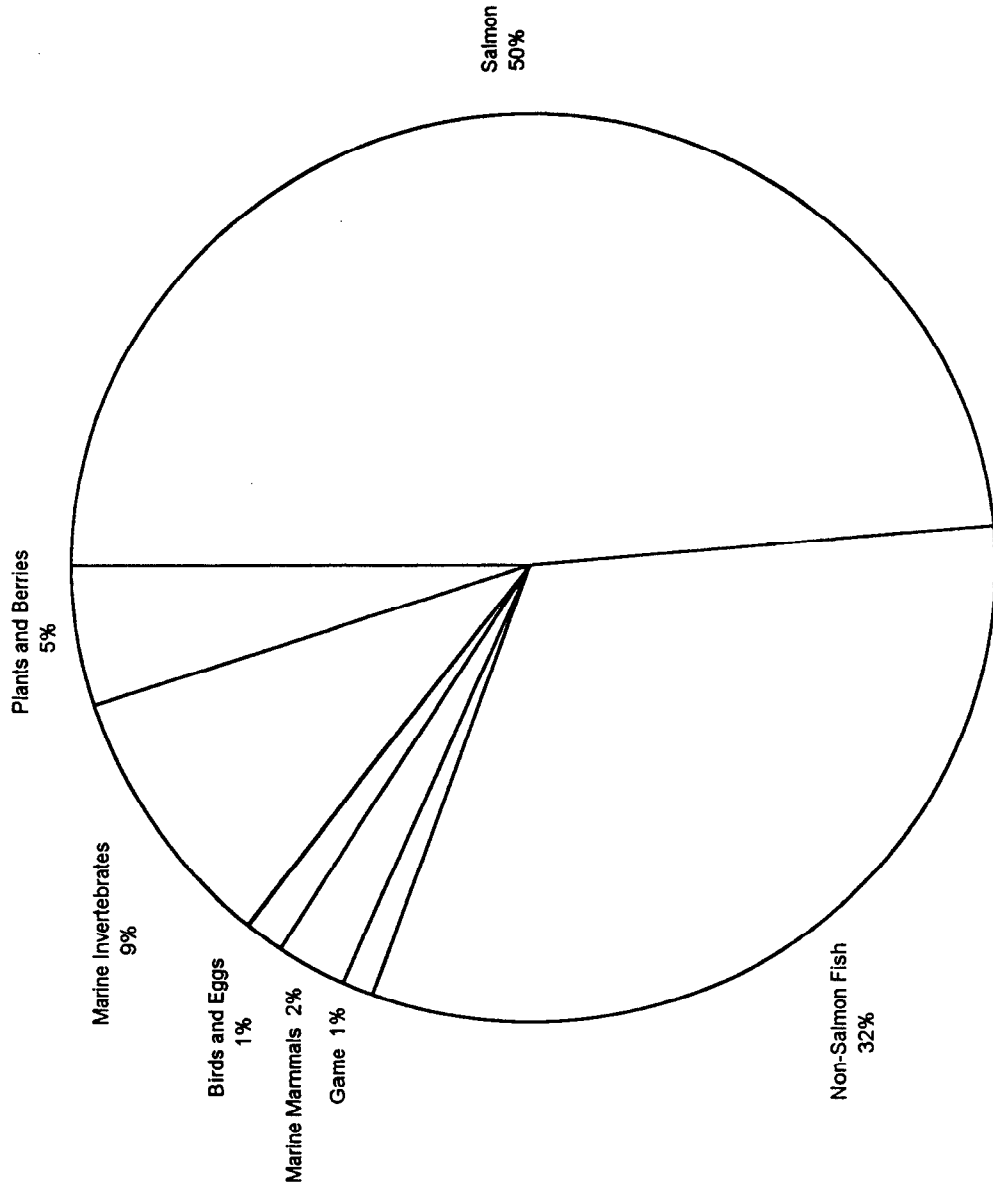


Figure IX-11. Percentage of Nanwalek Households Reporting Lower Levels of Uses of Wild Resources Compared to 1988, the Year Before the Exxon Valdez Oil Spill

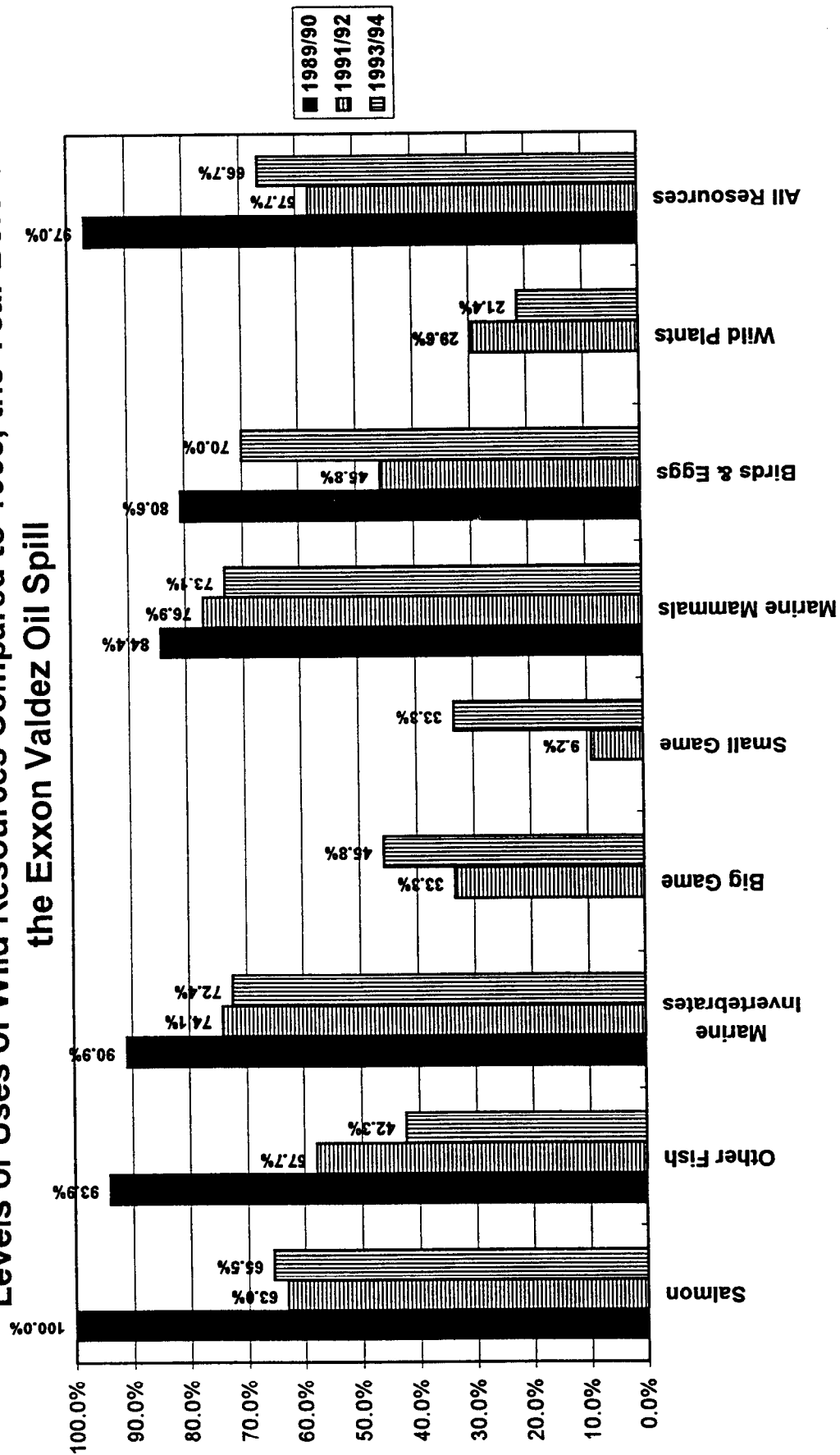


Table IX-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1991/92

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	100.0	100.0	100.0	100.0	100.0	41,715.97	1,017.46	258.83			15.59%	16.01%
Fish	100.0	96.6	96.6	89.7	93.1	33,572.86	818.85	208.30			13.45%	14.42%
Salmon	100.0	96.6	96.6	72.4	86.2	20,241.88	493.70	125.59	6,994.03	170.59	14.43%	16.56%
Chum Salmon	31.0	24.1	24.1	13.8	10.3	478.64	11.67	2.97	86.24	2.10	48.02%	49.50%
Coho Salmon	93.1	89.7	89.7	48.3	65.5	7,005.27	170.86	43.46	1,415.21	34.52	21.15%	21.88%
Chinook Salmon	44.8	20.7	20.7	41.4	20.7	789.15	19.25	4.90	89.07	2.17	60.29%	63.58%
Pink Salmon	93.1	89.7	89.7	44.8	69.0	7,593.91	185.22	47.12	3,996.79	97.48	17.04%	17.30%
Sockeye Salmon	89.7	82.8	82.8	55.2	65.5	4,374.91	106.71	27.14	1,406.72	34.31	23.49%	26.34%
Non-Salmon Fish	100.0	86.2	82.8	86.2	69.0	13,330.98	325.15	82.71			20.66%	19.94%
Cod	62.1	41.4	41.4	48.3	27.6	1,273.54	31.06	7.90	417.07	10.17	48.48%	49.97%
Pacific Tomcod	27.6	6.9	6.9	20.7	3.4	11.31	0.28	0.07	22.62	0.55	86.67%	90.05%
Pacific Cod (Gray)	55.2	34.5	34.5	31.0	27.6	1,262.23	30.79	7.83	394.45	9.62	51.51%	50.45%
Unknown Cod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Greenling	34.5	31.0	31.0	10.3	20.7	289.83	7.07	1.80	149.86	3.66	40.35%	48.97%
Lingcod	13.8	10.3	10.3	10.3	6.9	186.62	4.55	1.16	46.66	1.14	74.21%	73.67%
Unknown Greenling	20.7	20.7	20.7	0.0	13.8	103.21	2.52	0.64	103.21	2.52	52.01%	52.66%
Flounder	24.1	20.7	20.7	6.9	17.2	462.31	11.28	2.87	154.10	3.76	60.61%	59.64%
Unknown Flounder	24.1	20.7	20.7	6.9	17.2	462.31	11.28	2.87	154.10	3.76	60.61%	59.64%
Sole	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sole, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Hallbut	93.1	65.5	55.2	69.0	48.3	5,871.60	143.21	36.43	276.96	6.76	32.49%	31.42%
Herring	10.3	0.0	0.0	10.3	3.4	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Herring Roe	6.9	0.0	0.0	6.9	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	34.5	31.0	31.0	10.3	27.6	275.69	6.72	1.71	183.79	4.48	45.04%	47.76%
Black Rockfish (black bass)	34.5	31.0	31.0	10.3	27.6	275.69	6.72	1.71	183.79	4.48	45.04%	47.76%
Red Rockfish	3.4	0.0	0.0	3.4	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sculpin	17.2	10.3	10.3	6.9	6.9	28.28	0.69	0.18	56.55	1.38	68.77%	67.63%
Irish Lord	17.2	10.3	10.3	6.9	6.9	28.28	0.69	0.18	56.55	1.38	68.77%	67.63%
Smelt	24.1	3.4	3.4	20.7	13.8	252.72	6.16	1.57	77.76 gal	1.90	110.82%	109.23%
Eulachon (Hooligan, Candlefish)	24.1	3.4	3.4	20.7	13.8	252.72	6.16	1.57	77.76 gal	1.90	110.82%	109.23%
Unknown Smelt	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Wolf Eel (Wolffish)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shark	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table IX-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1991/92

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Hav	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Walleye Pollock (Whiting)	3.4	3.4	3.4	0.0	3.4	79.17	1.93	0.49	56.55	1.38	110.82%	111.25%
Trout and Char	93.1	82.8	79.3	69.0	55.2	4,797.85	117.02	29.77	3,427.03	83.59	29.89%	30.57%
Char	93.1	82.8	79.3	65.5	55.2	4,475.22	109.15	27.77	3,196.59	77.97	31.10%	31.96%
Dolly Varden	93.1	82.8	79.3	65.5	55.2	4,475.22	109.15	27.77	3,196.59	77.97	31.10%	31.96%
Trout	31.0	24.1	24.1	13.8	13.8	322.63	7.87	2.00	230.45	5.62	49.29%	47.91%
Rainbow Trout	31.0	24.1	24.1	13.8	13.8	263.25	6.42	1.63	188.03	4.59	50.89%	50.21%
Steelhead	13.8	10.3	10.3	6.9	6.9	59.38	1.45	0.37	42.41	1.03	76.95%	74.14%
Game	93.1	37.9	13.8	93.1	24.1	492.00	12.00	3.05	8.48	0.21	55.63%	54.13%
Big Game	93.1	34.5	13.8	93.1	24.1	492.00	12.00	3.05	8.48	0.21	55.63%	54.13%
Black Bear	75.9	34.5	13.8	69.0	24.1	492.00	12.00	3.05	8.48	0.21	55.63%	54.13%
Brown Bear	3.4	0.0	0.0	3.4	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Caribou	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Deer	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goat	41.4	10.3	0.0	41.4	6.9	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Moose	72.4	13.8	0.0	72.4	3.4	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sheep, Dall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Small Game/Furbearer	3.4	3.4	0.0	3.4	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Beaver	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Coyote	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Hare	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Snowshoe Hare	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Land Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mink	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Muskrat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	3.4	0.0	0.0	3.4	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Weasel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	0.0	3.4	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tree Squirrel	0.0	3.4	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table IX-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1991/92

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Marine Mammals	72.4	31.0	17.2	69.0	24.1	1,029.24	25.10	6.39	18.38	0.45	58.31%	61.12%
Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	69.0	31.0	17.2	62.1	20.7	1,029.24	25.10	6.39	18.38	0.45	58.31%	61.12%
Harbor Seal	69.0	31.0	17.2	62.1	20.7	1,029.24	25.10	6.39	18.38	0.45	58.31%	61.12%
Steller Sea Lion	51.7	6.9	0.0	51.7	3.4	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sea Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Birds and Eggs	55.2	41.4	41.4	37.9	34.5	616.84	15.04	3.83	1,056.10	25.76	58.61%	58.84%
Birds	44.8	34.5	34.5	17.2	31.0	482.81	11.78	3.00	609.34	14.86	58.54%	59.23%
Upland Game Birds	17.2	20.7	17.2	0.0	10.3	14.84	0.36	0.09	21.21	0.52	55.88%	56.60%
Grouse	13.8	17.2	13.8	0.0	6.9	13.86	0.34	0.09	19.79	0.48	59.87%	60.28%
Ptarmigan	3.4	3.4	3.4	0.0	3.4	0.99	0.02	0.01	1.41	0.03	110.82%	113.24%
Migratory Birds	41.4	27.6	27.6	17.2	24.1	467.97	11.41	2.90	588.14	14.34	58.95%	59.57%
Waterfowl	37.9	27.6	27.6	13.8	24.1	429.79	10.48	2.67	523.10	12.76	58.50%	58.43%
Ducks	37.9	27.6	27.6	13.8	24.1	429.79	10.48	2.67	523.10	12.76	58.50%	58.43%
Elder	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elder, Large	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	31.0	24.1	24.1	10.3	20.7	195.95	4.78	1.22	217.72	5.31	52.14%	52.47%
Scoter, White-winged	24.1	17.2	17.2	10.3	17.2	136.15	3.32	0.84	151.28	3.69	60.20%	59.91%
Scoter, Black	6.9	6.9	6.9	0.0	6.9	44.53	1.09	0.28	49.48	1.21	84.20%	85.70%
Scoter, Surf	6.9	6.9	6.9	0.0	3.4	15.27	0.37	0.09	16.97	0.41	93.53%	93.64%
Harlequin	3.4	3.4	3.4	0.0	3.4	2.83	0.07	0.02	5.66	0.14	110.82%	106.12%
Goldeneye	17.2	13.8	13.8	6.9	3.4	30.54	0.74	0.19	38.17	0.93	72.57%	72.61%
Bufflehead	17.2	13.8	13.8	3.4	3.4	18.10	0.44	0.11	45.24	1.10	62.92%	63.62%
Merganser	17.2	13.8	13.8	6.9	6.9	64.89	1.58	0.40	72.10	1.76	62.99%	63.33%
Scaup	10.3	6.9	6.9	6.9	3.4	31.81	0.78	0.20	35.34	0.86	78.34%	78.34%
Mallard	10.3	10.3	10.3	3.4	3.4	70.69	1.72	0.44	70.69	1.72	66.29%	67.18%
Pintail	3.4	3.4	3.4	0.0	0.0	5.66	0.14	0.04	7.07	0.17	110.82%	110.24%
Wigeon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Teal	6.9	6.9	6.9	0.0	0.0	9.33	0.23	0.06	31.10	0.76	100.89%	100.16%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Ducks, Unknown	3.4	0.0	0.0	3.4	3.4	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table IX-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1991/92

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	95% Conf Limit (+/-)	
													Harvest	Percapita
Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Brant	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Canada Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Canada Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Sandhill Crane	3.4	3.4	3.4	0.0	0.0	1.41	0.03	0.01	14.14	0.34	110.82%	112.25%	112.25%	0.00%
Shorebirds	3.4	3.4	3.4	0.0	0.0	1.41	0.03	0.01	14.14	0.34	110.82%	112.25%	112.25%	0.00%
Common Stipe	13.8	6.9	6.9	10.3	6.9	36.76	0.90	0.23	50.90	1.24	77.46%	77.71%	77.71%	0.00%
Seabirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Loons	13.8	6.9	6.9	10.3	6.9	14.14	0.34	0.09	28.28	0.69	76.95%	76.85%	76.85%	0.00%
Puffins	6.9	6.9	6.9	0.0	6.9	22.62	0.55	0.14	22.62	0.55	79.49%	79.22%	79.22%	0.00%
Gulls	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Murre	34.5	13.8	13.8	34.5	13.8	134.03	3.27	0.83	446.76	10.90	62.88%	62.61%	62.61%	0.00%
Eggs	34.5	13.8	13.8	34.5	13.8	134.03	3.27	0.83	446.76	10.90	62.88%	62.61%	62.61%	0.00%
Seabird Eggs	34.5	13.8	13.8	34.5	13.8	134.03	3.27	0.83	446.76	10.90	62.88%	62.61%	62.61%	0.00%
Gull Eggs	34.5	13.8	13.8	34.5	13.8	134.03	3.27	0.83	446.76	10.90	62.88%	62.61%	62.61%	0.00%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Marine Invertebrates	100.0	89.7	89.7	79.3	69.0	3,929.46	95.84	24.38			39.20%	38.38%	38.38%	0.00%
Clams	79.3	48.3	48.3	65.5	48.3	1,403.90	34.24	8.71	467.97 gal	11.41	43.63%	42.05%	42.05%	0.00%
Butter Clams	62.1	34.5	34.5	55.2	37.9	1,056.10	25.76	6.55	352.03 gal	8.59	48.92%	48.03%	48.03%	0.00%
Razor Clams	34.5	10.3	10.3	24.1	10.3	59.38	1.45	0.37	19.79 gal	0.48	64.06%	66.51%	66.51%	0.00%
Pacific Littleneck Clams (Steamers)	41.4	31.0	31.0	24.1	31.0	288.41	7.03	1.79	96.14 gal	2.34	45.30%	40.55%	40.55%	0.00%
Pinkneck Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	0.00%	0.00%
Horse Clams (Gaper)	3.4	0.0	0.0	3.4	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	0.00%	0.00%
Cockles	27.6	17.2	17.2	13.8	10.3	154.81	3.78	0.96	51.60 gal	1.26	74.69%	73.48%	73.48%	0.00%
Geoducks	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	0.00%	0.00%
Scallops	3.4	0.0	0.0	3.4	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Mussels	27.6	27.6	27.6	3.4	10.3	86.42	2.11	0.54	57.61 gal	1.41	51.26%	51.79%	51.79%	0.00%
Crabs	6.9	0.0	0.0	6.9	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Dungeness Crab	6.9	0.0	0.0	6.9	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
King Crab	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%
Tanner Crab	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%	0.00%

Table IX-19. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1991/92

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	
													Harvest
Tanner Crab, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Chitons (bidarkis)	96.6	86.2	86.2	44.8	55.2	1,790.51	43.67	11.11	455.13 gal	11.10	37.90%	37.84%	
Chitons (large)	31.0	27.6	27.6	13.8	17.2	82.37	2.01	0.51	27.46 gal	0.67	47.49%	46.61%	
Chitons (small)	93.1	82.8	82.8	41.4	51.7	1,597.59	38.97	9.91	399.40 gal	9.74	39.75%	39.87%	
Chitons (unknown)	3.4	3.4	3.4	0.0	0.0	110.56	2.70	0.69	28.28 gal	0.69	110.82%	109.23%	
Octopus	58.6	20.7	20.7	41.4	13.8	424.14	10.34	2.63	106.03	2.59	53.53%	53.26%	
Sea Urchin	10.3	6.9	6.9	3.4	0.0	0.76	0.02	0.00	1.53 gal	0.04	102.65%	102.02%	
Shrimp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Snails	34.5	34.5	34.5	10.3	13.8	68.92	1.68	0.43	45.95 gal	1.12	41.62%	42.19%	
Wheik	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Limpets	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Plants and Berries	100.0	100.0	100.0	69.0	65.5	2,075.56	50.62	12.88	518.89 gal	12.66	24.65%	20.70%	
Berries	100.0	100.0	100.0	58.6	51.7	1,374.21	33.52	8.53	343.55 gal	8.38	28.52%	25.76%	
Plants/Greens/Mushrooms	62.1	62.1	62.1	13.8	17.2	450.38	10.98	2.79	112.59 gal	2.75	36.38%	31.64%	
Seaweed/Kelp (Food)	79.3	58.6	58.6	37.9	51.7	250.98	6.12	1.56	62.74 gal	1.53	31.95%	30.59%	
Wood	93.1	86.2	86.2	44.8	41.4	0.00	0.00	0.00	208.53 crd	5.09	23.11%	0.00%	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table IX-20. Estimated Amount of Resources Removed from Commercial Harvests, Nanwalek, 1991/92

No removal from commercial harvests in 1991/92.

Table IX-21. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Nanwalek, 1991/92

Resource	Percent Base	Subsistence Methods												Removed from Commercial Catch		Rod and Reel		Any Method	
		Net			Dip Net			Other			Subsistence Gear			No.	Lbs.	No.	Lbs.	No.	Lbs.
Salmon	total	28.58	30.68	2.83	1.86	3.86	4.54	35.27	37.08	0.00	0.00	0.00	0.00	64.73	62.92	0.00	0.00	64.73	62.92
Chum Salmon	gear type	0.42	0.76	0.00	0.00	0.00	0.00	0.34	0.63	0.00	0.00	0.00	0.00	1.72	3.39	0.00	0.00	1.72	3.39
	resource total	9.84	9.84	0.00	0.00	0.00	0.00	9.84	9.84	0.00	0.00	0.00	0.00	90.16	90.16	0.00	0.00	90.16	90.16
Coho Salmon	gear type	22.98	36.62	0.00	0.00	39.27	57.14	22.92	37.30	0.00	0.00	0.00	0.00	18.77	33.02	0.00	0.00	18.77	33.02
	resource total	32.47	32.47	0.00	0.00	7.49	7.49	39.96	39.96	0.00	0.00	0.00	0.00	60.04	60.04	0.00	0.00	60.04	60.04
Chinook Salmon	gear type	6.57	11.24	0.00	0.00	1.52	2.59	8.09	13.83	0.00	0.00	0.00	0.00	12.15	20.78	0.00	0.00	12.15	20.78
	resource total	4.24	12.10	0.00	0.00	0.00	0.00	3.44	10.01	0.00	0.00	0.00	0.00	0.09	0.30	0.00	0.00	0.09	0.30
Pink Salmon	gear type	95.24	95.24	0.00	0.00	0.00	0.00	95.24	95.24	0.00	0.00	0.00	0.00	4.76	4.76	0.00	0.00	4.76	4.76
	resource total	1.21	3.71	0.00	0.00	0.00	0.00	1.21	3.71	0.00	0.00	0.00	0.00	0.06	0.19	0.00	0.00	0.06	0.19
Sockeye Salmon	gear type	56.22	34.38	100.00	100.00	35.60	19.89	57.48	35.90	0.00	0.00	0.00	0.00	56.96	38.47	0.00	0.00	56.96	38.47
	resource total	28.12	28.12	4.95	4.95	2.41	2.41	35.48	35.48	2.83	1.86	1.37	0.90	64.52	64.52	0.00	0.00	64.52	64.52
Sockeye Salmon	gear type	16.07	10.55	0.00	0.00	0.00	0.00	20.27	13.31	0.00	0.00	0.00	0.00	36.87	24.21	0.00	0.00	36.87	24.21
	resource total	16.12	16.14	0.00	0.00	25.13	22.98	15.82	16.17	0.00	0.00	0.00	0.00	22.45	24.82	0.00	0.00	22.45	24.82
Sockeye Salmon	gear type	22.91	22.91	0.00	0.00	4.82	4.82	27.74	27.74	0.00	0.00	0.00	0.00	72.26	72.26	0.00	0.00	72.26	72.26
	resource total	4.61	4.95	0.00	0.00	0.97	1.04	5.58	6.00	0.00	0.00	0.00	0.00	14.53	15.62	0.00	0.00	14.53	15.62

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table IX-22. Estimated Salmon Harvest by Gear Type and Species, Nanwalek, 1991/92

	Harvest Units	Subsistence Methods												Removed from Commercial Catch			Rod and Reel			Any Method						
		Net			Dip Net			Other			Subsistence Gear Any Method			Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH				
		Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH													
Salmon	numbers pounds	1,999.10 6,211.12	48.76 151.49	197.93 376.07	4.83 9.17	270.03 918.58	6.59 22.40	60.17 183.07	2,467.07 7,505.77	0.00	0.00	0.00	4,526.97 12,736.11	110.41 310.64	6,994.03 20,241.88	170.59 493.70										
Chum Salmon	numbers pounds	8.48 47.08	0.21 1.15	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	8.48 47.08	0.21 1.15	0.00	0.00	0.00	77.76 431.56	1.90 10.53	86.24 478.64	2.10 11.67										
Coho Salmon	numbers pounds	459.48 2,274.44	11.21 55.47	0.00 0.00	0.00 0.00	106.03 524.87	2.59 12.80	13.79 68.28	595.52 2,799.31	0.00	0.00	0.00	849.69 4,205.96	20.72 102.58	1,415.21 7,005.27	34.52 170.86										
Chinook Salmon	numbers pounds	84.83 751.57	2.07 18.33	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	84.83 751.57	2.07 18.33	0.00	0.00	0.00	4.24 37.58	0.10 0.92	89.07 789.15	2.17 19.25										
Pink Salmon	numbers pounds	1,123.97 2,135.53	27.41 52.09	197.93 376.07	4.83 9.17	96.14 182.66	2.34 4.46	34.59 65.71	1,418.03 2,694.27	0.00	0.00	0.00	2,578.76 4,899.64	62.90 119.50	3,996.79 7,593.91	97.48 185.22										
Sockeye Salmon	numbers pounds	322.34 1,002.49	7.86 24.45	0.00 0.00	0.00 0.00	67.86 211.05	1.66 5.15	9.52 29.60	390.21 1,213.54	0.00	0.00	0.00	1,016.52 3,161.37	24.79 77.11	1,406.72 4,374.91	34.31 106.71										

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table IX-23. Percentage of Households Harvesting Salmon by Gear Type and Species, Nanwalek, 1991/92

Resource	Subsistence Methods					Removed from Commercial Catch	Rod and Reel	Any Method
	Net	Dip Net	Other	Subsistence Gear	Any			
Salmon	34.48	3.45	10.34	44.83		0.00	89.66	96.55
Chum Salmon	3.45	0.00	0.00	3.45		0.00	20.69	24.14
Coho Salmon	31.03	0.00	3.45	34.48		0.00	82.76	89.66
Chinook Salmon	13.79	0.00	0.00	13.79		0.00	6.90	20.69
Pink Salmon	27.59	3.45	10.34	37.93		0.00	79.31	89.66
Sockeye Salmon	24.14	0.00	3.45	27.59		0.00	62.07	82.76

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table IX-24. Estimated Harvest of Fish Other than Salmon by Gear Type, Nanwalek, 1991/92

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	5,515.14	134.52	0.00	0.00	7,716.88	188.22	98.97	2.41	13,330.98	325.15
Lingcod	113.10	2.76	0.00	0.00	73.52	1.79	0.00	0.00	186.62	4.55
Pacific Tom Cod	11.31	0.28	0.00	0.00	0.00	0.00	0.00	0.00	11.31	0.28
Pacific Cod (Gray)	583.61	14.23	0.00	0.00	678.62	16.55	0.00	0.00	1,262.23	30.79
Unknown Flounder	246.00	6.00	0.00	0.00	216.31	5.28	0.00	0.00	462.31	11.28
Hallbut	1,468.65	35.82	0.00	0.00	4,402.95	107.39	0.00	0.00	5,871.60	143.21
Black Rockfish (black bass)	159.05	3.88	0.00	0.00	116.64	2.84	0.00	0.00	275.69	6.72
Irish Lord	17.67	0.43	0.00	0.00	10.60	0.26	0.00	0.00	28.28	0.69
Eulachon (Hooligan, Candlefish)	252.72	6.16	0.00	0.00	0.00	0.00	0.00	0.00	252.72	6.16
Unknown Greenling	32.52	0.79	0.00	0.00	70.69	1.72	0.00	0.00	103.21	2.52
Walleye Pollock (Whiting)	79.17	1.93	0.00	0.00	0.00	0.00	0.00	0.00	79.17	1.93
Dolly Varden	2,503.83	61.07	0.00	0.00	1,892.22	46.15	79.17	1.93	4,475.22	109.15
Rainbow Trout	47.50	1.16	0.00	0.00	195.95	4.78	19.79	0.48	263.25	6.42
Steelhead	0.00	0.00	0.00	0.00	59.38	1.45	0.00	0.00	59.38	1.45

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table IX-25. Percentage of Fish Other Than Salmon Harvested by Gear Type, Nanwalek, 1991/92

Resource	Percent Base	Subsistence Gear Lbs.	Removed from Commercial Catch Lbs.	Rod and Reel Lbs.	Ice Fishing Lbs.
Non-Salmon Fish	resource	41.37	0.00	57.89	0.74
Lingcod	resource	60.61	0.00	39.39	0.00
Pacific Tom Cod	resource	100.00	0.00	0.00	0.00
Pacific Cod (Gray)	resource	46.24	0.00	53.76	0.00
Unknown Flounder	resource	53.21	0.00	46.79	0.00
Halibut	resource	25.01	0.00	74.99	0.00
Black Rockfish (black bass)	resource	57.69	0.00	42.31	0.00
Irish Lord	resource	62.50	0.00	37.50	0.00
Eulachon (Hooligan, Candlefish)	resource	100.00	0.00	0.00	0.00
Unknown Greenling	resource	31.51	0.00	68.49	0.00
Walleye Pollock (Whiting)	resource	100.00	0.00	0.00	0.00
Dolly Varden	resource	55.95	0.00	42.28	1.77
Rainbow Trout	resource	18.05	0.00	74.44	7.52
Steelhead	resource	0.00	0.00	100.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Table IX-26. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Nanwalek, 1991/92

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	58.62	0.00	68.97	6.90	82.76
Lingcod	3.45	0.00	6.90	0.00	10.34
Pacific Tom Cod	6.90	0.00	0.00	0.00	6.90
Pacific Cod (Gray)	17.24	0.00	24.14	0.00	34.48
Unknown Flounder	10.34	0.00	10.34	0.00	20.69
Halibut	31.03	0.00	34.48	0.00	55.17
Black Rockfish (black bass)	20.69	0.00	10.34	0.00	31.03
Irish Lord	6.90	0.00	3.45	0.00	10.34
Eulachon (Hooligan, Candlefish)	3.45	0.00	0.00	0.00	3.45
Unknown Greenling	10.34	0.00	13.79	0.00	20.69
Walleye Pollock (Whiting)	3.45	0.00	0.00	0.00	3.45
Dolly Varden	37.93	0.00	58.62	6.90	79.31
Rainbow Trout	3.45	0.00	20.69	3.45	24.14
Steelhead	0.00	0.00	10.34	0.00	10.34

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1992

Figure IX-12. Composition of Wild Resource Harvests by Resource Category, Nanwalek, 1992/93

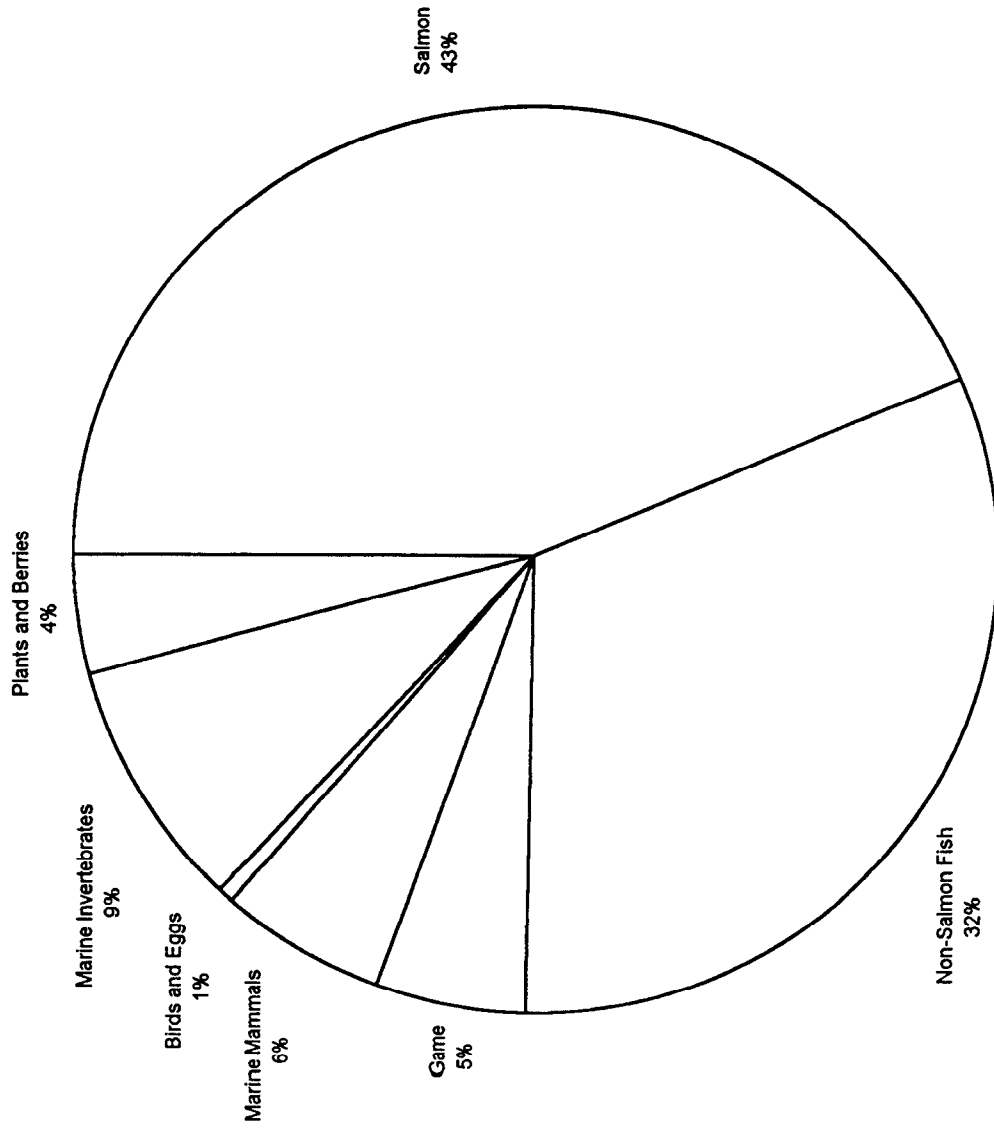


Table IX-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	100.0	100.0	100.0	100.0	93.8	47,547.17	1,159.69	279.02			11.86%	11.19%
Fish	100.0	100.0	100.0	87.5	93.8	35,784.13	872.78	209.99			11.07%	10.52%
Salmon	100.0	96.9	96.9	75.0	90.6	20,714.88	505.24	121.56	5,938.59	144.84	12.70%	12.00%
Chum Salmon	43.8	31.3	31.3	18.8	18.8	664.20	16.20	3.90	138.38	3.38	33.80%	32.99%
Coho Salmon	87.5	84.4	84.4	53.1	78.1	8,444.08	205.95	49.55	1,723.28	42.03	17.58%	17.99%
Chinook Salmon	71.9	46.9	31.3	56.3	31.3	927.70	22.63	5.44	105.06	2.56	37.96%	40.02%
Pink Salmon	84.4	81.3	78.1	56.3	62.5	5,738.83	139.97	33.68	2,484.34	60.59	22.79%	22.37%
Sockeye Salmon	87.5	87.5	84.4	46.9	56.3	4,917.00	119.93	28.85	1,472.16	35.91	17.09%	17.05%
Landlocked Salmon	3.1	3.1	3.1	0.0	3.1	23.06	0.56	0.14	15.38	0.38	95.55%	94.55%
Non-Salmon Fish	100.0	90.6	90.6	84.4	81.3	15,069.25	367.54	88.43			14.55%	13.28%
Pike	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cod	71.9	65.6	65.6	40.6	59.4	1,846.15	45.03	10.83	945.56	23.06	30.32%	22.08%
Pacific Tomcod	34.4	21.9	21.9	25.0	18.8	218.45	5.33	1.28	436.91	10.66	58.87%	60.25%
Pacific Cod (Gray)	62.5	53.1	53.1	25.0	46.9	1,627.70	39.70	9.55	508.66	12.41	27.88%	24.28%
Unknown Cod	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Greenling	34.4	34.4	34.4	15.6	21.9	275.47	6.72	1.62	260.09	6.34	33.39%	34.11%
Lingcod	6.3	6.3	6.3	3.1	6.3	20.50	0.50	0.12	5.13	0.13	66.47%	66.09%
Unknown Greenling	31.3	31.3	31.3	15.6	18.8	254.97	6.22	1.50	254.97	6.22	33.86%	35.72%
Flounder	31.3	28.1	28.1	15.6	12.5	492.00	12.00	2.89	164.00	4.00	42.41%	43.31%
Unknown Flounder	31.3	28.1	28.1	15.6	12.5	492.00	12.00	2.89	164.00	4.00	42.41%	43.31%
Sole	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sole, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Halibut	100.0	78.1	78.1	71.9	65.6	6,765.09	165.00	39.70	319.11	7.78	16.09%	15.23%
Herring	12.5	0.0	0.0	12.5	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Herring Roe	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	21.9	18.8	18.8	12.5	12.5	192.82	4.70	1.13	128.55	3.14	44.08%	44.84%
Black Rockfish (black bass)	21.9	18.8	18.8	12.5	12.5	192.82	4.70	1.13	128.55	3.14	44.08%	44.84%
Red Rockfish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Yellow Eye Rockfish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sculpin	25.0	21.9	21.9	9.4	9.4	55.73	1.36	0.33	111.47	2.72	40.24%	40.65%
Irish Lord	21.9	18.8	18.8	6.3	9.4	53.17	1.30	0.31	106.34	2.59	42.27%	42.70%
Unknown Sculpin	3.1	3.1	3.1	3.1	0.0	2.56	0.06	0.02	5.13	0.13	95.55%	95.29%
Smelt	34.4	6.3	6.3	31.3	9.4	166.56	4.06	0.98	51.25 gal	1.25	74.81%	74.95%

Table IX-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1992/93

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Alt	Hav	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita	
Eulachon (Hooligan, Candlefish)	34.4	6.3	6.3	31.3	9.4	166.56	4.06	0.98	51.25 gal	1.25	74.81%	74.95%	
Unknown Smelt	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%	
Wolf Eel (Wolffish)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Shark	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Walleye Pollock (Whiting)	6.3	6.3	6.3	3.1	6.3	62.78	1.53	0.37	44.84	1.09	82.60%	81.05%	
Skates	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Tuna/Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Mackerel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Grayling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Sheefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Unknown Whitefish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Trout and Char	87.5	84.4	84.4	56.3	62.5	5,212.64	127.14	30.59	3,723.31	90.81	23.64%	23.01%	
Char	87.5	81.3	81.3	53.1	59.4	4,674.51	114.01	27.43	3,338.94	81.44	25.17%	24.26%	
Arctic Char	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Dolly Varden	87.5	81.3	81.3	53.1	59.4	4,674.51	114.01	27.43	3,338.94	81.44	25.17%	24.26%	
Lake Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Trout	46.9	43.8	40.6	25.0	25.0	538.13	13.13	3.16	384.38	9.38	31.64%	33.29%	
Rainbow Trout	34.4	31.3	28.1	18.8	15.6	460.99	11.24	2.71	329.28	8.03	35.25%	36.62%	
Steelhead	31.3	25.0	25.0	12.5	15.6	77.13	1.88	0.45	55.09	1.34	47.42%	49.06%	
Unknown Trout	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Game	81.3	28.1	21.9	81.3	28.1	2,466.41	60.16	14.47	29.47	0.72	40.15%	48.52%	
Big Game	81.3	28.1	21.9	81.3	28.1	2,461.28	60.03	14.44	20.50	0.50	46.21%	48.62%	
Bison	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Black Bear	75.0	25.0	15.6	71.9	25.0	891.75	21.75	5.23	15.38	0.38	53.36%	53.66%	
Brown Bear	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Caribou	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Deer	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Elk	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Goat	21.9	12.5	6.3	15.6	9.4	185.78	4.53	1.09	2.56	0.06	66.47%	66.62%	
Moose	75.0	9.4	6.3	71.9	21.9	1,383.75	33.75	8.12	2.56	0.06	66.47%	66.09%	
Sheep, Dall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Small Game/Furbearer	12.5	9.4	9.4	3.1	0.0	5.13	0.13	0.03	8.97	0.22	69.99%	67.68%	
Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Beaver	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Coyote	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	
Hare	6.3	6.3	6.3	0.0	0.0	5.13	0.13	0.03	2.56	0.06	66.47%	67.68%	

Table IX-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Snowshoe Hare	6.3	6.3	6.3	0.0	0.0	5.13	0.13	0.03	2.56	0.06	66.47%	67.66%
Land Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mink	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Muskrat	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Porcupine	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Weasel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolf	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolverine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Squirrel	3.1	3.1	3.1	0.0	0.0	0.00	0.00	0.00	6.41	0.16	95.55%	0.00%
Tree Squirrel	3.1	3.1	3.1	0.0	0.0	0.00	0.00	0.00	6.41	0.16	95.55%	0.00%
Feral Animals	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Reindeer - Feral	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Mammals	78.1	25.0	18.8	75.0	34.4	2,859.75	69.75	16.78	34.59	0.84	42.88%	48.75%
Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whale	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seal	71.9	25.0	18.8	68.8	34.4	1,578.50	38.50	9.26	28.19	0.69	42.53%	42.69%
Harbor Seal	71.9	25.0	18.8	68.8	34.4	1,578.50	38.50	9.26	28.19	0.69	42.53%	42.69%
Unknown Seal	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Sea Lion	59.4	9.4	6.3	56.3	12.5	1,281.25	31.25	7.52	6.41	0.16	78.20%	76.59%
Sea Otter	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Birds and Eggs	59.4	40.6	40.6	53.1	34.4	284.05	6.93	1.67	440.75	10.75	37.95%	36.96%
Birds	53.1	37.5	37.5	37.5	34.4	242.54	5.92	1.42	302.38	7.38	41.51%	39.82%
Upland Game Birds	9.4	12.5	9.4	0.0	6.3	5.38	0.13	0.03	7.69	0.19	58.06%	57.83%
Grouse	9.4	12.5	9.4	0.0	6.3	5.38	0.13	0.03	7.69	0.19	58.06%	57.83%
Ptarmigan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Migratory Birds	53.1	37.5	34.4	37.5	34.4	237.16	5.78	1.39	294.69	7.19	42.44%	40.60%
Waterfowl	53.1	37.5	34.4	34.4	31.3	208.33	5.08	1.22	256.25	6.25	41.94%	39.10%
Ducks	53.1	37.5	34.4	34.4	31.3	208.33	5.08	1.22	256.25	6.25	41.94%	39.10%
Eider	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Large	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	43.8	28.1	28.1	21.9	31.3	103.78	2.53	0.61	115.31	2.81	38.33%	37.38%
Scoter, White-winged	31.3	25.0	25.0	12.5	21.9	69.19	1.69	0.41	76.88	1.88	44.94%	43.60%

Table IX-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Scoter, Black	25.0	15.6	15.6	9.4	18.8	24.22	0.59	0.14	26.91	0.66	44.64%	44.22%
Scoter, Surf	6.3	6.3	6.3	0.0	3.1	10.38	0.25	0.06	11.53	0.28	76.63%	77.63%
Harlequin	6.3	3.1	3.1	3.1	3.1	2.56	0.06	0.02	5.13	0.13	95.55%	97.50%
Goldeneye	12.5	12.5	12.5	0.0	9.4	21.53	0.53	0.13	26.91	0.66	69.38%	67.83%
Bufflehead	9.4	9.4	9.4	0.0	6.3	11.28	0.28	0.07	28.19	0.69	69.34%	67.80%
Merganser	18.8	12.5	12.5	9.4	12.5	25.37	0.62	0.15	28.19	0.69	52.38%	51.15%
Scaup	3.1	3.1	3.1	0.0	0.0	5.77	0.14	0.03	6.41	0.16	95.55%	93.79%
Mallard	34.4	28.1	21.9	18.8	12.5	34.59	0.84	0.20	34.59	0.84	39.75%	40.43%
Pinntail	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wigeon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Teal	6.3	6.3	6.3	0.0	0.0	3.46	0.08	0.02	11.53	0.28	66.91%	64.85%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Brant	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Lesser	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sandhill Crane	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	12.5	12.5	12.5	6.3	12.5	28.83	0.70	0.17	38.44	0.94	54.14%	63.00%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffins	9.4	9.4	9.4	0.0	9.4	9.61	0.23	0.06	19.22	0.47	56.41%	53.99%
Gulls	6.3	3.1	3.1	6.3	3.1	19.22	0.47	0.11	19.22	0.47	95.55%	93.79%
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	43.8	12.5	12.5	37.5	9.4	41.51	1.01	0.24	138.38	3.38	60.24%	59.76%
Seabird Eggs	43.8	12.5	12.5	37.5	9.4	41.51	1.01	0.24	138.38	3.38	60.24%	59.76%
Gull Eggs	43.8	12.5	12.5	37.5	9.4	36.90	0.90	0.22	123.00	3.00	60.34%	60.00%
Puffin Eggs	3.1	3.1	3.1	3.1	0.0	4.61	0.11	0.03	15.38	0.38	95.55%	94.55%
Marine Invertebrates	100.0	90.6	90.6	87.5	87.5	4,232.24	103.23	24.84			18.39%	19.61%
Clams	90.6	75.0	75.0	68.8	71.9	1,696.21	41.37	9.95	565.40 gal	13.79	27.15%	27.08%

Table IX-27. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1992/93

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Butter Clams	84.4	59.4	59.4	65.6	65.6	1,395.28	34.03	8.19	465.09 gal	11.34	32.94%	33.53%
Razor Clams	21.9	15.6	15.6	9.4	15.6	99.94	2.44	0.59	33.31 gal	0.81	46.17%	44.59%
Pacific Littleneck Clams (Steamers)	28.1	28.1	28.1	18.8	21.9	200.99	4.90	1.18	67.00 gal	1.63	39.84%	36.74%
Softshell Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Pinkneck Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Horse Clams (Gaper)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Unknown Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Cockles	18.8	15.6	15.6	12.5	12.5	80.72	1.97	0.47	26.91 gal	0.66	50.48%	48.61%
Scallops	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Mussels	25.0	25.0	25.0	9.4	15.6	49.97	1.22	0.29	33.31 gal	0.81	42.39%	41.79%
Crabs	31.3	3.1	3.1	31.3	6.3	22.42	0.55	0.13	32.03	0.78	95.55%	93.79%
Dungeness Crab	25.0	3.1	3.1	25.0	6.3	22.42	0.55	0.13	32.03	0.78	95.55%	93.79%
King Crab	9.4	0.0	0.0	9.4	3.1	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tanner Crab	18.8	0.0	0.0	18.8	3.1	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tanner Crab, Unknown	18.8	0.0	0.0	18.8	3.1	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Crabs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Chitons (bidarkis)	96.9	84.4	84.4	43.8	65.6	1,893.30	46.18	11.11	477.78 gal	11.65	27.47%	29.66%
Chitons (large)	21.9	21.9	21.9	3.1	3.1	53.43	1.30	0.31	17.81 gal	0.43	49.53%	49.05%
Chitons (small)	96.9	84.4	84.4	43.8	65.6	1,839.88	44.88	10.80	459.97 gal	11.22	28.33%	30.36%
Octopus	78.1	40.6	40.6	53.1	31.3	384.38	9.38	2.26	96.09	2.34	31.26%	32.23%
Sea Urchin	3.1	3.1	3.1	3.1	3.1	0.40	0.01	0.00	0.81 gal	0.02	95.55%	97.50%
Shrimp	3.1	0.0	0.0	3.1	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Snails	68.8	62.5	62.5	28.1	31.3	101.86	2.48	0.60	67.91 gal	1.66	32.37%	30.35%
Wheik	3.1	3.1	3.1	0.0	0.0	0.96	0.02	0.01	0.54 gal	0.02	95.55%	93.79%
Limpets	9.4	6.3	6.3	3.1	0.0	2.02	0.05	0.01	1.35 gal	0.03	90.97%	89.99%
Oyster	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Plants and Berries	93.8	93.8	93.8	65.6	62.5	1,920.59	46.84	11.27	480.15 gal	11.71	15.24%	12.61%
Berries	87.5	81.3	81.3	53.1	50.0	861.00	21.00	5.05	215.25 gal	5.25	19.25%	16.43%
Plants/Greens/Mushrooms	62.5	62.5	62.5	21.9	34.4	558.63	13.63	3.28	139.66 gal	3.41	18.37%	14.48%
Seaweed/Kelp (Food)	84.4	75.0	75.0	46.9	59.4	500.97	12.22	2.94	125.24 gal	3.05	23.41%	24.13%
Wood	90.6	84.4	84.4	40.6	46.9	0.00	0.00	0.00	291.16 crd	7.10	15.94%	0.00%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table IX-28. Estimated Amount of Resources Removed From Commercial Harvest, Nanwalek, 1992/93

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		102.50	0.26	0.22
Fish		102.50	0.29	0.22
Non-Salmon Fish		102.50	0.68	0.22
Cod	32.03	102.50	5.55	0.22
Pacific Cod (Gray)	32.03	102.50	6.30	0.22

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table IX-29. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Nanwalek, 1992/93

Resource	Percent Base	Subsistence Methods												Removed from Commercial Catch No. Lbs.	Rod and Reel No. Lbs.	Any Method No. Lbs.
		Net			Seine			Dip Net			Subsistence Gear Any Method					
		No.	Lbs.	%	No.	Lbs.	%	No.	Lbs.	%	No.	Lbs.	%			
Salmon	total	19.50	24.10	3.86	3.68	0.43	0.29	23.60	28.06	0.00	0.00	76.20	71.94			
Chum Salmon	gear type	6.08	6.78	0.00	0.00	0.00	0.00	4.99	5.82	0.00	0.00	1.50	2.19			
	resource	50.93	50.93	0.00	0.00	0.00	0.00	50.93	50.93	0.00	0.00	49.07	49.07			
	total	1.19	1.63	0.00	0.00	0.00	0.00	1.19	1.63	0.00	0.00	1.14	1.57	2.33	3.21	
Coho Salmon	gear type	50.88	57.86	27.93	41.19	0.00	0.00	46.24	55.08	0.00	0.00	23.64	35.18			
	resource	34.20	34.20	3.72	3.72	0.00	0.00	37.92	37.92	0.00	0.00	62.08	62.08			
	total	9.92	13.94	1.08	1.52	0.00	0.00	11.00	15.46	0.00	0.00	18.02	25.31	29.02	40.76	
Chinook Salmon	gear type	5.42	11.11	2.23	5.94	0.00	0.00	4.81	10.32	0.00	0.00	0.82	2.20			
	resource	59.76	59.76	4.88	4.88	0.00	0.00	64.63	64.63	0.00	0.00	35.37	35.37			
	total	1.06	2.68	0.09	0.22	0.00	0.00	1.14	2.89	0.00	0.00	0.63	1.58	1.77	4.48	
Pink Salmon	gear type	20.46	10.97	55.87	38.84	100.00	100.00	27.65	15.53	0.00	0.00	46.26	32.45			
	resource	9.54	9.54	5.16	5.16	1.03	1.03	15.73	15.73	0.00	0.00	84.27	84.27			
	total	3.99	2.64	2.16	1.43	0.43	0.29	6.58	4.36	0.00	0.00	35.25	23.35	41.83	27.70	
Sockeye Salmon	gear type	17.15	13.29	13.97	14.04	0.00	0.00	16.32	13.25	0.00	0.00	27.43	27.83			
	resource	13.49	13.49	2.18	2.18	0.00	0.00	15.67	15.67	0.00	0.00	84.33	84.33			
	total	3.34	3.20	0.54	0.52	0.00	0.00	3.88	3.72	0.00	0.00	20.91	20.02	24.79	23.74	
Landlocked Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.15			
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00			
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.11	0.26	0.11	

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table IX-30. Estimated Salmon Harvest by Gear Type and Species, Nanwalek, 1992/93

	Harvest Units	Subsistence Methods												Removed from Commercial Catch		Rod and Reel		Any Method	
		Net			Seine			Dip Net			Subsistence Gear Any Method			Total	HH Mean	Total	HH Mean	Total	HH Mean
		Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH						
Salmon	numbers	1,158.25	28.25	229.34	5.59	25.63	0.63	1,413.22	34.47	0.00	0.00	0.00	0.00	0.00	4,525.38	110.38	5,938.59	144.84	
	pounds	4,991.39	121.74	762.11	18.59	59.19	1.44	5,812.70	141.77	0.00	0.00	0.00	0.00	0.00	14,902.18	363.47	20,714.88	505.24	
Chum Salmon	numbers	70.47	1.72	0.00	0.00	0.00	0.00	70.47	1.72	0.00	0.00	0.00	0.00	0.00	67.91	1.66	138.38	3.38	
	pounds	338.25	8.25	0.00	0.00	0.00	0.00	338.25	8.25	0.00	0.00	0.00	0.00	0.00	325.95	7.95	664.20	16.20	
Coho Salmon	numbers	589.38	14.38	64.06	1.56	0.00	0.00	653.44	15.94	0.00	0.00	0.00	0.00	1,069.84	26.09	1,723.28	42.03		
	pounds	2,887.94	70.44	313.91	7.66	0.00	0.00	3,201.84	78.09	0.00	0.00	0.00	0.00	5,242.23	127.86	8,444.08	205.95		
Chinook Salmon	numbers	62.78	1.53	5.13	0.13	0.00	0.00	67.91	1.66	0.00	0.00	0.00	0.00	37.16	0.91	105.06	2.56		
	pounds	554.36	13.52	45.25	1.10	0.00	0.00	599.61	14.62	0.00	0.00	0.00	0.00	328.09	8.00	927.70	22.63		
Pink Salmon	numbers	237.03	5.78	128.13	3.13	25.63	0.63	390.78	9.53	0.00	0.00	0.00	0.00	2,093.56	51.06	2,484.34	60.59		
	pounds	547.54	13.35	295.97	7.22	59.19	1.44	902.70	22.02	0.00	0.00	0.00	0.00	4,836.13	117.96	5,738.83	139.97		
Sockeye Salmon	numbers	198.59	4.84	32.03	0.78	0.00	0.00	230.63	5.63	0.00	0.00	0.00	0.00	1,241.53	30.28	1,472.16	35.91		
	pounds	663.30	16.18	106.98	2.61	0.00	0.00	770.29	18.79	0.00	0.00	0.00	0.00	4,146.71	101.14	4,917.00	119.93		
Landlocked Salmon	numbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.38	0.38	15.38	0.38		
	pounds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.06	0.56	23.06	0.56		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table IX-31. Percentage of Households Harvesting Salmon by Gear Type and Species, Nanwalek, 1992/93

Resource	Any			Removed from Commercial Catch	Rod and Reel	Any Method
	Net	Seine	Dip Net			
Salmon	31.25	6.25	3.13	0.00	96.88	96.88
Chum Salmon	12.50	0.00	0.00	0.00	21.88	31.25
Coho Salmon	21.88	3.13	0.00	0.00	84.38	84.38
Chinook Salmon	15.63	3.13	0.00	0.00	15.63	31.25
Pink Salmon	12.50	3.13	3.13	0.00	78.13	78.13
Sockeye Salmon	21.88	3.13	0.00	0.00	75.00	84.38
Landlocked Salmon	0.00	0.00	0.00	0.00	3.13	3.13

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table IX-32. Estimated Harvest of Fish Other than Salmon by Gear Type, Nanwalek, 1992/93

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	6,613.94	161.32	102.50	2.50	8,142.69	198.60	210.13	5.13	15,069.25	367.54
Lingcod	10.25	0.25	0.00	0.00	10.25	0.25	0.00	0.00	20.50	0.50
Pacific Tom Cod	178.73	4.36	0.00	0.00	0.00	0.00	39.72	0.97	218.45	5.33
Pacific Cod (Gray)	254.20	6.20	102.50	2.50	1,271.00	31.00	0.00	0.00	1,627.70	39.70
Unknown Flounder	203.72	4.97	0.00	0.00	288.28	7.03	0.00	0.00	492.00	12.00
Hallbut	2,813.49	68.62	0.00	0.00	3,951.60	96.38	0.00	0.00	6,765.09	165.00
Black Rockfish (black bass)	61.50	1.50	0.00	0.00	131.32	3.20	0.00	0.00	192.82	4.70
Irish Lord	23.70	0.58	0.00	0.00	29.47	0.72	0.00	0.00	53.17	1.30
Unknown Sculpin	0.00	0.00	0.00	0.00	2.56	0.06	0.00	0.00	2.56	0.06
Eulachon (Hooligan, Candlefish)	166.56	4.06	0.00	0.00	0.00	0.00	0.00	0.00	166.56	4.06
Unknown Greenling	171.69	4.19	0.00	0.00	83.28	2.03	0.00	0.00	254.97	6.22
Walleye Pollock (Whiting)	8.97	0.22	0.00	0.00	0.00	0.00	53.81	1.31	62.78	1.53
Dolly Varden	2,504.08	61.08	0.00	0.00	2,053.84	50.09	116.59	2.84	4,674.51	114.01
Rainbow Trout	161.44	3.94	0.00	0.00	299.56	7.31	0.00	0.00	460.99	11.24
Steelhead	55.61	1.36	0.00	0.00	21.53	0.53	0.00	0.00	77.13	1.88

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table IX-33. Percentage of Fish Other Than Salmon Harvested by Gear Type, Nanwalek, 1992/93

Resource	Percent Base	Subsistence Gear Lbs.	Removed from Commercial Catch Lbs.	Rod and Reel Lbs.	Ice Fishing Lbs.
Non-Salmon Fish	resource	43.89	0.68	54.04	1.39
Lingcod	resource	50.00	0.00	50.00	0.00
Pacific Tom Cod	resource	81.82	0.00	0.00	18.18
Pacific Cod (Gray)	resource	15.62	6.30	78.09	0.00
Unknown Flounder	resource	41.41	0.00	58.59	0.00
Haitbut	resource	41.59	0.00	58.41	0.00
Black Rockfish (black bass)	resource	31.89	0.00	68.11	0.00
Irish Lord	resource	44.58	0.00	55.42	0.00
Unknown Sculpin	resource	0.00	0.00	100.00	0.00
Eulachon (Hooligan, Candlefish)	resource	100.00	0.00	0.00	0.00
Unknown Greenling	resource	67.34	0.00	32.66	0.00
Walleye Pollock (Whiting)	resource	14.29	0.00	0.00	85.71
Dolly Varden	resource	53.57	0.00	43.94	2.49
Rainbow Trout	resource	35.02	0.00	64.98	0.00
Steelhead	resource	72.09	0.00	27.91	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Table IX-34. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Nanwalek, 1992/93

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	59.38	3.13	87.50	12.50	90.63
Lingcod	3.13	0.00	3.13	0.00	6.25
Pacific Tom Cod	12.50	0.00	0.00	9.38	21.88
Pacific Cod (Gray)	21.88	3.13	43.75	0.00	53.13
Unknown Flounder	15.63	0.00	15.63	0.00	28.13
Hallbut	40.63	0.00	50.00	0.00	78.13
Black Rockfish (black bass)	9.38	0.00	9.38	0.00	18.75
Irish Lord	6.25	0.00	12.50	0.00	18.75
Unknown Sculpin	0.00	0.00	3.13	0.00	3.13
Eulachon (Hooligan, Candlefish)	6.25	0.00	0.00	0.00	6.25
Unknown Greenling	21.88	0.00	12.50	0.00	31.25
Walleye Pollock (Whiting)	3.13	0.00	0.00	3.13	6.25
Dolly Varden	37.50	0.00	65.63	6.25	81.25
Rainbow Trout	9.38	0.00	25.00	0.00	28.13
Steelhead	9.38	0.00	15.63	0.00	25.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1993

Figure IX-13. Composition of Wild Resource Harvests by Resource Category, Nanwalek, 1993/94

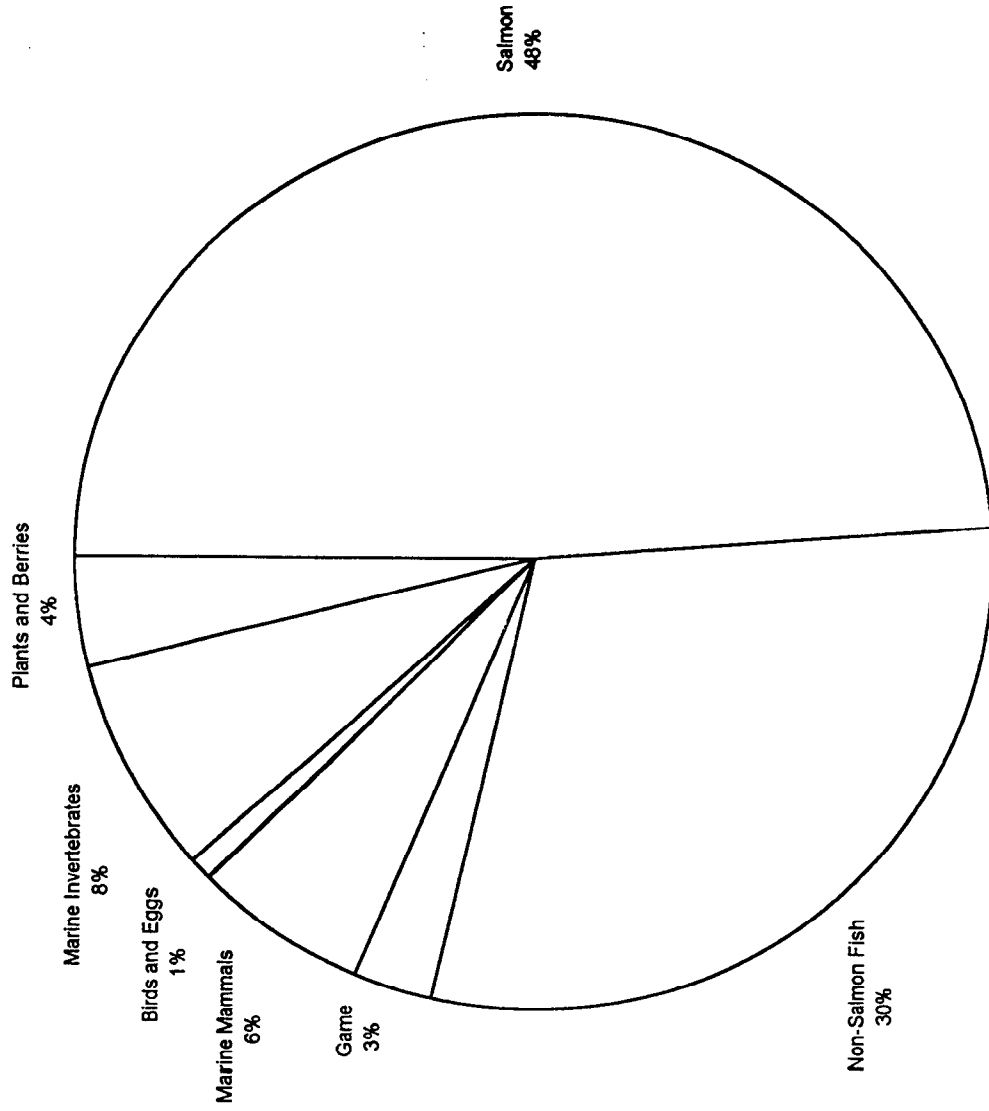


Table IX-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1993/94

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
All Resources	100.0	100.0	100.0	100.0	97.0	43,068.21	1,164.01	304.86			10.89%	11.91%
Fish	100.0	97.0	97.0	93.9	93.9	33,840.46	914.61	239.54			9.78%	11.02%
Salmon	100.0	97.0	97.0	78.8	87.9	21,109.15	570.52	149.42	6,995.24	189.06	10.69%	12.16%
Chum Salmon	30.3	30.3	27.3	9.1	21.2	758.50	20.50	5.37	168.18	4.55	24.50%	26.31%
Coho Salmon	100.0	93.9	93.9	57.6	78.8	5,686.23	153.68	40.25	1,263.61	34.15	10.41%	12.13%
Chinook Salmon	84.8	42.4	42.4	60.6	54.5	804.04	21.73	5.69	93.06	2.52	22.08%	22.67%
Pink Salmon	90.9	81.8	81.8	51.5	63.6	5,756.10	155.57	40.74	2,921.88	78.97	11.98%	12.33%
Sockeye Salmon	93.9	90.9	90.9	57.6	60.6	8,104.28	219.03	57.37	2,548.52	68.88	13.84%	15.22%
Landlocked Salmon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Salmon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Non-Salmon Fish	100.0	93.9	93.9	87.9	87.9	12,731.31	344.09	90.12	0.00	0.00	12.41%	13.01%
Pike	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sturgeon	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Cod	81.8	69.7	69.7	57.6	63.6	1,677.78	45.35	11.88	1,224.36	33.09	17.64%	14.36%
Pacific Tomcod	63.6	45.5	45.5	33.3	42.4	414.85	11.21	2.94	829.70	22.42	25.52%	26.61%
Pacific Cod (Gray)	66.7	54.5	54.5	42.4	45.5	1,262.93	34.13	8.94	394.67	10.67	16.91%	17.11%
Unknown Cod	3.0	0.0	0.0	3.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sablefish (Black Cod)	3.0	0.0	0.0	3.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Greenling	36.4	33.3	33.3	9.1	24.2	239.94	6.48	1.70	182.76	4.94	20.92%	20.55%
Kelp Greenling	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Lingcod	12.1	9.1	9.1	3.0	6.1	78.24	2.06	0.54	19.06	0.52	49.36%	49.47%
Unknown Greenling	24.2	24.2	24.2	6.1	18.2	163.70	4.42	1.16	163.70	4.42	23.35%	22.72%
Flounder	39.4	36.4	36.4	12.1	18.2	484.36	13.09	3.43	161.45	4.36	23.95%	23.89%
Unknown Flounder	39.4	36.4	36.4	12.1	18.2	484.36	13.09	3.43	161.45	4.36	23.95%	23.89%
Sole	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sole, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Halibut	100.0	72.7	72.7	84.8	78.8	6,971.25	188.41	49.35	328.83	8.89	17.00%	17.92%
Herring	6.1	3.0	3.0	3.0	3.0	134.55	3.64	0.95	22.42 gal	0.61	66.97%	67.21%
Herring Roe	9.1	3.0	3.0	6.1	3.0	3.92	0.11	0.03	0.56 gal	0.02	66.97%	67.21%
Spawn on Kelp	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Sac Roe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Rockfish	21.2	18.2	18.2	6.1	15.2	158.65	4.29	1.12	102.03	2.76	29.27%	28.50%
Black Rockfish (black bass)	21.2	18.2	18.2	6.1	15.2	149.68	4.05	1.06	99.79	2.70	29.61%	29.61%
Red Rockfish	3.0	3.0	3.0	0.0	0.0	8.97	0.24	0.06	2.24	0.06	66.97%	63.85%
Unknown Rockfish	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sea Bass	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table IX-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1993/94

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give		Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Sculpin	12.1	12.1	12.1	3.0	9.1		37.56	1.02	0.27	75.12	2.03	51.41%	50.05%
Irish Lord	12.1	12.1	12.1	3.0	9.1		37.56	1.02	0.27	75.12	2.03	51.41%	50.05%
Unknown Sculpin	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Smelt	24.2	3.0	3.0	21.2	12.1		18.22	0.49	0.13			66.97%	65.55%
Eulachon (Hooligan, Candlefish)	24.2	3.0	3.0	21.2	12.1		18.22	0.49	0.13	5.61 gal	0.15	66.97%	65.55%
Unknown Smelt	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wolf Eel (Wolffish)	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shark	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Walleye Pollock (Whiting)	6.1	6.1	6.1	3.0	6.1		18.84	0.51	0.13	13.45	0.36	56.57%	55.22%
Skates	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Grayling	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Sheefish	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Whitefish	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Unknown Whitefish	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Trout and Char	78.8	63.6	63.6	48.5	51.5		2,986.24	80.71	21.14	2,111.03	57.65	17.26%	16.78%
Char	78.8	60.6	60.6	48.5	48.5		2,678.58	72.39	18.96	1,913.27	51.71	18.29%	17.55%
Arctic Char	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Dolly Varden	78.8	60.6	60.6	48.5	48.5		2,678.58	72.39	18.96	1,913.27	51.71	18.29%	17.55%
Lake Trout	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Trout	36.4	30.3	30.3	12.1	18.2		307.66	8.32	2.18	219.76	5.94	30.43%	31.56%
Rainbow Trout	24.2	21.2	18.2	9.1	12.1		255.86	6.92	1.81	182.76	4.94	34.91%	35.96%
Steelhead	27.3	24.2	24.2	3.0	12.1		51.80	1.40	0.37	37.00	1.00	32.98%	33.72%
Unknown Trout	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Game	90.9	48.5	21.2	87.9	39.4		1,256.88	33.97	8.90	21.30	0.58	32.03%	43.77%
Big Game	90.9	45.5	18.2	87.9	39.4		1,255.76	33.94	8.89	12.33	0.33	29.87%	43.81%
Bison	6.1	0.0	0.0	6.1	3.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Black Bear	81.8	42.4	18.2	78.8	33.3		650.30	17.58	4.60	11.21	0.30	28.02%	28.96%
Brown Bear	0.0	3.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Caribou	18.2	0.0	0.0	18.2	9.1		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Deer	6.1	0.0	0.0	6.1	6.1		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Elk	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goat	12.1	9.1	0.0	12.1	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Moose	66.7	21.2	3.0	63.6	21.2		605.45	16.36	4.29	1.12	0.03	66.97%	67.21%
Sheep, Dall	3.0	3.0	0.0	3.0	3.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Small Game/Furbearer	6.1	12.1	3.0	3.0	3.0		1.12	0.03	0.01	8.97	0.24	66.97%	68.29%
Fox	0.0	0.0	0.0	0.0	0.0		0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table IX-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1993/94

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)	
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita		
Red Fox	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Beaver	3.0	0.0	0.0	3.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Coyote	0.0	6.1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Hare	3.0	6.1	0.0	3.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Snowshoe Hare	3.0	6.1	0.0	3.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Land Otter	3.0	0.0	0.0	3.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Lynx	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Marmot	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Marten	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Mink	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Muskrat	3.0	0.0	0.0	3.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Porcupine	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Weasel	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Wolf	0.0	3.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Wolverine	3.0	0.0	0.0	3.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Squirrel	3.0	3.0	3.0	0.0	3.0	1.12	0.03	0.01	8.97	0.24	66.97%	68.29%		
Tree Squirrel	3.0	3.0	3.0	0.0	3.0	1.12	0.03	0.01	8.97	0.24	66.97%	68.29%		
Feral Animals	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Reindeer - Feral	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Marine Mammals	87.9	45.5	30.3	87.9	36.4	2,628.12	71.03	18.60	61.67	1.67	25.50%	26.64%		
Whale	3.0	0.0	0.0	3.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Belukha	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Unknown Whale	3.0	0.0	0.0	3.0	3.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Seal	84.8	36.4	24.2	84.8	33.3	1,506.91	40.73	10.67	26.91	0.73	24.47%	25.59%		
Harbor Seal	84.8	36.4	24.2	84.8	33.3	1,506.91	40.73	10.67	26.91	0.73	24.47%	25.59%		
Unknown Seal	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Steller Sea Lion	57.6	12.1	9.1	57.6	15.2	1,121.21	30.30	7.94	5.61	0.15	39.05%	38.13%		
Sea Otter	12.1	12.1	9.1	3.0	3.0	0.00	0.00	0.00	29.15	0.79	48.48%	0.00%		
Birds and Eggs	66.7	45.5	33.3	48.5	27.3	327.26	8.84	2.32	565.09	15.27	36.20%	29.16%		
Birds	57.6	45.5	33.3	39.4	27.3	239.13	6.46	1.69	271.33	7.33	23.70%	24.95%		
Upland Game Birds	12.1	18.2	9.1	3.0	3.0	6.28	0.17	0.04	8.97	0.24	39.93%	39.17%		
Grouse	12.1	18.2	9.1	3.0	3.0	6.28	0.17	0.04	8.97	0.24	39.93%	39.17%		
Ptarmigan	0.0	3.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Migratory Birds	57.6	33.3	30.3	39.4	27.3	232.85	6.29	1.65	262.36	7.09	24.36%	25.56%		
Waterfowl	57.6	33.3	30.3	39.4	27.3	207.74	5.61	1.47	238.82	6.45	24.36%	25.08%		
Ducks	57.6	33.3	30.3	39.4	27.3	207.74	5.61	1.47	238.82	6.45	24.36%	25.08%		

Table IX-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1993/94

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Cont Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Eider	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Small	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Steller Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Spectacled Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Large	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
King Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Eiders	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eider, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Scoter	39.4	27.3	27.3	21.2	24.2	105.95	2.86	0.75	117.73	3.18	22.69%	24.35%
Scoter, White-winged	15.2	12.1	12.1	6.1	12.1	48.44	1.31	0.34	53.82	1.45	33.54%	33.53%
Scoter, Black	21.2	15.2	15.2	12.1	12.1	41.37	1.12	0.29	45.97	1.24	32.00%	35.11%
Scoter, Surf	9.1	6.1	6.1	3.0	6.1	16.15	0.44	0.11	17.94	0.48	48.14%	47.89%
Harlequin	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Goldeneye	12.1	12.1	12.1	0.0	6.1	21.53	0.58	0.15	26.91	0.73	44.13%	43.20%
Bufflehead	9.1	6.1	6.1	3.0	3.0	1.79	0.05	0.01	4.48	0.12	52.45%	52.40%
Merganser	30.3	21.2	21.2	9.1	15.2	34.31	0.93	0.24	38.12	1.03	29.19%	29.33%
Scaup	6.1	3.0	3.0	3.0	3.0	10.09	0.27	0.07	11.21	0.30	66.97%	68.29%
Mallard	24.2	15.2	12.1	12.1	9.1	22.42	0.61	0.16	22.42	0.61	32.95%	33.97%
Pintail	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Wigeon	3.0	3.0	3.0	0.0	3.0	4.71	0.13	0.03	6.73	0.18	66.97%	67.21%
Teal	3.0	3.0	3.0	0.0	0.0	1.35	0.04	0.01	4.48	0.12	66.97%	65.55%
Gadwall	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Oldsquaw	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Shoveler	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canvasback	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Ducks, Unknown	9.1	3.0	3.0	6.1	3.0	5.58	0.15	0.04	6.73	0.18	66.97%	68.29%
Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Brant	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
White-fronted Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Lesser	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Canada Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Swan	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tundra Swan (Whistling)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Crane	3.0	3.0	3.0	0.0	0.0	9.42	0.25	0.07	1.12	0.03	66.97%	67.21%

Table IX-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1993/94

Resource Name	Percentage of Households				Pounds Harvested			Amount Harvested		95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Total	Mean HH	Percapita	Total	Mean HH	Harvest	Percapita
Sandhill Crane	3.0	3.0	3.0	0.0	0.0	9.42	0.25	0.07	1.12	0.03	66.97%	67.21%
Shorebirds	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Common Snipe	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabirds	6.1	6.1	6.1	0.0	6.1	15.70	0.42	0.11	22.42	0.61	47.59%	45.42%
Cormorants	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Loons	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Puffins	3.0	3.0	3.0	0.0	3.0	6.73	0.18	0.05	13.45	0.36	66.97%	66.11%
Gulls	3.0	3.0	3.0	0.0	3.0	8.97	0.24	0.06	8.97	0.24	66.97%	65.55%
Murre	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Eggs	27.3	9.1	9.1	21.2	9.1	88.13	2.38	0.62	293.76	7.94	52.28%	51.03%
Seabird Eggs	27.3	9.1	9.1	21.2	9.1	88.13	2.38	0.62	293.76	7.94	52.28%	51.03%
Gull Eggs	27.3	9.1	9.1	21.2	9.1	88.13	2.38	0.62	293.76	7.94	52.28%	51.03%
Puffin Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Seabird Eggs Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Waterfowl Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Duck Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Duck Eggs, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Geese Eggs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Marine Invertebrates	100.0	97.0	97.0	90.9	90.9	3,295.83	89.08	23.33	0.00	0.00	17.86%	17.83%
Abalone	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Clams	90.9	54.5	54.5	81.8	57.6	1,680.98	45.43	11.90	560.33 gal	15.14	23.84%	23.24%
Butter Clams	84.8	48.5	48.5	75.8	54.5	1,537.18	41.55	10.88	512.39 gal	13.85	25.31%	24.61%
Razor Clams	21.2	18.2	18.2	12.1	15.2	110.16	2.98	0.78	36.72 gal	0.99	33.60%	34.33%
Pacific Littleneck Clams (Steamers)	9.1	3.0	3.0	6.1	3.0	33.64	0.91	0.24	11.21 gal	0.30	66.97%	67.21%
Softshell Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Pinkneck Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Horse Clams (Gaper)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Unknown Clams	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Cockles	12.1	9.1	9.1	9.1	6.1	26.91	0.73	0.19	8.97 gal	0.24	45.03%	44.26%
Scallops	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%
Mussels	30.3	27.3	27.3	3.0	12.1	37.42	1.01	0.26	24.95 gal	0.67	24.27%	23.66%
Crabs	18.2	6.1	6.1	18.2	6.1	17.27	0.47	0.12	24.67	0.67	46.82%	46.58%
Dungeness Crab	18.2	6.1	6.1	18.2	6.1	17.27	0.47	0.12	24.67	0.67	46.82%	46.58%
King Crab	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
King Crab, Unknown	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
Tanner Crab	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%

Table IX-35. Estimated Harvest and Use of Fish, Mammal, Bird and Plant Resources, Nanwalek, 1993/94

Resource Name	Percentage of Households						Pounds Harvested			Amount Harvested			95% Conf Limit (+/-)		
	Use	Att	Harv	Recv	Give	Per capita	Total	Mean HH	Per capita	Total	Mean HH	Harvest	Per capita	95% Conf Limit (+/-)	
														Harvest	Per capita
Tanner Crab, Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Unknown Crabs	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%		
Chitons (dark)	97.0	87.9	87.9	48.5	69.7	7.34	1,036.84	28.02	7.34	260.96 gal	7.05	16.85%	17.26%		
Chitons (large)	9.1	9.1	9.1	3.0	0.0	0.15	21.02	0.57	0.15	7.01 gal	0.19	47.28%	46.05%		
Chitons (small)	97.0	87.9	87.9	48.5	69.7	7.19	1,015.82	27.45	7.19	253.95 gal	6.86	16.38%	16.99%		
Octopus	69.7	45.5	45.5	39.4	48.5	3.08	435.03	11.76	3.08	108.76	2.94	19.10%	20.91%		
Sea Urchin	9.1	9.1	9.1	0.0	3.0	0.01	1.68	0.05	0.01	3.36 gal	0.09	46.61%	47.98%		
Shrimp	3.0	0.0	0.0	3.0	0.0	0.00	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%		
Snails	57.6	48.5	48.5	15.2	33.3	0.39	54.66	1.48	0.39	36.44 gal	0.98	19.26%	17.99%		
Whelk	6.1	6.1	6.1	0.0	3.0	0.01	1.68	0.05	0.01	1.12 gal	0.03	46.61%	43.29%		
Limpets	12.1	12.1	12.1	0.0	3.0	0.02	3.36	0.09	0.02	2.24 gal	0.06	38.08%	38.49%		
Oyster	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%		
Plants and Berries	97.0	93.9	93.9	69.7	75.8	12.17	1,719.66	46.48	12.17	429.91 gal	11.62	10.41%	12.20%		
Berries	97.0	90.9	87.9	69.7	66.7	7.71	1,089.82	29.45	7.71	272.45 gal	7.36	12.01%	13.85%		
Plants/Greens/Mushrooms	75.8	75.8	75.8	15.2	30.3	3.08	435.59	11.77	3.08	108.90 gal	2.94	17.43%	18.27%		
Seaweed/Kelp (Food)	81.8	66.7	66.7	39.4	42.4	1.38	194.25	5.25	1.38	48.56 gal	1.31	15.03%	15.80%		
Bull Kelp	81.8	66.7	66.7	39.4	42.4	1.38	194.25	5.25	1.38	48.56 gal	1.31	15.03%	15.80%		
Fertilizer	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%		
Vegetative Fertilizer	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%		
Seaweed/Kelp (Non-food)	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00 gal	0.00	0.00%	0.00%		
Wood	87.9	81.8	81.8	36.4	54.5	0.00	0.00	0.00	0.00	143.52 ctd	3.88	6.00%	0.00%		

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table IX-36. Estimated Amount of Resources Removed From Commercial Harvest, Nanwalek, 1993/94

Resource	Removed From Catch		Percent of	
	Amount	Pounds	Species Harvest (lbs)	Community Harvest (lbs)
All Resources		51.58	0.14	0.12
Fish		51.58	0.15	0.12
Non-Salmon Fish		51.58	0.41	0.12
Greenling	4.48	17.94	7.48	0.04
Lingcod	4.48	17.94	23.53	0.04
Halibut	1.59	33.64	0.48	0.08

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table IX-37. Percentage of Salmon Harvest By Resource, Gear Type, and Total Salmon Harvest, Nanwalek, 1993/94

Resource	Percent Base	Subsistence Methods												Removed from Commercial Catch		Rod and Reel		Any Method	
		Sethnet			Handline			Other			Subsistence Gear			No.	Lbs.	No.	Lbs.	No.	Lbs.
		No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.	No.	Lbs.						
	total	29.36	32.86	2.64	2.42	0.32	0.21	32.33	35.49	0.00	0.00	67.67	64.51	0.00	0.00	0.00	0.00	0.00	0.00
Chum Salmon	gear type	6.00	8.02	0.00	0.00	0.00	0.00	5.45	7.42	0.00	0.00	0.95	1.49	0.00	0.00	0.00	0.00	0.00	0.00
	resource	73.33	73.33	0.00	0.00	0.00	0.00	73.33	73.33	0.00	0.00	26.67	26.67	0.00	0.00	0.00	0.00	0.00	0.00
	total	1.76	2.64	0.00	0.00	0.00	0.00	1.76	2.64	0.00	0.00	0.64	0.96	0.00	0.00	0.00	0.00	2.40	3.59
Coho Salmon	gear type	22.22	29.60	24.24	39.43	0.00	0.00	22.16	30.10	0.00	0.00	16.11	25.20	0.00	0.00	0.00	0.00	0.00	0.00
	resource	36.11	36.11	3.55	3.55	0.00	0.00	39.66	39.66	0.00	0.00	60.34	60.34	0.00	0.00	0.00	0.00	0.00	0.00
	total	6.52	9.73	0.64	0.96	0.00	0.00	7.16	10.68	0.00	0.00	10.90	16.25	0.00	0.00	0.00	0.00	18.06	26.94
Chinook Salmon	gear type	3.55	9.08	0.00	0.00	0.00	0.00	3.22	8.40	0.00	0.00	0.43	1.28	0.00	0.00	0.00	0.00	0.00	0.00
	resource	78.31	78.31	0.00	0.00	0.00	0.00	78.31	78.31	0.00	0.00	21.69	21.69	0.00	0.00	0.00	0.00	0.00	0.00
	total	1.04	2.98	0.00	0.00	0.00	0.00	1.04	2.98	0.00	0.00	0.29	0.83	0.00	0.00	0.00	0.00	1.33	3.81
Pink Salmon	gear type	30.57	17.83	60.61	43.15	100.00	100.00	33.71	20.05	0.00	0.00	45.62	31.24	0.00	0.00	0.00	0.00	0.00	0.00
	resource	21.49	21.49	3.84	3.84	0.77	0.77	26.09	26.09	0.00	0.00	73.91	73.91	0.00	0.00	0.00	0.00	0.00	0.00
	total	8.98	5.86	1.60	1.05	0.32	0.21	10.90	7.12	0.00	0.00	30.87	20.15	0.00	0.00	0.00	0.00	41.77	27.27
Sockeye Salmon	gear type	37.66	35.47	15.15	17.42	0.00	0.00	35.45	34.02	0.00	0.00	36.90	40.80	0.00	0.00	0.00	0.00	0.00	0.00
	resource	30.36	30.36	1.10	1.10	0.00	0.00	31.46	31.46	0.00	0.00	68.54	68.54	0.00	0.00	0.00	0.00	0.00	0.00
	total	11.06	11.65	0.40	0.42	0.00	0.00	11.46	12.08	0.00	0.00	24.97	26.32	0.00	0.00	0.00	0.00	36.43	38.39
Landlocked Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Salmon	gear type	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	resource	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table IX-38. Estimated Salmon Harvest by Gear Type and Species, Nanwalek, 1993/94

Harvest Units	Subsistence Methods												Removed from Commercial Catch		Rod and Reel		Any Method		
	Setnet			Handline			Other			Subsistence Gear Any Method			Total	HH Mean	Total	HH Mean	Total	HH Mean	
	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH	Total	HH Mean	HH							Total
Salmon	2,054.06	55.52	185.00	5.00	22.42	0.61	2,261.48	61.12	0.00	0.00	0.00	7,492.50	202.50	0.00	0.00	4,733.76	127.94	6,995.24	189.06
	6,936.49	187.47	511.83	13.83	44.18	1.19	7,492.50	202.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13,616.65	368.02	21,109.15	570.52
Chum Salmon	123.33	3.33	0.00	0.00	0.00	0.00	123.33	3.33	0.00	0.00	0.00	556.23	15.03	0.00	0.00	44.85	1.21	168.18	4.55
	556.23	15.03	0.00	0.00	0.00	0.00	556.23	15.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	202.27	5.47	758.50	20.50
Coho Salmon	456.33	12.33	44.85	1.21	0.00	0.00	501.18	13.55	0.00	0.00	0.00	2,255.32	60.95	0.00	0.00	762.42	20.61	1,263.61	34.15
	2,053.50	55.50	201.82	5.45	0.00	0.00	2,255.32	60.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,430.91	92.73	5,686.23	153.68
Chinook Salmon	72.88	1.97	0.00	0.00	0.00	0.00	72.88	1.97	0.00	0.00	0.00	629.67	17.02	0.00	0.00	20.18	0.55	93.06	2.52
	629.67	17.02	0.00	0.00	0.00	0.00	629.67	17.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	174.37	4.71	804.04	21.73
Pink Salmon	627.88	16.97	112.12	3.03	22.42	0.61	762.42	20.61	0.00	0.00	0.00	1,501.98	40.59	0.00	0.00	2,159.45	58.36	2,921.88	78.97
	1,236.92	33.43	220.88	5.97	44.18	1.19	1,501.98	40.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,254.13	114.98	5,756.10	155.57
Sockeye Salmon	773.64	20.91	28.03	0.76	0.00	0.00	801.67	21.67	0.00	0.00	0.00	2,549.30	68.90	0.00	0.00	1,746.85	47.21	2,548.52	68.88
	2,460.16	66.49	89.14	2.41	0.00	0.00	2,549.30	68.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,554.98	150.13	8,104.28	219.03
Landlocked Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unknown Salmon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table IX-39. Percentage of Households Harvesting Salmon by Gear Type and Species, Nanwalek, 1993/94

Resource	Subsistence Methods					Removed from Commercial Catch	Rod and Reel	Any Method
	Setnet	Handline	Other	Any Subsistence Gear				
Salmon	33.33	3.03	3.03	39.39		0.00	93.94	96.97
Chum Salmon	21.21	0.00	0.00	21.21		0.00	6.06	27.27
Coho Salmon	21.21	3.03	0.00	24.24		0.00	84.85	93.94
Chinook Salmon	30.30	0.00	0.00	30.30		0.00	18.18	42.42
Pink Salmon	12.12	3.03	3.03	18.18		0.00	75.76	81.82
Sockeye Salmon	24.24	3.03	0.00	27.27		0.00	81.82	90.91
Landlocked Salmon	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Unknown Salmon	0.00	0.00	0.00	0.00		0.00	0.00	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table IX-40. Estimated Harvest of Fish Other Than Salmon by Gear Type, Nanwalek, 1993/94

Harvest Units	Subsistence Gear		Removed From Commercial Catch		Rod and Reel		Ice Fishing		Any Method	
	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean	Total	HH Mean
Non-Salmon Fish	4,780.01	129.19	51.58	1.39	7,776.39	210.17	123.33	3.33	12,731.31	344.09
Lingcod	0.00	0.00	17.94	0.48	58.30	1.58	0.00	0.00	76.24	2.06
Pacific Tom Cod	291.52	7.88	0.00	0.00	78.48	2.12	44.85	1.21	414.85	11.21
Pacific Cod (Gray)	380.32	10.28	0.00	0.00	882.62	23.85	0.00	0.00	1,262.93	34.13
Unknown Flounder	252.27	6.82	0.00	0.00	232.09	6.27	0.00	0.00	484.36	13.09
Halibut	1,841.70	49.78	33.64	0.91	5,095.91	137.73	0.00	0.00	6,971.25	188.41
Herring	134.55	3.64	0.00	0.00	0.00	0.00	0.00	0.00	134.55	3.64
Herring Roe	3.92	0.11	0.00	0.00	0.00	0.00	0.00	0.00	3.92	0.11
Black Rockfish (black bass)	15.14	0.41	0.00	0.00	134.55	3.64	0.00	0.00	149.68	4.05
Red Rockfish	0.00	0.00	0.00	0.00	8.97	0.24	0.00	0.00	8.97	0.24
Irish Lord	17.94	0.48	0.00	0.00	19.62	0.53	0.00	0.00	37.56	1.02
Eulachon (Hooligan, Candlefish)	18.22	0.49	0.00	0.00	0.00	0.00	0.00	0.00	18.22	0.49
Unknown Greenling	67.27	1.82	0.00	0.00	96.42	2.61	0.00	0.00	163.70	4.42
Walleye Pollock (Whiting)	15.70	0.42	0.00	0.00	3.14	0.08	0.00	0.00	18.84	0.51
Dolly Varden	1,626.88	43.97	0.00	0.00	973.21	26.30	78.48	2.12	2,678.58	72.39
Rainbow Trout	109.88	2.97	0.00	0.00	145.98	3.95	0.00	0.00	255.86	6.92
Steelhead	4.71	0.13	0.00	0.00	47.09	1.27	0.00	0.00	51.80	1.40

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table IX-41. Percentage of Fish Other Than Salmon Harvested by Gear Type, Nanwalek, 1993/94

Resource	Percent Base	Subsistence Gear Lbs.	Removed from Commercial Catch Lbs.	Rod and Reel Lbs.	Ice Fishing Lbs.
Non-Salmon Fish	resource	37.55	0.41	61.08	0.97
Lingcod	resource	0.00	23.53	76.47	0.00
Pacific Tom Cod	resource	70.27	0.00	18.92	10.81
Pacific Cod (Gray)	resource	30.11	0.00	69.89	0.00
Unknown Flounder	resource	52.08	0.00	47.92	0.00
Halibut	resource	26.42	0.48	73.10	0.00
Herring	resource	100.00	0.00	0.00	0.00
Herring Roe	resource	100.00	0.00	0.00	0.00
Black Rockfish (black bass)	resource	10.11	0.00	89.89	0.00
Red Rockfish	resource	0.00	0.00	100.00	0.00
Irish Lord	resource	47.76	0.00	52.24	0.00
Eulachon (Hooligan, Candlefish)	resource	100.00	0.00	0.00	0.00
Unknown Greenling	resource	41.10	0.00	58.90	0.00
Walleye Pollock (Whiting)	resource	83.33	0.00	16.67	0.00
Dolly Varden	resource	60.74	0.00	36.33	2.93
Rainbow Trout	resource	42.94	0.00	57.06	0.00
Steelhead	resource	9.09	0.00	90.91	0.00

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Table IX-42. Percentage of Households Harvesting Fish Other Than Salmon by Gear Type and Species, Nanwalek, 1993/94

Resource	Subsistence Gear	Removed from Commercial Catch	Rod and Reel	Ice Fishing	Any Method
Non-Salmon Fish	51.52	3.03	75.76	6.06	93.94
Lingcod	0.00	3.03	6.06	0.00	9.09
Pacific Tom Cod	21.21	0.00	18.18	6.06	45.45
Pacific Cod (Gray)	15.15	0.00	42.42	0.00	54.55
Unknown Flounder	9.09	0.00	27.27	0.00	36.36
Halibut	24.24	3.03	54.55	0.00	72.73
Herring	3.03	0.00	0.00	0.00	3.03
Herring Roe	3.03	0.00	0.00	0.00	3.03
Black Rockfish (black bass)	6.06	0.00	15.15	0.00	18.18
Red Rockfish	0.00	0.00	3.03	0.00	3.03
Irish Lord	6.06	0.00	12.12	0.00	12.12
Eulachon (Hooligan, Candlefish)	3.03	0.00	0.00	0.00	3.03
Unknown Greenling	9.09	0.00	18.18	0.00	24.24
Walleye Pollock (Whiting)	3.03	0.00	3.03	0.00	6.06
Dolly Varden	30.30	0.00	39.39	3.03	60.61
Rainbow Trout	9.09	0.00	12.12	0.00	18.18
Steelhead	6.06	0.00	18.18	0.00	24.24

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994

Figure IX-14. Composition of Harvests by Resource Category, Nanwalek, 1987, 1989, 1990/91, 1991/92, 1992/93, and 1993/94

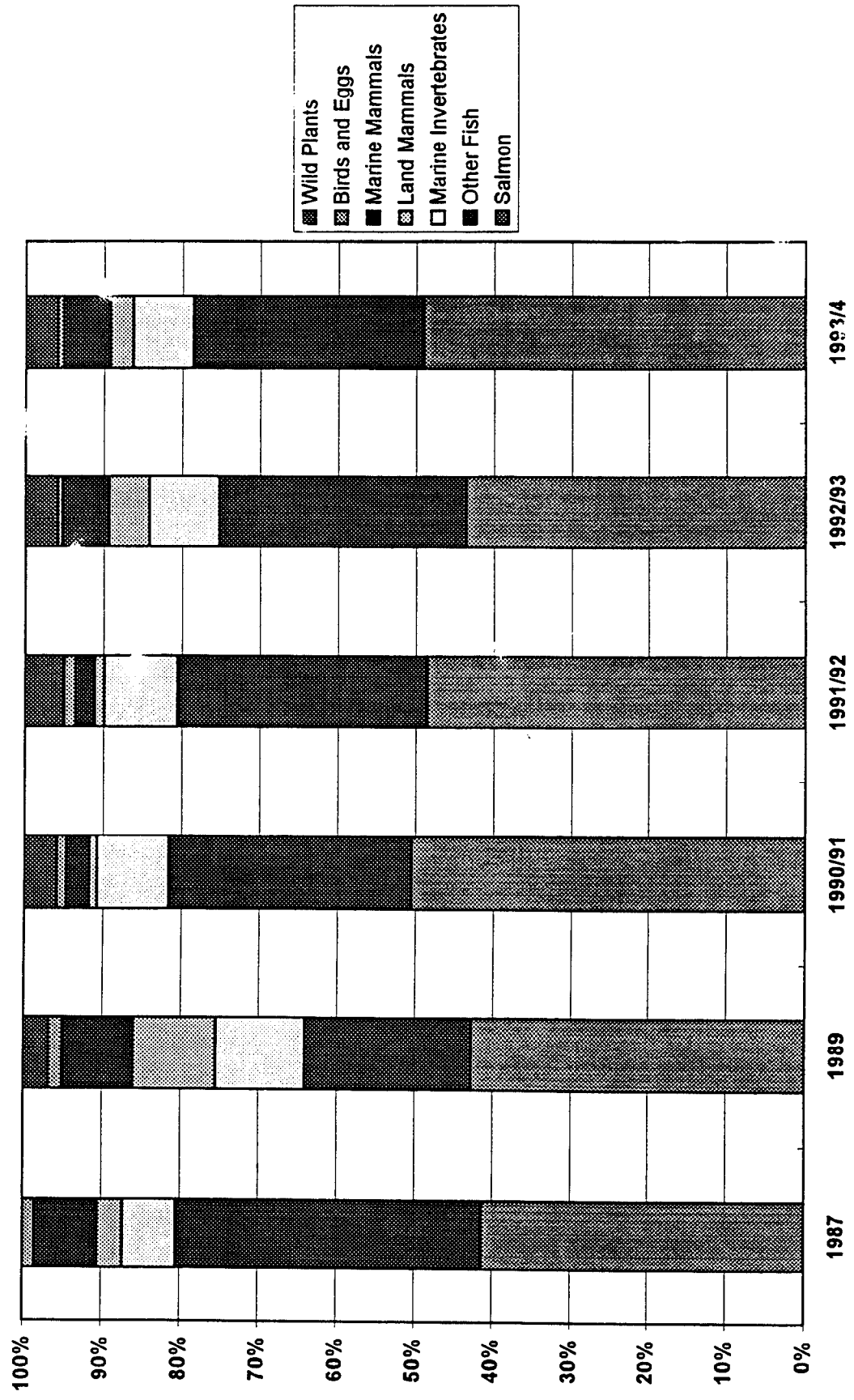


Table IX-43. Uses of Wild Foods, Manawalek

	STUDY YEAR		
	1991	1992	1993
ANY WILD FOODS EATEN YESTERDAY?			
No	9	8	11
Count			
Col %	31.0%	24.2%	35.5%
Yes	20	25	20
Count			
Col %	69.0%	75.8%	64.5%
WILD FOODS AS MAIN PART OF A MEAL			
No	12	14	13
Count			
Col %	41.4%	42.4%	41.9%
Yes	17	19	18
Count			
Col %	58.6%	57.6%	58.1%
HARVEST OF WILD FOODS BY RESPONDENT			
Do Not Know		1	1
Count			
Col %		3.0%	3.2%
No	22	28	22
Count			
Col %	75.9%	84.8%	71.0%
Yes	7	4	8
Count			
Col %	24.1%	12.1%	25.8%
WF HARVESTED BY RELATIVE IN HH			
Do Not Know		1	1
Count			
Col %		3.0%	3.2%
No	23	26	26
Count			
Col %	79.3%	78.8%	83.9%
Yes	6	6	4
Count			
Col %	20.7%	18.2%	12.9%
WF HARVESTED BY RELATIVE IN ANOTHER HH			
Do Not Know			

(continued)

Table IX-43. Uses of Wild Foods, Manawalek

	STUDY YEAR		
	1991	1992	1993
Count			
Col %			
No	19	17	21
Count			
Col %	65.5%	51.5%	67.7%
Yes	10	15	9
Count			
Col %	34.5%	45.5%	29.0%
WF HARVESTED BY RELATIVE IN ANOTHER COMM.			
Do Not Know		1	1
Count			
Col %		3.0%	3.2%
No	29	32	29
Count			
Col %	100.0%	97.0%	93.5%
Yes			1
Count			
Col %			3.2%
WF HARVESTED BY FRIEND IN HH			
Do Not Know		1	1
Count			
Col %		3.0%	3.2%
No	28	32	29
Count			
Col %	96.6%	97.0%	93.5%
Yes	1		1
Count			
Col %	3.4%		3.2%
WF HARVESTED BY FRIEND IN COMMUNITY			
No Response			
Count	1		
Col %	3.4%		
Do Not Know		1	1
Count			
Col %		3.0%	3.2%

(continued)

Table IX-43. Uses of Wild Foods, Nanwalek

	STUDY YEAR		
	1991	1992	1993
No Count Col %	25 86.2%	25 75.8%	30 96.8%
Yes Count Col %	3 10.3%	7 21.2%	
WF HARVESTED BY FRIEND IN ANOTHER COMM.			
No Response Count Col %	1 3.4%		
Do Not Know Count Col %		1 3.0%	1 3.2%
No Count Col %	28 96.6%	30 90.9%	29 93.5%
Yes Count Col %		2 6.1%	1 3.2%

Table IX-44. Safety of Using Subsistence Foods, Nanwalek

	STUDY YEAR		
	1991	1992	1993
DO YOU EAT BIDARKIES?			
No Count Col %			2 6.5%
Yes Count Col %		33 100.0%	29 93.5%
IS EATING BIDARKIES IMPORTANT TO YOU?			
No Count Col %	2 6.9%		
Yes Count Col %	27 93.1%		
BIDARKIE HARVEST AREAS SAFE?			
No Response Count Col %		1 3.0%	
Do Not Know Count Col %	3 11.1%	1 3.0%	2 6.9%
Not Safe Count Col %	9 33.3%	10 30.3%	13 44.8%
Safe Count Col %	15 55.6%	21 63.6%	14 48.3%
WHY BIDARKIES NOT SAFE TO EAT			
No Response Count Col %	2 22.2%		1 7.7%
Oil pollution or fear of contamination Count Col %	6 66.7%	3 30.0%	7 53.8%
Do not trust food safety information Count			2

(continued)

Table IX-44. Safety of Using Subsistence Foods, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Col %			15.4%
Resource looks bad Count Col %		1 10.0%	
Pollution from non-oil spill source Count Col %		4 40.0%	1 7.7%
Unsure about safety Count Col %		2 20.0%	
Safe to eat if you know which ones to take Count Col %	1 11.1%		
Both PSP and pollution Count Col %			1 7.7%
Have seen some people have an allergic reaction Count Col %			1 7.7%
DO YOU EAT CLAMS?			
No Count Col %		2 6.1%	1 3.2%
Yes Count Col %		31 93.9%	30 96.8%
ARE CLAMS SAFE FOR CHILDREN TO EAT?			
Do Not Know Count Col %	3 11.5%	1 3.3%	3 10.0%
Not Safe Count Col %	6 23.1%	13 43.3%	9 30.0%

(continued)

Table IX-44. Safety of Using Subsistence Foods, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Got sick after eating Count Col %		2 15.4%	1 11.1%
Clams are smaller and fewer Count Col %		3 9.1%	2 6.5%
DO YOU EAT SEAL OIL OR SEAL MEAT? No Count Col %		30 90.9%	29 93.5%
Yes Count Col %			
IS EATING SEAL MEAT OR OIL IMPORTANT? No Count Col %		2 6.9%	
Yes Count Col %		27 93.1%	
ARE SEALS FROM HARVEST AREAS SAFE TO EAT? Do Not Know Count Col %		1 3.4%	1 3.4%
Not Safe Count Col %		8 24.6%	7 24.1%
Safe Count Col %		20 69.0%	21 72.4%
WHY SEAL NOT SAFE TO EAT No Response Count Col %		2 33.3%	1 14.3%
Oil pollution or fear of contamination Count		1	6

(continued)

Table IX-44. Safety of Using Subsistence Foods, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Safe Count Col %	17 65.4%	16 53.3%	18 60.0%
WHY CLAIMS NOT SAFE TO EAT No Response Count Col %	2 33.3%	1 7.7%	
Fearful of PSP poisoning Count Col %		3 23.1%	6 66.7%
Oil pollution or fear of contamination Count Col %	3 50.0%	1 7.7%	1 11.1%
Do not trust food safety information Count Col %		1 7.7%	
Resource looks bad Count Col %		1 7.7%	
Would not eat personally Count Col %			
Pollution from non-oil spill source Count Col %		1 7.7%	
Unsure about safety Count Col %		4 30.8%	
Safe to eat if you know which ones to take Count Col %	1 16.7%		
Both PSP and pollution Count Col %			1 11.1%

(continued)

Table IX-44. Safety of Using Subsistence Foods, Manawalek

	STUDY YEAR		
	1991	1992	1993
Col %	50.0%	12.5%	85.7%
Do not trust food safety information Count Col %		2 25.0%	
Resource has been destroyed or depleted Count Col %	1 16.7%		
Unsure about safety Count Col %		5 62.5%	

Table IX-45. Resource Population Statuses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
COMPARED TO 1988: DEER			
Do Not Know Count Col %		3 75.0%	
Less Count Col %	2 66.7%		
Same Count Col %	1 33.3%	1 25.0%	
COMPARED TO 1988: MOOSE			
No Response Count Col %		1 3.2%	
Do Not Know Count Col %		9 29.0%	11 40.7%
Less Count Col %		5 16.1%	11 40.7%
Same Count Col %		12 38.7%	4 14.8%
More Count Col %		4 12.9%	1 3.7%
COMPARED TO 1988: BEAR			
Do Not Know Count Col %		9 29.0%	5 18.5%
Less Count Col %	4 14.8%	3 9.7%	13 48.1%
Same Count Col %	10 37.0%	10 32.3%	8 29.6%

(continued)

Table IX-45. Resource Population Statuses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
More Count Col %	8 29.6%	9 29.0%	1 3.7%
COMPARED TO 1988: HARBOR SEAL			
Do Not Know Count Col %	1 3.7%	6 19.4%	2 7.4%
Less Count Col %	20 74.1%	23 74.2%	22 81.5%
Same Count Col %	5 18.5%	2 6.5%	3 11.1%
More Count Col %	1 3.7%		
COMPARED TO 1988: SEA LIONS			
Do Not Know Count Col %	3 11.1%	5 16.1%	4 14.8%
Less Count Col %	18 66.7%	21 67.7%	17 63.0%
Same Count Col %	5 18.5%	4 12.9%	5 18.5%
More Count Col %	1 3.7%	1 3.2%	1 3.7%
COMPARED TO 1988: SEA DUCKS			
Do Not Know Count Col %	1 3.7%	5 16.1%	3 11.1%
Less Count Col %	18 66.7%	21 67.7%	19 70.4%

(continued)

Table IX-45. Resource Population Statuses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Less Count Col %	11 44.0%	9 29.0%	13 48.1%
Same Count Col %	11 44.0%	10 32.3%	9 33.3%
More Count Col %	2 8.0%	2 6.5%	1 3.7%
COMPARED TO 1988: ROCKFISH			
Do Not Know Count Col %	4 14.8%	11 35.5%	9 34.6%
Less Count Col %	11 40.7%	9 29.0%	12 46.2%
Same Count Col %	11 40.7%	9 29.0%	4 15.4%
More Count Col %	1 3.7%	2 6.5%	1 3.8%
COMPARED TO 1988: DOLLY VARDEN			
Do Not Know Count Col %	1 3.7%	4 12.9%	5 18.5%
Less Count Col %	5 18.5%	7 22.6%	10 37.0%
Same Count Col %	8 29.6%	11 35.5%	9 33.3%
More Count Col %	13 48.1%	9 29.0%	3 11.1%

(continued)

Table IX-45. Resource Population Statuses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Same Count Col %	6 22.2%	4 12.9%	5 18.5%
More Count Col %	2 7.4%	1 3.2%	
COMPARED TO 1988: COMMON MURRE			
Do Not Know Count Col %	9 33.3%	16 51.6%	9 33.3%
Less Count Col %	14 51.9%	11 35.5%	15 55.6%
Same Count Col %	2 7.4%	4 12.9%	2 7.4%
More Count Col %	2 7.4%		1 3.7%
COMPARED TO 1988: SALMON			
Do Not Know Count Col %	3 11.1%	3 9.7%	4 14.8%
Less Count Col %	16 59.3%	24 77.4%	17 63.0%
Same Count Col %	4 14.8%	2 6.5%	4 14.8%
More Count Col %	4 14.8%	2 6.5%	2 7.4%
COMPARED TO 1988: HALIBUT			
Do Not Know Count Col %	1 4.0%	10 32.3%	4 14.8%

(continued)

Table IX-45. Resource Population Statuses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
More Count Col %	1 3.7%		1 3.7%
COMPARED TO 1988: OCTOPUS			
Do Not Know Count Col %	3 11.1%	10 32.3%	5 18.5%
Less Count Col %	13 48.1%	6 19.4%	12 44.4%
Same Count Col %	8 29.6%	12 38.7%	9 33.3%
More Count Col %	3 11.1%	3 9.7%	1 3.7%

Table IX-45. Resource Population Statuses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
COMPARED TO 1988: CLAMS			
Do Not Know Count Col %	2 7.4%	6 20.0%	3 11.1%
Less Count Col %	15 55.6%	15 50.0%	22 81.5%
Same Count Col %	9 33.3%	9 30.0%	2 7.4%
More Count Col %	1 3.7%		
COMPARED TO 1988: BIDARKIES			
Do Not Know Count Col %		4 12.9%	1 3.7%
Less Count Col %	19 70.4%	18 58.1%	20 74.1%
Same Count Col %	7 25.9%	9 29.0%	5 18.5%
More Count Col %	1 3.7%		1 3.7%
COMPARED TO 1988: SEA URCHINS			
Do Not Know Count Col %	8 29.6%	15 48.4%	6 22.2%
Less Count Col %	16 59.3%	13 41.9%	17 63.0%
Same Count Col %	2 7.4%	3 9.7%	3 11.1%

(continued)

Table IX-46. Children's Participation in Subsistence, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Resources were not available Count Col %	2 15.4%		
Were too busy with other affairs Count Col %	4 30.8%	11 57.9%	6 33.3%
Did not trust foods Count Col %	3 23.1%	2 10.5%	3 16.7%
Afraid to take kids to the beach Count Col %	2 15.4%	2 10.5%	2 11.1%
Were not allowed to commercial fish Count Col %			1 5.6%
Less harvesting activity Count Col %		1 5.3%	1 5.6%
Oil pollution threatened everything Count Col %			1 5.6%
Decreased effort because of the spill Count Col %		1 5.3%	2 11.1%
Told not to eat wild food during the spill Count Col %			1 5.6%
Heightened awareness and involvement with children Count Col %		1 5.3%	
Did not want to go out because of the oil spill Count Col %			1 5.6%

Table IX-46. Children's Participation in Subsistence, Nanwalek

	STUDY YEAR		
	1991	1992	1993
DOES YOUR HOUSEHOLD PROCESS WILD FOODS? No Response Count Col %		1 3.0%	1 3.2%
No Count Col %		1 3.0%	
Yes Count Col %		31 93.9%	30 96.8%
DO CHILDREN HELP YOUR HH PROCESS WILD FOODS? No Response Count Col %		1 3.0%	1 3.2%
No Count Col %	13 44.8%	11 33.3%	8 25.8%
Yes Count Col %	16 55.2%	21 63.6%	22 71.0%
DID EVOS AFFECT PARTICIPATION WITH CHILDREN? No Response Count Col %		1 3.2%	
No Count Col %	13 48.1%	11 35.5%	11 37.9%
Yes Count Col %	14 51.9%	19 61.3%	18 62.1%
WHY EVOS AFFECTED PARTICIPATION WITH CHILDREN No Response Count Col %			
No Count Col %	2 15.4%		

(continued)

Table IX-47. Sharing, Nanwalek

	STUDY YEAR		
	1991	1992	1993
More Count Col %	2 7.1%	6 18.2%	6 19.4%
PREV. YEAR: No Response Count Col %		1 3.3%	
Do Not Know Count Col %		2 6.7%	
Less Count Col %	8 29.6%	12 40.0%	8 27.6%
Same Count Col %	14 51.9%	11 36.7%	13 44.8%
More Count Col %	5 18.5%	4 13.3%	8 27.6%
PREV. YEAR: No Response Count Col %		1 3.0%	
Do Not Know Count Col %		1 3.0%	1 3.3%
Less Count Col %		9 36.0%	5 16.7%
Same Count Col %		14 56.0%	15 50.0%
More Count Col %	2 8.0%	7 21.2%	9 30.0%

(continued)

Table IX-47. Sharing, Nanwalek

	STUDY YEAR		
	1991	1992	1993
DID HOUSEHOLD SHARE? No Response Count Col %		1 3.0%	
No Count Col %	5 17.2%		1 3.2%
Yes Count Col %	24 82.8%	32 97.0%	30 96.8%
PREV. YEAR: Do Not Know Count Col %		2 6.1%	
Less Count Col %	11 37.9%	12 36.4%	9 29.0%
Same Count Col %	14 48.3%	11 33.3%	14 45.2%
More Count Col %	4 13.8%	8 24.2%	8 25.8%
PREV. YEAR: No Response Count Col %		1 3.0%	
Do Not Know Count Col %		3 9.1%	1 3.2%
Less Count Col %		9 27.3%	6 19.4%
Same Count Col %	11 39.3%	14 42.4%	18 58.1%

(continued)

Table IX-47. Sharing, Manwalek

	STUDY YEAR		
	1991	1992	1993
More Count Col %	2 8.0%		7 28.0%
PRE-OS: SHARING OF LABOR Do Not Know Count Col %			2 7.7%
Less Count Col %	8 32.0%	14 50.0%	4 15.4%
Same Count Col %	12 48.0%	9 32.1%	13 50.0%
More Count Col %	5 20.0%	5 17.9%	7 26.9%

Table IX-47. Sharing, Manwalek

	STUDY YEAR		
	1991	1992	1993
PRE-OS: SHARING OF WILD RESOURCES Do Not Know Count Col %			1 3.7%
Less Count Col %	13 48.1%	19 67.9%	11 40.7%
Same Count Col %	13 48.1%	7 25.0%	7 25.9%
More Count Col %	1 3.7%	2 7.1%	8 29.6%
PRE-OS: SHARING OF HUNT/FISH GEAR Do Not Know Count Col %	1 3.8%	1 3.6%	1 3.7%
Less Count Col %	9 34.6%	13 46.4%	11 40.7%
Same Count Col %	16 61.5%	13 46.4%	10 37.0%
More Count Col %		1 3.6%	5 18.5%
PRE-OS: SHARING OF MONEY Do Not Know Count Col %		3 11.5%	1 4.0%
Less Count Col %	9 36.0%	15 57.7%	8 32.0%
Same Count Col %	14 56.0%	8 30.8%	9 36.0%

(continued)

Table IX-48. Political Activities, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Col %			7.1%
Fewer elders, traditional people passed away			
Count			1
Col %			7.1%
Elders not as active			
Count			1
Col %			7.1%
Elders dissatisfied, frustrated, bitter			
Count			1
Col %			7.1%
Younger individuals usurping authority			
Count			1
Col %			7.1%
Dissatisfaction with traditional ways			
Count			1
Col %			7.1%
Trying to maintain culture			
Count			1
Col %			7.1%
Elders more aware of the power they hold			
Count			1
Col %			7.1%
Elders knowledge is not appreciated or recognized			
Count			1
Col %			7.1%
Elders knowledge is more appreciated or recognized			
Count			1
Col %			7.1%
Change in the direction of the community			
Count			1
Col %			7.1%

(continued)

Table IX-48. Political Activities, Nanwalek

	STUDY YEAR		
	1991	1992	1993
LAST 3 YRS.: ELDERS INFLUENCE			
Decreased			
Count	17		
Col %	58.6%		
Same			
Count	7		
Col %	24.1%		
Increased			
Count	5		
Col %	17.2%		
LAST 4 YRS.: ELDERS INFLUENCE			
Do Not Know			
Count		2	
Col %		6.5%	
Decreased			
Count		16	
Col %		51.6%	
Same			
Count		8	
Col %		25.8%	
Increased			
Count		5	
Col %		16.1%	
LAST 5 YRS.: ELDERS INFLUENCE			
Decreased			
Count			12
Col %			44.4%
Same			
Count			13
Col %			48.1%
Increased			
Count			2
Col %			7.4%
LAST 5 YRS.: ELDERS INFLUENCE: WHY			
No Response			
Count			1

(continued)

Table IX-48. Political Activities, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Count	15		
Col %	51.7%		
Almost Always			
Count	9		
Col %	31.0%		
LAST YEAR: ATTEND PUBLIC MEETINGS			
No Response			
Count			1
Col %			3.2%
Do Not Know			
Count		3	
Col %		9.1%	
Never			
Count		3	6
Col %		9.1%	19.4%
1.00			
Count		2	
Col %		6.1%	
2.00			
Count		2	7
Col %		6.1%	22.6%
3.00			
Count		8	4
Col %		24.2%	12.9%
4.00			
Count		3	3
Col %		9.1%	9.7%
5.00			
Count		1	2
Col %		3.0%	6.5%
6.00			
Count		3	1
Col %		9.1%	3.2%
7.00			
Count		2	

(continued)

Table IX-48. Political Activities, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Other activities occupy elders time and attention			
Count			1
Col %			7.1%
Local leaders are concerned only with themselves			
Count			2
Col %			14.3%
PRE-EVOS: ATTEND PUBLIC MEETINGS			
Never			
Count	1		
Col %	3.6%		
Sometimes			
Count	18		
Col %	64.3%		
Almost Always			
Count	9		
Col %	32.1%		
PRE-EVOS: ATTEND PUBLIC MEETINGS			
No Response			
Count			1
Col %			3.7%
Less			
Count		12	8
Col %		38.7%	29.6%
Same			
Count		10	10
Col %		32.3%	37.0%
More			
Count		9	8
Col %		29.0%	29.6%
LAST YEAR: ATTEND PUBLIC MEETINGS			
Never			
Count	5		
Col %	17.2%		
Sometimes			

(continued)

Table IX-48. Political Activities, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Col %	6.9%	9.1%	12.9%
Yes Count Col %	26 89.7%	30 90.9%	27 87.1%
BELONG TO NATIVE CORPORATION? No Count Col %	3 10.3%	4 12.1%	5 16.1%
Yes Count Col %	26 89.7%	29 87.9%	26 83.9%
REGIONAL NATIVE CORPORATION None Count Col %			1 3.8%
Calista Corp. Count Col %		1 3.4%	
Chugach Alaska Corp. Count Col %	21 80.8%	24 82.8%	22 84.6%
Cook Inlet Region, Inc. Count Col %	4 15.4%	4 13.8%	3 11.5%
Sealaska Corp. Count Col %	1 3.8%		
VOTE IN LAST REG. CORP. ELECTION? No Response Count Col %	2 7.7%		2 7.7%
No Count Col %	5 19.2%	8 27.6%	6 23.1%
Yes			

(continued)

Table IX-48. Political Activities, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Col %		6.1%	
10.00 Count Col %		3 9.1%	5 16.1%
11.00 Count Col %		1 3.0%	
15.00 Count Col %		1 3.0%	
25.00 Count Col %			1 3.2%
50.00 Count Col %			1 3.2%
99.00 Count Col %		1 3.0%	
VOTE IN LAST CITY COUNCIL ELECTION? Do Not Know Count Col %	1 4.8%		
No Count Col %	4 19.0%		
Yes Count Col %	16 76.2%		
VOTE IN LAST STATE-WIDE ELECTION? Do Not Know Count Col %	1 3.4%		
No Count	2	3	4

(continued)

Table IX-48. Political Activities, Nanwalek

	STUDY YEAR		
	1991	1992	1993
HAS VIEW OF LEADER CHANGED SINCE EVOS?			
No Response Count Col %	1 3.4%	2 6.1%	3 11.1%
Do Not Know Count Col %	1 3.4%	2 6.1%	1 3.7%
No Count Col %	19 65.5%	16 48.5%	14 51.9%
Yes Count Col %	8 27.6%	13 39.4%	9 33.3%
WHY POST EVOS VIEW OF LEADERS			
No Response Count Col %			2 16.7%
Do Not Know Count Col %		1 7.1%	
Trust Count Col %	7 87.5%	3 21.4%	7 58.3%
Awareness/involvement Count Col %	1 12.5%		1 8.3%
Education Count Col %		4 28.6%	
Level headed/reasonable Count Col %		2 14.3%	1 8.3%
Represents concerns Count Col %		2 14.3%	

(continued)

Table IX-48. Political Activities, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Count Col %	19 75.1%	21 72.4%	18 69.2%
VILLAGE NATIVE CORPORATION			
No Response Count Col %			1 3.8%
Do Not Know Count Col %	1 4.2%		
None, At Large Count Col %			4 15.4%
English Bay Corporation (Nanwalek)			
Count Col %	19 79.2%	22 81.5%	20 76.9%
Port Graham Corporation			
Count Col %	3 12.5%	2 7.4%	1 3.8%
Seldovia Native Association			
Count Col %	1 4.2%	2 7.4%	
Sitnasuak Native Corporation (Home)			
Count Col %		1 3.7%	
VOTE IN LAST NATIVE VILLAGE CORP. ELECTION?			
No Response Count Col %			2 8.3%
No Count Col %		3 11.1%	2 8.3%
Yes Count Col %	24 100.0%	24 88.9%	20 83.3%

(continued)

Table IX-48. Political Activities, Manawalek

	STUDY YEAR		
	1991	1992	1993
Concern Count Col %		1 7.1%	1 8.3%
Decisive Count Col %			1 8.3%
Aware of Animosity Count Col %		2 14.3%	
Environmental awareness Count Col %		1 7.1%	
Issue specific reasons Count Col %			1 8.3%
Involvement Count Col %		1 7.1%	1 8.3%
27.00 Count Col %			1 8.3%

Table IX-49. Significance of Place, Nanwaitek

	STUDY YEAR		
	1991	1992	1993
Yes	21	28	22
Count			
Col %	72.4%	84.8%	71.0%
LIVE HERE: RELATIVES LIVE HERE			
No	5	2	6
Count			
Col %	17.2%	6.1%	19.4%
Yes	24	31	25
Count			
Col %	82.8%	93.9%	80.6%
LIVE HERE: MARRIED PERSON FROM HERE			
No Response		1	
Count			
Col %		3.0%	
No	17	15	19
Count			
Col %	58.6%	45.5%	61.3%
Yes	12	17	12
Count			
Col %	41.4%	51.5%	38.7%
LIVE HERE: ALWAYS LIVED HERE			
No	6	7	10
Count			
Col %	20.7%	21.2%	32.3%
Yes	23	26	21
Count			
Col %	79.3%	78.8%	67.7%
LIVE HERE: FRIENDS LIVE HERE			
No	6	4	4
Count			
Col %	20.7%	12.1%	12.9%
Yes	23	29	27
Count			
Col %	79.3%	87.9%	87.1%
LIVE HERE: HUNTING & FISHING HERE			
No Response			

(continued)

Table IX-49. Significance of Place, Nanwaitek

	STUDY YEAR		
	1991	1992	1993
MAIN REASON MOVED TO COMMUNITY			
No Response			
Count	2	1	1
Col %	6.9%	3.2%	3.2%
Born or reared here			
Count	17	26	21
Col %	58.6%	78.8%	67.7%
Relatives (family)			
Count	1	1	5
Col %	3.4%	3.0%	16.1%
Married a person born or reared here			
Count	3	1	
Col %	10.3%	3.0%	
Family has always lived here			
Count	1	1	
Col %	3.0%	3.0%	
Subsistence opportunities			
Count			1
Col %			3.2%
Employment reasons			
Count	4	2	3
Col %	13.8%	6.1%	9.7%
Pace of Life			
Count	1	1	
Col %	3.4%	3.0%	
Not here by choice			
Count	1		
Col %	3.4%		
Opportunity to be involved and make a difference			
Count		1	
Col %		3.0%	
LIVE HERE: WHERE PERSON IS FROM			
No	8	5	9
Count			
Col %	27.6%	15.2%	29.0%

(continued)

Table IX-49. Significance of Place, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Count			
Col %			
LIVE HERE: STORES			
No	25	25	25
Count	86.2%	75.8%	80.6%
Col %			
Yes	20	28	26
Count	69.0%	84.8%	83.9%
Col %			
LIVE HERE: MEDICAL SERVICES			
No	9	5	5
Count	31.0%	15.2%	16.1%
Col %			
Yes	12	12	20
Count	41.4%	36.4%	64.5%
Col %			
LIVE HERE: OTHER SERVICES			
No	17	21	11
Count	58.6%	63.6%	35.5%
Col %			
Yes	1		1
Count	3.4%		3.2%
Col %			
LIVE HERE: BEAUTY OF AREA			
No	19	22	22
Count	65.5%	66.7%	71.0%
Col %			
Yes	9	11	8
Count	31.0%	33.3%	25.8%
Col %			
LIVE HERE: HOUSING AVAILABLE			
No	29	32	30
Count			
Col %			

(continued)

Table IX-49. Significance of Place, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Count			
Col %			
LIVE HERE: JOB OPPORTUNITIES HERE			
No	1	1	1
Count	3.4%	3.0%	3.2%
Col %			
Yes	28	32	28
Count	96.6%	97.0%	90.3%
Col %			
LIVE HERE: EDUCATIONAL OPPORTUNITIES			
No	13	21	19
Count	44.8%	63.6%	61.3%
Col %			
Yes	16	12	12
Count	55.2%	36.4%	38.7%
Col %			
LIVE HERE: COST OF LIVING			
No	12	7	11
Count	41.4%	21.2%	35.5%
Col %			
Yes	17	26	20
Count	58.6%	78.8%	64.5%
Col %			
LIVE HERE: HOUSING AVAILABLE			
No	7	11	12
Count	24.1%	33.3%	38.7%
Col %			
Yes	22	21	18
Count	75.9%	63.6%	58.1%
Col %			
LIVE HERE: HOUSING AVAILABLE			
No	4	8	6
Count	13.8%	24.2%	19.4%
Col %			

(continued)

Table IX-49. Significance of Place, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Climate Count Col %	1 33.3%		
This is where they established their home Count Col %		1 7.1%	2 22.2%
Want to help preserve natural resource of the area Count Col %			1 11.1%
MAIN REASON REMAINING IN COMMUNITY No Response Count Col %		5 15.2%	1 3.2%
Born or reared here Count Col %	10 34.5%	3 9.1%	6 19.4%
Relatives (family) Count Col %	4 13.8%		5 16.1%
Family has always lived here Count Col %		3 9.1%	2 6.5%
Friends Count Col %	1 3.4%	1 3.0%	2 6.5%
Subsistence opportunities Count Col %	3 10.3%	3 9.1%	3 9.7%
Employment reasons Count Col %	3 10.3%	3 9.1%	2 6.5%
Educational opportunities Count Col %		1 3.0%	

(continued)

Table IX-49. Significance of Place, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Economic reasons Count Col %	1 3.4%		
Environmental qualities Count Col %	5 17.2%	4 12.1%	2 6.5%
Size of the community Count Col %			1 3.2%
Less drinking or drugs Count Col %		1 3.0%	
Personal freedoms (politics) Count Col %		3 9.1%	
Pace of Life Count Col %		2 6.1%	2 6.5%
Quality of Life Count Col %	1 3.4%	1 3.0%	2 6.5%
Cultural Reasons Count Col %	1 3.4%	2 6.1%	
Religious Reasons Count Col %		1 3.0%	2 6.5%
Want to help preserve natural resource of the area Count Col %			1 3.2%
POST-EVOS: CHANGE IN LIKING COMMUNITY No Response Count Col %		1 3.2%	

(continued)

Table IX-49. Significance of Place, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Col %	100.0%	97.0%	96.8%
LIVE HERE: SIZE OF COMMUNITY			
No Response			
Count			1
Col %			3.2%
No			
Count	3	5	1
Col %	10.3%	15.2%	3.2%
Yes			
Count	26	28	29
Col %	89.7%	84.8%	93.5%
LIVE HERE: LESS CRIME			
No Response			
Count			1
Col %			3.2%
No			
Count	6	7	5
Col %	20.7%	21.2%	16.1%
Yes			
Count	23	26	25
Col %	79.3%	78.8%	80.6%
LIVE HERE: LESS DRINKING/DRUGS			
No Response			
Count			2
Col %			6.5%
No			
Count	21	25	20
Col %	72.4%	75.8%	64.5%
Yes			
Count	8	8	9
Col %	27.6%	24.2%	29.0%
LIVE HERE: NECESSARY PERSONAL FREEDOMS			
No Response			
Count			1
Col %			3.2%

(continued)

Table IX-49. Significance of Place, Nanwalek

	STUDY YEAR		
	1991	1992	1993
No			
Count	3	1	4
Col %	10.3%	3.0%	12.9%
Yes			
Count	26	32	26
Col %	89.7%	97.0%	83.9%
LIVE HERE: RECREATIONAL OPPORTUNITIES			
No Response			
Count			1
Col %			3.2%
No			
Count	4	10	3
Col %	13.8%	30.3%	9.7%
Yes			
Count	25	23	27
Col %	86.2%	69.7%	87.1%
OTHER REASONS FOR LIVING IN COMMUNITY			
Pace of Life			
Count			2
Col %			22.2%
Quality of Life			
Count	1	5	1
Col %	33.3%	35.7%	11.1%
Cultural Reasons			
Count			1
Col %			11.1%
Religious Reasons			
Count			2
Col %			22.2%
Location			
Count	1		
Col %	33.3%		
Not here by choice			
Count			1
Col %			7.1%

(continued)

Table IX-49. Significance of Place, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Financial situation worse Count Col %		1 14.3%	2 20.0%
Other reasons Count Col %		1 14.3%	1 10.0%
Lived here longer Count Col %			3 30.0%
Increased appreciation of surroundings Count Col %		2 40.0%	
Not enough attention to people problems Count Col %		1 14.3%	
RATHER LIVE IN ANOTHER COMMUNITY No Response Count Col %			1 3.2%
Do Not Know Count Col %		3 9.1%	
No Count Col %		25 86.2%	15 48.4%
Yes Count Col %		4 13.8%	15 48.4%
EXPECT TO LIVE IN REGION WHEN OLD No Response Count Col %			1 3.2%
Do Not Know Count Col %		2 6.9%	5 16.1%

(continued)

Table IX-49. Significance of Place, Manwalek

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count Col %	1 3.8%		2 7.4%
Less Count Col %	1 3.8%	5 16.1%	3 11.1%
Same Count Col %	21 80.8%	23 74.2%	18 66.7%
More Count Col %	3 11.5%	2 6.5%	4 14.8%
POST-EVOS: WHY CHANGE IN LIKING COMMUNITY No Response Count Col %	1 20.0%	2 28.6%	
Do Not Know Count Col %			1 10.0%
Non-specific Count Col %		1 14.3%	1 10.0%
Oil contamination/fear of oil contamination Count Col %		1 14.3%	
Increased dissension/conflict/violence Count Col %	1 20.0%		
Increased drug/alcohol abuse Count Col %			1 10.0%
Animals harvest to find/hunt/fish Count Col %			1 10.0%

(continued)

Table IX-49. Significance of Place, Nanwalek

	STUDY YEAR		
	1991	1992	1993
No Count Col %	3 10.3%	5 15.2%	2 6.5%
Yes Count Col %	24 82.8%	25 75.8%	23 74.2%
CONFIDENT ABOUT HUNT/FISH/GATHERING			
No Response Count Col %		1 3.0%	
Do Not Know Count Col %	4 13.8%	4 12.1%	2 6.5%
No Count Col %	7 24.1%	4 12.1%	11 35.5%
Yes Count Col %	18 62.1%	24 72.7%	18 58.1%
WHY UNCONFIDENT ABOUT HUNTING/FISHING/GATHERING			
No Response Count Col %	1 11.1%		
Do Not Know Count Col %	1 11.1%		
Increased restrictions Count Col %	2 22.2%	3 37.5%	10 90.9%
Uncertainty about the future Count Col %	1 11.1%	3 37.5%	2 18.2%
Increased development Count Col %			1 9.1%

(continued)

Table IX-49. Significance of Place, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Timber and logging Count Col %		1 12.5%	1 9.1%
Uncertainty about food safety Count Col %		1 12.5%	1 9.1%
Native ownership of lands Count Col %	2 22.2%	1 12.5%	4 36.4%
Population pressure Count Col %	1 11.1%	2 25.0%	1 9.1%
Vulnerable to environmental damage Count Col %	1 11.1%	2 25.0%	2 18.2%
Miscellaneous reasons Count Col %	1 11.1%	1 12.5%	
Reduced resource availability Count Col %		1 12.5%	
Poor resource management Count Col %		1 12.5%	
CONTINUE TO LIVE HERE IF NO WILD FOOD Do Not Know Count Col %	1 3.4%	5 15.2%	3 9.7%
No Count Col %	11 37.9%	7 21.2%	8 25.8%
Yes Count Col %	17 58.6%	21 63.6%	20 64.5%

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: US COAST GUARD			
No Response Count Col %	1 3.4%		2 7.4%
Do Not Know Count Col %	6 20.7%	12 37.5%	8 29.6%
Not Effective Count Col %	9 31.0%	9 28.1%	10 37.0%
Somewhat Count Col %	10 34.5%	5 15.6%	2 7.4%
Effective Count Col %	3 10.3%	6 18.8%	5 18.5%
EFFECTIVENESS EVOS: ADEC			
No Response Count Col %	1 3.4%		2 7.4%
Do Not Know Count Col %	7 24.1%	12 37.5%	11 40.7%
Not Effective Count Col %	4 13.8%	7 21.9%	7 25.9%
Somewhat Count Col %	13 44.8%	8 25.0%	5 18.5%
Effective Count Col %	4 13.8%	5 15.6%	2 7.4%
EFFECTIVENESS EVOS: INSURANCE COMPANIES			
Do Not Know Count Col %	12 44.4%		

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: LOCAL NATIVE PROFIT			
Not Effective Count Col %	13 48.1%		2 7.4%
Somewhat Count Col %	2 7.4%		
No Response Count Col %			11 40.7%
Do Not Know Count Col %	5 17.2%	10 31.3%	4 14.8%
Not Effective Count Col %	12 41.4%	11 34.4%	5 18.5%
Somewhat Count Col %	10 34.5%	3 9.4%	5 18.5%
Effective Count Col %	2 6.9%	8 25.0%	2 7.4%
EFFECTIVENESS EVOS: NATIVE NON-PROFITS			
No Response Count Col %			7 25.9%
Do Not Know Count Col %	3 10.3%	12 37.5%	4 14.8%
Not Effective Count Col %	11 37.9%	8 25.0%	6 22.2%
Somewhat Count Col %	13 44.8%	5 15.6%	

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: CITY COUNCIL			
Effective Count Col %			1 100.0%
Do Not Know Count Col %		3 23.1%	
Not Effective Count Col %		3 23.1%	
Somewhat Count Col %		3 23.1%	
Effective Count Col %	5 38.5%	4 30.8%	
EFFECTIVENESS EVOS: IRA COUNCIL			
No Response Count Col %		1 3.7%	2 7.4%
Do Not Know Count Col %		6 22.2%	4 14.8%
Not Effective Count Col %		3 11.1%	7 25.9%
Somewhat Count Col %		6 37.5%	4 14.8%
Effective Count Col %	1 6.3%	10 37.0%	10 37.0%
EFFECTIVENESS EVOS: CHAMBER OF COMMERCE			
No Response Count Col %			1 100.0%

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
EFFECTIVENESS EVOS: BOROUGH GOVERNMENT			
Effective Count Col %	2 6.9%	7 21.9%	8 29.6%
Do Not Know Count Col %		1 3.4%	2 7.4%
Not Effective Count Col %	7 25.0%	10 34.5%	9 33.3%
Somewhat Count Col %	16 57.1%	11 37.9%	12 44.4%
Effective Count Col %	5 17.9%	4 13.8%	2 7.4%
EFFECTIVENESS EVOS: VILLAGE CORPORATION			
No Response Count Col %		3 10.3%	2 7.4%
Do Not Know Count Col %		1 3.3%	2 9.5%
Not Effective Count Col %	2 6.9%	10 33.3%	5 23.8%
Somewhat Count Col %	9 31.0%	10 33.3%	7 33.3%
Effective Count Col %	11 37.9%	3 10.0%	2 9.5%
Effective Count Col %	7 24.1%	6 20.0%	5 23.8%

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanmulek

	STUDY YEAR		
	1991	1992	1993
Col %	56.3%		44.4%
Somewhat Count	3	1	2
Col %	18.8%	20.0%	22.2%
Effective Count	3	1	2
Col %	18.8%	20.0%	22.2%
EFFECTIVENESS EVOS: OTHER BUSINESS GROUPS			
Not Effective Count	8		
Col %	57.1%		
Somewhat Count	3		
Col %	21.4%		
Effective Count	3		
Col %	21.4%		
EFFECTIVENESS EVOS: SCHOOLS			
Do Not Know Count	3		
Col %	10.3%		
Not Effective Count	11		
Col %	37.9%		
Somewhat Count	6		
Col %	20.7%		
Effective Count	9		
Col %	31.0%		
EFFECTIVENESS EVOS: CHURCHES			
Do Not Know Count	2		
Col %	6.9%		

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanmulek

	STUDY YEAR		
	1991	1992	1993
Do Not Know Count		3	
Col %		75.0%	
Not Effective Count	1		
Col %	100.0%		
Somewhat Count		1	
Col %		25.0%	
EFFECTIVENESS EVOS: COMMERCIAL BUSINESSES			
No Response Count			1
Col %			11.1%
Do Not Know Count	2	2	1
Col %	8.7%	33.3%	11.1%
Not Effective Count	6	2	1
Col %	26.1%	33.3%	11.1%
Somewhat Count	7	1	4
Col %	30.4%	16.7%	44.4%
Effective Count	8	1	2
Col %	34.8%	16.7%	22.2%
EFFECTIVENESS EVOS: COMMERCIAL FISHING GROUPS			
No Response Count			1
Col %			11.1%
Do Not Know Count	1	3	
Col %	6.3%	60.0%	
Not Effective Count	9		4

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Not Effective Count Col %	6 13.8%		
Somewhat Count Col %	2 6.9%		
Effective Count Col %	21 72.4%		
EFFECTIVENESS EVOS: HEALTH SERVICES No Response Count Col %			2 7.4%
Do Not Know Count Col %		4 12.9%	1 3.7%
Not Effective Count Col %		6 19.4%	5 18.5%
Somewhat Count Col %		10 32.3%	5 18.5%
Effective Count Col %		11 35.5%	14 51.9%
EFFECTIVENESS EVOS: MEDICAL PROFESSION Do Not Know Count Col %	5 17.9%		
Not Effective Count Col %	2 7.1%		
Somewhat Count Col %	11 39.3%		

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Effective Count Col %	10 35.7%		
EFFECTIVENESS EVOS: HEALTH AIDES No Response Count Col %	1 3.4%		
Do Not Know Count Col %	4 13.8%		
Somewhat Count Col %	8 27.6%		
Effective Count Col %	16 55.2%		
EFFECTIVENESS EVOS: SOCIAL WORKERS No Response Count Col %			2 8.0%
Do Not Know Count Col %	5 17.2%	8 34.8%	9 36.0%
Not Effective Count Col %	10 34.5%	7 30.4%	6 24.0%
Somewhat Count Col %	9 31.0%	4 17.4%	3 12.0%
Effective Count Col %	5 17.2%	4 17.4%	5 20.0%
EFFECTIVENESS EVOS: LOCAL LAW ENFORCEMENT No Response Count		3	2

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Col %		9.4%	7.4%
Do Not Know Count Col %	3 10.3%	5 15.6%	7 25.9%
Not Effective Count Col %	8 27.6%	6 18.8%	7 25.9%
Somewhat Count Col %	11 37.9%	9 28.1%	2 7.4%
Effective Count Col %	7 24.1%	9 28.1%	9 33.3%
EFFECTIVENESS EVOS: STATE LAW ENFORCEMENT No Response Count Col %			2 11.1%
Do Not Know Count Col %	10 34.5%	6 40.0%	9 50.0%
Not Effective Count Col %	6 20.7%	6 40.0%	4 22.2%
Somewhat Count Col %	7 24.1%	2 13.3%	
Effective Count Col %	6 20.7%	1 6.7%	3 16.7%
EFFECTIVENESS EVOS: EXXON No Response Count Col %			2 7.4%
Do Not Know			

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Count Col %	2 6.9%	11 34.4%	4 14.8%
Not Effective Count Col %	17 58.6%	14 43.8%	17 63.0%
Somewhat Count Col %	9 31.0%	4 12.5%	3 11.1%
Effective Count Col %	1 3.4%	3 9.4%	1 3.7%
EFFECTIVENESS EVOS: VECO No Response Count Col %			2 7.4%
Do Not Know Count Col %	2 6.9%	4 12.5%	1 3.7%
Not Effective Count Col %	9 31.0%	9 28.1%	12 44.4%
Somewhat Count Col %	10 34.5%	8 25.0%	4 14.8%
Effective Count Col %	8 27.6%	11 34.4%	8 29.6%
EFFECTIVENESS EVOS: ALYESKA PIPELINE No Response Count Col %			2 7.4%
Do Not Know Count Col %	11 39.3%	19 59.4%	15 55.6%
Not Effective			

(continued)

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Effective Count Col %		2 100.0%	
EFFECTIVENESS EVOS: OILED MAYORS No Response Count Col %			2 7.4%
Do Not Know Count Col %		19 59.4%	16 59.3%
Not Effective Count Col %		9 28.1%	7 25.9%
Somewhat Count Col %		3 9.4%	2 7.4%
Effective Count Col %		1 3.1%	

Table IX-50. Effectiveness of Oil Spill Responses, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Count Col %	14 50.0%	12 37.5%	8 29.6%
Somewhat Count Col %	3 10.7%	1 3.1%	1 3.7%
Effective Count Col %			1 3.7%
EFFECTIVENESS EVOS: COOK INLET REGIONAL CITIZENS ADVISORY COUNCIL Somewhat Count Col %		1 100.0%	
EFFECTIVENESS EVOS: FEDERALLY MANDATED SPILL RESPONSE GROUPS Do Not Know Count Col %	3 42.9%		
Not Effective Count Col %	1 14.3%	1 100.0%	1 100.0%
Somewhat Count Col %	2 28.6%		
Effective Count Col %	1 14.3%		
EFFECTIVENESS EVOS: OTHER MULTI-AGENCY RESPONSE GROUPS FOR EVOS Somewhat Count Col %		1 100.0%	
EFFECTIVENESS EVOS: OTHER UNIDENTIFIED GROUPS Do Not Know Count Col %			1 100.0%

(continued)

Table IX-51. Subsistence Food Safety Information, Nanwalek

	STUDY YEAR		
	1991	1992	1993
ADEQUATELY INFORMED ABOUT FOOD SAFETY?			
No Response Count Col %		1 3.0%	
Do Not Know Count Col %			3 10.7%
No Count Col %	8 28.6%	14 42.4%	10 35.7%
Somewhat Count Col %	2 7.1%	5 15.2%	4 14.3%
Yes Count Col %	18 64.3%	13 39.4%	11 39.3%
WHY NOT ADEQUATELY INFORMED			
No Response Count Col %	2 20.0%	3 15.8%	1 5.9%
Do Not Know Count Col %			1 5.9%
Lack of clear or definitive advice Count Col %	3 30.0%	6 31.6%	3 17.6%
Received incomplete information Count Col %	2 20.0%	4 21.1%	3 17.6%
Received no information Count Col %		3 15.8%	2 11.8%
Did not trust or believe advice Count Col %		3 15.8%	2 11.8%

(continued)

Table IX-51. Subsistence Food Safety Information, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Untimely Count Col %	1 10.0%		1 5.9%
Personal observations contradicted advice or findings Count Col %	1 10.0%	2 10.5%	
Heard about damaged resources which contradicted advice Count Col %	1 10.0%	1 5.3%	
Got sick from eating wild resources Count Col %		2 10.5%	
Believe information was deliberately withheld Count Col %	1 10.0%		1 5.9%
There were not enough tests Count Col %		1 5.3%	1 5.9%
Information was too difficult to understand Count Col %	1 10.0%		
Personal responsibility to keep informed Count Col %			1 5.9%
Decided themselves not to eat resource out of fear Count Col %			1 5.9%

Table IX-52. OCS Development Effects, Nanwalek

	STUDY YEAR		
	1991	1992	1993
OCS EFFECT: FISH			
No Response Count Col %		1 3.0%	3 9.7%
Do Not Know Count Col %	2 6.9%	7 21.2%	3 9.7%
Decrease Count Col %	17 58.6%	17 51.5%	26 83.9%
No Change Count Col %	10 34.5%	6 18.2%	2 6.5%
Increase Count Col %		2 6.1%	
OCS EFFECT: SHELLFISH			
No Response Count Col %		1 3.0%	
Do Not Know Count Col %	2 6.9%	8 24.2%	3 9.7%
Decrease Count Col %	19 65.5%	16 48.5%	26 83.9%
No Change Count Col %	8 27.6%	7 21.2%	2 6.5%
Increase Count Col %		1 3.0%	
OCS EFFECT: MARINE MAMMALS			
No Response Count Col %		1 3.0%	

(continued)

Table IX-52. OCS Development Effects, Nanwalek

	STUDY YEAR		
	1991	1992	1993
OCS EFFECT: LAND MAMMALS			
No Response Count Col %		1 3.0%	
Do Not Know Count Col %	4 13.8%	11 33.3%	8 25.8%
Decrease Count Col %	15 51.7%	11 33.3%	15 48.4%
No Change Count Col %	10 34.5%	10 30.3%	8 25.8%
OCS EFFECT: BIRDS			
No Response Count Col %		1 3.0%	
Do Not Know Count Col %	2 6.9%	6 18.2%	3 9.7%
Decrease Count Col %	19 65.5%	20 60.6%	24 77.4%

(continued)

Table IX-52. OCS Development Effects, Nanwalek

	STUDY YEAR		
	1991	1992	1993
CONTAIN AND CLEANUP LARGE OIL SPILL			
No Response Count Col %		1 3.0%	1 3.2%
Do Not Know Count Col %	2 6.9%	3 9.1%	1 3.2%
No Count Col %	23 75.9%	23 69.7%	22 71.0%
Maybe Count Col %	2 6.9%	6 18.2%	8 25.8%
Yes Count Col %	3 10.3%		
ARE YOU IN FAVOR OF THE SEARCH FOR OIL?			
No Response Count Col %		1 3.0%	1 3.2%
Do Not Know Count Col %		4 12.1%	2 6.5%
No Count Col %		20 60.6%	22 71.0%
Yes Count Col %		8 24.2%	6 19.4%
OPINION ON SEARCH FOR OIL			
No Response Count Col %		5 15.2%	2 6.5%
Do Not Know Count Col %		3 9.1%	2 6.5%

(continued)

Table IX-52. OCS Development Effects, Nanwalek

	STUDY YEAR		
	1991	1992	1993
No Change Count Col %	8 27.6%	5 15.2%	4 12.9%
Increase Count Col %		1 3.0%	
OCS DEVELOPMENT = MORE JOBS?			
No Response Count Col %		1 3.0%	
Do Not Know Count Col %	4 13.8%	4 12.1%	9 29.0%
No Count Col %	13 44.8%	16 48.5%	15 48.4%
Yes Count Col %	12 41.4%	12 36.4%	7 22.6%
CONTAIN AND CLEANUP SMALL OIL SPILL			
No Response Count Col %		1 3.0%	
Do Not Know Count Col %		4 12.1%	2 6.5%
No Count Col %	10 34.5%	15 45.5%	14 45.2%
Maybe Count Col %	11 37.9%	13 39.4%	15 48.4%
Yes Count Col %	8 27.6%		

(continued)

Table IX-52. OCS Development Effects, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Reduce dependency on foreign oil/enhance national security Count Col %		1 3.0%	
Create more jobs in the community Count Col %		2 6.1%	2 6.5%
Energy needed Count Col %		1 3.0%	
Need to know extent of resource availability and reserves Count Col %		1 3.0%	2 6.5%
Beneficial to the economy Count Col %		1 3.0%	1 3.2%
Adverse experiences with other development Count Col %		2 6.1%	2 6.5%
Pollution concerns and impacts Count Col %		7 21.2%	11 35.5%
Aesthetic reasons Count Col %		2 6.1%	
Adverse impact of security zones and traffic zones Count Col %		1 3.0%	
Adverse impact on subsistence and commercial fishing Count Col %		6 18.2%	2 6.5%

(continued)

Table IX-52. OCS Development Effects, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Biological (non-pollution) - migration patterns Count Col %			1 3.2%
Distrust of the oil industry Count Col %			1 3.2%
Potential damage to renewable resources Count Col %		7 21.2%	1 3.2%
Against any development Count Col %		3 9.1%	
No benefit to local economy Count Col %		2 6.1%	3 9.7%
Disastrous - multi-faceted Count Col %		1 3.0%	
Adverse impact on Native traditions Count Col %		4 12.1%	1 3.2%
Against population increases Count Col %			1 3.2%
Unspecified ecological impacts Count Col %			4 12.9%
ARE YOU IN FAVOR OF THE DEVELOPMENT AND PRODUCTION OF OIL? No response Count Col %		1 3.0%	1 3.2%
Do Not Know Count Col %		3 9.1%	3 9.7%

(continued)

Table IX-52. OCS Development Effects, Nanwalek

	STUDY YEAR		
	1991	1992	1993
No			
Count		20	21
Col %		60.6%	67.7%
Yes			
Count		9	6
Col %		27.3%	19.4%
OPINION ON DEVELOPMENT AND PRODUCTION			
No Response			
Count		3	2
Col %		9.1%	6.5%
Do Not Know			
Count		2	1
Col %		6.1%	3.2%
Reduce dependency on foreign oil/enhance national security			
Count		1	
Col %		3.0%	
Create more jobs in the community			
Count		7	3
Col %		21.2%	9.7%
We can live in balance with the environment			
Count		1	
Col %		3.0%	
Energy needed			
Count		1	
Col %		3.0%	
Need to know extent of resource availability and reserves			
Count			1
Col %			3.2%
Conditions: in favor when necessary			
Count			1
Col %			3.2%
Beneficial to the economy			
Count			3

(continued)

Table IX-52. OCS Development Effects, Nanwalek

	STUDY YEAR		
	1991	1992	1993
Col %			9.7%
Conditional: if approved by local government			
Count		1	
Col %		3.0%	
Adverse experiences with other development			
Count		3	2
Col %		9.1%	6.5%
Pollution concerns and impacts			
Count		6	12
Col %		18.2%	38.7%
Aesthetic reasons			
Count		2	
Col %		6.1%	
Adverse impact of security zones and traffic zones			
Count		3	
Col %		9.1%	
Adverse impact on subsistence and commercial fishing			
Count		4	2
Col %		12.1%	6.5%
Biological (non-pollution) - migration patterns			
Count			1
Col %			3.2%
Distrust of the oil industry			
Count			1
Col %			3.2%
Potential damage to renewable resources			
Count		6	1
Col %		18.2%	3.2%
Against any development			
Count		4	
Col %		12.1%	

(continued)

Table IX-52. OCS Development Effects, Manualek

	STUDY YEAR		
	1991	1992	1993
No benefit to local economy Count Col %		2 6.1%	3 9.7%
Disastrous - multi-faceted Count Col %		1 3.0%	
Adverse impact on Native traditions Count Col %		4 12.1%	1 3.2%
Against population increases Count Col %			1 3.2%
Unspecified ecological impacts Count Col %			4 12.9%



The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The **MMS Royalty Management Program** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.