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ECONOMIC HARDSHIP - DEFINITION AND MEASUREMENT

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There is no single, universal definition for a term such as "economic hardship". Its meaning is related to the specific context in which it is used. In this case the purpose of the Alaska Commercial Fisheries Entry Act of 1973 and the regulations of the Commission established by the act will first be analyzed to discover this relevant meaning of "economic hardship". From an analysis of the latest draft of the "State Entity Limited Entry Apprenticeship Program" and the transferability alternatives which have been considered by the Limited Entry Study Group, the purpose or purposes of the proposed amendments to the fisheries entry program will then be determined. This will provide a reference from which further definitions of "economic hardship" will be suggested along with means of measuring its key elements.

Economic Hardship in the Act of 1973

The Alaska Commercial Fisheries Entry Act of 1973 has two purposes or sets of purposes: to promote (1) "the conservation and the sustained yield management of Alaska's fishery resource" and (2) "the economic health and stability of commercial fishing in Alaska". The first relates to the management of natural resources and the second to the welfare of an economic activity, commercial fishing. The findings of the Legislature are that "economic welfare of the fisheries...efficiency of the harvest, and the...management of the fishery resource" all are impaired or in danger of being impaired by present levels of participation in commercial fishing.

The primary economic orientation of the Act, therefore, is to health (or welfare) and efficiency of the "industry" of commercial fishing and its participants as of the effective date. It makes no reference to economic welfare or health of communities and does not extend its economic tests and standards to any fisheries group other than the existing gear operator. This is made specific by the definitions section of the Act (Sec. 380). As used in the Act, "fishery" means the "commercial taking of a specific fishery resource in a specific administrative area with a specific type of gear". The regulations implementing the Act provide code schedules for each of these dimensions of this economic activity: the species being taken, gear type and geographically defined areas. A second basic definition relates to the economic condition of each fishery so determined. An "economically healthy fishery" means a fishery, (a specific combination of specific gear, species and area) that yields a sufficient rate of economic return to the fishermen participating in it to provide for both the maintenance and the improvement of vessel and gear and the opportunity to experiment with new techniques. Health is measured, therefore, in something more than mere survival of the participants.

Not included in the definition section (but defined nonetheless) is the "distressed fishery", the opposite of a "commercially healthy fishery". These are fisheries for which the Commission "estimates that the optimum number of permits will be less than the highest number of units of gear fished in that fishery during any one of the four years immediately preceding January 1, 1973" (Sec. 230). The optimum number of units of gear for a fishery is to be estimated "based upon a reasonable balance" of the number of units necessary and/or sufficient to (1) maintain "an economically healthy fishery" (here defined as one which "will result in a reasonable average rate of return to the fishermen participating in that fishery"), (2) harvest the allowable commercial take, and (3) "avoid serious economic hardship to those currently engaged in the fishery" (i.e. as of January 1, 1973). The meaning of "economic hardship" is not given in the section dealing with optimum numbers, although it is to be one of the standards to be used in estimating such numbers. Clues to its meaning, however, can be found in other sections setting forth the basic duties of the Fisheries Entry Commission.

The Commission has been charged with three basic duties which when discharged determine the total number of units of gear and who will be allowed to fish in each designated fishery. The first is establishment of the maximum number of entry permits for initial entry. This is a simple statistical task of calculating the highest number of units of gear fished in the subject fishery during any one of four years immediately preceding January 1, 1973 (Sec. 240). Following establishment of the maximum number of units of gear for the fishery, the Commission then determines which applicants from those currently engaged in the fishery shall receive entry permits. This is to be done by ranking applicants for entry permits according to the degree of hardship which they would suffer from exclusion from the fishery. Sec. 250 of the law provides that this shall be accomplished by a "reasonable balance of the following hardship standards:

- (1) degree of economic dependence upon the fishery, including but not limited to percentage of income derived from the fishery, reliance on alternative occupations, availability of alternative occupations, investment in vessels and gear;
- (2) extent of past participation in the fishery including but not limited to the number of years participation in the fishery, and the consistency of participation during each year.

The Commission then designates those applicants who would suffer significant economic hardship by exclusion and those who would suffer only minor economic hardship. (Sec. 250).

The third step to be taken by the Commission is to establish the optimum numbers which are to take the place of the maximum numbers of units of gear licenced in each fishery. This also presumably would take the place of any estimated optimums used in the initial decision to declare the subject fishery a distressed fishery and the standards to be used have been discussed above. (Sec. 290). The article title states

the essence of this final step, "Reduction to Optimum Number of Entry Permits" (Article 5). As this is a reduction from the maximum number of permits outstanding, the Commission is also to institute a buy-back program at this point (Sec. 310). Although several abortive starts have been made, the Commission has yet to determine any optimum numbers and in the light of pending court challenges and the almost impossible nature of the task is unlikely to do so.

The Commission's interpretation of "economic hardship" can be traced in a review of its implementation at the first two tasks. The maximum number of units of gear for each designated fishery were determined and regulations drawn up in 1974 setting up a point system for measuring the degree of economic dependence upon fishing (percentage of total income from fishing, investment in vessel and gear, and population of census district or county of domicile) and past participation (years fished as a gear operator 1969-72, number of weeks in each year, additional years fished as a gear operator 1965-68, and any year as a crewman 1965-72). A total of 40 possible points was divided equally between economic dependence and past participation. Any applicant scoring 20 or more points was considered to have demonstrated that they would suffer "significant hardship" from exclusion and all such applicants would automatically receive entry permits even if the total permits so issued for the fishery exceeded the maximum determined by the first step.

The point system is the key to "economic hardship" as defined in the Act and interpreted by the Commission. It was designed to determine the eligibility priority only of those who were actual gear operators as of January 1, 1973, and economic hardship was primarily measured in terms of loss of past investment of time and money in gear operation. Although one point was available for any year served as a crewman during the period 1965-72, the applicant still was required to be an actual gear operator as of the cut off date, and years fished and consistency of participation as a gear license holder carried the most weight (16 out of a possible 20 points).

The economic dependence standards were weighted similarly in favor of percentage of income from fishing and monetary investment (together a possible maximum of 16 points out of a total 20 points for economic dependence). Additional points were available for applicants domiciled in census divisions or counties with a 1970 population of less than 25,000 persons (4 points for such areas with less than 10,000 and 2 points for areas with more than 10,000 but less than 25,000 population in 1970). This was the proxy measure for "availability of alternative occupations". It is the only standard of hardship which has any relation to something other than the fishery itself and it can only support a maximum of four points as compared with a maximum of 36 points from investment of time (past participants and percent of total income generated) and money.

Further Dimensions of Economic Hardship in Amendment Proposals

New entrants into the fisheries via permit transfers presently are not subject to any economic hardship test. The transferee is only required to "establish present ability to participate actively in the fishery" (Sec. 160). Beyond a review by the Commission to assure that the transferee indeed has this intent and ability and that the terms and conditions of transfer do not violate the provisions of Section 150 of the Act, permits are freely transferable without any further legislative or administrative regulation. Free market factors determine subsequent entries into the fisheries, except those made through inheritance or gift. Because the permit is a limited asset and there have been continuing increases in the value of catch in the designated fisheries, the value of permits has risen to levels where ability to pay rather than economic hardship has become the test of eligibility for entry through purchase. This has and will increasingly become a bar to future entry of young persons and crew members into a fishery as gear operators. Study of transfer patterns of permit holders under free transferability for 1975-79 also indicates changes in residence allocation patterns from those initially resulting under the criteria of the Act in 1973 (Steve Langdon, "Preliminary Report on Transfer Patterns of Alaskan Limited Entry Fisheries Permit Holders"). If some of these changes become continuing trends, future geographic allocation of permit holders could undermine the basic economies of coastal communities dependent upon fisheries and the employment and income sources of their residents.

If the proposals being considered by the Limited Entry Study Group are put into final form as a single bill, the statement of findings probably would focus on these two developments taking place under the present program: (1) the trend (or potential trend) towards increasing exclusion of the traditional recruits into a fisheries (young persons and crew members), and (2) alteration in patterns of holders of permits which represent a withdrawal of the means of access to fisheries from communities traditionally dependent upon participation in the fisheries. Only the first is addressed in the present draft of the apprenticeship bill, but the second is implied (e.g. the use of lists of fishermen for each administrative area and references to families and the spreading of the permits "over as many families as possible").

The draft of the "State Entity Limited Entry Apprenticeship Program" does not use the term economic hardship, but it is concerned with the economic hardship caused by exclusion of a particular group, the young persons with "the predisposition and other fishery related attitudes" who would have been the traditional source of new entrants in the pre-limited entry permit period (Section II. A). Unless these persons inherit an entry permit from a member of their family, they must be able to raise substantial sums of money today to purchase a permit. For this reason, one of the stated purposes of the program is "to terminate the monetary value of the permit through adoption of one of the transferability alternatives." These alternatives are not spelled out in the draft, but from the language in the other sections it is clear that with two exceptions it would be the State Entity rather than a current permit holder who determines how and to whom transfer is to be made. These two exceptions are "one who has fished as a crewmember and/or helper of a permit holder... for 4-7 years, shall be termed a qualified transferee" and transference by a "legally drafted will from the permit holder to the child" (Section VIII).

All other pending transfers are to be by means of the State Entity administered apprenticeship program. (The proposal is silent as to whether the crew member transfer can require a financial consideration).

"The number of apprentices set for each administrative area shall be determined by the estimated number of permits available for that particular area within the succeeding two years" (Section V). From a list of active fishermen in each area, individual fishermen will be chosen by lottery to take an apprentice. The State will provide appropriate incentives to the chosen fishermen. (Sections V and VI). This is the means by which one of the key purposes is to be served: "To relate the future supply of apprentices to the probable number of future permits determined and made available for that particular administrative area, for a two year period from that determination" (Section II. E).

Eligibility requirements for being considered as an apprentice relate to experience, training and a special category for license holders who failed to obtain an entry permit (Section IV). Where the number of crewmembers or helpers selected exceeds the number of pending permits available, priority shall be given to "heads of households or...members of families, who presently don't own permits, but who substantially depend on fishing as a source of livelihood" (Section VII). This implies a measure of relative economic hardship similar to the dependency allowances in income taxes, namely that the exclusion of a head of a household in favor of a single person adversely affects the economic wellbeing of a greater number of persons. The preference for members of families dependent upon fishing (persons who are not necessarily heads of households) is related to the purpose of "spreading a limited asset, the entry permit, over as many families as possible" (Section II. C). Again, this relates to an objective of sharing the economic benefits to be derived from an economically healthy and growing fishery over as many people as possible and to give a favored treatment to those who have been dependent upon fisheries. Although forms of relative economic hardship, or the avoidance of this, are involved in these purposes, there is no need to define the term. It is not used directly as a standard for eligibility although it is part of the justification for such treatment.

As it is now drafted, the apprenticeship program bill requires the addition of some statement of findings as to the economic hardship considerations involved in its statement of purposes and the standards to be used in their implementation. There is no need for a technical definition of the term in the body of the bill as it is now constituted. In contrast, definitions of economic hardship are central to the two research contracts being conducted. The objective of the socio-economic research project is "to assess the relative economic wellbeing of Alaska's fishing communities and thereby identify areas of particular hardship," and the study of transfer patterns is directed not only to analysis of characteristics of the permit holders in each fishery but also the place of residency using five classifications (Nonresident, Alaska rural local, Alaska urban local, Alaska rural nonlocal and Alaska urban nonlocal).

This is an attempt to document geographic shifts in residence of permit holders and, in connection with the socio-economic project, provide a means for measuring and projecting relative economic hardship imposed upon communities by these changes. This suggests that the Limited Entry Study Group will be considering further proposals which will expand the present Act's focus upon the fishery (the resource and the economic activity) as the basis for determining economic hardship to include the fishing community. A number of measures and definitions of economic hardship or wellbeing on this basis have been available and in constant use for many years.

Economic Hardship and Wellbeing of Communities and Areas

The basis for determination of relative economic hardship and/or wellbeing which are generally recognized and measurable are (1) per capita personal income received by residents of the subject community, area or region (this is compared with other areas or with Federally established priority level thresholds for example), (2) level of employment and rate of participation of the total resident population in the workforce, and (3) the industrial composition of the subject economy and the degree of diversification of its basic or primary sector. The meaning and definition of these measures is well understood and established in Federal, State and even international statistical series, reports and studies. These standard definitions or references can be incorporated directly into any legislation which might be drafted. The socio-economic project of the Limited Entry Study Group is primarily devoted to the generation of appropriate statistics for the construction of these three sets of measurement, and modifications required to more precisely serve the fisheries objectives.

Per capita personal income: The U.S. Dept. of Commerce has for several decades calculated annual personal income and per capita income estimated for the nation and each state. Several attempts have been made to calculate similar measures for sub-regional units within Alaska (the MAP regional models, the Dept. Commerce census division). For application to the commercial fisheries entry permit question, however, these are not entirely appropriate. The sub-regional allocation of the State totals has simply been on the basis of the relative distribution of annual payroll data as reported by the Alaska Dept. of Labor. This does not include fish harvesting income or take into account the variation in composition of income received from wages and salaries, fish harvesting, and transfer payments. Each of these elements assumes a different relative importance in the composition of total income in each census division. A basis for allocating each is available from Dept. of Labor (wage and salary income), Dept. of Social Services (transfer payments) and Commercial Entry Commission (gross income from fisheries). We have been compiling data from these sources. The remaining task is to devise a means of reducing gross fisheries income to a net figure. For Alaska's rural census divisions, the total per capita personal income is not appropriate.

We are advocating the use of a non-governmental personal income calculus. For example, the presence of the Adak naval base in the Aleutian division completely overshadows the income condition of the other residents of the division. In other low population divisions, the earnings of school teachers, public health personnel and air force technicians similarly distort the usual per capita calculation.

Population: Dept. of Labor and Dept Comm. & Reg. Affairs make joint estimates of annual population of census divisions (total and civilian). These need to be adjusted to reflect non-government population for purposes of per capita calculations.

Economy structure: Monthly and annual employment estimates by industrial classification provide the best measures of the economic structure of each division. Wage and salary employment and income data by industry and by division are provided monthly by Dept. of Labor. Military personnel by division are provided annually by Dept. Defense sources. Fisheries employment is presently not provided, but can be estimated from fish ticket data. We are presently completing such estimates of fisheries employment. These series together provide the basis for determining the level of employment (and economic activity), the diversification of the basic sectors of the economy (in particular, the degree to which it is dependent upon fisheries) and alternative employment opportunities. The data also needs to be broken down by resident and non-resident workers. At present, published sources provide us with this data only for fisheries and means of estimating this division for other sectors have been developed.

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SOCIOECONOMIC DATA BASE FOR FISHERY
AREAS AND CENSUS DIVISIONS

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INTRODUCTION

This report summarizes the economic research which has been conducted for the Limited Entry Study Committee over the the past three months. Most of the research effort to date has been devoted to the development of a data base which will enable the Committee to evaluate possible changes to the present limited entry program. The following tables are comprised of a number of economic data series for the years 1969 to 1977, and are organized by both census division and by fishery. The contents of the tables and the methodology used in their development are explained in more detail below.

Considering the importance of Alaska's fishing industry to the state's economy and its residents, very little concrete economic information is available in this area. The reasons for this scarcity of data are numerous. Among them are the difficulty of collecting information over the large area covered by Alaska's fisheries, and the independent and mobile nature of many fishermen, but the principal cause appears to be insufficient funding for this purpose to the agencies responsible for fisheries economic research.

The end result of this lack of current information is that some of the data series presented in this report, particularly in regard to fishing costs and net earnings, have had to be estimated from outdated or generalized sources. Although a great deal of time was spent in developing accurate estimation techniques, this report should not be considered a substitute for the extensive and time-consuming field work which is necessary to obtain reliable economic information. Given the time and budgetary restraints of this interim project, the data in this report, together with the research to be done between now and January, provide a reasonably accurate picture of the relative economic condition of the various fisheries and regions of the state. However, it is important that the limitations of the data and the need for further research be kept in mind.

EXPLANATION OF DATA AND METHODOLOGIES

Table I

This table contains non-agricultural, non-government employment and wages, and civilian population, by census division from 1973 to 1977. Government employment and income has been excluded from this series in order to give a better understanding of the basic economic structure of each census division. The information in this table is derived from Alaska Department of Labor publications. Fishing employment and income are not accurately reflected in the Department of Labor figures and have been estimated separately. This table will be expanded to include the years 1969-1972 in the final report.

Table II

In this table are found estimates of fishing employment by region, with the state being divided into seven major areas. The estimates, which cover 1970-1976, are calculated from Commercial Fisheries Entry Commission (CFEC) fish ticket data on landings by units of gear and are designed to be as compatible as possible with the Department of Labor estimates for employment in other industries. The table also includes these Department of Labor estimates for employment in other industries, grouped according to the same seven regions, thus allowing an assessment of the relative importance of the fishing industry and the availability of alternative occupations in each region.

Table III

Table III presents statistics on transfer payments (welfare and other assistance programs) in the various census divisions from 1973 to 1977, thus providing one indicator of economic hardship throughout the state. This information was obtained from the U.S. Department of Health, Education, and Welfare.

Table IV

Here are found estimates of gross fishing earnings by census division for the years 1969-1976. This data was developed by the CFEC for the U.S. Department of Commerce and was derived by the following method. The total pounds of fish landed by each vessel was obtained from Alaska Department of Fish and Game fish ticket files and was multiplied by an average price per pound for that species, area and gear type to estimate the gross earnings received by each vessel. This earnings data was then matched with zip codes from vessel license renewal forms to determine the area in which the fishermen receiving these payments resided. The total value of payments made to fishermen in a particular census division was finally derived by matching zip codes to census divisions.

Although the estimates of gross earning by census division are a valuable indicator of the importance of fishing in each area of the state and of the geographic distribution of earnings from Alaska's fisheries, the data has significant limitations which are repeated here:

1. Gross earnings are not based upon actual earnings, but rather upon annual catch values attributed to each gear license holder. Annual catch values are computed by multiplying the average price for each species of commercial fish times the pounds of each species harvested by the gear license holder. Average prices are compiled by regulatory fishing areas and gear type, and represent the average price paid during the calendar year for each species in that regulatory area.
2. Gross earnings are only the value a fisherman receives for his catch. No account is taken of fishing costs, which vary considerably between species, gear types, and areas. Census divisions with similar gross earnings could have very different net earnings, which is what a fisherman retains after paying all his expenses, because of the variability in fishing costs.
3. The total annual catch value belonging to a gear license holder in one year is assigned to the census district for his domicile. The information here does not allow conclusions to be made about the amount of income expended in a census district. Significant expenses, such as operating expenses, crew shares, and boat payments may be paid outside of a particular census district.
4. The confidentiality laws of Alaska preclude the disclosure of earnings information which could be associated with an individual fisherman. Therefore, if there were fewer than four fishermen in a census division their numbers have been listed in the Statewide Tabulations by Census Division for Alaska, California, Oregon and Washington, while their total gross earnings and average gross earnings have been blanked out. Both the number and gross earnings of these fishermen, however, have been included in the Yearly Summary by State.
5. Because of the same confidentiality laws, the numbers and gross earnings for the Southeast Fairbanks and Upper Yukon Divisions have been included in the figures for the Fairbanks Division where noted. This accounted for a very slight change in the figures for the Fairbanks Division.

6. The earnings of fishermen who could not be matched to a particular census division are grouped in the category titled "AREA UNKNOWN" in the Yearly Summary by State.
7. In addition to the unmatched earnings mentioned in item 3 above, a substantial amount of catch on the fish ticket file could not be matched to licensed fishermen. This was due mainly to errors in vessel identification numbers on the fish tickets. The total amount of gross earnings not matched for this reason appears as the last item, labeled "OPERATOR UNKNOWN" in the Yearly Summary by State.
8. A few outlying areas of Alaska use an Anchorage zip code. This erroneously increases the amount of earnings attributed to Anchorage and decreases earnings for those outlying areas.
9. A minor amount of fish caught in Alaskan waters was landed outside the State and was not recorded.
10. Gear operators include hand trollers in Southeastern Alaska. The numbers of licensed hand trollers who landed fish in 1975 and 1976 was 1,094 and 1,240, respectively, the only years for which information is available. The majority of these sell relatively few fish which increases the number of gear operators and reduces average earnings for that area. Census districts most affected are Ketchikan, Sitka, and Juneau.

Table V

This table contains estimates of gross earnings, costs, and net earnings by fishery from 1969 through 1977. Estimates are made for all of the states salmon fisheries, with the exception of those in the Arctic-Yukon-Kuskokwim (AYK) region. These northern fisheries have never been surveyed for cost information and additional research will be necessary to provide costs and net earnings data for them. An effort will be made to include AYK estimates in the final report. Also, the troll fisheries have been analyzed only for 1973 and 1975 through 1977, since gross earnings data was not separated into hand and power troll classifications in other years.

1. Average gross earnings. This is the average value which fishermen in each fishery received for their catch. See the explanation of Table IV for the methodology by which it is derived.
2. Bonus payments. These are usually season-end payments to the vessel skippers. Some fisheries have no bonuses.
3. Total earnings. The sum of (1) and (2).
4. Operating costs. This category includes the costs of fuel and engine lubricants, food, special clothing, bait and ice, and gear repairs.
5. Fixed costs. These costs include vessel repairs, insurance, moorage, utilities, administrative, freight and transportation, and other.
6. Capital costs. This category consists of depreciation (calculated over a 15 year period with no salvage value), the opportunity cost of vessel and gear investment (calculated at 10%), and the opportunity cost of holding an entry permit (calculated at 12%) for 1975, 1976, and 1977.
7. Total costs. The sum of (5), (6), and (7).
8. Net earnings. This is the sum remaining after total costs are deducted from total earnings, and represents the earnings of both captain and crew.
9. Crew share. Most crews are paid on a share system rather than on a wage basis. The crew generally receives a percentage of gross earnings and this sum is split among them.
10. Return to operator. This is the value which the skipper receives for his labor, management, and investment.

The primary source document for this series of estimates is a 1974 CFEC publication entitled: "Costs and Earnings of Alaskan Fishing Vessels-An Economic Survey". This report presents the results of a comprehensive survey of most of the state's fisheries at that time and is based on the 1973 fishing season. More recent cost information is available for only the shellfish fisheries and three drift gillnet fisheries - Bristol Bay, Cook Inlet, and Prince William Sound. Shellfish has not been considered here because of time constraints and the focus of the Limited Entry Study Committee on limited fisheries, mainly salmon. The drift gillnet surveys have been incorporated in the analysis, as explained below.

Because detailed cost information is available for most fisheries only for the year 1973, it was necessary to develop a rather complex methodology for updating this data for the years 1974-1977, and "postdating" the data for 1969-1972. Not only did a series of inflation and deflation factors have to be calculated to account for changes in prices, but also consideration had to be given to changes in fishing time between years, the increasing value of entry permits, and the correction of biases in the original 1973 survey.

The first step was to ensure that the data reported in the 1973 CFEC survey was actually representative of costs and earnings in the various fisheries. By comparing CFEC files on average gross earnings with the earnings reported in the survey, it was found that most of the fishermen interviewed in 1973 had gross earnings significantly higher than the average earnings for their fishery. It was therefore necessary to adjust the 1973 cost data downward or, in two fisheries, upward so that the data would more accurately reflect the average costs and earnings of each fishery.

This adjustment procedure was complicated by the fact that costs do not usually vary in direct proportion to gross earnings, but rather are usually a decreasing percentage of gross earnings as gross earnings increase (within a particular fishery). For example, the average vessel in a fishery may have gross earnings of \$15,000 and costs of \$10,000, or two-thirds of the gross. In most cases, the vessels in that fishery which gross, say \$30,000, will have costs of less than two-thirds of gross earnings, perhaps only one-half or less. The significance of this phenomenon for our purposes is that costs had to be adjusted by a smaller amount than gross earnings to account for the trend. Through analysis of costs and earnings ratios obtained from the 1976 CFEC drift gillnet surveys, it was found that on average, costs decreased by about 60% of a given decrease in gross earnings, and increased by about 40% of a given increase in gross earnings.

These ratios were then used to adjust the 1973 cost data to correct for the bias in gross earnings. For instance, in a fishery in which average gross earnings were 10% below the average of the surveyed sample, costs were deflated by 6%, or 60% of the gross earnings bias. The principal weakness of this technique is that costs/earnings ratios could be calculated only for the three drift gillnet fisheries surveyed in 1976. These ratios vary somewhat between fisheries, thus introducing an unknown, but probably small degree of error into our estimates.

The next step involved the calculation of inflation indexes to adjust for rising prices. Because fuel prices have increased more rapidly than the general cost of living and fuel is a major fishing cost, a separate index was prepared for fuel costs and for other expenses. The two indexes were calculated from the Consumer Price Index series published by the U.S. Department of Labor, Bureau of Labor Statistics. The fuel index was based on the third quarter CPI for fuel oil and coal in Anchorage, the only Alaska city included in the SPI series. The index for other expenses was based on the Anchorage third quarter CPI for all items. These indexes are displayed in appendix table A.

The duration of fishing seasons varies considerably from year to year in accordance with fluctuations in the strength of the salmon runs. Although some fishing costs, such as insurance, administrative expenses, and capital costs, do not vary with the length of time spent fishing, the operating costs (fuel, bait, gear repairs, etc.) do fluctuate. Therefore, a set of multiplier factors was developed to adjust operating expenses according to the length of the season for each fishery in each year. These factors were derived from CFEC information on the average number of days of fish landings per vessel. 1973 was used as the base year and the days of landings for other years were divided by the days of landings in 1973 to obtain a percentage of increase or decrease in time spent fishing. Appendix table B lists these multiplier factors.

Permanent entry permits were first issued in 1975. Permit prices have risen rapidly in most fisheries and it is necessary to include the costs of holding an entry permit along with other fishing costs. The CFEC surveys everyone who buys or sells a permit to determine the transfer price and other information. The opportunity cost of owning a permit is assumed to be 12% of the average permit price in each fishery for 1975, 1976, and 1977. For those not familiar with the terminology, opportunity cost is an economic term which is used to describe the cost of foregoing a particular opportunity. In this case, the owner of an entry permit is foregoing the income he or she could receive by selling the permit and investing the money elsewhere. Even though a permit holder does not pay out this amount, it is a real cost of doing business.

It should be noted that the opportunity costs of permit ownership were reduced by the percentage of interim-use permits held in each fishery. Since interim-use permits cannot be sold, there is no cost associated with holding one. This adjustment is most significant for 1975, when a large percentage of permits issued were of the interim-use type. These percentages are listed in Appendix table C.

The 1976 cost surveys for the drift gillnet fisheries in Bristol Bay, Cook Inlet, and Prince William Sound have been used in place of the 1973 survey for estimating the 1976 and 1977 costs and earnings of these three fisheries. In addition, the crew share percentages from the 1976 surveys were used for all years because they are believed to be more accurate than the 1973 figures.

The 1976 surveys were also used to check the accuracy of the estimation methodology used in Table V and clearly revealed its limitations. The primary problem is that no quantitative information was available on changes in investment, efficiency, or fishing techniques. Thus, the estimates are quite accurate for fisheries in which the above changes have been relatively minor since 1973, but may be considerably in error for rapidly changing fisheries. The effect of the error would be to understate costs and overstate net earnings and the return to vessel operators.

This problem is demonstrated by a comparison of the Bristol Bay and Prince William Sound drift gillnet fisheries. When checked against the 1976 surveys, the net earnings estimates for Bristol Bay were within seven percent, but the Prince William Sound estimates were substantially overstated because costs had risen much faster than estimated. One indicator of increases in capital investment and operating costs is vessel horsepower. Between 1973 and 1976 average vessel horsepower increased by 11 percent in Bristol Bay and by 49 percent in Prince William Sound, suggesting a much larger change in investment and costs in the latter fishery. Additional research will be done in the next two months to identify to some extent the nature of some of these changes in the fisheries.

NON-AGRICULTURAL, NON-GOVERNMENT EMPLOYMENT
(AVERAGE MONTHLY)
AND WAGES BY CENSUS DIVISION

	Aleutian Islands	Anchorage	Angoon	Barrow- North Slope	Bethel
<u>1977</u>					
EMPLOYMENT	1,619	56,705	53	4,597	1,134
WAGES & SALARIES	28,368,901	1,171,389,613	1,099,169	208,578,525	13,380,554
POPULATION	7,686	192,957	558	9,569	8,048
<u>1976</u>					
EMPLOYMENT	1,672	53,835	38	6,041	939
WAGES & SALARIES	35,983,289	1,072,796,504	560,581	310,027,379	9,206,462
POPULATION	8,282	185,179	494	9,609	8,389
<u>1975</u>					
EMPLOYMENT	1,409	49,376	75	5,367	1,056
WAGES & SALARIES	25,566,832	1,856,704,228	1,197,606	281,965,262	8,657,876
POPULATION	7,086	177,814	481	6,454	8,576
<u>1974</u>					
EMPLOYMENT	1,404	39,546		809	736
WAGES & SALARIES	22,776,643	556,947,160		18,601,907	6,579,866
POPULATION	7,714	153,112	481	3,234	8,496
<u>1973</u>					
EMPLOYMENT	1,245	32,724		810	679
WAGES & SALARIES	18,444,926	388,703,215		14,872,256	5,532,041
EMPLOYMENT	6,914	149,440	402	2,583	7,906

	Bristol Bay Borough	Bristol Bay	Cordova- McCarthy	Fairbanks	Haines
<u>1977</u>					
EMPLOYMENT	289	595	701	17,926	269
WAGES & SALARIES	4,449,833	10,020,533	12,000,312	467,422,753	3,310,251
POPULATION	1,102	3,521	2,223	47,131	1,500
<u>1976</u>					
EMPLOYMENT	379	518	758	20,435	302
WAGES & SALARIES	6,241,847	7,304,171	10,529,574	584,978,013	3,730,845
POPULATION	1,252	3,500	2,535	51,511	1,850
<u>1975</u>					
EMPLOYMENT	366	476	687	21,285	416
WAGES & SALARIES	4,572,618	5,945,001	9,469,695	550,949,878	5,426,848
POPULATION	1,914	3,847	2,003	55,517	2,069
<u>1974</u>					
EMPLOYMENT		679	634	12,918	
WAGES & SALARIES		7,450,595	6,953,627	218,005,071	
POPULATION	1,239	3,875	1,960	50,762	2,054
<u>1973</u>					
EMPLOYMENT		795	636	8,734	1,106
WAGES & SALARIES		7,167,944	6,467,385		10,988,329
POPULATION	1,199	3,659	1,982	45,571	1,902

	Juneau	Kenai- Cook Inlet	Ketchikan	Kobuk	Kodiak
<u>1977</u>					
EMPLOYMENT	4,079	6,192	3,972	591	3,243
WAGES & SALARIES	61,240,824	151,847,877	64,299,459	9,640,660	46,716,759
POPULATION	18,886	19,716	12,496	5,100	8,893
<u>1976</u>					
EMPLOYMENT	4,055	5,289	4,040	451	3,593
WAGES & SALARIES	60,196,720	116,389,991	59,705,847	6,866,746	53,908,376
POPULATION	18,760	16,753	11,394	4,788	9,366
<u>1975</u>					
EMPLOYMENT	3,915	4,353	3,646	455	3,032
WAGES & SALARIES	49,421,288	86,388,894	48,412,329	6,073,313	40,196,792
POPULATION	17,714	15,621	11,311	4,548	8,801
<u>1974</u>					
EMPLOYMENT	3,671	3,541	4,289	351	2,834
WAGES & SALARIES	44,836,709	54,623,241	55,636,861	3,950,142	34,291,423
POPULATION	17,195	13,962	11,522	4,807	9,232
<u>1973</u>					
EMPLOYMENT	3,490	3,102	4,016	410	2,753
WAGES & SALARIES	40,807,462	42,454,646	47,374,238	3,176,041	29,144,306
POPULATION	16,593	13,808	10,587	4,352	8,868

	Kuskokwim	Matanuska- Susitna	Nome	Outer Ketchikan	Prince of Wales
<u>1977</u>					
EMPLOYMENT	178	1,513	1,037	181	594
WAGES & SALARIES	4,980,621	22,513,638	15,977,189	3,106,339	12,545,380
POPULATION	2,481	15,740	5,824	2,019	2,639
<u>1976</u>					
EMPLOYMENT	249	1,284	1,203	144	430
WAGES & SALARIES	6,669,642	20,043,541	18,304,405	2,524,133	8,806,221
POPULATION	2,738	14,010	6,644	1,761	2,000
<u>1975</u>					
EMPLOYMENT	140	1,137	993	163	525
WAGES & SALARIES	1,981,810	15,971,122	11,294,389	2,267,913	8,782,782
POPULATION	2,721	12,462	6,660	1,764	2,502
<u>1974</u>					
EMPLOYMENT	197	958*	725		623
WAGES & SALARIES	3,651,397	10,670,309	7,431,169		10,067,633
POPULATION	2,677	9,787	7,001	1,703	2,525
<u>1973</u>					
EMPLOYMENT	139	842	624		594
WAGES & SALARIES	1,813,330	8,502,316	6,164,355		8,757,639
POPULATION	2,484	8,586	5,682	1,614	1,992

	Seward	Sitka	Skagway- Yakutat	Southeast Fairbanks	Upper Yukon
<u>1977</u>					
EMPLOYMENT	806	2,297	686	366	213
WAGES & SALARIES	9,230,283	39,710,985	11,156,142	7,282,168	8,754,351
POPULATION	3,392	7,053	2,2774	4,893	1,211
<u>1976</u>					
EMPLOYMENT	798	2,115	722	2,064	377
WAGES & SALARIES	9,755,938	36,706,140	11,112,156	115,438,382	11,360,258
POPULATION	3,395	6,883	2,812	6,811	2,012
<u>1975</u>					
EMPLOYMENT	817	2,078	687	1,710	679
WAGES & SALARIES	9,981,975	31,565,303	7,901,701	81,749,846	22,033,493
POPULATION	3,149	6,595	2,732	5,894	8,780
<u>1974</u>					
EMPLOYMENT	632	2,015	1,132		2,286
WAGES & SALARIES	6,471,250	27,916,140	12,454,818		73,021,671
POPULATION	2,683	6,428	2,476	4,504	2,642
<u>1973</u>					
EMPLOYMENT	585	1,773			335
WAGES & SALARIES	5,369,301	22,422,959			6,923,502
POPULATION	2,446	6,010	2,205	4,285	1,655

	Valdez- Chitina- Whittier	Wade Hampton	Wrangell- Petersburg	Yukon- Koyukuk	Statewide
<u>1977</u>					
EMPLOYMENT	2,982	268	1,615	1,099	115,276
WAGES & SALARIES	157,772,767	3,005,268	25,502,394	34,240,167	2,606,621,241
POPULATION	9,905	3,674	5,236	4,973	411,211
<u>1976</u>					
EMPLOYMENT	7,032	327	1,539	3,426	123,829
WAGES & SALARIES	354,104,133	6,926,433	24,509,481	192,929,379	3,157,569,033
POPULATION	13,000	4,287	5,218	8,238	413,289
<u>1975</u>					
EMPLOYMENT	3,955	293	1,670	3,345	114,165
WAGES & SALARIES	163,677,689	2,997,611	22,048,510	146,283,640	2,443,175,210
POPULATION	9,639	4,284	5,270	8,423	404,634
<u>1974</u>					
EMPLOYMENT	935	340	1,636	1,534	84,404
WAGES & SALARIES	21,066,974	2,302,999	21,396,339	48,232,538	1,275,794,321
POPULATION	3,833	4,164	5,848	5,243	351,159
<u>1973</u>					
EMPLOYMENT	428	315	1,576	650	68,358
WAGES & SALARIES	4,702,964	2,341,921	19,113,139	11,311,289	816,112,707
POPULATION	3,568	3,878	5,085	5,082	330,365

Table II

COMMERCIAL FISH HARVESTING EMPLOYMENT
BY MAJOR SPECIES AND GEAR CLASSIFICATION
SOUTHEAST & YAKUTAT

Species & Gear	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
<u>Salmon</u>														
- Traps	1	0	1	1	1	1	1	4	0	4	4	4	4	4
- Purse Seine	454	363	443	365	421	335	329	2,161	1,463 ^c	2,018	1,749	1,865	1,067 ^c	704 ^c
- Drift Net	155	162	199	269	295	225	223	468	471	628	786	900	598	574
- Set Net	37	35	36	37	48	37	40	134	105	122	122	178	122	139
- Hand Troll	}	}	}	}	}	}	}	}	}	}	}	}	}	}
- Power Troll														
Subtotal	1,254	1,087	1,199	1,350	1,527	1,182	1,236	4,356	3,467	4,235	4,407	5,029	3,482	2,975
<u>Shellfish</u>														
- Crab Pots	36	28	36	55	62	51	29	36	38	36	68	76	74	30
- Shrimp - All Gear	15	11	11	7	11	10	12	8	12	6	4	12	10	16
<u>Herring</u>														
- Purse Seine	10	7	13	25	41	32	40	0 ^b	0 ^b	0 ^b	5 ^b	0 ^b	0 ^b	0 ^b
- Set Net	0	0	0	0	1	1	23	0	0	0	0	0 ^f	0 ^f	0 ^f
<u>Halibut</u>														
- Licensed Longline (over 5 tons)	112 ^a	112 ^a	112 ^a	103	83	120	145	380 ^a	380 ^a	380 ^a	359	293	374 ^e	494
- Unlicensed	87 ^a	87 ^a	87 ^a	81	65	89	113	292 ^a	292 ^a	292 ^a	279	230	277 ^e	383
<u>Sable & Bottomfish</u>														
- Longline	14 ^a	14 ^a	14 ^a	14	13	14	18	18 ^a	18 ^a	18 ^a	16	14	20	22
<u>TOTAL EMPLOYMENT</u>	1,528	1,346	1,472	1,635	1,803	1,499	1,616	5,090	4,207	4,967	5,138	5,654	4,237	3,920

^aBased on estimated landings.

^bPeak month: 1970, November = 30; 1971, April = 20; 1972, April = 55; 1973, April = 90; 1974, April = 135; 1975, April = 125; 1976, April = 175.

^cPeak month: 1971, August = 1,617; 1975, August = 1,468; 1976, August & September = 1,501.

^dPeak month: 1972, August = 1,596; 1973, August = 1,911.

^ePeak month: 1975, August licensed = 405, unlicensed = 299.

^fPeak month: 1974, August & October = 5; 1975, April = 8; 1976, April = 230.

^gPeak month: 1976, August hand troll = 878, power troll = 964.

Preliminary: G.W. Rogers, Aug. 1, 1978.

COMMERCIAL FISH HARVESTING EMPLOYMENT
BY MAJOR SPECIES AND GEAR CLASSIFICATION
PRINCE WILLIAM SOUND

Species & Gear	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
Salmon														
- Purse Seine	161	175	0	153	13	147	169	948	984	0	912	144	892	1,152
- Drift Net	165	151	155	162	130	128	157	322	521	412	434	442	368	391 ^g
- Set Net	5	0	3	3	1	0	1	33	0	18	19	15	0	4
- Troll	2	2	2	2	0	0	0	6	8	4	2	0	0	0
Subtotal	333	328	160	320	144	275	327	1,309	1,513	434	1,367	601	1,260	1,547
Shellfish														
- Crab Pots	25	20	63	74	63	38	33	0 ^a	2 ^a	39 ^a	10 ^a	6 ^a	8 ^a	0 ^a
- Shrimp - All Gear	3	2	1	2	4	1	2	0 ^b	0 ^b	0 ^b	0 ^b	2 ^b	0 ^b	0 ^b
- Razor Clams	3	5	7	8	5	4	2	5 ^c	10 ^c	22 ^c	11 ^c	17 ^c	6 ^c	1 ^c
Herring														
- Purse Seine	7	5	11	17	11	26	9	0 ^d	0 ^d	0 ^d	0 ^d	0 ^d	0 ^d	0 ^d
- Roe, Kelp	4	19	33	16	16	41	30	0 ^e	0 ^e	0 ^e	0 ^e	0 ^e	0 ^e	0 ^e
Halibut														
- Licensed Longline (over 5 tons)	22 ^f	22 ^f	22 ^f	35	13	20	25	84 ^f	84 ^f	84 ^f	116 ^f	52 ^f	69	99 ^f
- Unlicensed	9 ^f	9 ^f	9 ^f	13	5	7	9	31 ^f	31 ^f	31 ^f	43 ^f	19 ^f	26	35 ^f
TOTAL EMPLOYMENT	406	410	306	485	261	412	437	1,429	1,640	610	1,547	697	1,369	1,682

NOTE: A longline and bottomfish bait fishery exists in the region, but consisted of three (3) or less vessels. Not included in above employment.

^aPeak month: 1970, October = 90; 1971, November = 82; 1972, December = 128; 1973, April = 136; 1974, April = 154; 1975, December = 73; 1976, February = 87.

^bPeak month: 1970, May = 10; 1971, March and April = 4; 1972, February = 4; 1973, January = 8; 1974, April, May, August, September, October = 6; 1975, March and April = 4; 1976, January, March, April, May, August = 4.

^cPeak month: 1970, May = 9; 1971, June = 18; 1972, August = 26; 1973, May = 30; 1974, June = 23; 1975, June = 15; 1976, May = 5.

^dPeak month: 1970, January & October = 20; 1971, April = 40; 1972, May = 64; 1973, April = 108; 1974, April = 12; 1975, April = 292; 1976, May = 67.

^ePeak month: 1970, May = 23; 1971, April = 135; 1972, May = 397; 1973, April = 168; 1974, April = 137; 1975, April = 320; 1976, April = 266.

^fEmployment based on estimated landings 1970-72. Peak month: June, licensed = 97, unlicensed = 36. Peak month 1973, June, licensed = 150, unlicensed = 56; 1974, June, licensed = 60, unlicensed = 22; 1976, June, licensed = 108, unlicensed = 40.

^gPeak month 1976: June = 481.

Preliminary: G.W. Rogers, Aug. 1, 1978

TOTAL ESTIMATED POPULATION AND WAGE AND SALARY AND COMMERCIAL FISHING EMPLOYMENT
BY MAJOR INDUSTRIAL CLASSIFICATION
PRINCE WILLIAM SOUND REGION - CORDOVA - MCCARTHY LABOR MARKET AREA

INDUSTRY	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
<u>Total Population</u>	<u>1,857</u>	<u>1,941</u>	<u>1,874</u>	<u>1,982</u>	<u>1,960</u>	<u>2,003</u>	<u>2,353</u>							
<u>Total Employment</u>	<u>1,137</u>	<u>1,154</u>	<u>1,085</u>	<u>1,378</u>	<u>1,195</u>	<u>1,397</u>	<u>1,464</u>	<u>2,575</u>	<u>2,656</u>	<u>1,620</u>	<u>2,693</u>	<u>1,879</u>	<u>2,521</u>	<u>2,968</u>
<u>Commodity Producing</u>														
-Commercial Fishing	410	410	306	485	261	412	432	1,429	1,640	610	1,547	697	1,369	1,682
-Mfg. (primarily fish processing) ^a	180	128	185	256	213	213	289	536	351	364	469	469	378	488
-Mining (including oil and gas) ^a	80	82	67	45	40	88	56	80	84	88	63	31	85	65
-Construction ^a	50	56	41	36	54	34	28	100	108	76	57	42	50	60
<u>Subtotal</u>	<u>720</u>	<u>676</u>	<u>599</u>	<u>822</u>	<u>568</u>	<u>747</u>	<u>805</u>	<u>2,145</u>	<u>2,181</u>	<u>1,138</u>	<u>2,136</u>	<u>1,239</u>	<u>1,882</u>	<u>2,295</u>
<u>Government</u>														
-Federal-Military	38	61	61	61	62	60	53	38	61	61	61	62	60	53
-Federal-Civilian	39	40	37	34	36	41	37	41	43	40	33	39	47	38
-State and Local	152	181	195	205	237	241	246	149	153	176	193	205	215	214
<u>Subtotal</u>	<u>229</u>	<u>282</u>	<u>293</u>	<u>300</u>	<u>335</u>	<u>342</u>	<u>336</u>	<u>228</u>	<u>257</u>	<u>277</u>	<u>287</u>	<u>306</u>	<u>322</u>	<u>305</u>
<u>Distributive Industries</u>														
-Transportation, communications, public utilities	36	33	49	81	98	84	70	40	33	54	86	108	96	81
-Trade	70	69	75	95	111	112	112	87	75	76	106	134	121	140
-Finance, Insurance, Real Estate	10	15	15	18	17	17	24	10	15	15	20	17	18	24
-Services	72	51	54	62	65	64	91	65	48	60	58	69	82	91
<u>Subtotal</u>	<u>188</u>	<u>168</u>	<u>193</u>	<u>256</u>	<u>291</u>	<u>297</u>	<u>297</u>	<u>202</u>	<u>171</u>	<u>205</u>	<u>270</u>	<u>328</u>	<u>317</u>	<u>336</u>
<u>Miscellaneous and Unclassified</u> ^b	<u>0</u>	<u>28</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>11</u>	<u>26</u>	<u>0</u>	<u>45</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>0</u>	<u>32</u>

^a - Non-disclosed data has been estimated by author.
^b - Excludes ADL covered fishing employment estimates.

Source: Population - Alaska Department of Labor, Current Population Estimates by Census Divisions (July 1, annual).

Employment - Alaska Department of Labor; Alaska Labor Force Estimates by Area (Annual), Total "Non-Agricultural Wage and Salary Employment" less "covered employment in fisheries".

Military - From annual population estimates.

Commercial Fishing - From monthly estimates by George W. Rogers and Richard Listenski.

Preliminary: G.W. Rogers, Aug. 1, 1978.

TOTAL ESTIMATED POPULATION AND WAGE AND SALARY AND COMMERCIAL FISHING EMPLOYMENT
BY MAJOR INDUSTRIAL CLASSIFICATION
COOK INLET REGION^a

INDUSTRY	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
<u>Total Population</u>	16,586	16,882	16,309	16,254	16,645	18,770	20,148							
<u>Total Employment</u>	4,860	5,140	5,082	5,393	5,939	7,210	8,104	7,003	7,018	6,978	7,582	7,717	9,612	11,173
<u>Commodity Producing</u>														
-Commercial Fishing	470	433	435	544	572	498	556	2,113	1,696	1,757	1,996	2,055	2,107	2,318
-Manufacturing-Food	380							770						
-Other ^b	220	630	700	861	974	1,175	1,304	280	960	1,008	1,393	1,379	1,741	2,086
-Mining (including oil and gas)	430	525	528	560	505	886	786	700	544	588	593	497	946	775
-Construction	362	413	445	351	476	634	1,065	360	505	586	365	526	796	1,464
<u>Subtotal</u>	2,140	2,001	2,108	2,316	2,527	3,195	3,711	4,223	3,705	3,939	4,347	4,457	5,590	6,643
<u>Government</u>														
-Federal-Military	110	436	106	68	69	87	68	110	436	106	68	69	87	68
-Federal-Civilian	160	165	178	112	119	144	142	170	181	136	110	135	170	167
-State and Local	880	1,023	1,124	1,124	1,122	1,242	1,374	910	1,060	1,100	957	965	1,082	1,257
<u>Subtotal</u>	1,150	1,624	1,358	1,304	1,310	1,473	1,584	1,190	1,677	1,342	1,165	1,169	1,339	1,492
<u>Distributive Industries</u>														
-Transportation, communications, public utilities	330	305	320	323	435	559	599	300	308	330	291	387	528	577
-Trade	610	588	628	632	741	1,042	1,105	690	606	647	701	832	1,177	1,237
-Finance, Insurance, Real Estate	110	86	89	94	104	145	171	90	86	88	89	106	146	156
-Services	470	458	566	716	814	781	926	470	520	613	977	758	812	1,025
<u>Subtotal</u>	1,520	1,437	1,603	1,765	2,094	2,527	2,801	1,550	1,520	1,678	2,058	2,083	2,663	3,025
<u>Miscellaneous and Unclassified</u>	50	78	13	8	8	15	8	40	116	19	12	8	20	13

- ^a - Kenai-Cook Inlet and Steward labor market areas.
^b - Primary petroleum processing.

Source: Population - Alaska Department of Labor, Current Population Estimates By Census Divisions (July 1, annual).

Employment - Alaska Department of Labor; Alaska Labor Force Estimates By Area (Annual), Total "Non-Agricultural Wage and Salary Employment" less "covered employment in fisheries".

Military - From annual population estimates.

Commercial Fishing - From monthly estimates by George W. Rogers and Richard Listenski.

COMMERCIAL FISH HARVESTING EMPLOYMENT
BY MAJOR SPECIES AND GEAR CLASSIFICATION
COOK INLET

Species & Gear	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
<u>Salmon</u>														
- Purse Seine	46	24	26	27	21	36	35	240	104 ^a	156	172	80 ^a	224	212
- Drift Net	149	125	104	135	146	157	165	1,094	840	780	896	1,060	1,030	1,150
- Set Net	93	80	88	84	98	78	109	401	344	396	439	508	515	574
Subtotal	288	229	218	246	265	271	309 ^h	1,735	1,288	1,332	1,507	1,648	1,769	1,936 ^h
<u>Shellfish</u>														
- Crab Pots	59	77	85	111	153	102	97	0 ^a	25 ^a	33 ^a	17 ^a	30 ^a	24 ^a	2 ^a
- Shrimp - All Gear	9	15	18	29	31	19	25	9 ^b	14 ^b	16 ^b	19 ^b	15 ^b	19 ^b	11 ^b
- Razor Clams	0	0	6	*	0	*	0	0	0	3 ^f	0 ^f	0	1 ^f	0
<u>Herring</u>														
- Purse Seine	6	8	1	13	20	17	33	0 ^c	0 ^c	4	0 ^c	0 ^c	0 ^c	0 ^c
- Set Net	0	0	0	1	1	*	0	0	0	0	0 ^e	0 ^e	0	0 ^c
<u>Halibut</u>														
- Licensed Longline (over 5 tons)	78 ^d	78 ^d	78 ^d	106	75	65	67	270 ^d	270 ^d	270 ^d	331 ^d	266 ^d	215	270 ^d
- Unlicensed	26 ^d	26 ^d	29 ^d	38	27	24	25	99 ^d	99 ^d	99 ^d	121 ^d	96 ^d	79	99 ^d
<u>TOTAL EMPLOYMENT</u>	466	433	435	544	572	498	556	2,113	1,696	1,757	1,995	2,055	2,107	2,318

NOTE: Employment in halibut and bottomfish bait fishery not included. Involves three (3) or less vessels and gross values of less than \$500.00.
*Less than 0.5.

^aPeak month: 1970, September = 121; 1971, August = 152; 1972, March = 120; 1973, August = 153; 1974, August = 255; 1975, September = 197; 1976, August = 180.

^bPeak month: 1970, May = 13; 1971, September = 22; 1972, March = 29; 1973, November = 45; 1974, May = 56; 1975, March = 28; 1976, November = 52.

^cPeak month: 1970, May = 44; 1971, May = 80; 1973, June = 88; 1974, May = 176; 1975, May = 160; 1976, May = 240.

^d1970-72 employment based on estimated landings - peak month: June, licensed = 318, unlicensed = 116; peak month: 1973, June, licensed = 417, unlicensed = 153; 1974, June, licensed = 326, unlicensed = 118; 1976, June, licensed = 313, unlicensed = 114.

^ePeak months: 1971, August = 168; 1974, August = 168.

^fPeak month: 1972, June = 64; 1974, May = 7; 1975, June = 2.

^gPeak months: 1973, May = 7; 1974, April = 12.

^h1976 includes Salmon beach seine, August = 5.

Preliminary: G.W. Rogers, Aug. 1, 1978.

COMMERCIAL FISH HARVESTING EMPLOYMENT
BY MAJOR SPECIES AND GEAR CLASSIFICATION
SOUTHWEST REGION^a

Species & Gear	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
Salmon														
- Purse Seine	567	571	498	359	380	375	506	2,610	2,640 ^h	2,650	2,110	1,930	1,810 ^h	1,705
- Beach Seine	4	4	6	2	4	5	7	16	28	44	30	24	44	38
- Drift Net	39	37	37	42	28	28	32	142	187	163	189	159	82 ^k	109 ^k
- Set Net	67	52	52	37	50	38	63	303	286	302	310	308	200 ^l	350
Subtotal	677	664	593	440	462	446	608	3,071	3,141	3,159	2,639	2,421	2,136	2,202
Shellfish														
- King Crab - Pots	337	274	214	262	301	310	339	128 ^b	166 ^b	227 ^b	318 ^b	480 ^b	0 ^b	40 ^b
- Dungeness Crab - Pots	19	9	13	17	13	8	1	50	28	24	52	37	30	0
- Tanner Crab - Pots	71	68	50	184	176	124	221	10 ^c	28 ^c	19 ^c	41 ^c	66 ^c	70 ^c	50 ^c
- Shrimp - Pots	2	0	0	*	5	4	1	0	0	0	0	6	2	0
- Otter Trawl	64	98	105	97	113	119 ^m	127 ^m	63 ^d	111 ^d	180	102 ^d	66 ^d	174 ^d	177 ^d
- Beam Trawl	0	1	7	18	12	8	5	0	2	2 ⁱ	0 ⁱ	10 ⁱ	4 ⁱ	8 ⁱ
- Scallops - Dredge	42	14	80	20	5	15	3	70	50	40	30	10	30	10
- Razor Clams	1	2	2	1	1	*	0	2 ^e	5	4 ^e	3 ^e	2	1	0
Herring														
- Seine	6	5	3	9	10	0	0	0 ^f	4 ^f	4 ^f	8 ^f	4 ^f	0	0
Halibut														
- Licensed Longline (over 5 tons)	70 ^g	70 ^g	70 ^g	110	50	63	62	281 ^g	281 ^g	281 ^g	408	193	267	258
- Unlicensed	26 ^g	26 ^g	26 ^g	51	20	22	23	106 ^g	106 ^g	106 ^g	159	72	96	96
Bottomfish														
- Longline	0	0	0	0	1	1	0	0	0	0	0	0 ^j	4	0
- Otter Trawl	1	5	0	1	1	1	2 ^m	0	9	0	0	3	0	0
- Beam Trawl	0	0	0	*	0	0	1	0	0	0	0	0	0	2
TOTAL EMPLOYMENT	1,316	1,236	1,163	1,210	1,170	1,121	1,393	3,701	3,933	4,049	3,760	3,370	2,814	2,943

*Less than 0.5.

^aIncludes Kodiak, Chignik, Peninsula-Aleutian, Dutch Harbor, Adak, Western Aleutian, Bering Sea.

^bPeak months: 1970, January = 601; 1971, January = 550; 1972, September = 598; 1973, August = 789; 1974, September = 1,032; 1975, October = 1,080; 1976, December = 1,037.

^cPeak months: 1970, February = 214; 1971, March = 133; 1972, May = 97; 1973, May = 350; 1974, April = 523; 1975, May = 302; 1976, April = 659.

^dPeak months: 1970, December = 75; 1971, November = 114; 1973, December = 130; 1974, November = 189; 1975, February = 192.

^ePeak months: 1970, May & June = 5; 1972, June & August = 6; 1973, August = 6.

^fPeak months: 1970, May = 56; 1971, June = 20; 1972, June = 12; 1973, June = 64; 1974, May = 100.

^g1970-72 based on estimated landings.

^hPeak months: 1971, August = 2,790; 1975, August = 2,000.

ⁱPeak months: 1972, November = 10; 1973, October = 36; 1974, November = 22; 1975, February = 20; 1976, February = 14.

^jPeak months: 1974, June = 12.

^kPeak months: 1975, June = 159; 1976, June = 189.

^lPeak months: 1974, August = 334.

Preliminary: G.W. Rogers, Aug. 1, 1978

TOTAL ESTIMATED POPULATION AND WAGE AND SALARY AND COMMERCIAL FISHING EMPLOYMENT
BY MAJOR INDUSTRIAL CLASSIFICATION
SOUTHWEST REGION^a

INDUSTRY	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
<u>Total Population</u>	<u>17,466</u>	<u>17,619</u>	<u>15,948</u>	<u>15,782</u>	<u>16,946</u>	<u>15,887</u>	<u>17,648</u>							
<u>Total Employment</u>	<u>10,430</u>	<u>11,163</u>	<u>9,178</u>	<u>10,197</u>	<u>10,662</u>	<u>10,676</u>	<u>11,957</u>	<u>14,200</u>	<u>14,911</u>	<u>13,163</u>	<u>13,197</u>	<u>13,260</u>	<u>12,878</u>	<u>13,731</u>
<u>Commodity Producing</u>														
-Commercial Fishing	1,320	1,236	1,163	1,210	1,170	1,121	1,393	3,780	3,921	4,049	3,760	3,370	2,814	2,843
-Mfg. (primarily fish processing)	1,180	1,425	1,476	2,095	2,125	1,982	2,628	2,290	2,127	2,506	2,621	2,362	2,298	2,972
-Mining (including oil and gas)	20	36	23	0	0	37	100	10	37	2	0	0	30	90
-Construction	240	344	312	312	386	504	474	260	463	411	380	467	734	546
<u>Subtotal</u>	<u>2,760</u>	<u>3,041</u>	<u>2,974</u>	<u>3,617</u>	<u>3,681</u>	<u>3,644</u>	<u>4,595</u>	<u>6,340</u>	<u>6,548</u>	<u>6,968</u>	<u>6,761</u>	<u>6,199</u>	<u>5,876</u>	<u>6,451</u>
<u>Government</u>														
-Federal-Military	4,970	4,886	3,383	3,557	3,751	3,778	3,848	4,970	4,886	3,383	3,557	3,751	3,778	3,848
-Federal-Civilian	910	925	912	967	1,056	893	946	1,050	1,008	934	968	1,135	937	919
-State and Local	620	678	754	797	820	916	896	580	598	696	641	758	790	847
<u>Subtotal</u>	<u>6,500</u>	<u>6,489</u>	<u>5,049</u>	<u>5,321</u>	<u>5,627</u>	<u>5,587</u>	<u>5,690</u>	<u>6,600</u>	<u>6,492</u>	<u>5,013</u>	<u>5,166</u>	<u>5,644</u>	<u>5,505</u>	<u>5,614</u>
<u>Distributive Industries</u>														
-Transportation, communications, public utilities	260	327	270	318	357	306	301	290	228	285	266	387	302	292
-Trade	480	468	479	535	566	631	703	520	501	496	580	596	677	644
-Finance, Insurance, Real Estate	70	72	66	71	90	117	137	70	72	62	74	91	130	154
-Services	330	481	314	315	335	386	499	330	486	308	322	341	384	544
<u>Subtotal</u>	<u>1,140</u>	<u>1,348</u>	<u>1,129</u>	<u>1,239</u>	<u>1,348</u>	<u>1,440</u>	<u>1,640</u>	<u>1,210</u>	<u>1,287</u>	<u>1,151</u>	<u>1,242</u>	<u>1,415</u>	<u>1,493</u>	<u>1,634</u>
<u>Miscellaneous and Unclassified</u> ^b	<u>30</u>	<u>285</u>	<u>26</u>	<u>20</u>	<u>6</u>	<u>5</u>	<u>32</u>	<u>50</u>	<u>584</u>	<u>31</u>	<u>28</u>	<u>2</u>	<u>4</u>	<u>32</u>

^a - Kodiak and Aleutian Islands labor market areas.

^b - Excludes ADL estimates of covered employment in commercial fish harvesting.

Source: Population - Alaska Department of Labor, Current Population Estimates By Census Divisions (July 1, annual).

Employment - Alaska Department of Labor; Alaska Labor Force Estimates By Area (Annual), Total "Non-Agricultural Wage and Salary Employment" less "covered employment in fisheries".

Military - From annual population estimates.

Commercial Fishing - From monthly estimates by George W. Rogers and Richard Listenski.

Preliminary: G.W. Rogers, Aug. 1, 1978

COMMERCIAL FISH HARVESTING EMPLOYMENT
BY MAJOR SPECIES AND GEAR CLASSIFICATION
BRISTOL BAY

Species & Gear	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
<u>Salmon</u>														
- Drift Net	571	551	519	418	221	324	500	3,360	3,392	2,958	2,296	1,414	2,684	2,948
- Set Net	245	211	203	145	92	135	200	1,510	1,360	1,252	885	720	1,200	1,315
<u>Herring</u>														
- Roe, Kelp	1	1	0	0	0	4	5	0 ^a	0 ^a	0	0	0	0 ^a	0 ^a
- Set Net	0	0	0	0	0	2	0	0	0	0	0	0	0	0
<u>TOTAL EMPLOYMENT</u>	817	763	722	563	313	465	705	4,870	4,752	4,210	3,181	2,134	3,884	4,263

^aPeak month: 1970, March = 7.

Preliminary: G.W. Rogers, Aug. 1, 1978

TOTAL ESTIMATED POPULATION AND WAGE AND SALARY AND COMMERCIAL FISHING EMPLOYMENT
BY MAJOR INDUSTRIAL CLASSIFICATION
BRISTOL BAY REGION

INDUSTRY	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
<u>Total Population</u>	4,632	4,227	4,694	4,858	5,114	5,761	4,752							
<u>Total Employment</u>	2,474	2,437	2,263	2,355	2,107	2,430	2,756	9,310	8,918	7,145	5,868	4,610	6,994	7,479
<u>Commodity Producing</u>														
-Commercial Fishing	817	764	722	562	312	465	706	4,870	4,752	4,210	3,181	2,134	3,084	4,263
-Mfg. (primarily fish processing)	680	642	402	446	235	288	306	3,320	3,102	1,835	1,446	729	1,342	1,406
-Mining (including oil and gas) ^a	0	0	1	0	1	3	1	0	0	2	0	2	10	0
-Construction ^a	2	1	13	36	26	41	42	0	0	15	24	59	80	68
<u>Subtotal</u>	1,499	1,407	1,138	1,044	574	797	1,055	8,190	7,854	6,062	4,651	2,924	5,316	5,737
<u>Government</u>														
-Federal-Military	400	420	400	440	529	456	452	400	420	400	440	529	456	452
-Federal-Civilian	160	120	171	190	192	194	196	250	137	165	200	207	206	211
-State and Local	210	264	317	368	395	473	507	200	207	243	264	522	448	483
<u>Subtotal</u>	770	804	888	998	1,116	1,123	1,155	850	764	808	904	1,258	1,110	1,146
<u>Distributive Industries</u>														
-Transportation, communications, public utilities	110	110	104	170	172	192	213	140	134	130	147	169	217	234
-Trade	50	46	59	59	74	103	92	30	41	53	62	89	149	110
-Finance, Insurance, Real Estate ^a	20	27	25	28	28	28	39	40	35	21	35	30	30	36
-Services	20	33	45	55	142	187	201	60	38	59	66	134	172	216
<u>Subtotal</u>	200	216	233	312	416	510	545	270	248	263	310	422	568	596
<u>Miscellaneous and Unclassified</u> ^b	5	10	4	1	1	0	1	0	52	12	3	6	0	0

^a - Estimated by author for months not disclosed.

^b - Excludes ADL estimates of covered employment in commercial fish harvesting.

Source: Population - Alaska Department of Labor, Current Population Estimates By Census Divisions (July 1, annual).

Employment - Alaska Department of Labor; Alaska Labor Force Estimates By Area (Annual), Total "Non-Agricultural Wage and Salary Employment" less "covered employment in fisheries".

Military - From annual population estimates.

Commercial Fishing - From monthly estimates by George W. Rogers and Richard Listenski.

Preliminary: G.W. Rogers, Aug. 1, 1978

COMMERCIAL FISH HARVESTING EMPLOYMENT
BY MAJOR SPECIES AND GEAR CLASSIFICATION
YUKON-KUSKOKWIM REGION

Species & Gear	Twelve-Month Period						Month of July							
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
<u>Salmon</u>														
- Drift Net	200	220	244	321	387	363	389	668 ^a	974 ^a	1,021 ^a	1,355	1,631	1,791	1,775
- Fish Wheel	2	2	1	4	14	20	21	8	19	7	22	52	98	126
- Beach Seine	0	0	0	0	0	0	1	0	0	0	0	0	0	2 ^b
<u>TOTAL EMPLOYMENT</u>	202	222	245	325	401	383	411	676	993	1,028	1,377	1,683	1,889	1,903

^aPeak month: 1970, June = 956; 1971, June = 1,106; 1972, June = 1,161.

^bPeak month: 1976, June = 6.

Preliminary: G.W. Rogers, Aug. 1, 1978

TOTAL ESTIMATED POPULATION AND WAGE AND SALARY AND COMMERCIAL FISHING EMPLOYMENT
BY MAJOR INDUSTRIAL CLASSIFICATION
ARCTIC-YUKON-KUSKOKWIM REGION^a

INDUSTRY	Twelve-Month Period							Month of July						
	1970	1971	1972	1973	1974	1975	1976	1970	1971	1972	1973	1974	1975	1976
<u>Total Population</u>	21,867	22,632	22,921	21,810	24,468	24,068	24,108							
<u>Total Employment</u>	3,750	3,934	4,552	5,150	5,295	6,234	6,415	4,560	5,578	6,329	6,441	7,732	8,763	9,259
<u>Commodity Producing</u>														
-Commercial Fishing	200	222	245	325	401	383	410	680	993	1,028	1,377	1,683	1,829	1,903
-Mfg. (primarily fish processing)	230	227	221	227	170	160	136	450	665	666	608	537	530	528
-Mining (including oil and gas)	50	52	44	24	34	71	98	90	114	87	66	45	117	134
-Construction	90	94	127	101	67	135	288	110	142	223	128	83	123	574
<u>Subtotal</u>	570	595	637	677	672	749	932	1,330	1,914	2,004	2,139	2,348	2,659	3,139
<u>Government</u>														
-Federal-Military	420	421	422	457	474	451	438	420	421	422	457	474	451	438
-Federal-Civilian	940	943	1,025	1,089	1,080	1,084	1,088	780	916	919	1,029	1,019	985	990
-State and Local	720	875	1,134	1,238	1,168	1,447	1,552	830	1,098	1,446	897	1,488	1,532	1,939
<u>Subtotal</u>	2,080	2,239	2,581	2,784	2,722	2,981	3,078	2,030	2,435	2,787	2,383	2,981	2,968	3,367
<u>Distributive Industries</u>														
-Transportation, communications, public utilities	290	332	382	570	553	650	514	410	392	467	689	665	748	598
-Trade	420	420	460	526	611	672	630	460	500	537	607	914	942	746
-Finance, Insurance, Real Estate	20	25	30	51	105	324	332	20	23	25	59	105	460	489
-Services	360	304	457	522	570	799	860	300	310	509	497	554	743	858
<u>Subtotal</u>	1,090	1,081	1,329	1,669	1,839	2,445	2,336	1,190	1,225	1,538	1,852	2,238	2,893	2,653
<u>Miscellaneous and Unclassified</u> ^b	10	19	5	20	62	58	69	10	4	0	67	165	243	100

^a - Bethel, Wade Hampton, Nome are Kobuk labor market areas.

^b - Excludes ADL estimates of covered employment in commercial fish harvesting.

Source: Population - Alaska Department of Labor, Current Population Estimates by Census Divisions (July 1, annual).

Employment - Alaska Department of Labor; Alaska Labor Force Estimates by Area (Annual), Total "Non-Agricultural Wage and Salary Employment" less "covered employment in fisheries".

Military - From annual population estimates.

Commercial Fishing - From monthly estimates by George W. Rogers and Richard Listenski.

Preliminary: G.W. Rogers, Aug. 1, 1978

Transfer Payments by Census Division
for the Month of February, 1973-1977

	Aleutian Islands	Anchorage	Angoon ¹	Barrow	Bethel	Bristol Bay Borough ²	Bristol Bay
1973							
Total Payments	N.A.	286,021		14,592	102,087		21,972
Payments per Capita	N.A.	1.91		5.65	12.91		4.52
1974							
Total Payments	N.A.	295,940		13,080	106,045		24,892
Payments per Capita		1.93		4.04	12.48		4.87
1975							
Total Payments	5,684	356,756		13,888	121,751		32,234
Payments per Capita	0.80	2.01		2.15	14.20		5.60
1976							
Total Payments	9,229	273,219		16,794	123,035		33,139
Payments per Capita	1.11	1.48		1.75	14.67		6.97
1977							
Total Payments	11,588	418,416		13,710	150,808		34,471
Payments per Capita	1.51	2.17		1.43	18.74		7.46

	Cordova- McCarthy ³	Fairbanks	Haines ⁴	Juneau	Kenai-Cook Inlet	Ketchikan	Kobuk
1973							
Total Payments		83,084		43,069	17,532	47,533	33,857
Payments per Capita		1.82		2.08	1.27	3.34	7.78
1974							
Total Payments		83,742		66,082	20,674	45,053	33,704
Payments per Capita		1.65		3.04	1.48	2.90	7.01
1975							
Total Payments		78,073		68,129	32,983	54,624	47,088
Payments per Capita		1.41		3.03	2.11	3.51	10.35
1976							
Total Payments		47,503		43,121	35,551	53,839	46,814
Payments per Capita		0.92		1.84	2.12	3.55	9.78
1977							
Total Payments		59,638		68,821	46,381	25,709	52,823
Payments per Capita		1.27		2.97	2.01	0.85	10.36

	Kodiak	Kuskokwim	Matanuska- Susitna	Nome	Outer Ketchikan ⁵	Prince of Wales ^{5f}	Seward
1973							
Total Payments	24,391	1,092	15,202	57,502			6,024
Payments per Capita	2.75	0.44	1.77	10.12			2.46
1974							
Total Payments	21,326	25,830	16,805	53,435			6,223
Payments per Capita	2.31	9.65	1.72	7.63			2.32
1975							
Total Payments	6,524	33,492	52,589	69,051			20,426
Payments per Capita	0.74	12.3	4.22	10.37			6.49
1976							
Total Payments	20,251	35,622	38,720	64,335			7,156
Payments per Capita	2.28	13.01	2.76	9.68			2.11
1977							
Total Payments	23,907	37,855	36,011	49,808			(6)
Payments per Capita	2.69	15.26	2.29	8.55			

	Sitka	Skagway ⁷ Yakutat ⁴	Southeast Fairbanks	Upper Yukon	Valdez-Chitina Whittier	Wade Hampton	Wrangell- Petersburg
1973							
Total Payments	10,828		10,313	15,850	67,26	27,443	13,992
Payments per Capita	1.80		2.41	9.58	1.21	7.08	2.75
1974							
Total Payments	6,285		10,000	14,532	9,471	24,258	14,105
Payments per Capita	0.98		2.22	5.50	1.63	5.83	2.41
1975							
Total Payments	9,667		14,425	16,831	8,549	28,891	14,998
Payments per Capita	1.7		2.45	1.92	0.73	6.7	2.85
1976							
Total Payments	13,270		10,421	19,618	9,504	30,706	16,491
Payments per Capita	1.80		1.53	9.75	.073	7.16	3.16
1977							
Total Payments	16,063		11,913	20,338	12,356	19,468	11,728
Payments per Capita	2.11		2.43	16.79	1.02	5.30	2.24

Yukon-
Koyukuk

1973	
Total Payments	21,935
Payments per Capita	4.32
1974	
Total Payments	25,009
Payments per Capita	4.77
1975	
Total Payments	34,081
Payments per Capita	4.05
1976	
Total Payments	28,816
Payments per Capita	3.50
1977	
Total Payments	20,338
Payments per Capita	4.09

- 1 Included in Sitka Census Division,
- 2 Included in Bristol Bay Census Division,
- 3 Included in Valdez-Chitina-Whittier Census Division,
- 4 Included in Juneau Census Division,
- 5 Included in Ketchikan Census District,
- 6 Included in Kenai-Cook Inlet Census Division.

N.A. = Not Available.

Source: U.S. Department of Health, Education, and Welfare and the Alaska Department of Labor.

TABLE IV

1969
STATEWIDE TABULATION BY CENSUS DIVISION

Alaska

Census Division	Gear Operators Reporting	Gross Earnings	Average Gross Earnings
Aleutian Islands	164	\$3,887,445	\$23,704
Anchorage	392	1,271,426	3,243
Angoon	35	152,710	4,363
Bethel	482	779,992	1,618
Bristol Bay			
Borough	164	612,504	3,735
Division	725	2,501,485	3,450
Cordova/McCarthy	330	3,218,580	9,753
Fairbanks	23	78,233	3,401
Haines	50	336,340	6,727
Juneau	416	861,597	2,071
Kenay/Cook Inlet	482	2,403,116	4,986
Ketchikan	354	1,300,822	3,675
Kobuk	61	105,754	1,734
Kodiak	502	10,911,759	21,737
Kuskokwim	17	15,552	915
Matanuska/Susitna	7	27,282	3,897
Nome	161	130,709	812
Outer Ketchikan	43	220,700	5,133
Prince of Wales	100	311,817	3,118
Seward	49	1,163,494	23,745
Sitka	454	2,251,577	4,959
Skagway/Yakutat	120	221,546	1,846
Upper Yukon	3	--	--
Valdez/Whittier/			
Chitina	44	420,131	9,548
Wade Hampton	434	710,989	1,638
Wrangell/Petersburg	494	2,065,193	4,181
Yukon/Koyukuk	38	40,771	1,073
Other	2	--	--

1969
YEARLY SUMMARY BY STATE

State	Gear Operators Reporting	Gear Operators Percent of Total Excluding Unknown	Gross Earnings	Gross Earnings Percent of Total Excluding Unknowns
Alaska	6,146	76.5%	\$36,007,178	63.3%
California	304	3.8	2,613,714	4.6
Oregon	213	2.7	1,329,902	2.3
Washington	1,277	15.9	16,125,611	28.3
Other States and Countries	93	1.2	839,165	1.5
Area Unknown	392	---	2,111,708	---
Total	8,425		\$59,027,278	
Operator Unknown	---		9,429,631	
GRAND TOTAL			\$68,456,909	

1970
STATEWIDE TABULATION BY CENSUS DIVISION

Alaska

Census Division	Gear Operators Reporting	Gross Earnings	Average Gross Earnings
Aleutian Islands	161	\$5,462,681	\$33,930
Anchorage	587	3,551,093	6,050
Angeon	35	221,284	6,322
Bethel	482	1,111,078	2,305
Bristol Bay			
Borough	156	1,304,426	8,362
Division	738	5,112,333	6,927
Cordova/McCarthy	391	3,918,159	10,021
Fairbanks*	38	195,863	5,154
Haines	55	508,880	9,252
Juneau	504	1,369,804	2,718
Kenai/Cook Inlet	577	4,116,779	7,135
Ketchikan	409	1,840,408	4,500
Kobuk	81	334,548	4,130
Kodiak	511	11,824,518	23,140
Kuskokwim	19	21,931	1,154
Matanuska/Susitna	17	50,881	2,993
Nome	122	191,053	1,566
Outer Ketchikan	42	418,088	9,954
Prince of Wales	136	618,389	4,547
Seward	72	1,612,158	22,391
Sitka	493	1,414,706	2,870
Skagway/Yakutat	123	282,536	2,297
Upper Yukon	3	--	--
Valdez/Whittier/			
Chitina	43	291,939	6,789
Wade Hampton	472	1,042,344	2,208
Wrangell/Petersburg	504	2,687,763	5,333
Yukon/Koyukuk	34	20,277	596
Other	1	--	--

*includes Southeast Fairbanks

1970
YEARLY SUMMARY BY STATE

State	Gear Operators Reporting	Gear Operators Percent of Total Excluding Unknown	Gross Earnings	Gross Earnings Percent of Total Excluding Unknowns
Alaska	6,806	75.9%	\$49,566,130	59.7%
California	324	3.6	6,217,002	7.5
Oregon	226	2.5	2,756,586	3.3
Washington	1,493	16.6	23,300,011	28.1
Other States and Countries	119	1.3	1,146,931	1.4
Area Unknown	200	---	2,409,251	---
Total	9,168		\$85,395,911	
Operator Unknown	---		11,580,104	
GRAND TOTAL			\$96,976,015	

1971
STATEWIDE TABULATION BY CENSUS DIVISION

Alaska

Census Division	Gear Operators Reporting	Gross Earnings	Average Gross Earnings
Aleutian Islands	179	\$4,360,467	\$27,712
Anchorage	451	1,696,717	3,762
Angoon	16	241,478	15,092
Bethel	496	946,941	1,909
Bristol Bay Borough	154	735,479	4,776
Division	736	4,390,218	5,965
Cordova/McCarthy	361	4,224,824	11,703
Fairbanks	34	155,386	4,570
Haines	60	413,282	6,888
Juneau	405	1,013,896	2,503
Kenai/Cook Inlet	528	4,147,804	7,856
Ketchikan	345	1,775,465	5,146
Kobuk	92	231,062	2,512
Kodiak	420	9,135,013	21,750
Kuskokwim	32	44,805	1,400
Matanuska/Susitna	12	36,954	3,080
Nome	138	197,184	1,429
Outer Ketchikan	60	514,913	8,582
Prince of Wales	102	731,954	7,176
Seward	60	1,618,293	26,972
Sitka	427	1,837,088	4,302
Skagway/Yakutat	102	262,075	2,569
Upper Yukon	4	7,266	1,817
Valdez/Whittier Chitina	44	552,664	12,561
Wade Hampton	537	1,957,972	3,646
Wrangell/Petersburg	417	2,620,252	6,284
Yukon/Koyukuk	33	27,194	824

1971
YEARLY SUMMARY BY STATE

State	Gear Operators Reporting	Gear Operators Percent of Total Excluding Unknown	Gross Earnings	Gross Earnings Percent of Total Excluding Unknowns
Alaska	6,245	76.9%	\$44,476,646	62.9%
California	306	3.8	3,472,760	4.9
Oregon	204	2.5	1,404,601	2.0
Washington	1,278	15.7	20,337,827	28.8
Other States and Countries	91	1.1	1,024,864	1.4
Area Unknown	386	---	2,615,758	---
Total	8,510		\$73,332,456	
Operator Unknown	---		4,070,246	
GRAND TOTAL			\$77,402,702	

Note: For the year 1971 only, earnings from halibut fishing (which amounted to approximately \$7,000,000 in that year) are not available on computerized files and are therefore excluded from the 1971 tables.

1972
STATEWIDE TABULATION BY CENSUS DIVISION

Alaska

Census Division	Gear Operators Reporting	Gross Earnings	Average Gross Earnings
Aleutian Islands	205	\$ 4,569,662	\$22,291
Anchorage	443	1,538,851	3,474
Angeon	41	272,208	6,639
Bethel	452	579,320	1,282
Bristol Bay			
Borough	144	174,604	1,213
Division	746	1,458,484	1,955
Cordova/McCarthy	357	2,927,354	8,200
Fairbanks*	17	25,950	1,526
Haines	66	634,078	9,607
Juneau	455	1,709,870	3,758
Kenai/Cook Inlet	579	5,403,972	9,333
Ketchikan	460	2,806,816	6,102
Kobuk	101	270,635	2,680
Kodiak	521	12,120,079	23,263
Kuskokwim	31	48,391	1,561
Matanuska/Susitna	12	66,618	5,552
Nome	141	126,812	899
Outer Ketchikan	57	618,833	10,857
Prince of Wales	127	915,589	7,209
Seward	64	2,010,823	31,419
Sitka	428	2,400,500	5,609
Skagway/Yakutat	121	351,384	2,904
Valdez/Whittier/ Chitina	49	278,429	5,682
Wade Hampton	571	1,523,662	2,668
Wrangell/Petersburg	481	3,683,310	7,658
Yukon/Koyukuk	40	32,422	811
Other	1	--	--

*Includes Southeast Fairbanks, Upper Yukon

1972
YEARLY SUMMARY BY STATE

State	Gear Operators Reporting	Gear Operators Percent of Total Excluding Unknown	Gross Earnings	Gross Earnings Percent of Total Excluding Unknowns
Alaska	6,710	77.7%	\$46,550,747	65.0%
California	293	3.4	1,565,801	2.2
Oregon	202	2.3	1,250,342	1.7
Washington	1,346	15.6	21,654,852	30.2
Other States and Countries	85	1.0	627,798	0.9
Area Unknown	287	---	2,662,725	---
Total	8,923		\$74,312,265	
Operator Unknown	---		11,809,222	
GRAND TOTAL			\$86,121,487	

1973
STATEWIDE TABULATION BY CENSUS DIVISION

Alaska

Census Division	Gear Operators Reporting	Gross Earnings	Average Gross Earnings
Aleutian Islands	176	\$9,727,919	\$55,272
Anchorage	529	2,457,273	4,645
Angoon	37	424,760	11,480
Bethel	573	1,042,735	1,820
Bristol Bay			
Borough	130	192,300	1,479
Division	1,295	2,144,655	1,656
Cordova/McCarthy	429	7,868,832	18,342
Fairbanks*	33	66,208	2,006
Haines	68	1,163,535	17,111
Juneau	578	2,818,091	4,876
Kenai/Cook Inlet	715	9,864,552	13,797
Ketchikan	502	4,519,736	9,003
Kobuk	137	861,064	6,285
Kodiak	526	23,427,095	44,538
Kuskokwim	21	43,774	2,084
Matanuska/Susitna	12	78,852	6,571
Nome	183	439,462	2,401
Outer Ketchikan	95	839,384	8,836
Prince of Wales	125	1,448,475	11,588
Seward	60	2,832,920	47,215
Sitka	519	5,232,836	10,083
Skagway/Yakutat	158	834,488	5,282
Upper Yukon	4	4,658	1,165
Valdez/Whittier/			
Chitina	51	693,371	13,596
Wade Hampton	625	2,114,278	3,383
Wrangell/Petersburg	612	8,756,540	14,308
Yukon/Koyukuk	47	45,084	959
Other	1	--	--

*includes Southeast Fairbanks

1973
YEARLY SUMMARY BY STATE

State	Gear Operators Reporting	Gear Operators Percent of Total Excluding Unknown	Gross Earnings	Gross Earnings Percent of Total Excluding Unknowns
Alaska	8,241	80.3%	\$89,946,286	66.3%
California	325	3.2	966,708	0.7
Oregon	208	2.0	2,174,307	1.6
Washington	1,407	13.7	41,324,742	30.5
Other States and Countries	81	0.8	1,239,793	0.9
Area Unknown	330	---	5,965,134	---
Total	10,592		\$141,616,970	
Operator Unknown	---		4,653,544	
GRAND TOTAL			\$146,270,514	

1974
STATEWIDE TABULATION BY CENSUS DIVISION

Alaska

Census Division	Gear Operators Reporting	Gross Earnings	Average Gross Earnings
Aleutian Islands	172	\$ 8,014,904	\$46,598
Anchorage	396	2,431,768	6,141
Angoon	34	301,629	8,871
Bethel	663	1,169,472	1,764
Bristol Bay			
Borough	97	712,875	7,349
Division	464	3,041,573	6,555
Cordova/McCarthy	378	6,163,239	16,305
Fairbanks	31	136,486	4,403
Haines	73	981,755	13,449
Juneau	573	2,648,309	4,622
Kenai/Cook Inlet	715	10,239,372	14,321
Ketchikan	502	4,552,194	9,068
Kobuk	186	1,632,362	8,776
Kodiak	531	24,553,882	46,241
Kuskokwim	28	99,990	3,571
Matanuska/Susitna	20	106,432	5,322
Nome	189	497,093	2,630
Outer Ketchikan	115	847,733	7,372
Prince of Wales	138	1,582,111	11,465
Seward	62	2,977,535	48,025
Sitka	408	3,596,122	7,221
Skagway/Yakutat	153	965,009	6,307
Upper Yukon	9	4,896	544
Valdez/Whittier/			
Chitina	25	232,761	9,310
Wade Hampton	612	2,674,426	4,370
Wrangell/Petersburg	604	7,456,749	12,346
Yukon/Koyukuk	103	389,976	3,786
Other	1	--	--

1974
YEARLY SUMMARY BY STATE

State	Gear Operators Reporting	Gear Operators Percent of Total Excluding Unknown	Gross Earnings	Gross Earnings Percent of Total Excluding Unknowns
Alaska	7,372	83.3%	\$88,010,662	67.0%
California	93	1.1	1,531,085	1.2
Oregon	144	1.6	2,718,330	2.1
Washington	1,193	13.5	38,284,316	29.1
Other States and Countries	49	0.6	841,107	0.6
Area Unknown	219	---	4,514,121	---
Total	9,070		\$135,899,621	
Operator Unknown	---		13,590,343	
GRAND TOTAL			\$149,489,964	

1975
STATEWIDE TABULATION BY CENSUS DIVISION

Alaska

Census Division	Gear Operators Reporting	Gross Earnings	Average Gross Earnings
Aleutian Islands	144	\$6,974,980	\$48,437
Anchorage	442	2,437,106	5,514
Angoon	35	262,054	7,487
Bethel	679	1,072,220	1,579
Bristol Bay			
Eorough	120	522,408	4,353
Division	605	2,735,663	4,522
Cordova/McCarthy	354	6,629,006	18,726
Fairbanks*	62	166,272	2,682
Haines	64	645,092	10,080
Juneau	402	2,022,992	5,032
Kenai/Cook Inlet	649	9,178,935	14,143
Ketchikan	446	2,682,067	6,014
Kobuk	231	1,327,150	5,745
Kodiak	526	18,529,020	35,226
Kuskokwim	19	48,281	2,541
Matanuska/Susitna	16	106,943	6,684
Nome	213	452,003	2,122
Outer Ketchikan	104	696,668	6,699
Prince of Wales	118	735,461	6,233
Seward	48	1,298,452	27,051
Sitka	388	2,778,184	7,160
Skagway/Yakutat	105	543,910	5,180
Upper Yukon	8	6,112	764
Valdez/Whittier/			
Chitina	27	286,478	10,610
Wade Hampton	661	2,414,086	3,652
Wrangell/Petersburg	521	6,353,834	12,195
Yukon/Koyukuk	162	274,465	1,694

*includes Southeast Fairbanks

1975
YEARLY SUMMARY BY STATE

State	Gear Operators Reporting	Gear Operators Percent of Total Excluding Unknown	Gross Earnings	Gross Earnings Percent of Total Excluding Unknowns
Alaska	7,149	81.3%	\$71,179,842	63.9%
California	240	2.7	2,387,329	2.1
Oregon	187	2.1	2,729,817	2.5
Washington	1,137	12.9	34,334,055	30.8
Other States and Countries	82	0.9	760,121	0.7
Area Unknown	192	---	4,276,870	---
Total	8,987		\$115,668,034	
Operator Unknown	---		13,131,138	
GRAND TOTAL			\$128,799,172	

1976
STATEWIDE TABULATION BY CENSUS DIVISION

Alaska

Census Division	Gear Operators Reporting	Gross Earnings	Average Gross Earnings
Aleutian Islands	160	\$14,780,142	\$92,376
Anchorage	476	4,919,600	10,335
Angoon	37	160,272	4,332
Bethel	642	2,312,044	3,601
Bristol Bay Borough	118	867,229	7,349
Division	659	7,666,657	11,634
Cordova/McCarthy	377	11,677,119	30,974
Fairbanks*	35	278,332	7,952
Haines	67	1,787,581	26,680
Juneau	425	3,748,094	8,819
Kenai/Cook Inlet	717	15,990,043	22,301
Ketchikan	440	4,986,140	11,332
Kobuk	202	449,163	2,224
Kodiak	629	38,816,826	61,712
Kuskokwim	19	41,499	2,184
Matanuska/Susitna	21	187,203	8,914
Nome	209	451,163	2,159
Outer Ketchikan	96	1,214,112	12,647
Prince of Wales	131	1,487,464	11,355
Seward	52	3,153,382	60,642
Sitka	440	5,822,575	13,233
Skagway/Yakutat	124	978,262	7,889
Upper Yukon	10	56,358	5,636
Valdez/Whittier/ Chitina	33	584,025	17,698
Wade Hampton	660	3,471,496	5,260
Wrangell/Petersburg	489	10,781,965	22,049
Yukon/Koyukuk	64	113,932	1,780

*includes Southeast Fairbanks

1976
YEARLY SUMMARY BY STATE

State	Gear Operators Reporting	Gear Operators Percent of Total Excluding Unknown	Gross Earnings	Gross Earnings Percent of Total Excluding Unknowns
Alaska	7,332	80.0%	\$136,782,678	63.6%
California	251	2.7	4,048,386	1.9
Oregon	208	2.3	5,118,467	2.4
Washington	1,292	14.1	67,728,253	31.5
Other States and Countries	81	0.9	1,518,305	0.7
Area Unknown	188	---	6,255,790	---
Total	9,352		\$221,451,879	
Operator Unknown	---		21,635,846	
GRAND TOTAL			\$243,087,725	

Southeastern Drift Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	6,842	8,993	7,045	9,828	12,943	9,503	7,823	18,401	23,558
Plus Bonus Payments at 9.2% of Gross	629	827	648	904	1,191	874	720	1,693	2,167
TOTAL EARNINGS	7,471	9,820	7,693	10,732	14,134	10,377	8,543	20,094	25,725
LESS:									
Operating Costs	1,830	2,049	2,086	2,112	1,784	1,719	1,413	2,206	2,598
Fixed Costs	1,499	1,556	1,604	1,645	1,709	1,905	2,183	2,341	2,518
Capital Costs	2,604	2,703	2,786	2,858	2,969	3,309	4,725	5,201	6,269
TOTAL COSTS	5,933	6,308	6,476	6,615	6,462	6,933	8,321	9,748	11,385
Net Earnings	1,538	3,512	1,217	4,117	7,672	3,444	222	10,346	14,340
Less Crew Share of 17.7% of Gross	1,213	1,594	1,249	1,743	2,295	1,685	1,387	3,262	4,177
Return to Operator	325	1,918	-32	2,374	5,377	1,759	-1,165	7,084	10,163

Southeastern Power Troll

	1973	1975	1976	1977
Average Gross Earnings	8,629	4,858	10,673	13,049
PLUS:				
Bonus Payments at 2.6% of Gross	227	126	277	339
TOTAL EARNINGS	8,906	4,984	10,950	13,388
LESS:				
Operating Costs	1,946	2,676	3,696	4,111
Fixed Costs	1,060	1,354	1,452	1,562
Capital Costs	3,272	4,752	5,058	5,881
TOTAL COSTS	6,278	8,782	10,206	11,554
Net Earnings	2,628	-3,924	744	1,834
Less Crew Share of 33.7% of Gross	2,929	1,637	3,597	4,398
Return to Operator	-301	-5,561	-2,853	-2,564

Southeastern Hand Troll

	1973	1975	1976	1977
Average Gross Earnings	1,238	501	1,182	1,768
PLUS:				
Bonus Payments at 0.6% of Gross	7	3	7	11
TOTAL EARNINGS	1,245	504	1,189	1,779
LESS:				
Operating Costs	491	1,063	1,549	2,185
Fixed Costs	452	577	619	666
Capital Costs	906	1,157	1,241	1,335
TOTAL COSTS	1,849	2,797	3,409	4,186
Net Earnings	-604	-2,293	-2,220	-2,407
Less Crew Share of 43.9% of Gross	543	221	522	781
Return to Operator	-1,147	-2,514	-2,742	-3,188

Prince William Sound Purse Seine

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	13,487	8,195	19,448	*	20,762	3,757	21,500	23,520	34,498
Less:									
Operating Costs	2,538	1,919	3,240	*	1,861	1,313	3,360	3,575	4,576
Fixed Costs	2,430	2,522	2,600	*	2,770	3,087	3,538	3,794	4,081
Capital Costs	3,187	3,308	3,411	*	3,634	4,050	5,314	6,102	8,694
TOTAL COSTS	8,155	7,749	9,251	*	8,265	8,450	12,212	13,471	17,351
Net Earnings	5,332	446	10,197	*	12,497	-4,693	9,288	10,049	17,147
Less Crew Share of 29% of Gross	6,058	3,681	8,736	*	9,326	1,688	9,657	10,565	15,496
Return to Operator	-726	-3,235	1,461	*	3,171	-6,381	-369	-516	1,651

Prince William Sound Drift Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976*	1977*
Average Gross Earnings	3,863	4,708	4,052	5,234	6,803	10,953	6,661	19,523	17,829
Plus Bonus Payments at 2.4% of Gross	93	113	97	126	164	263	160	470	429
TOTAL EARNINGS	3,956	4,821	4,149	5,360	6,967	11,216	6,821	19,993	18,258
LESS:									
Operating Costs	1,014	1,258	1,108	1,382	1,471	2,001	1,825	3,264	3,047
Fixed Costs	1,366	1,417	1,461	1,499	1,557	1,735	1,989	2,183	2,348
Capital Costs	1,304	1,354	1,396	1,431	1,487	1,657	2,213	3,122	4,430
TOTAL COSTS	3,684	4,029	3,965	4,312	4,515	5,393	6,027	8,569	9,825
Net Earnings	272	729	184	1,048	2,452	5,823	794	11,424	8,433
Less Crew Share of 2.4% of Gross**	94	114	98	127	165	265	161	484	442
Return to Operator	178	678	86	921	2,287	5,558	633	10,940	7,991

*1976 and 1977 estimates are based on a 1976 CFEC survey by June Baker and Ben Muse.

**The 1976 crewshare percentage is more accurate than the 1973 figure and has been used for all years.

Yakutat Set Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	1,714	1,750	2,547	2,893	4,760	4,059	3,910	8,622	12,601
Less:									
Operating Costs	1,933	1,633	2,331	1,932	2,145	2,142	2,526	3,361	4,250
Fixed Costs	1,147	1,191	1,228	1,259	1,308	1,458	1,671	1,791	1,927
Capital Costs	2,956	3,068	3,163	3,244	3,370	3,756	4,367	5,322	5,800
TOTAL COSTS	6,036	5,892	6,722	6,435	6,823	7,356	8,564	10,474	11,977
Net Earnings	-4,322	-4,142	-4,175	-3,542	-2,063	-3,297	-4,654	-1,852	624
Less Crew Share of 25% of Gross	429	438	637	723	1,190	1,015	978	2,156	3,150
Return to Operator	-4,751	-4,580	-4,812	-4,265	-3,253	-4,312	-5,632	-4,008	2,526

Cook Inlet Purse Seine

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	3,269	6,965	9,930	4,306	15,353	3,406	22,522	9,636	35,610
Plus Bonus Payments at 0.4% of Gross	14	29	41	18	64	14	94	40	148
TOTAL EARNINGS	3,283	6,994	9,971	4,324	15,417	3,420	22,616	9,676	35,758
LESS:									
Operating Costs	1,725	2,076	1,373	957	1,748	617	2,649	1,834	3,951
Fixed Costs	1,422	1,476	1,521	1,560	1,621	1,807	2,071	2,220	2,388
Capital Costs	2,262	2,348	2,420	2,483	2,579	2,875	3,294	4,250	4,919
TOTAL COSTS	5,409	5,900	5,314	5,000	5,948	5,299	8,014	8,304	11,258
Net Earnings	-2,126	1,094	4,657	-676	9,469	-1,879	14,602	1,372	24,500
Less Crew Share of 50.6% of Gross	1,654	3,523	5,023	2,178	7,766	1,723	11,393	4,874	18,013
Return to Operator	-3,780	-2,429	-366	-2,854	1,703	-3,602	3,209	-3,502	6,487

Cook Inlet Drift Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976*	1977*
Average Gross Earnings	2,251	3,308	2,579	4,978	8,709	6,661	8,320	15,323	20,112
Plus Bonus Payments at 2.9% of Gross	65	95	74	143	251	190	240	441	579
TOTAL EARNINGS	2,316	3,403	2,653	5,121	8,960	6,801	8,560	15,764	20,691
LESS:									
Operating Costs	904	1,055	493	946	1,158	1,012	1,335	1,959	2,440
Fixed Costs	938	974	1,004	1,030	1,070	1,193	1,367	2,817	3,031
Capital Costs	1,514	1,571	1,620	1,661	1,726	1,924	2,476	5,321	6,191
TOTAL COSTS	3,356	3,600	3,117	3,637	3,954	4,129	5,178	10,097	11,662
Net Earnings	-1,040	-197	-464	1,484	5,006	2,672	3,382	5,667	9,029
Less Crew Share of 19% of Gross**	428	629	490	946	1,655	1,256	1,581	2,911	1,233
Return to Operator	-1,468	-826	-954	538	3,351	1,416	1,801	2,756	7,796

*1976 and 1977 estimates are based on a 1976 CFEC survey by June Baker and Ben Muse.

**The 1976 crewshare percentage is more accurate than the 1973 figure and has been used for all years.

Cook Inlet Set Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	2,120	2,590	1,899	3,560	4,676	5,612	4,225	8,754	13,209
Plus Bonus Payments at 0.2% of Gross	5	6	4	8	11	13	10	20	30
TOTAL EARNINGS	2,125	2,596	1,903	3,568	4,687	5,625	4,235	8,774	13,239
LESS:									
Operating Costs	1,485	1,917	1,242	1,568	1,349	1,563	1,685	2,039	1,953
Fixed Costs	546	567	585	600	623	694	796	853	918
Capital Costs	3,718	3,859	3,978	4,080	4,239	4,725	5,587	6,017	6,823
TOTAL COSTS	5,749	6,343	5,275	6,248	6,211	6,982	8,068	8,909	9,694
Net Earnings	-3,624	-3,747	-3,372	-2,680	-1,524	-1,357	-3,833	-135	3,545
Less Crew Share of 42.8% of Gross	908	1,109	813	1,524	2,002	2,403	1,809	3,748	5,655
Return to Operator	-4,532	-4,856	-4,185	4,204	-3,526	-3,760	-5,642	-3,883	-2,110

Kodiak Purse Seine

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	24,594	19,687	11,178	9,058	6,147	22,028	14,867	48,577	45,848
Plus Bonus Payments at 1.9% of Gross	480	384	218	177	120	430	290	947	894
TOTAL EARNINGS	25,074	20,071	11,396	9,235	6,267	22,458	15,157	49,524	46,742
LESS:									
Operating Costs	5,011	4,439	3,029	3,405	1,675	3,418	3,134	7,502	6,018
Fixed Costs	2,105	2,185	2,252	2,310	2,400	2,675	3,066	3,287	3,536
Capital Costs	3,286	3,411	3,517	3,607	3,747	4,176	5,178	6,194	7,561
TOTAL COSTS	10,402	10,035	8,798	9,322	7,822	10,269	11,378	16,983	17,115
Net Earnings	14,672	10,036	2,598	-87	-1,555	12,189	3,779	32,541	29,627
Less Crew Share of 42.8% of Gross	10,523	8,424	4,783	3,876	2,630	9,425	6,361	20,785	19,617
Return to Operator	4,149	1,612	-2,185	-3,963	-4,185	2,764	-2,582	11,756	10,010

Kodiak Set Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	3,431	4,290	2,959	2,481	1,558	4,834	4,639	16,046	19,656
Plus Bonus Payments at 5% of Gross	172	215	148	124	78	242	232	804	985
TOTAL EARNINGS	3,603	4,505	3,107	2,605	1,636	5,076	4,871	16,850	20,641
LESS:									
Operating Costs	3,701	3,900	1,880	2,315	965	1,726	2,061	4,518	4,358
Fixed Costs	521	541	557	572	594	662	759	814	875
Capital Costs	2,222	2,306	2,377	2,438	2,533	2,823	3,628	3,909	4,503
TOTAL COSTS	6,444	6,747	4,814	5,325	4,092	5,211	6,448	9,241	5,736
Net Earnings	-2,841	-2,242	-1,707	-2,720	-2,456	-135	-1,577	7,609	14,905
Less Crew Share of 55.6% of Gross	1,909	2,387	1,646	1,380	867	2,690	2,581	8,923	10,937
Return to Operator	-4,750	-4,629	-3,353	-4,100	-3,323	-2,825	-4,158	-1,319	3,968

Chignik Purse Seine

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	23,632	40,024	35,968	12,573	38,803	32,068	20,694	70,337	180,776
Plus Bonus Payments at 4.5% of Gross	1,063	1,801	1,619	566	1,746	1,443	931	3,165	8,135
TOTAL EARNINGS	24,695	41,825	37,587	13,139	40,549	33,511	21,625	73,502	188,911
LESS:									
Operating Costs	4,499	5,496	5,355	3,774	5,096	5,515	5,494	8,148	7,411
Fixed Costs	2,864	2,972	3,064	3,143	3,265	3,639	4,171	4,472	4,811
Capital Costs*	6,828	7,087	7,306	7,494	7,785	9,154	10,841	11,905	15,007
TOTAL COSTS	14,191	15,555	15,725	14,411	16,146	18,308	20,506	24,525	27,229
Net Earnings	10,504	26,270	21,862	-1,272	24,403	15,203	1,119	48,978	161,682
Less Crew Share of 42.3% of Gross	9,993	16,925	15,210	5,317	16,408	13,560	8,751	29,743	76,443
Return to Operator	511	9,345	6,652	-6,589	7,995	1,643	-7,632	19,234	85,239

*Information on Chignik permit transfer prices is confidential because of the small number of transfers and could not be used in this analysis to determine the opportunity cost of permit ownership. Prince William Sound purse seine permit prices have been substituted for this purpose, as they are the highest in the state for the years covered here, but the opportunity costs of holding a Chignik permit, and thus capital costs, are probably higher than estimated.

Bristol Bay Drift Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976*	1977*
Average Gross Earnings	5,617	14,606	8,691	3,175	3,085	7,148	7,720	13,150	16,628
LESS:									
Operating Costs	903	1,338	1,125	793	677	1,170	1,055	1,320	1,469
Fixed Costs	743	771	795	815	847	944	1,082	1,780	1,915
Capital Costs	1,153	1,196	1,233	1,265	1,314	1,465	1,888	2,573	3,173
TOTAL COSTS	2,799	3,305	3,153	2,873	2,838	3,579	4,025	5,673	6,557
Net Earnings	2,818	11,301	5,538	302	247	3,569	3,695	7,477	10,071
Less Crew Share at 31.7% of Gross	1,782	4,634	2,757	1,007	979	2,268	2,449	4,172	5,275
Return to Operator	1,036	6,667	2,781	-705	-732	1,301	1,246	3,305	4,796

*1976 and 1977 estimates are based on a 1976 CFEC Survey by June Baker and Ben Muse.

**Although the 1973 CFEC Cost Survey found that 38% was the average crew share in this fishery, the 1976 CFEC Bristol Bay survey indicated that the average crew share was 31.7%. The 1976 crew share figure was determined to be more accurate and has been used for calculating the crew share for all years.

Bristol Bay Set Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	1,930	2,741	2,972	609	614	3,235	2,113	3,628	4,782
LESS:									
Operating Costs	947	1,297	1,238	792	633	1,090	1,207	1,538	1,778
Fixed Costs	216	224	231	237	246	274	314	337	362
Capital Costs	867	899	927	951	988	1,101	1,472	1,682	1,773
TOTAL COSTS	2,030	2,420	2,396	1,980	1,867	2,465	2,993	3,557	3,913
Net Earnings	-100	321	576	-1,371	-1,253	770	-880	125	869
Less Crew Share of 21.6% of Gross	416	591	641	131	132	698	456	782	1,031
Return to Operator	-516	-270	-65	-1,502	-1,385	72	-1,336	-657	-162

Penninsula - Aleutians Purse Seine

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	10,191	21,602	14,065	7,399	7,166	9,975	7,732	33,837	28,210
LESS:									
Operating Costs	1,301	1,545	1,916	1,238	928	860	519	1,890	2,529
Fixed Costs	381	395	407	418	434	484	554	594	639
Capital Costs*	1,501	1,558	1,606	1,647	1,711	1,907	2,656	3,491	4,634
TOTAL COSTS	3,183	3,498	3,929	3,303	3,073	3,251	3,729	5,975	7,802
Net Earnings	7,008	18,104	10,136	4,096	4,093	6,724	4,003	27,862	20,408
Less Crew Share of 34.2% of Gross	3,486	7,389	4,811	2,531	2,451	3,412	2,645	11,575	9,650
Return to Operator	3,522	10,715	5,325	1,565	1,642	3,312	1,358	16,287	10,758

*Because no data on permit transfers was available, Kodiak permit prices were substituted for the calculation of permit opportunity costs.

Penninsula - Aleutians Set Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	2,122	4,668	3,467	2,091	4,073	4,930	3,277	6,545	10,104
LESS:									
Operating Costs	710	818	832	730	545	456	472	891	891
Fixed Costs	381	395	407	418	434	484	554	594	639
Capital Costs	1,910	1,983	2,044	2,097	2,178	2,428	2,985	3,531	3,816
TOTAL COSTS	3,001	3,196	3,283	3,245	3,157	3,368	4,011	5,016	5,346
Net Earnings	-879	1,473	184	-1,154	916	1,562	-734	1,529	4,758
Less Crew Share of 38.5% of Gross	817	1,798	1,335	805	1,569	1,899	1,262	2,521	3,891
Return to Operator	-1,696	-326	-1,151	-1,959	-653	-337	-1,996	-992	867

Penninsula - Aleutians Drift Gill Net

	1969	1970	1971	1972	1973	1974	1975	1976	1977
Average Gross Earnings	8,466	9,469	9,409	7,707	7,283	7,000	7,771	17,041	19,075
LESS:									
Operating Costs	1,603	1,662	1,842	1,740	1,389	1,319	1,505	2,622	2,191
Fixed Costs	1,108	1,150	1,185	1,216	1,263	1,408	1,613	1,730	1,861
Capital Costs	2,027	2,104	2,169	2,225	2,311	2,576	3,278	3,915	4,623
TOTAL COSTS	4,738	4,916	5,196	5,181	4,963	5,303	6,396	8,267	8,675
Net Earnings	3,728	4,553	4,213	2,526	2,320	1,697	1,375	8,774	10,400
Less Crew Share of 23.4% of Gross	1,984	2,219	2,204	1,806	1,706	1,640	1,821	3,993	4,469
Return to Operator	1,744	2,334	2,009	720	614	57	-446	4,781	5,931

AVERAGE DAYS OF LANDINGS PER VESSEL MULTIPLIER FACTORS*

FISHERY	1969	1970	1971	1972	1973	1974	1975	1976	1977
Southeast Purse Seine	.7380	1.6313	1.2387	1.6945	1.0:17.2485 days	.9023	.5912	.7472	.7363
Prince Wm. Sound Purse Seine	1.5523	1.1291	1.8497	**	1.0:10.1385 days	.5971	1.3462	1.3440	1.5884
Cook Inlet Purse Seine	1.1213	1.2977	.8331	.5676	1.0: 9.1837 days	.2867	1.0923	.7129	1.4110
Kodiak Purse Seine	3.3955	2.8888	1.9131	2.1056	1.0: 7.0032 days	1.5902	1.3019	2.9492	2.1639
Chignik Purse Seine	1.0045	1.1809	1.1162	.7683	1.0:25.8987 days	.9123	.8014	1.1158	.9363
Penn. Aleutians Purse Seine	1.5911	1.8164	2.1860	1.3822	1.0: 8.3000 days	.7295	.3925	1.3513	1.6553
Southeastern Drift Gill Net	1.1665	1.2557	1.2405	1.2276	1.0:20.8796 days	.7900	.5755	.8458	.9161
Prince Wm. Sound Drift Gill Net	.7835	.9350	.7992	.9741	1.0:22.3230 days	1.1121	.8989	1.1806	1.0153
Cook Inlet Drift Gill Net	.8874	.9974	.4522	.8475	1.0: 9.7987 days	.7346	.8551	.9649	1.1033
Penn. Aleutians Drift Gill Net	1.3113	1.3061	1.4048	1.2979	1.0:13.1899 days	.7605	.7715	1.2683	.9726
Bristol Bay Drift Gill Net	1.5162	2.1613	1.7635	1.2143	1.0: 7.6561 days	1.4195	1.1335	1.4205	1.4767

(continued)

(continued)

FISHERY	1969	1970	1971	1972	1973	1974	1975	1976	1977
Yakutat Set Gill Net	1.0258	.9679	1.1548	.9346	1.0:17.8250 days	.8499	.8823	1.1010	1.2861
Prince Wm. Sound Set Gill Net	1.2365	.4957	**	1.5676	1.0:14.3684 days	1.1646	**	**	.7697
Cook Inlet Set Gill Net	1.2519	1.5550	.9970	1.2057	1.0: 9.3607 days	.9590	.9149	1.0411	.9183
Kodiak Set Gill Net	4.3684	4.4311	2.0728	2.4905	1.0: 4.4917 days	1.5344	1.6250	3.3349	2.9783
Penn. Aleutians Set Gill Net	1.4793	1.6421	1.6203	1.3898	1.0:11.6418 days	.6862	.6276	1.1167	1.0270
Upper Yukon Set Gill Net	1.1162	.9575	.7635	.4995	1.0: 7.3913 days	1.1628	.8876	.8402	1.0711
Bristol Bay Set Gill Net	1.7043	2.2481	2.0798	1.3002	1.0: 6.1158 days	1.4999	1.4568	1.7368	1.8603
Kuskokwim Set Gill Net	.9299	.8217	.4697	.6036	1.0:12.7217 days	.9144	.5717	.6978	.7836
Kotzebue Set Gill Net	.9147	1.4083	1.2190	1.2510	1.0:12.9180 days	.9842	1.2744	.8865	.9174
Lower Yukon Set Gill Net	.7972	.8035	.8479	.8280	1.0:16.0648 days	.9548	.7719	.8398	.8920
Norton Sound Set Gill Net	1.9844	2.2438	1.7504	1.3489	1.0: 7.6808 days	1.0782	1.2997	1.3444	1.5992

*Multiplier factors were prepared by using 1973 as the base year and dividing the days of landings for other years by the 1973 base figure for each fishery.

**Fishery was not opened.

Source: CFEC printout R01-03B-4550: Catch Data Tabulation from Gross Earnings file.

Percentage of Interim-Use permits
Issued in Limited Fisheries.

FISHERY	1975			1976			1977		
	Permanent	Interim	% of Total	Permanent	Interim	% of Total	Permanent	Interim	% of Total
Southeast Purse Seine	398	77	16.21%	409	9	2.15%	409	3	0.73%
Prince Wm. Sound "	210	90	30.0%	247	35	12.41%	255	18	6.59%
Cook Inlet "	49	51	51.0%	63	16	20.25%	72	10	12.2%
Kodiak "	334	134	28.63%	358	36	9.14%	363	13	3.46%
Chignik "	85	6	6.59%	90	3	3.23%	90	1	1.1%
Penn. Aleutians "	108	18	14.29%	112	2	1.75%	113	0	0%
Southeastern Drift Gill Net	431	80	15.66%	451	36	7.39%	459	14	2.96%
Prince Wm. Sound "	494	89	15.27%	514	25	4.64%	523	8	1.51%
Cook Inlet "	453	331	42.22%	514	82	13.76%	538	36	6.27%
Penn. Aleutians "	152	21	12.14%	153	2	1.29%	152	2	1.3%
Bristol Bay "	1416	645	31.3%	1,621	99	5.76%	1,657	65	3.77%

(continued)

FISHERY	1975			1976			1977		
	Permanent	Interim	% of Total	Permanent	Interim	% of Total	Permanent	Interim	% of Total
Yakutat Set Gill Net	148	68	31.48%	156	3	1.89%	157	1	0.63%
Prince Wm. " Sound	26	1	3.7%	28	0	0%	28	1	3.45%
Cook Inlet "	657	376	36.4%	711	7	0.97%	729	2	0.27%
Kodiak "	139	90	39.3%	176	11	5.88%	180	5	2.7%
Penn. Aleutians "	82	27	24.77%	105	10	8.70%	106	2	1.85%
Upper Yukon "	Not limited in 1975			35	83	70.34%	44	25	36.23%
Bristol Bay "	716	205	22.26%	759	5	0.65%	819	16	1.92%
Kuskokwim "	Not limited in 1975			1177	489	41.55%	749	75	10.01%
Kotzebue "	"	"	"	118	196	62.42%	173	60	25.75%
Lower Yukon "	"	"	"	678	263	27.95%	675	8	1.02%
Norton Sound "	"	"	"	169	141	45.48%	171	34	19.88%

