

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 86 / 25

575 SCOM117: JOINT INTERIM COMM. ON LIMITED ENTRY 1979

1976 ANNUAL REPORT

COMMERCIAL FISHERIES ENTRY COMMISSION

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MAY 1977

INTRODUCTION

Three major events took place in 1976 in connection with Alaska's program for limiting entry into its commercial fisheries. The people of Alaska renewed their support for the limited entry concept by voting nearly two to one against an initiative to repeal the limited entry law. The Alaska Supreme Court upheld the law by ruling the limited entry program constitutional in all respects except the cutoff date for application eligibility. Finally the ability of limited entry to protect Alaskan fisheries was demonstrated when it blocked a potentially massive influx of Washington and Oregon fishing vessels affected by court decisions in those states.

The Commission's activities can be classified as those relating to permits and to research--both directed toward regulating entry into Alaska's commercial fisheries. The Commission's permit activity included: renewing permits through a new computerized system; issuing entry permits to Arctic-Yukon-Kuskokwim fishermen; reopening the application process as a result of a court ruling changing the cutoff date; and regulating the transferal of permits according to restrictions outlined in the law. Permit application adjudications and appeal hearings for all fisheries under entry limitation in 1975 neared completion by the end of the year.

Research activities began in two new fisheries. The herring fisheries were analyzed to determine whether they needed limitation and the appropriate regulations were proposed. In the shellfish fisheries statewide, a major bio-economic study was initiated. Another project involved the development of a new program to combine commercial licensing with entry permits in order to simplify the paperwork for both the fishermen and the State. Support for research activities came from the data processing section which continued its development of a statewide fisheries information system.

This annual report to the Legislature reviews the three major events of 1976 which impacted limited entry and the Commission activities mentioned above. The report will conclude with a look at new activities for the coming year and recommendations for legislative changes.

MAJOR EVENTS OF 1976

Election Summary

The most significant event affecting limited entry in 1976 was the November General Election. The initiative to repeal limited entry into Alaska's commercial fisheries was soundly defeated by a margin of nearly two to one. The limited entry issue, Ballot Proposition Number 5, became one of the most controversial Alaskan issues in the election and received more total votes than any other ballot or bonding proposition, even more official votes than the capital site selection measure.

Nearly 62% of the registered voters cast ballots in the election, and of those 93.4% voted either for or against the limited entry proposition. A vote "For" the proposition would have repealed the limited entry statute; a vote "Against" the proposition would have retained the law. A summary of the official election returns by district is given on the following page.

Supreme Court Test

Another major event of 1976 was the Alaska Supreme Court decision in the Isakson v. Rickey case. The case, which was pending most of the year, involved eleven fishermen who entered a fishery as first time gear license holders after 1972. They were originally ineligible to apply for a permit because they had not fished as gear license holders between 1960 and 1972, as required by statute. In January 1975 the plaintiff fishermen filed a complaint challenging the limited entry law. The Superior Court entered a judgment in favor of the Commission in May 1975. The fishermen appealed the decision to the Alaska Supreme Court, and in May 1976 the Supreme Court issued an opinion stating that the plaintiff fishermen should be eligible to apply for permits. In all other respects the limited entry law was upheld. The Supreme Court's opinion was implemented in a judgment from the Superior Court on September 24, 1976. The plaintiff fishermen then filed a motion to amend the judgment, but on November 8, 1976, the Superior Court denied their motion. Before taking the steps necessary to allow application by fishermen affected by the Isakson decision, the Commission waited 30 days to see if any further appeals would be taken. There was no appeal and on December 16, 1976 the Commission adopted a regulation to allow an application period for fishermen made eligible by the Isakson decision.

Boldt and Belloni Decision

Federal court decisions by Judges Boldt and Belloni to allot up to 50% of Washington and Oregon's commercial salmon catch to treaty Indians severely reduced the catch available

BALLOT PROPOSITION NUMBER 5
INITIATIVE TO REPEAL LIMITED ENTRY
VOTES BY ELECTION DISTRICT

District Number	"For"	"Against"	District Name
1	1499	3622	Ketchikan-Prince of Wales
2	1041	1534	Wrangell-Petersburg
3	1268	1727	Sitka
4	2420	6350	Juneau-Lynn Canal
5	1408	2135	Cordova-Valdez-Seward
6	1725	2905	Palmer
7	2537	4567	Anchorage Northwest
8	3142	5840	Anchorage Northeast
9	1590	2858	Anchorage Spenard
10	3623	6077	Anchorage East
11	3740	6758	Anchorage South
12	3359	5843	Anchorage West
13	2155	4474	Kenai-Cook Inlet
14	1335	983	Kodiak
15	659	626	Aleutian Chain
16	681	1312	Bristol Bay
17	1044	1233	Bethel
18	871	865	Wade Hampton
19	1501	1900	Yukon-Tanana
20	6510	11615	Fairbanks
21	1133	770	Barrow-Kobuk
22	1063	1131	Nome
TOTAL	44304	75125	

to other fishermen in those areas and created a strong impetus for those fishermen to move into fisheries off Alaska. Potentially 5,000 Washington fishermen as well as many of the Oregon Columbia River fishermen were prevented from moving into this State's salmon fisheries by Alaska's limited entry law. In July of 1969 the Federal District Court filed a decree that the tribes who had signed the 1857 treaty had the right "of taking fish at all usual and accustomed places" on the Columbia River and its tributaries. The Indians were allotted 50% of the harvest that was destined to reach the tribes' usual accustomed grounds. In 1974 both Washington and Oregon tried to appeal the decision, but it was upheld by Judge Robert C. Belloni of the U. S. Court of Appeals on January 28, 1976. Judge George Boldt of Washington applied the treaty rights throughout Washington, and awarded the 50% allotment to all the treaty tribes. In an already depressed fishery, these decisions made fishing economically unfeasible for many residents. If Alaska's limited entry law had not been in effect, it is quite likely that many of these displaced fishermen would have entered this State's fishery.

PERMIT ACTIVITY

In 1976 permit activity consisted of five separate functions. These were: 1) permit renewal; 2) Arctic-Yukon-Kuskokwim permit issuance; 3) salmon application period reopening; 4) permit transfers; and 5) hearings and adjudication of appeals.

A new permit renewal system using pre-printed computer cards was implemented in 1976. These cards were mailed to the fishermen to be reviewed, signed, and returned with the specified fee. This system proved to be accurate and efficient for the Commission and easy and time-saving for the fisherman. Further steps were taken by the Data Processing Section in 1976 to make permit issuance even smoother by mass producing the 1977 plastic permit cards with an automated embossing process. This process eliminates the need to emboss the majority of the cards manually at the time of issuance.

Entry permits made up 42% or 9,166 of the 21,601 permits issued in 1976. These included the issuance of permanent permits to the Arctic-Yukon-Kuskokwim salmon fishermen and the renewal of permits to other salmon fishermen in the State. The table on page 4 shows that in 7 fisheries the maximum number has been slightly exceeded. Permits may be issued above the maximum number only to eligible applicants who would suffer significant economic hardship by exclusion from the fishery. All gear operators in fisheries not under entry limitation were issued interim-use permits. The number of permits issued in 1976 for selected fisheries is

ENTRY PERMIT STATUS IN 1976

	<u>Maximum Number</u>	<u>Entry Permits</u>	<u>Pending Permits*</u>
Southeastern			
Purse Seine	395	409	9
Drift Gill Net	453	449	38
Yakutat			
Set Gill Net	150	156	3
Prince William Sound			
Purse Seine	258	247	35
Drift Gill Net	511	514	25
Set Gill Net	32	28	7
Cook Inlet			
Purse Seine	68	63	16
Drift Gill Net	545	514	82
Set Gill Net	686	706	7
Kodiak			
Purse Seine	368	358	36
Beach Seine	27	23	
Set Gill Net	183	176	11
Chignik			
Purse Seine	80	90	3
Peninsula-Aleutians			
Purse Seine	111	112	2
Drift Gill Net	155	153	2
Set Gill Net	110	106	10
Bristol Bay			
Drift Gill Net	1669	1621	99
Set Gill Net	803	759	5
Kuskokwim			
Gill Net	810	687	489
Kotzebue			
Set Gill Net	214	118	196
Lower Yukon			
Gill Net	671	678	263
Upper Yukon			
Gill Net	63	35	83
Fishwheel	126	80	169
Norton Sound			
Set Gill Net	195	169	141
Statewide			
Power Gurdy Troll	950	916	83

*Interim-use permits issued in limited fisheries to individuals whose applications have not been finalized.

given in the table on page 6. These figures do not include interim-use permits in the limited fisheries issued to those individuals who have not received a final determination on their application for an entry permit.

AYK Salmon Permit Issuance

Regulations for limiting the Arctic-Yukon-Kuskokwim commercial salmon fisheries were adopted in February of 1976. The following month 3,200 pre-printed application forms with instruction booklets were mailed to all fishermen of record who participated from 1970 through 1976 in any of the 6 designated salmon fisheries. The fisheries are: Kotzebue Gill Net; Norton Sound Gill Net; Lower Yukon Gill Net; Upper Yukon Gill Net; Upper Yukon Fish Wheels; and Kuskokwim Gill Net.

The Commission went to considerable effort to insure that all fishermen were informed about limited entry and that assistance was available for making application. Qualification points, which the Commission's records could support, were pre-printed on the individual's application. Blank application forms were made available in local areas. Advertisements were put in local newspapers, and radio and television spots were broadcast in English and Yupik. Contracts were signed with four different AYK native organizations for bilingual application assistance services to natives and non-natives alike. The two-month application period was extended an additional month, and a 60-day late application period for good cause was made available. The application returns reflected the comprehensive program of field assistance. Eighty percent of the pre-printed applications were completed and returned to the Commission.

Since it took six months to review and substantiate the majority of applications, determinations about permit issuance could not be made in time for the 1976 fishing season. Therefore any fisherman who was eligible to apply for a permit was allowed to fish in 1976.

Salmon Application Period Reopened

The Supreme Court through the Isakson v. Rickey court case determined that any fisherman who fished in 1973 or 1974 as a gear license holder for the first time would be eligible to apply and be ranked by the point system which ran from 1960 through December 31, 1972. Previously only gear license holders who participated at any time up through December 31, 1972 were eligible to apply.

Application forms and instruction booklets were mailed to the 2,961 individuals on record who fished a salmon gear license for the first time in 1973 or 1974, as well as to the applicants who were determined ineligible to apply

ENTRY AND INTERIM-USE PERMITS ISSUED IN 1976
FOR SELECTED FISHERIES

ENTRY PERMITS

<u>SALMON</u>	
<u>Southeastern</u>	
Purse Seine	404
Drift Gill Net	484
<u>Yakutat</u>	
Set Gill Net	154
<u>Prince William Sound</u>	
Purse Seine	280
Drift Gill Net	526
Set Gill Net	33
<u>Cook Inlet</u>	
Purse Seine	77
Drift Gill Net	581
Set Gill Net	676
<u>Kodiak</u>	
Purse Seine	387
Beach Seine	23
Set Gill Net	183
<u>Chignik</u>	
Purse Seine	92
<u>Peninsula-Aleutians</u>	
Purse Seine	110
Drift Gill Net	150
Set Gill Net	110
<u>Bristol Bay</u>	
Drift Gill Net	1674
Set Gill Net	736
<u>Kuskokwim</u>	
Gill Net	1175
<u>Kotzebue</u>	
Set Gill Net	314
<u>Lower Yukon</u>	
Gill Net	941
<u>Upper Yukon</u>	
Gill Net	118
Fishwheel	249
<u>Norton Sound</u>	
Set Gill Net	310
<u>Statewide</u>	
Power Gurdy Troll	976

INTERIM-USE PERMITS

<u>SHELLFISH (by vessel length)</u>	
<u>Dungeness</u>	
Statewide	
under 50 feet	165
over 50 feet	35
<u>Tanner</u>	
Statewide	
under 50 feet	229
over 50 feet	288
<u>King Crab</u>	
<u>Southeastern</u>	
under 50 feet	38
over 50 feet	8
<u>Prince William Sound</u>	
under 50 feet	27
over 50 feet	4
<u>Cook Inlet</u>	
under 50 feet	74
over 50 feet	31
<u>Kodiak</u>	
under 50 feet	152
over 50 feet	137
<u>Peninsula-Aleutians</u>	
under 50 feet	36
over 50 feet	12
<u>Dutch Harbor</u>	
under 50 feet	8
over 50 feet	149
<u>Bering Sea</u>	
under 50 feet	5
over 50 feet	226
<u>Adak</u>	
over 50 feet	17
<u>Western Aleutians</u>	
over 50 feet	20
<u>OTHER</u>	
<u>Halibut Statewide</u>	
Hand Troll	35
Long Line	
under 26 feet	1079
over 26 feet	969
<u>Salmon Statewide</u>	
Hand Troll	2081

during the original application period. The new application period began on January 15, 1977 and will terminate on June 15, 1977, with an additional 30 day period in which tardy applications can be accepted if good cause is shown.

Transfers

An entry permit may be transferred by selling it, trading it, or giving it away as a gift or inheritance. The Commission must be notified that a transfer is intended and 60 days must elapse from the date of filing notice before the actual transfer may be made.

In 1976, 692 permits were permanently transferred, compared to 553 transfers in 1975, the first year transfers could be made.

The continuing trend has been to transfer permits to Alaskan residents, as can be seen in the following table:

ENTRY PERMIT TRANSFERS

<u>Residency</u>	1975		1976		Total	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Resident to resident	285	52%	344	50%	629	50%
Nonresident to nonresident	166	30%	212	31%	378	30%
Nonresident to resident	79	14%	81	12%	160	13%
Resident to nonresident	<u>23</u>	<u>4%</u>	<u>55</u>	<u>8%</u>	<u>78</u>	<u>6%</u>
Total	553	100%	692	100%	1245	100%

The price of permits being transferred was noticeably affected by the initiative to repeal the limited entry law. Prior to the election, permit prices generally dropped below previous levels since the purchaser had to assume the risk of the permit losing its value should the limited entry law be defeated. The results of the election, however, assured the continuation of the program and the permit market reflected this with higher permit prices. The table on page 8 gives the number of sales and the average price paid for permits in 1976. The information was obtained from questionnaires sent to the transferees and transferors. Approximately 36% of all transfers involved no exchange of funds because they were made between family members or other special parties, such as skippers and crewmen. The price table does not include these non-monetary transfers.

PERMIT SALES AND PRICES PAID IN 1976

<u>Fishery</u>	<u>Total Number of Sales in 1976</u>	<u>Average Price of Permit in 1976</u>	<u>Average Price Since November 1976 Election</u>
Southeastern Purse Seine	11	\$ 9,000	\$14,071
Southeastern Drift Gill Net	18	9,564	10,500
Yakutat Set Gill Net	7	3,657	
Prince William Sound Purse Seine	13	10,115	
Prince William Sound Drift Gill Net	28	4,562	8,417
Cook Inlet Purse Seine	3	6,666	10,250
Cook Inlet Drift Gill Net	50	5,160	7,265
Cook Inlet Set Gill Net	20	1,720	8,675
Kodiak Purse Seine	20	7,780	12,571
Kodiak Set Gill Net	14	4,621	4,250
Kodiak Beach Seine			5,500
Bristol Bay Drift Gill Net	39	2,484	3,332
Bristol Bay Set Gill Net	20	2,087	1,500
Peninsula-Aleutians Drift Gill Net	6	6,250	10,000
Peninsula-Aleutians Set Gill Net	3	6,666	6,500
Statewide Power Troll	37	4,649	7,313

Hearings

Hearings and adjudications of appeals for the original 19 salmon fisheries which came under limitation in 1975 neared completion in 1976. Approximately 400 hearings have taken place. Most of the hearings occurred in 1975, and approximately 100 of these were resolved prior to adjudication. The majority of the 252 adjudications made were in 1976. There are approximately 70 cases that remain open for resolution in 1977.

In addition to the Commissioners' review and adjudications of administrative appeals, the Commissioners have reconsidered 25 cases to date, and have made more than 100 determinations on late applications and emergency transfers.

RESEARCH

Every action the Commission takes in identifying a fishery in need of limited entry and subsequently implementing a program for limitation is based on specialized research. Each fishery has its own complexities and unique management problems. The Commission generally allows from a few months to more than a year for field investigations, talks with fishermen, and social, economic and biological research prior to limiting a fishery. Advice is requested from Fish and Game personnel who are familiar with the specific problems and management practices of their fisheries.

The Commission's own research efforts were directed mainly at the herring and shellfish fisheries; developing a new program for commercial licensing; and continuing its formation of a statewide fisheries information system.

Herring

Herring research was initiated in response to requests from the Department of Fish and Game and from fishermen, including a petition from 26 fishermen involved in the Southeastern herring sac roe purse seine fishery. The record of these herring fisheries in Southeastern, Prince William Sound, and Cook Inlet indicated that management problems existed in at least two areas. Short seasons, excess fishing capacity, and the large number of fishermen who realize no return for their investment in the herring sac roe fisheries indicated a need for limited entry. In the case of Prince William Sound, 103 boats participated in the 1-hour opening which constituted the 1976 season. Even with such short openings, it is difficult for management personnel to insure that total catches stay within the designated quotas. A table showing the increase of vessels participating in the three herring sac roe fisheries brought under limitation follows:

PURSE SEINE FISHERY FOR HERRING SAC ROE
NUMBER OF VESSELS PARTICIPATING

<u>Southeastern</u>	<u>Prince William Sound</u>	<u>Cook Inlet</u>
1969 - *	1969 - 6	1969 - 11
1970 - *	1970 - 1	1970 - 20
1971 - *	1971 - 14	1971 - 19
1972 - *	1972 - 20	1972 - 6
1973 - 16	1973 - 33	1973 - 22
1974 - 34	1974 - 72	1974 - 40
1975 - 30	1975 - 85	1975 - 40
1976 - 40	1976 - 103	1976 - 70

*Figures were not available to distinguish the sac roe fishery from the bait fishery.

Based on Commission research, proposed regulations were drafted and public hearings were to be held soon after the November 2nd general election. However, aside from one hearing held in Petersburg, the hearing schedule was delayed by the holiday season and by uncertainty regarding the disposition of herring proposals which were to be acted upon by the Board of Fisheries in early December.

At its December meeting the Board of Fisheries requested that the Entry Commission give serious consideration to entry limitation for the Southeastern, Prince William Sound, and Cook Inlet herring purse seine sac roe fisheries. The Board rejected proposals calling for area registration for Cook Inlet and Prince William Sound herring fisheries and indicated a policy of nonexpansion for the herring sac roe fishery in Southeastern Alaska. It also requested that the Entry Commission prepare a status report for presentation to the spring Board meeting in March of 1977.

The Commission determined that it would be both possible and desirable to separate the sac roe and bait fisheries. This meant limiting the purse seine sac roe fishery in Southeastern Alaska, Prince William Sound, and Cook Inlet while leaving the other herring fisheries open to entry. To facilitate this, Southeastern and Prince William Sound were subdivided into sac roe and non-sac roe fishing areas, and entry was limited only to fishing in those areas which were expected to have sac roe fisheries.

Proposed regulations for entry limitation into the Southeastern herring purse seine sac roe fishery were published and distributed in November, followed by proposed regulations for Prince William Sound and Cook Inlet in December. Public hearings were held in Petersburg, Ketchikan, Juneau, Seattle, Cordova, Homer, and Kodiak. In January of 1977 final regulations were adopted and the limited entry application process was begun.

Shellfish

In the fall of 1976, the National Marine Fisheries Service (NMFS) contracted with the Commission for a state-wide analysis of Alaskan shellfish fisheries. Under the contract the Commission will develop bio-economic information so NMFS can provide technical assistance to the North Pacific Fishery Management Council (NPFMC) in assessing and specifying optimum yield. Under the Fishery Conservation and Management Act of 1976 (the 200-mile limit law), the Council is responsible for formulating fishery management plans. It must develop a complete and accurate picture of domestic fishing activity for regulatory purposes and must determine the amounts of fishery resources that are in excess of domestic need under optimum yield and thus available for foreign harvest.

Among other things, the Commission will analyze: shellfish fleet capacity, cost and earnings characteristics, and diversification potential into other fisheries. This information will be developed through a questionnaire to be administered to a representative sample of the State's shellfish fishermen. In addition, Commission staff members are meeting with shellfish fishermen throughout the State to check on the accuracy of the data generated by the questionnaire and to obtain information that cannot be gained from the questionnaire.

NMFS sought the services of the Commission for four reasons: 1) the Commission was beginning its own research into the shellfish fisheries; 2) the Commission has a considerable capacity for generating fisheries information; 3) its staff has experience and expertise in developing bio-economic information on the harvesting sector of Alaska's commercial fisheries; and 4) the Commission has access to information confidential by statute and not available to NMFS. The relationship between the Commission and the Council will change as the Council addresses considerations of limited entry for fisheries within both Council and State jurisdiction.

In 1976 the Commission received approximately 100 requests for fisheries information from State, Federal, and private entities. Examples of outside requests are: lists of area fishermen for a non-profit hatchery organization; a study of the geographic distribution of gross earnings from Alaskan fisheries for the U. S. Department of Commerce; and a list of vessels by length for a State study of boat harbors.

These requests are complied with, subject to confidentiality requirements and freedom of information considerations. Work is done on a time available basis and billings for services were made as appropriate.

New Commercial Licensing Program

In 1976, the Commission, with the cooperation of the Departments of Fish and Game, Revenue, and Public Safety, developed a new program of commercial fisheries licensing. This program was designed to reduce paperwork for the fishermen, save time and money for the State, and increase the accuracy of the licensing data base. The new licensing system will eliminate the gear and commercial licenses, separate the vessel license from an assigned operator, and create a crewmember license similar to the commercial license. A renewed entry permit will be the only requirement for a gear operator in order to participate in a fishery. A vessel used in commercial fishing must be licensed and no indication of who will operate the boat will be needed. People who participate in the fishery as crewmembers will have to obtain a crewmember license only.

Statewide Fisheries Information System

Catch and fleet data collected and recorded by the Department of Fish and Game is the basis for the Commission's statewide fisheries information system. This data base was begun in 1973 when the Commission was formed and has developed into a comprehensive information system on Alaskan fisheries. Among other things, the system can generate reports on distribution of earnings, mobility of vessels, and potential for fleet diversification.

In 1976, the data processing personnel of the research section spent much of its time correcting 1975 and 1976 raw data from the Department of Fish and Game, and applying it to the existing data base. Accurate data is essential since the Commission must address records of individual fishermen and not total fleets as required by Fish and Game and other agencies.

FUTURE

The next few years will see a shift in emphasis of the Commission's functions. In the salmon net fisheries, permit issuance will be reduced to a maintenance level of renewals and transfers, and developing buy back programs for some of these fisheries will become a priority task. Studies of economic and biological optimum numbers for units of gear will be completed so that determinations can be made as to which fisheries require buy back programs. A method will be developed for assessing those fisheries which have more than the optimum level of participants and implementation of the buy back programs will begin.

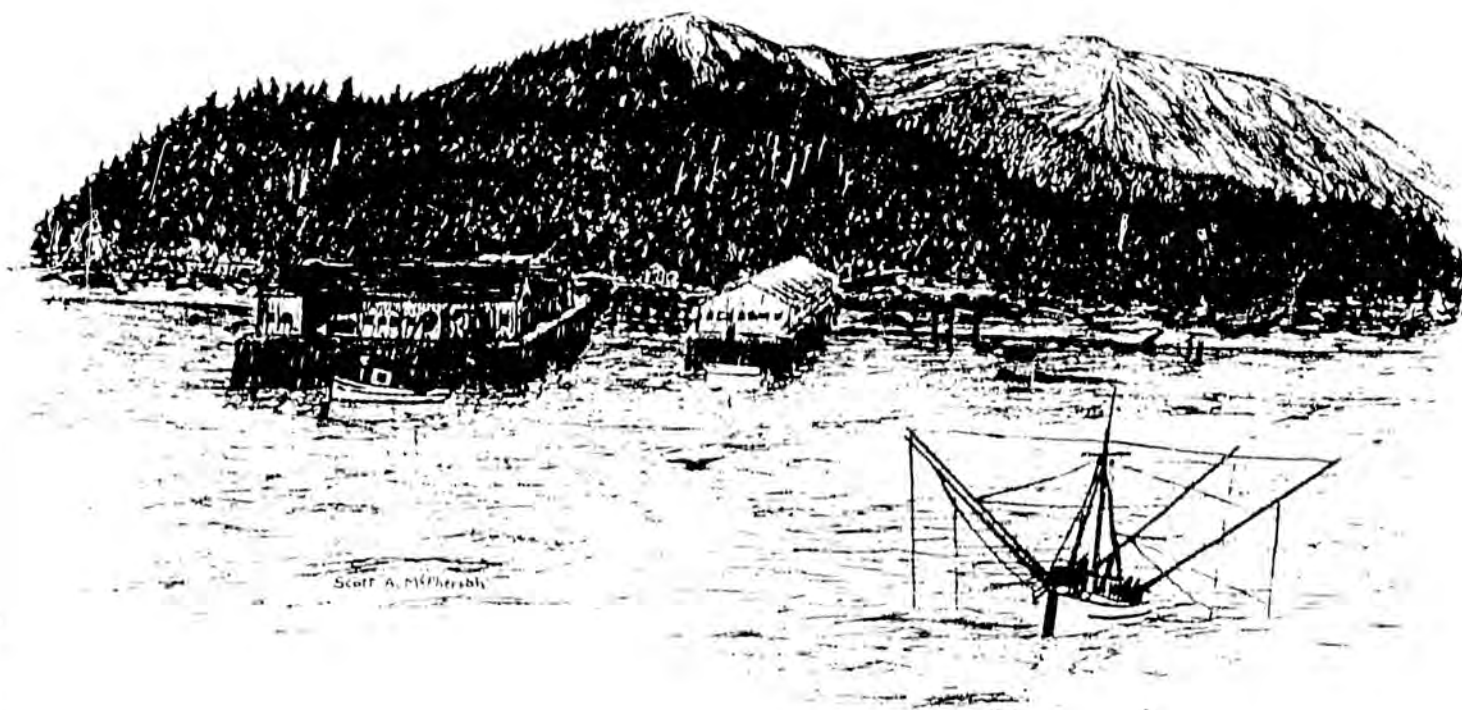
The Commission will continue to initiate or pursue research into fisheries such as shellfish, halibut, and herring, which have not yet come under limited entry. Numbers of vessels and individuals involved in these fisheries will be analyzed along with catch effort and bio-economic data. In evaluating the need for limited entry, the Commission will determine if effective biological management is in jeopardy and reasonable average rate of return to the fisherman for his time and money invested in a fishery is being provided. If limited entry is needed, the Commission will devise the best system for the fishery under consideration.

Legislative Recommendations

The Commission submitted several legislative changes to the first session of the Tenth Legislature. The recommendation which provides for a new licensing system is outlined on page 12. The other recommendations deal with: 1) controlling permit leasing; 2) tightening criteria for emergency transfers; 3) restricting the transfer of permits belonging to individuals charged with violating the limited entry statute; 4) making the transfer of a permit automatically to the spouse or estate upon the death of a permit holder; 5) repealing the five-year prohibition on transfers; and 6) making the permit purchase price tax deductible as a business expense.

1977 Annual Report

Commercial Fisheries Entry Commission



State of Alaska

1977 ANNUAL REPORT

ALASKA COMMERCIAL FISHERIES ENTRY COMMISSION

POUCH KB

JUNEAU, ALASKA

99811

ALLAN ADASIAK
CHAIRMAN

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MAY 1978

ANNUAL REPORT

Introduction:

This annual report submitted by the Commercial Fisheries Entry Commission (CFEC) addresses four categories of Commission activity during the 1977 calendar year. These areas are:

(1) the continuing administration of the limited entry law (AS 16.43) in Alaskan fisheries, (2) the implementation of new commercial fishing licensing procedures brought about by legislation during the last legislative session (Chapter 105, SLA 1977), (3) the coordination of State limited entry programs with those of the federal government which have resulted from the enactment of the Fishery Conservation and Management Act of 1976 (FCMA) and (4) legislative recommendations.

LIMITED ENTRY FOR 1977

Entry permit applications under Isakson v. Rickey:

The last application period for permits to be issued for the original 19 salmon fisheries brought under limited entry closed September 30, 1977. The acceptance of these additional applications was mandated by the Alaska Supreme Court decision of Isakson v. Rickey,¹ which required that the Commission accept applications for entry permits from persons who participated as gear license holders for the first time in either 1973 or 1974 in one of the 19 fisheries first placed under limitation in 1975.

Recognizing the diverse backgrounds of Alaskan commercial fishermen, the legislature, in 1977, provided an appropriation of \$38,000 to the CFEC to provide application completion assistance to persons eligible for permit application under the unexpected period mandated by Isakson v. Rickey. In addition to using its own staff, the Commission contracted with the Aleutians-Pribilof Islands Association, Inc., the Bristol Bay Native Association, the Cook Inlet Native Association, the Kodiak Area Community Development Corporation and Southeastern Alaska Community Action Program to provide assistance. The Commission received 1,327 applications under this Isakson application period; the processing of these applications should continue into the middle of 1978, although selected applications requiring hearings may take longer.

¹Isakson v. Rickey, 550 P 2d 359 (1966).

Hearings:

Hearings on pending permit applications are proceeding as rapidly as possible considering the research necessary to give each applicant the full opportunity to explore his or her case in its entirety. In 1977, Commission hearing officers held approximately 109 hearings in various communities including Anchorage, Seattle, Aniak, Dillingham, Fairbanks, Galena, Homer, Juneau, Kenai, Ketchikan, Kodiak, Kotzebue, Nome, Sitka, Togiak and Wrangell in order to assure that fishermen living in even remote areas would receive a fair and impartial hearing at a location near their place of residence.

New Limited Entry fisheries in 1977:

During 1977 three herring purse seine fisheries were added to the list of fisheries which have been determined by the CFEC to have reached levels of participation requiring entry limitation. Those fisheries are the Southeastern and Prince William Sound herring sac roe fisheries and the Cook Inlet herring purse seine fishery. The Commission was requested to investigate the need for limitation in these fisheries by fishermen, the Department of Fish and Game, and the Board of Fisheries.

Early in 1977 the Commission held public hearings in Kodiak, Homer, Cordova, Juneau, Petersburg, Ketchikan, Sitka and Seattle. Testimony from these hearings was helpful in establishing the ranking system for entry permit issuance in each fishery.

Applications for entry permits into these three fisheries were received from 262 fishermen. Of the 158 permits to be issued, 148 have been issued as of this writing.

In addition to work on the three herring purse seine fisheries put under limited entry, the Commission engaged in considerable research on the need for entry limitation into the herring gill net fishery in Southeast Alaska. This research culminated in regulations in early 1978 which limit the number of entry permits for the herring gill net fishery to 110.

Monitoring of other fisheries also occurred, including identification of effort level trends, catch trends, and economic research as appropriate. Some growth occurred in the long line and shellfish fisheries, while the salmon hand troll fishery in Southeast Alaska continued its rapid expansion.

Continued monitoring of permit transfers:

Since 1975, the Commission has conducted a voluntary survey of all fishermen transferring or acquiring permits. The purpose of the survey is to monitor permit prices and to analyze transfer trends. Copies of the survey questionnaire used in 1977 are attached as Appendix 1. During the past three years, responses to the survey have been received from 50 to 60% of those involved in transfers.

According to the survey information, permit prices increased significantly during 1977. Apparent causes were the healthy salmon harvests in 1977, anticipated harvest levels for 1978, and increases in the price of fishery resource products relative to the cost of fishing. Also, the failure of the 1976 initiative designed to repeal the Limited Entry Law was a cause of permit price escalation in 1977. Since success of the initiative would have made permits valueless, prices were restrained by uncertainty; after the 1976 election, there was a relatively abrupt increase in average prices. Appendix 2 indicates the results of a price survey for salmon entry permits from 1975 through December 31, 1977.

The computerized permit status file has allowed the Commission to monitor the transfer of permits between resident and nonresident fishermen to analyze the composition of the Alaska fishing fleets. As indicated by Appendix 3, permit transfers in 1977 resulted in a net gain of 30 permits to Alaskan fishermen. As in the past, most transfers were from a resident to a resident or from a non-resident to a non-resident.

Optimum number of permits:

Throughout the 1977 calendar year, work has continued on the determination of the optimum number of units of gear which might be supported in each of the 25 salmon fisheries under limited entry. Significant changes in fish prices,

operating costs and harvestable stock since 1973 have required updated economic research. The impact of projected aquaculture efforts must also be considered.

Under current statutory provisions, the optimum number of entry permits for a fishery is the number which will:

(1) maintain an economically healthy fishery that will result in a reasonable average rate of economic return to the fishery participants, (2) promote an orderly and efficient commercial harvest consistent with sound fishery management techniques and (3) avoid serious economic hardship to those currently engaged in the fishery, considering alternative economic opportunities reasonably available to them.

A management optimum number writing team was established in late 1977 comprised of Alaska Department of Fish and Game (ADF&G) fishery managers for each of four regions of the State of Alaska and a representative of CFEC. The writing team is currently preparing a working draft of the management optimum numbers in each of the 25 salmon fisheries. The intention is to update and refine preliminary work done in the past.

Completion of the National Marine Fisheries Service Shellfish Data Base Research Contract:

The CFEC entered into a \$100,000 contract with the National Marine Fisheries Service (NMFS) to gather information and develop an Alaskan Shellfish Bio-economic data base. This contract was completed in mid February of 1978 after many months of extensive research. As required under the

contract, the CFEC, in conjunction with fishermen and processors, designed a questionnaire which was administered to the owners and skippers of 223 of the 540 vessels in Alaska's shellfish fleet. Summaries of data from fish tickets and license files were also prepared in accordance with Alaska's statutes regarding confidentiality. Meetings were held with user-group representatives to review the data obtained.

The shellfish fleet was subdivided into fourteen subfleets on the basis of vessel size, species harvested and area fished. Sets of mean economic and physical characteristics were estimated with other relevant data; patterns of mobility and diversification were identified and summaries of future diversification plans developed. Data on catch and gross earnings patterns for 1969 through 1976, and comparisons of shellfish gross earnings with income from other fisheries and selected nonfishing industries were generated by subfleet.

The study has resulted in the cataloging of available sources of data on Alaska's shellfish fisheries and includes recommended topics for future research. This type of research will assist the North Pacific Fisheries Management Council (NPFMC) in developing the necessary data base to prepare fishery management plans for the shellfish and other fisheries.

REVISIONS IN COMMERCIAL FISHING LICENSING

Commercial fishing licensing procedures were streamlined and consolidated under the authority and implementation of Chapter 105, SLA 1977, passed during the last legislative session. This new licensing program requires that commercial fishermen need purchase only a permit from the CFEC in order to operate gear in a commercial fishery. Prior to the passage of this legislation, a commercial fisherman was required to purchase a gear license, a commercial fishing license and a permit. Public information efforts have been, and will be, used to smooth the transition to this more effective and less cumbersome method of commercial fishing licensing.

Also, under the authority of Chapter 105, SLA 1977, the CFEC was delegated the task of issuing commercial vessel licenses, which in the past had been issued by the Department of Revenue from field offices throughout the State. Under the new licensing program, all vessel licenses are now issued through a new centralized system located in Juneau. Since this is the first year of the transition, some problems have occurred and the Commission is doing everything possible to circumvent further inconvenience to the fishermen. Next year, for those who have licensed their vessels in 1978, each fisherman will receive a pre-printed vessel license application card similar to the pre-printed permit renewal

card used in the past years. Upon receipt of this card, an individual fisherman will only need to verify the data, sign his name and attach the \$20 license fee.

During calendar year 1977, approximately 20,406 interim-use and entry permits were issued, resulting in revenues to the General Fund of \$780,570. Of the permits issued, some 13,026 were in the State's salmon fisheries; 2,791 permits were issued for crab and shrimp fishing. Bottom fish fishery resources accounted for another 234, and in the halibut and black cod longline fishery 2808 interim-use permits were issued.

It is anticipated that in 1978 the Commission will issue approximately 21,000 interim-use and entry permits, and license in the neighborhood of 14,000 vessels. Based upon 1978 licensing fee schedules, this is expected to result in total license revenues to the General Fund of approximately \$2,000,000 in 1978. This figure is over and above any contributions made by commercial fishermen to the Fishermen's Fund.²

²The Fishermen's Fund is a dedicated fund for the purpose of providing disability compensation to fishermen injured during the course of commercial fishing. Revenues to support the fund come solely from the sale of crewmember fishing licenses and permits.

1978 LEGISLATIVE RECOMMENDATIONS

The CFEC supports two bills which are before the legislature:

Committee substitute for House Bill 573 incorporates the provisions of House Bill 581, introduced at the request of the Governor. HB 581 was drafted with the concurrence of the Department of Commerce and the CFEC. It would amend the Commercial Fishing Loan Act to allow the pledge of entry permits as security for a loan from the Department of Commerce to purchase an entry permit. With such monies available, Alaskan residents will be afforded another avenue of entry into Alaska's limited fisheries through long-term, low-interest loans.

The CFEC also supports Senate Bill 428 introduced at the request of the Senate Resource Committee. While this bill is primarily a housekeeping measure, it would establish more reasonable criteria for the emergency transfer of entry permits and provide for the administrative revocation of permits which have been issued on the basis of false information supplied by the permit applicant.

Acknowledgments:

During the past year, the CFEC received valuable assistance and cooperation from the Alaska Department of Fish and Game, the Department of Public Safety--Fish and Wildlife Protection Division, the Department of Commerce, the Governor's Office, the Alaska State Legislature, the North Pacific Fisheries Management Council, the National Marine Fisheries Service, various fishermen's associations, representatives of the fishing industry, and most important, many individual fishermen. The CFEC takes this opportunity to thank those persons, agencies and associations.

APPENDIX I

APPENDIX I
STATE OF ALASKA

LAY S. HAMMOND, GOVERNOR

COMMERCIAL FISHERIES ENTRY COMMISSION

POUCH KB - JUNEAU 99811
(907) 586-3456

Please submit this in connection with the Request for Transfer form you have submitted for your entry permit.

This form does not identify you, and the information on it will not be disclosed in any manner that would allow identification of you. The information will be used to allow the Commission to monitor permit prices and transfer trends.

You are acquiring a permit for _____
(Fishery Code) (Fishery Name)

1. How did you locate this permit?

- ☐ Relative or friend ☐ Fish Processor
☐ Commission list of permits for transfer ☐ Other (explain) _____
☐ Advertisement

2. Did you acquire the permit by (answer all items that apply)

- ☐ Sale
What was the sale price (including the fair market value of any items traded for the permit)? \$ _____
☐ Gift (no money)
What is your relationship to the transferor? _____
☐ Inheritance
What is your relationship to the transferor? _____
☐ Trade
What was traded? _____
- ☐ Along with a vessel, gear or set net site (indicate estimated value)
Vessel \$ _____
Gear \$ _____
Site \$ _____
☐ At no extra cost along with vessel, gear or set net site
☐ Other (explain) _____

3. If you financed the sale, was it through

- ☐ Financed by transferor ☐ State loan
☐ Bank ☐ Credit Association
☐ Fish Processor ☐ Other (explain) _____

4. Do you plan to transfer the permit back to the person you acquired it from?

- ☐ Yes
☐ No

For more space to complete this questionnaire, use the back of this paper.

If you have any questions concerning the completion of the form, do not hesitate to call or write the Commission. The Commission's phone number is (907) 586-3456, and its mailing address is Pouch KB, Juneau, Alaska 99811.

Thank you for your cooperation.

STATE OF ALASKA

JAY S. HAMMOND, Governor

COMMERCIAL FISHERIES ENTRY COMMISSION

POUCH KB - JUNEAU 99811
(907) 586-3456

Please submit this in connection with the Request for Transfer form you have submitted for your entry permit.

This form does not identify you, and the information on it will not be disclosed in any manner that would allow identification of you. This information will be used to allow the Commission to monitor permit prices and transfer trends.

You have transferred a permit for _____
(Fishery Code) (Fishery Name)

1. Did you transfer the permit by (answer all items that apply)

- | | |
|--|--|
| <p>() Sale
What was the sale price (including the fair market value of any items traded for the permit)? \$ _____</p> <p>() Gift (no money)
What is your relationship to the transferee? _____</p> <p>() Inheritance
What is your relationship to the transferee? _____</p> <p>() Trade
What was traded? _____</p> | <p>() Along with a vessel, gear or set net site (indicate estimated value)
Vessel \$ _____
Gear \$ _____
Site \$ _____</p> <p>() At no extra cost along with vessel, gear or set net site</p> <p>() Other (explain) _____</p> |
|--|--|

2. If the sale was financed, was it through

- | | |
|---|--|
| <p>() My own financing</p> <p>() Bank</p> <p>() Fish Processor</p> | <p>() State loan</p> <p>() Credit Association</p> <p>() Other (explain) _____</p> |
|---|--|

3. Do you plan to get the permit back from the person to whom it was transferred?

- () Yes
() No

4. Why did you transfer your permit?

- | | |
|--|--|
| <p>() Poor health</p> <p>() Retirement</p> <p>() Plan to seek non-fishing employment</p> <p>() Plan to enter other fisheries</p> | <p>() Permit was part of the estate of a deceased fisherman</p> <p>() Financial reasons</p> <p>() Other (explain) _____</p> |
|--|--|

For more space to complete this questionnaire, use the back of this paper.

If you have any questions concerning the completion of the form, do not hesitate to call or write the Commission. The Commission's phone number is (907) 586-3456, and its mailing address is Pouch KB, Juneau, Alaska 99811.

Thank you for your cooperation.

APPENDIX 2

APPENDIX 2

Price Survey for Salmon Entry Permits from 1975 to 1977

Fishery & Year		Average Price Paid for Permits	No. of Transfers Involving Money	Total ^{1/} No. of Responses to the Questionnaire	No. of Permits Financed	^{2/} High Permit Price	^{2/} Low Permit Price
<u>SOUTHEASTERN</u>							
Salmon	1975	10,633	15	25	13	16,000	5,000
Purse	1976	9,222	9	10	5	15,000	6,000
Seine	1977	16,167	21	28	15	21,000	8,000
Salmon	1975	9,625	28	38	20	15,000	4,000
Drift	1976	10,213	12	19	7	15,000	5,500
Gill Net	1977	16,262	21	37	18	25,000	8,000
Salmon	1975	5,393	47	68	26	10,000	300
Power	1976	4,896	24	47	19	10,000	1,000
Troll	1977	8,834	59	76	25	15,000	3,500
<u>YAKUTAT</u>							
Salmon	1975	750	2	3	2	1,000	500
Set Gill	1976	3,333	3	10	2	5,000	2,000
Net	1977	7,000	4	7	1	10,000	3,000
<u>PRINCE WILLIAM SOUND</u>							
Salmon	1975	8,000	6	7	5	10,000	5,000
Purse	1976	10,700	10	16	6	20,000	2,000
Seine	1977	29,800	5	7	6	47,000	19,000
Salmon	1975	3,089	9	13	6	5,000	500
Drift	1976	4,406	16	30	16	7,000	1,000
Gill Net	1977	13,379	29	38	20	20,000	7,000
<u>COOK INLET</u>							
Salmon	1975	-0-	-0-	-0-	-0-	-0-	-0-
Purse	1976	7,500	2	3	2	10,000	5,000
Seine	1977	10,625	4	6	2	20,000	2,000

Fishery & Year		Average Price Paid for Permits	No. of Transfers Involving Money	Total ^{1/} No. of Responses to the Questionnaire	No. of Permits Financed	^{2/} High Permit Price	^{2/} Low Permit Price
<u>COOK INLET Cont.</u>							
Salmon	1975	3,911	9	13	3	10,000	500
Drift	1976	5,552	29	39	12	13,000	2,500
Gill Net	1977	9,871	26	41	14	40,000	2,000
Salmon	1975	2,250	6	16	6	2,500	2,000
Set Gill	1976	1,818	11	34	8	2,500	1,000
Net	1977	4,821	24	41	15	18,500	2,000
<u>KODIAK</u>							
Salmon	1975	4,571	7	11	5	7,500	1,000
Purse	1976	9,425	12	19	5	18,000	6,000
Seine	1977	17,611	18	32	7	36,000	1,500
Salmon	1975	5,380	5	14	5	11,000	1,000
Set Gill	1976	3,900	8	16	2	6,000	500
Net	1977	6,600	5	12	4	15,000	2,000
Salmon	1975	-0-	-0-	-0-	-0-	-0-	-0-
Beach	1976	-0-	-0-	-0-	-0-	-0-	-0-
Seine	1977	15,000	3	4	2	30,000	5,000
<u>CHIGNIK</u>							
Salmon	1975	600	1	2	1	-----	-----
Purse	1976	-0-	-0-	3	-0-	-0-	-0-
Seine	1977	7,500	1	3	1	-0-	-0-
<u>PENINSULA-ALEUTIANS</u>							
Salmon	1975	10,000	1	1	-0-	-----	-----
Purse	1976	-0-	-0-	3	-0-	-----	-----
Seine	1977	10,000	2	5	-0-	15,000	5,000

Fishery & Year		Average Price Paid for Permits	No. of Transfers Involving Money	Total ^{1/} No. of Responses to the Questionnaire	No. of Permits Financed	^{2/} High Permit Price	^{2/} Low Permit Price
<u>PENINSULA-ALEUTIANS Cont.</u>							
Salmon	1975	-0-	-0-	1	-0-	-----	-----
Drift	1976	6,333	3	5	1		
Gill Net	1977	10,286	7	15	6	12,000	10,000
<u>BRISTOL BAY</u>							
Salmon	1975	1,197	15	37	6	2,500	500
Drift	1976	2,484	23	64	10	10,000	500
Gill Net	1977	6,516	52	111	40	20,000	500
Salmon	1975	-0-	-0-	9	-0-	-0-	-0-
Set Gill	1976	2,207	14	35	6	5,000	300
Net	1977	2,538	17	42	4	5,000	50
			625	1,116	379		
<u>AYK</u>							
<u>KUSKOKWIM</u>							
Salmon	1976	-----	---	3	---	-----	-----
Set Gill	1977	-----	---	11	---	-----	-----
Net							
<u>KOTZEBUE</u>							
Salmon	1976	-----	---	2	---	-----	-----
Set Gill	1977	3,000	1	2	---	-----	-----
Net							
<u>LOWER YUKON</u>							
Salmon	1976	-----	---	4	---	-----	-----
Set Gill	1977	550	2	5	---	1,000	100
Net							

SUMMARY OF TOTAL DATA

Year	No. of Surveys Received with Prices Listed	Total No. of of Surveys ^{1/} Received	No. of Permits Financed	Actual Total No. of Permits Transferred
1975	151	258	98	554
1976	176	353	101	707
1977	<u>298</u> 625	<u>505</u> 1,116	<u>180</u> 379	<u>937</u> 2,198

1/ Questionnaires are sent to the person transferring the permit and to the person acquiring the permit. In order to avoid duplication. Only responses from those acquiring permits were tabulated.

2/ The high prices seem to indicate "the going market" price, while the low prices reflect "deals" made to relatives or friends.

Note: Prices for permits in some areas have reportedly risen since January, 1978. The information here is complete to December 31, 1977.

APPENDIX 3

APPENDIX 3

PERMANENT TRANSFER OF ENTRY PERMITS IN 1977

Fishery	Total # Permits Issued	Res. - Non Res.	Res. - Res.	Non Res. - Res.	Non Res. - Non Res.	Total # of Transfers
<u>Southeastern</u>						
Salmon Purse Seine	411	7	17	3	16	43
Herring Sac Roe Purse Seine	38	-	-	-	-	
Salmon Drift Gill Net	459	3	32	12	10	57
Power Troll	929	10	68	29	28	135
<u>Yakutat</u>						
Salmon Set Gill Net	158	2	7	3	-	12
<u>Prince William Sound</u>						
Salmon Purse Seine	255	2	14	-	8	24
Herring Sac Roe Purse Seine	85	1	1	1	-	3
Salmon Drift Gill Net	542	5	35	11	13	64
Salmon Set Gill Net	28	1	1	-	-	2
<u>Cook Inlet</u>						
Salmon Purse Seine	72	-	11	-	-	11
Herring Purse Seine	61	-	1	-	-	1
Salmon Drift Gill Net	539	4	53	5	14	76

Fishery	Total # Permits Issued	Res. - Non Res.	Res. - Res.	Non Res. - Res.	Non Res. - Non Res.	Total # of Transfers
<u>Cook Inlet Cont.</u>						
Salmon Set Gill Net	720	1	74	7	2	84
<u>Kodiak</u>						
Salmon Purse Seine	365	4	33	8	10	55
Salmon Set Gill Net	181	2	16	4	2	24
Salmon Beach Seine	30	1	7	-	-	8
<u>Chignik</u>						
Salmon Purse Seine	90	-	3	1	-	4
<u>Peninsula-Aleutians</u>						
Salmon Purse Seine	113	1	10	2	-	13
Salmon Drift Gill Net	154	1	11	-	10	22
Salmon Set Gill Net	106	1	13	-	-	14
<u>Bristol Bay</u>						
Salmon Drift Gill Net	1,663	18	73	12	85	188
Salmon Set Gill Net	823	13	36	8	12	69

Fishery	Total # Permits Issued	Res. - Non Res.	Res. - Res.	Non Res. - Res.	Non Res. - Non Res.	Total # of Transfers
<u>Kuskokwim</u>						
Salmon Gill Net	175	-	16	1	-	17
<u>Lower Yukon</u>						
Salmon Gill Net	691	-	6	2	-	8
<u>Upper Yukon</u>						
Salmon Gill Net	44	1	-	-	-	1
Salmon Fishwheel	107	-	2	-	-	2
<u>Norton Sound</u>						
Salmon Gill Net	176	1	-	-	-	1
<u>Kotzebue</u>						
Salmon Gill Net	175	-	3	-	-	3
Total	9,190	79	543	190	210	941

SCOMM

#17:16

SUMMARY OF COST AND NET RETURN INFORMATION
FOR THE COOK INLET DRIFT GILL-NET FISHERY

Prepared by June Baker and Ben Muse
of the Research Staff
Commercial Fisheries Entry Commission
Pouch KB, Juneau, Alaska 99811

August, 1978

INTRODUCTION

The following tables and figures summarize gross earnings, price and catch information for the salmon drift gill-net fishery in the Cook Inlet management area from 1969 to 1976, and present the results of a survey designed to obtain information on the operating costs of fishermen in that fishery in 1976. Estimates of catch size have been made from fish tickets, and prices have been derived from processor's annual reports and estimates by the Commercial Fisheries Entry Commission (CFEC). The operating cost survey was carried out by mail and personal interview in the late summer and fall of 1977. One-hundred and twelve fishermen, or 21% of the 523 fishermen who used their permanent or interim-use entry permits in the Cook Inlet drift gill-net fishery in 1976 provided completed questionnaires. Using this information, average net returns in 1976 are estimated for the entire drift gillnet fleet, as well as for members of the sample grossing more and less than \$20,000. A pair of tables summarizes the average prices for entry permits from 1975 to the first part of 1978, and outlines the status of permanent and interim-use entry permits through 1977.

This paper has been prepared to report the survey results to fishermen who responded to the operating cost survey mentioned above. We hope it will be useful to them. The Commission will appreciate any comments or suggestions on the data or on the method of presentation.

OPERATING COSTS

The cost information summarized in Table 1 was obtained in the late summer and fall of 1977 with a survey of the drift gillnet fishermen operating in the Cook Inlet area. The data obtained from the survey has been arranged in four ways.

Column A of Table 1 lists the average cost in each category for the total boats sampled; the number of usable responses on which each average is based is listed in parentheses. Column B of Table 1 gives the average of the survey responses for all the respondents who grossed \$20,000 or over from salmon drift gillnetting, and Column C of Table 1 gives the average responses for the fishermen who were surveyed and made under \$20,000. A comparison of Figure 1 and Figure 2, immediately following the notes to Table 1, shows that the fishermen who responded to the questionnaire tended to be those with gross revenues above the 1976 fleet average of \$15,180. To offset this bias among the sampled fishermen, each cost was calculated as a weighted sum of the averages for that cost for the vessels grossing \$20,000 and over, and for the vessels grossing under \$20,000. The weights, based on the percentage of vessels in the sample fleet in each income category, were .326 for vessels \$20,000 and over, and .674 for vessels grossing under \$20,000. For example, from Table 1, line 1, column B we can find that the average cost for insurance for the fishermen grossing \$20,000 and over was \$641, and from Column C we find that the average cost for insurance among the fishermen grossing under \$20,000 was \$367. Multiplying \$641 by .326

and \$367 by .674 and adding the products gives the weighted cost of insurance in Column D, \$456. The result of this operation was a final average for each cost weighted such that the bias among the sampled fishermen is compensated for.

Returns to Labor and Management Ability in line 20 of Table 1, were obtained by subtracting all fixed and variable expenses and the opportunity costs of money tied up in the vessel, gear, and year's fishing operations from gross earnings. The opportunity cost is the income given up by the fisherman when he invested his money in the fishery rather than in a business or asset of equal risk. If the fisherman had invested his money in a business he would receive income from that investment; this income may be greater or less than that earned by fishing, but in any event it is lost when the decision is made to fish, and its loss should be reckoned by the fisherman as a cost.

In a real sense, the cost of any action is the opportunities for other actions that are given up. The cost of gas or a new leadline is the opportunity of doing something else with the money: buying a new hunting rifle, going to a good restaurant for dinner, or purchasing new buoys for crab pots. In this respect so-called "opportunity costs" are costs like any other, a lost opportunity. Those interested in the amount of "ready cash" available to the average fishermen at the end of the season should add the opportunity cost (line 15-17) to the net return to labor and management ability line (line 20).

Insurance costs and the costs for dues, moorage, administration, vessel repairs, rental/leasing, and depreciation obtained in response to questions on the survey were assumed to be for the operation of the vessel in all of its fisheries. Since the average fisherman sampled earned 88% of his gross income from salmon drift gillnetting, these costs were prorated according to the proportion of gross earnings

that each fishing vessel derived from drift gill-net salmon fishing to determine what part of these costs should be assigned to the drift gill-netting activities. When the respondents to the survey noted that certain costs were shared by their crew, these were deducted in the cost categories.

Please note that interest payments have not been included in Table 1. The objective of this report is to provide operating cost information to the fishermen so that they may compare their performance with that of others in the fishery. Interest payments vary widely reflecting the unique financial position of each individual fisherman. Therefore to attain comparability of the costs of actual fishing operations, interest is not included as a cost category.

If the purposes of this report was strictly to determine the average net returns to each fisherman, then interest payments should be included as a cost. If this is the objective of the reader, he/she may add the following figures to the information in Table 1 to arrive at average net returns to each fisherman participating. The actual average interest payments for each of the groups listed were:

Total Sample:	\$465 (68)
Gross \$20,000 and over:	\$523 (23)
Grossing under \$20,000:	\$435 (45)
Weighted sum:	\$463

(The number of responses is given in parentheses.)

The notes following Table 1 are essential to an interpretation of the categories and estimates in it. The average net return may be underestimated due to the reasons mentioned in paragraphs 18 and 19 in the notes.

TABLE 1
SUMMARY OF AVERAGE COSTS FOR DRIFT GILL-NET FISHING
FOR SALMON IN THE COOK INLET AREA IN 1976.

Cost Category	Averages For The Sampled Fleet			
	(A) Total Vessels	(B) Grossed \$20,000 and Over	(C) Grossed Under \$20,000	(D) Weighted Sum
1. Insurance	\$ 463 (89)	\$ 641 (31)	\$ 367 (58)	\$ 456
2. Dues	51 (94)	69 (33)	41 (61)	50
3. Moorage	202 (91)	247 (28)	182 (63)	203
4. Administration	389 (101)	379 (36)	393 (65)	388
5. Vessel Repairs	1,052 (101)	1,334 (32)	921 (69)	1,056
6. Depreciation	1,169 (65)	1,299 (25)	1,088 (40)	1,157
7. License Fees	100 (112)	111 (40)	93 (72)	99
8. Fuel	648 (100)	706 (34)	618 (66)	647
9. Galley Expenses	553 (103)	610 (35)	523 (68)	551
10. Gillnetting Equip- ment Repairs	643 (40)	731 (15)	591 (25)	637
11. Travel & Freight	568 (106)	589 (40)	554 (66)	565
12. Special Clothes	126 (106)	153 (38)	110 (68)	124
13. Rental & Leasing	1,327 (58)	2,038 (23)	861 (35)	1,245
14. Crewshare	3,173 (107)	4,254 (39)	2,554 (68)	3,108
15. Opportunity Cost of Operating Capital	122	152	105	120
16. Opportunity Cost of Investment	2,366 (64)	2,646 (24)	2,198 (40)	2,344
17. Opportunity Cost of Holding an Entry Permit	666	666	666	666
18. Total Costs	\$13,618	\$16,625	\$11,865	\$13,416
19. Average Gross Earnings	\$17,969 (112)	\$25,542 (40)	\$13,761 (72)	\$15,180 (570)
20. Net Return to Labor and Management Ability	\$ 4,351	\$ 8,917	\$ 1,896	\$ 1,764

Source: 1977 Cook Inlet Drift Gillnet Operating Cost Survey conducted by Commercial Fisheries Entry Commission; CFEC Vessel Multiple Listing computer generated file for 1976 prepared November 22, 1977, Table 3.

INFORMATION ON THE DIFFERENT COST CATEGORIES USED IN TABLE 1.

1. This cost category consists of insurance payments.
2. This cost category consists of union and association dues.
3. This category includes moorage and storage charges and moorage related utility charges.
4. Administrative costs include costs such as telephone, legal services, bookkeeping, bank charges, and property taxes, but did not include interest charges and repayments on loans for purchase of the vessel or gear. One of the interviewers working for the Entry Commission on this survey in the Prince William Sound Area reported that the fishermen being interviewed there sometimes had trouble thinking of the type of costs that went to make up this category, and questions from the interviewer were necessary to obtain the information. In a mail survey this prompting would have been unavailable, and the administrative costs might have been underestimated.
5. This category includes vessel and engine repairs, and repairs to gear such as anchors, lines and electronics. It was found from 104 questionnaires with responses that 10 years was the average age of the vessel used by these fishermen.
6. Depreciation was based on the vessels' market value and was calculated using the straight line method over 15 years, assuming that the vessel would have no resale value. The depreciation was calculated for the vessel, which is a long-lived asset, but it was not calculated for the drift gillnet fishing gear. Based on 56 questionnaires with responses, it was found that the 1976 average market value of the vessel for the total sample was \$20,728 and \$22,013 for the fisherman grossing \$20,000 and over; \$19,993 for those fishermen who grossed under \$20,000.
7. This cost was not taken from the survey responses, but was estimated for each fisherman on the assumption that one vessel license, one gear license, one commercial license and one entry permit would be required for the operation of each vessel. The vessel and commercial license costs were prorated among the various fisheries in which the vessel was operated. Distinctions were made between the costs for resident and non-resident permits, and between permit fees for poverty level and non-poverty level permit holders. It was assumed that the costs of commercial and gear licenses for crewmembers were borne by the crewmembers themselves and did not enter into the costs of the vessel operator. The cost of an entry permit was assumed to be its renewal fee.

INFORMATION ON THE DIFFERENT COST CATEGORIES USED IN TABLE 1 (Cont.)

8. This category includes the costs of fuel and engine lubricants.
9. This category includes the galley expenses.
10. This category includes the costs involved in purchase of and repairs to drift gill-net gear. Based on 55 questionnaires with responses, it was found that the average 1976 market value of drift gill-nets for the total sample fleet was \$2,596, for those fishermen grossing \$20,000 and over it was \$3,017, and \$2,356 for those who grossed under \$20,000.
11. This category includes the costs of travel and freight.
12. This category includes the costs of special items of clothing.
13. This category includes the costs of renting or leasing the vessel or gear. It was found from 110 questionnaires with responses that 21% were vessels owned by the processors.
14. This category consists of payments to crewmembers. On the basis of the responses received it was found that an average of 1 crew-member was used per vessel in addition to the operator. From 107 questionnaires with responses it was found that 19% was the average percent of gross earnings paid to crewmembers.
15. The opportunity cost of operating capital was calculated at a 12% yearly rate over two months on the sum of all costs except depreciation, crewshare, and the opportunity costs of investments in vessel, gear and permit.
16. The opportunity cost of investment was calculated at a 12% yearly rate over a year on the market value of the vessel and drift gill-net gear. The market values on the survey were assumed to be the market values in 1977, the year the survey was conducted and were discounted by 6% to obtain an estimate of the market values in 1976. The value of the vessel was prorated according to the percentage of the gross revenue earned with that vessel in the salmon drift gillnet fishery.
17. The Entry Commission asks everyone buying or selling an entry permit to indicate the price at which the transfer is made. This survey of permit transfer prices is voluntary, and the responses are kept completely anonymous. The opportunity cost of owning a permit is assumed to be 12% of \$5,552. That price, estimated from the permit transfer survey responses, was the average value of permits sold during 1976. In November and December of 1976 after the referendum election on Limited Entry, the value of a Cook Inlet drift gillnet permit rose to \$7,265, implying that the average price for the whole year was undervalued due to uncertainty about the election. (For more information on entry permit prices turn to Table 3 in this report.)

INFORMATION ON THE DIFFERENT COST CATEGORIES USED IN TABLE 1 (Cont.)

18. Total costs is the sum of all cost categories (1-17). Since the survey was conducted through the mail, it was impossible to make sure that each fisherman answered every question. Whenever a blank occurred instead of an answer, that item on the questionnaire involved was ignored for the purpose of computing the average cost. For each cost category the number of responses used is in parentheses next to the average. Since the total number of questionnaires is always in parentheses next to the average gross earnings, the number of blanks for each question can be readily computed. Note that his method of dealing with blanks gives an upward bias to the estimates of average costs since some of the answers that were left blank could in fact be zero's.
19. These are the average gross earnings of those responding to the survey. None of the average gross earnings figures are based on information derived from the survey, but instead on information available to the Commission from fish tickets and estimates of average prices shown in Tables 6 and 7. Average gross earnings in Column D are those for the entire fleet. The average gross earnings does not include bonuses, in-kind payments, price adjustments at the end of the fishing season, etc. This information is unavailable but it should be noted that the average gross earnings is higher than is shown in this report. It was found from 44 questionnaires with responses that 34% received a bonus. It was found from this study and a survey that was done in 1974^{1/} by CFEC that the average bonus paid to fishermen was 3% of their gross earnings.
20. Care is required in interpreting the "Net Return to Labor and Management Ability" line. This could be a very good or very poor return depending on the amount of effort spent during the season. Some insight into the amount of effort spent during the season can be obtained by estimating the number of separate days or weeks on which a fisherman made landings with his boat. In the following estimates, multiple landings made on one day or during one week are counted as one day or one week of landings. Using this measure of effort, landings were made from the vessels surveyed on an average of:

<u>Sample Fleet</u>	<u>Number of Observations</u>	<u>Average Number of Separate Days or Weeks on Which Landings Were Made</u>	
		<u>Days</u>	<u>Weeks</u>
Total	112	11	5.8
Grossing \$20,000 and over	40	13	6.3
Grossing under \$20,000	72	11	5.5
Total Cook Inlet Drift Gill-Net Fleet	570	9	4.9

1/ CFEC "Cost and Earnings of Alaskan Fishing Vessels-An Economic survey by James Owers, September, 1974.

Figure 1. - Percent of the total Cook Inlet Management Area drift gill-net fleet per gross earning increment for salmon catch for 1976.
(Based on 570 vessels)

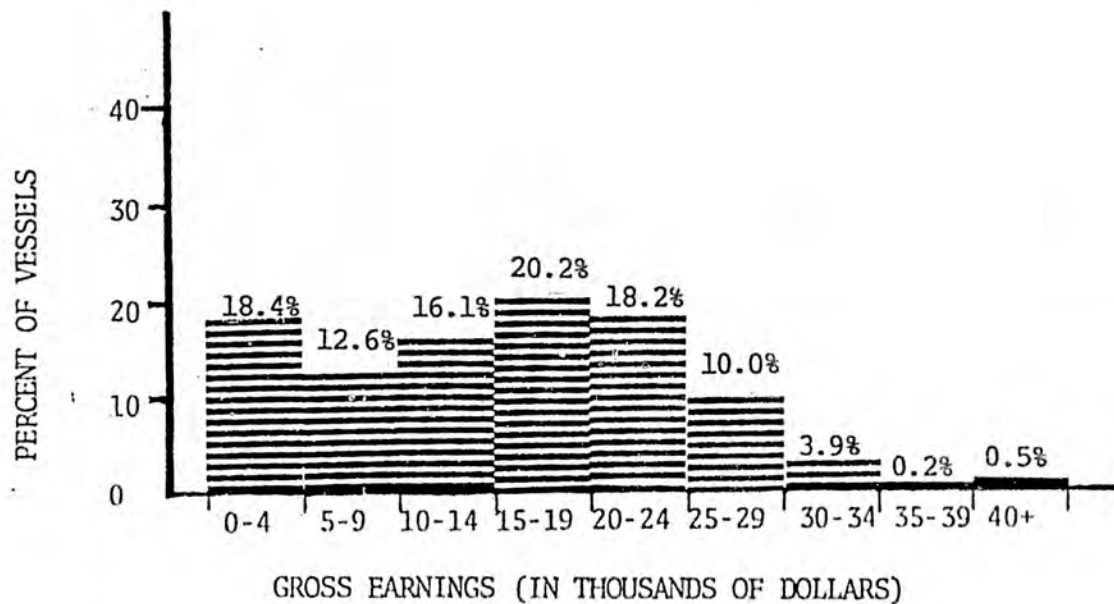
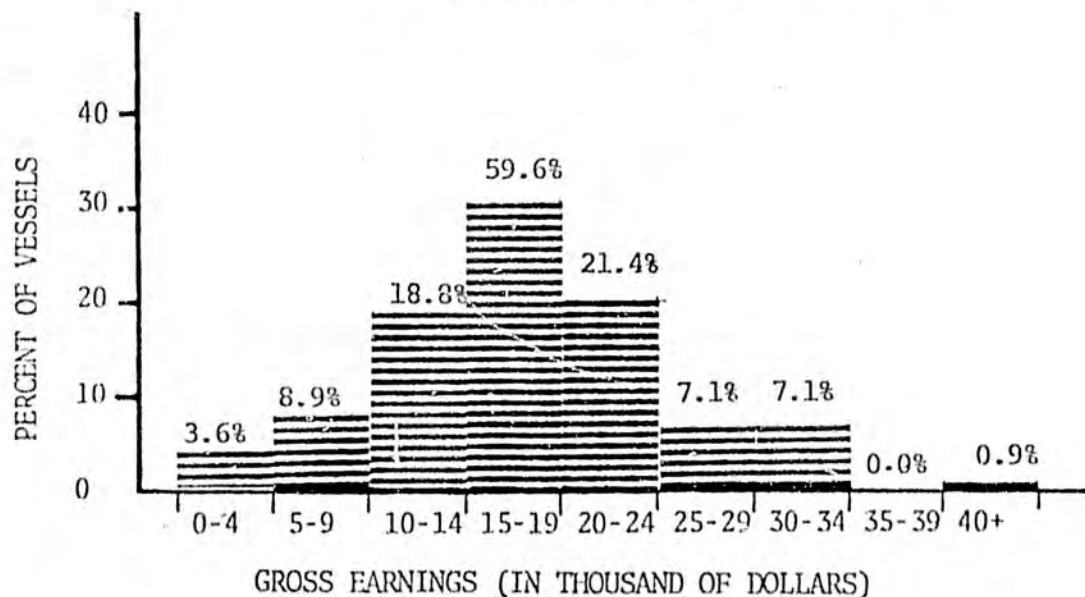


Figure 2. - Percent of the sample Cook Inlet Management Area drift gill-net fleet per gross earning increments for salmon catch for 1976.
(Based on 112 vessels)



Source: 1977 Cook Inlet drift gillnet operating cost survey conducted by CFEC; 1976 Vessel Multiple Listing dated November 22, 1977.

ENTRY PERMITS STATUS AND PRICES

The following table presents some of the important statistics on permit status in the Cook Inlet Drift Gill-Net fishery.

TABLE 2

STATUS OF SALMON DRIFT GILL-NET ENTRY PERMITS IN THE
COOK INLET MANAGEMENT AREA, 1974-1977

Year	Number of Permit Holders			Used to Land Fish	Percent of Total Permits Used To Land Fish
	Permanent	Interim	Total*		
1974	0	585	585	**	**
1975	453	331	623	456	73.2%
1976	514	82	583	523	89.7%
1977	539	36	568	533***	93.8%

*This is not the sum of permanent plus interim permits since several fishermen in each year started with interim permits but were granted permanent permits before the year ended.

**Data Unavailable

***Preliminary Estimates.

Sources: CFEC "Number of Permits Fished by Year by fishery", special computer run dated March 1978, for 1977 it was run on 5/78; CFEC Permit Status computer generated files dated December 31st for each of the appropriate years; and CFEC Fishery List dated 6/78 for 1975-1977.

Estimates of the average prices paid for drift gillnet entry permits around the state are listed in Table 3. These prices, obtained from the survey of fishermen buying or selling permits mentioned earlier, are averages of the prices which people who bought permits said they paid. The number of individuals who bought permits and who responded to our voluntary survey with price information are given in parentheses. These price estimates have not been converted into constant 1976 dollars.

TABLE 3

COMPARISON OF ALASKA DRIFT GILL-NET ENTRY PERMIT PRICES
BY AREA. AVERAGE PRICE ESTIMATES FOR 1975-1978.

Area	Average Price For:				1978* Prices Most Frequently Paid
	1975	1976	1977	1978*	
Southeastern	\$9,625 (28)	\$10,212 (12)	\$16,261 (21)	\$33,344 (16)	\$40,000
Prince Wm. Sound	3,089 (9)	4,406 (16)	13,750 (28)	24,184 (19)	\$30,000
Cook Inlet	3,911 (9)	5,552 (29)	10,832 (26)	31,000 (14)	\$45,000
Peninsula-Aleutians	**	6,333 (3)	10,285 (7)	14,250 (4)	--
Bristol Bay	1,165	2,536 (25)	6,440 (53)	17,723 (61)	\$30,000

*As of 7/05/78

**No estimate can be made

Source: Survey conducted by the CFEC of individuals buying and selling permits;
data compiled by Elizabeth Stewart of the CFEC research staff.

GROSS EARNINGS

The gross earnings by species for each year in Table 4 were estimated using the adjusted salmon prices in Table 7 (adjusted to constant 1976 dollars)^{2/} and the total yearly catch figures in Table 9. The total gross earnings in Table 5 are drawn from Table 4.

The average gross earnings in Table 5 are obtained using estimates of the total number of vessels making landings. The average gross earnings per permit holder who made landings has also been calculated in Table 5 for 1975 and 1976 (shown in parentheses). Prior to 1975 this data was not available since commercial license numbers were not required on fish tickets; since that time Limited Entry permit numbers have been required and the data for gross earnings by entry permit holders is available from 1975.

The information in these tables shows that despite substantial fluctuations from year to year, average gross earnings attributable to drift gill-net caught salmon in the Cook Inlet area were higher between 1973 and 1976 than they were between 1969 and 1972. Between 1974 and 1976, gross earnings for drift gill-net salmon have increased steadily, even when the impact of inflation has been eliminated by measurement in constant 1976 dollars. The average of the total gross earnings for the first four years of the time period, expressed in constant 1976 dollars, was \$5,188; the average for the next four years, also expressed in constant 1976 dollars was \$10,832.

2/ The method used to convert the price received by fishermen into constant dollars is outlined in the Appendix to this report.

TABLE 4

TOTAL GROSS EARNINGS IN THE COOK INLET MANAGEMENT AREA
 DRIFT GILL-NET FISHERY BY SPECIES FOR 1969-1976,
 EXPRESSED IN CONSTANT 1976 DOLLARS

Gross Earnings in Constant 1976 Dollars					
Year	King	Red	Coho	Pink	Chum
1969	\$ 4,373	\$1,514,407	\$ 76,299	\$ 7,892	\$ 366,105
1970	6,395	1,233,274	306,329	324,740	1,144,674
1971	4,324	1,269,540	72,657	5,655	431,105
1972	9,662	1,709,640	53,910	131,788	1,163,921
1973	6,807	2,543,908	122,295	141,343	2,641,033
1974	11,372	1,993,246	341,206	295,117	1,525,445
1975	2,738	1,546,866	325,333	153,082	2,694,244
1976	13,067	5,707,576	306,109	847,475	1,778,146

Source: Tables 3 and 7.

TABLE 5

TOTAL AND AVERAGE GROSS EARNINGS IN THE COOK INLET
MANAGEMENT AREA DRIFT GILL-NET FISHERY BY YEAR
1969 to 1976, EXPRESSED IN CONSTANT 1976 DOLLARS

Year	Total Gross Earnings	Number of Different Vessels Making Landings	Average Gross Earnings Per Vessel
1969	\$1,969,076	508	\$ 3,876
1970	3,015,412	555	5,433
1971	1,783,281	432	4,128
1972	3,068,921	401	7,653
1973	5,455,386	462	11,808
1974	4,166,386	550	7,575
1975	4,722,263	541 (456)*	8,729 (\$10,356)**
1976	8,652,373	570 (523)*	15,180 (\$16,544)**

*Figure in parentheses represents number of separate entry permits which were used to make landings in the Cook Inlet Management area in this year.

**Figure in parentheses represents the average gross earnings per permit holder who made landings in this year.

Source: Table 4; CFEC "Catch Data Tabulation from Gross Earning File" prepared 11/12/77; CFEC "Number of Permits Fished by Year by Fishery" computer files generated for 1975-1977 prepared in mid-March, 1978.

EX-VESSEL PRICES, 1969-1976^{3/}

An upward trend in the prices for all salmon species seems to be an important reason for the increase in average gross earnings. The prices actually received by the fishermen, shown in Table 6 and Figure 3(a-e), show a consistent pattern across all species. Prices were fairly stable between 1969 and 1971, rose rapidly between 1972 and 1974, fell during 1975, and then rebounded in 1976.

In Table 7 and Figure 4(a-e), the salmon prices have been adjusted into constant 1976 dollars to eliminate the impact of inflation. The price increases in this table and figure are not due to price inflation in the U.S. economy during this period, but to an increase in prices paid to fishermen for salmon relative to prices for other goods. Figure 4 shows that the price for each of the five species of salmon, expressed in constant dollars, has increased substantially over the past eight years. The pattern of price changes was not changed much by inflating the years 1969 to 1975. For most of the species there is a distinct change in the level of prices in 1973; prices are substantially higher between 1973 and 1976 than they were between 1969 and 1972.

The price increases over the past eight years were not unique to the Cook Inlet salmon drift gillnet fishery, but occurred in other salmon producing areas of the state as well. Prices in Bristol Bay and Prince William Sound for drift gillnet caught salmon also show the same general upward trend, with a decline in 1975, and a rebound in 1976.

3/ The price per pound does not include bonuses, in-kind payments, and price adjustments to the fishermen from the processors at the end of the fishing season.

TABLE 6

PRICES IN DOLLARS PER POUND, ROUND WEIGHT, TO THE
FISHERMEN FOR DRIFT GILL-NET CAUGHT SALMON IN THE
COOK INLET MANAGMENT AREA FROM 1969-1976

Year	King	Red	Coho	Pink	Chum
1969	.38	.28	.19	.14	.12
1970	.40	.28	.25	.14	.14
1971	.37	.30	.21	.15	.15
1972	.47	.34	.27	.19	.20
1973	.62	.65	.50	.30	.42
1974	.88	.91	.66	.46	.53
1975	.54	.63	.54	.35	.41
1976	.92	.76	.61	.37	.54

Source: Estimates by the CFEC, State of Alaska.

Figure 3a
King Salmon

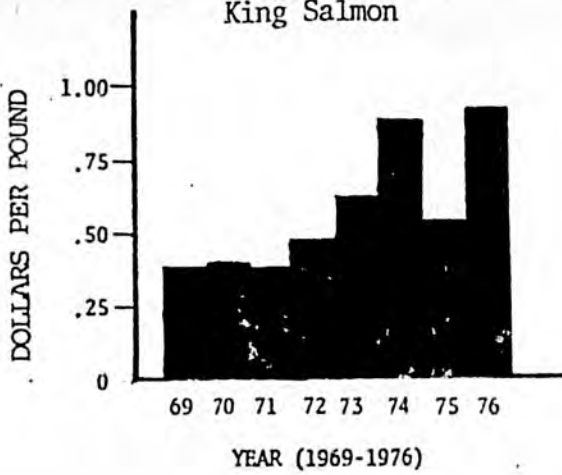


Figure 3b
Red Salmon

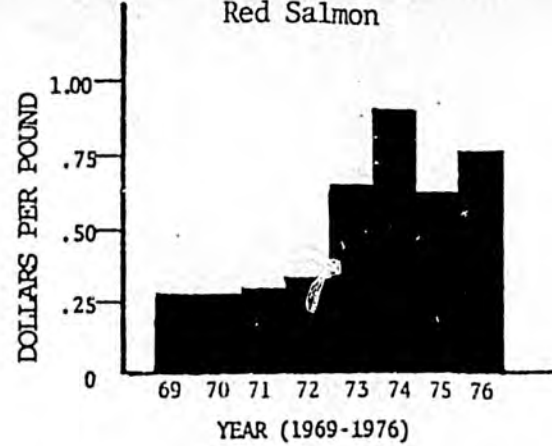


Figure 3c
Coho Salmon

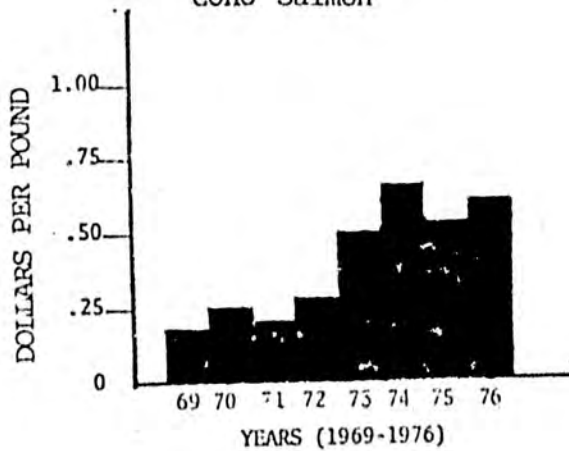


Figure 3d
Pink Salmon

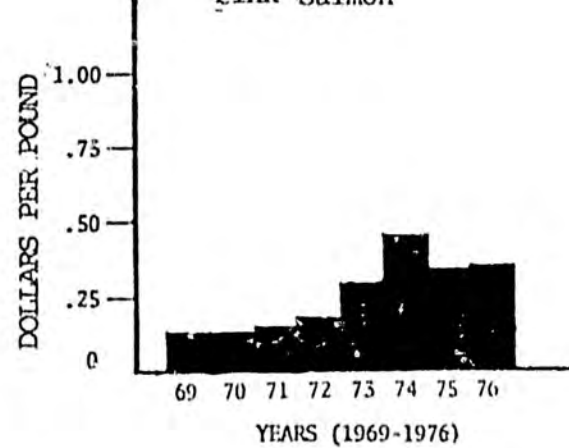


Figure 3e
Chum Salmon

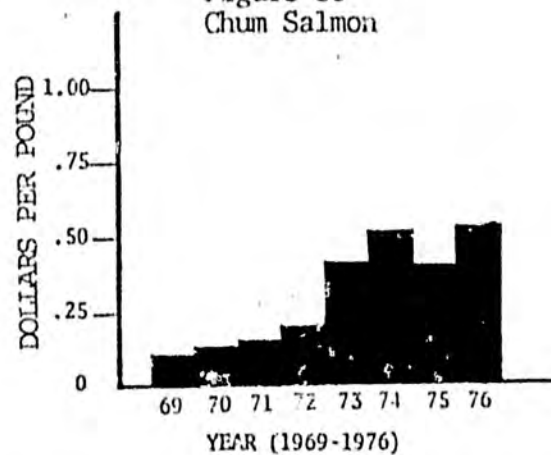


Figure 3(a-e) - Prices in Dollars per Pound in the Round to the Fishermen for Drift Gill-net Caught Salmon in The Cook Inlet Area From 1969-1976.

Source: Estimates by CFEC, State of Alaska.

TABLE 7

PRICES IN DOLLARS PER POUND, ROUND WEIGHT, TO THE
FISHERMEN FOR DRIFT GILLNET CAUGHT SALMON IN THE
COOK INLET MANAGEMENT AREA FROM 1969-1976
ADJUSTED INTO CONSTANT 1976 DOLLARS USING THE
WHOLESALE PRICE INDEX FOR ALL COMMODITIES.

Year	Adjusted into Constant 1976 Dollars				
	King	Red	Coho	Pink	Chum
1969	.65	.48	.33	.24	.21
1970	.66	.46	.41	.23	.23
1971	.59	.48	.34	.24	.24
1972	.72	.52	.42	.29	.31
1973	.84	.88	.68	.41	.57
1974	1.01	1.04	.75	.53	.61
1975	.57	.66	.57	.37	.43
1976	.92	.76	.61	.37	.54

Source: Table 6; U.S. Department of Labor Wholesale Price Index for all commodities, 1967 = 100.

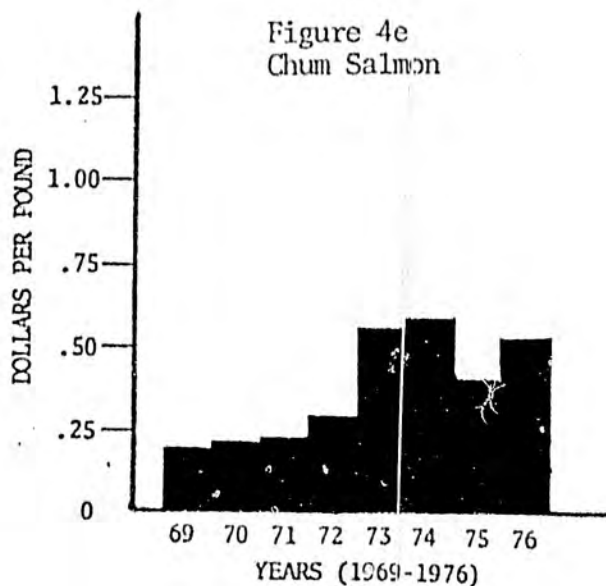
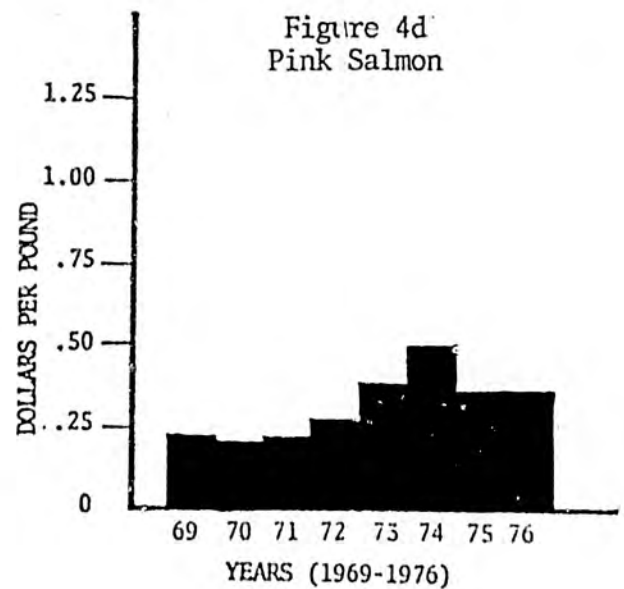
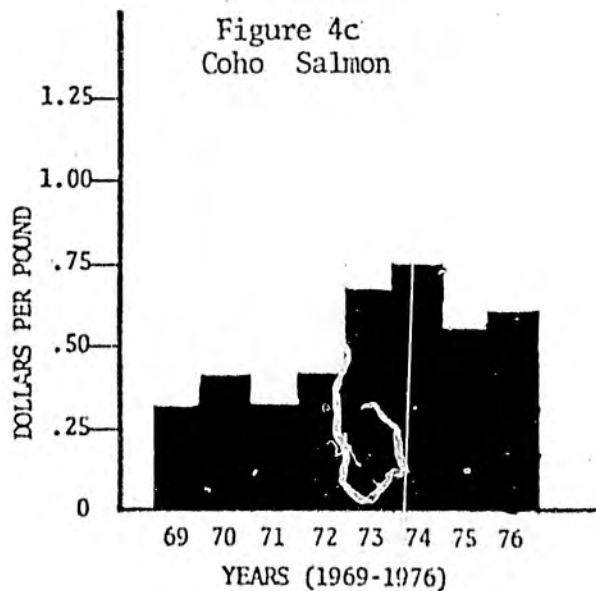
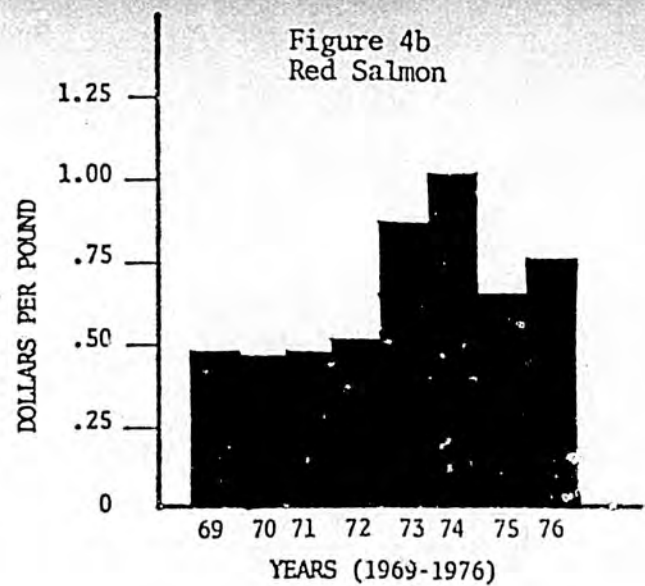
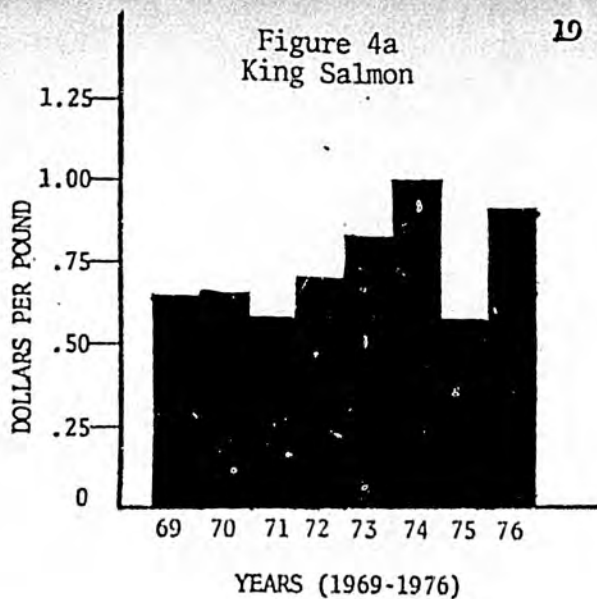


Figure 4(a-e) - Prices in Dollars per Pound, Round Weight, to the Fishermen for Drift Gillnet Caught Salmon in The Cook Inlet Management Area From 1969-1976, Adjusted into Constant 1976 dollars using the Wholesale Price Index for All Commodities.

Source: Table 3.

CATCH BY SPECIES IN POUNDS, 1969 to 1977^{4/}

The information in the following tables is based on catch data from fish tickets, summarized in computer printouts from the CFEC. Table 8 shows the monthly distribution of total pounds by each species of salmon harvested by the drift gill-net fleet for 1969-1977. Table 9 and Figure 5 show the catch patterns and trends clearly. The catch of king salmon has fluctuated between 6,700 and 102,100 pounds. Given the small catches of king salmon prior to 1977, it would only have shown up in Figure 5 in one year given the scale used, and so does not appear there. Between 1969 and 1975 the catch of red salmon fluctuated between 2,343,700 and 3,155,000 pounds, but in 1976 it jumped to 7,510,000 pounds and in 1977 to 8,378,000 pounds, in both years over twice the previous high catch. The catch of coho salmon remained at fairly low levels throughout the nine year period; the high catch, in 1970, was 747,000 pounds. The catches of pink salmon seem to be trending upwards. Excluding 1970 the trend was from very low levels, under 40,000 pounds, in 1969 and 1971, to the higher levels of one to two million pounds in 1976 and 1977. Chum salmon catches have fluctuated a great deal within a range from 1,743,400 to 9,207,600 pounds. In general, however, chum salmon catches appear to be trending upwards.

4/ Preliminary figures for 1977.

TABLE 8
MONTHLY DISTRIBUTION OF TOTAL POUNDS BY EACH SPECIES OF
SALMON HARVESTED BY THE DRIFT GILLNET FLEET
IN THE COOK INLET MANAGEMENT AREA
1969-1977*

<u>KING SALMON</u>				
<u>Year</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>Other</u>
1969	1,623	4,906	198	0
1970	827	8,646	216	0
1971	4,265	2,822	241	0
1972	5,352	7,955	86	26
1973	171	6,922	1,010	0
1974	726	9,983	550	0
1975	409	3,740	654	0
1976	1,165	12,464	723	0
1977*	1,574	99,081	1,384	93**
<u>RED SALMON</u>				
1969	601,859	2,467,933	7,995	77,228**
1970	23,264	2,645,500	12,267	0
1971	13,218	2,617,025	14,627	5**
1972	12,156	3,269,266	6,292	56**
1973	1,957	2,877,503	11,345	0
1974	1,996	1,911,598	2,989	0
1975	4,014	2,300,178	39,545	0
1976	13,604	7,488,471	8,781	0
1977*	207,850	8,148,643	21,161	334**
<u>COHO SALMON</u>				
1969	35	169,510	61,663	0
1970	260	694,054	52,645	184**
1971	0	150,677	61,227	1,793**
1972	25	110,004	18,167	160**
1973	4	146,047	33,795	0
1974	6	402,775	52,079	81**
1975	5	351,621	212,117	7,016**
1976	60	453,775	46,112	1,988**
1977*	179	544,282	181,323	7,220**
<u>PINK SALMON</u>				
1969	198	28,651	4,036	0
1970	176	1,258,311	153,424	0
1971	29	23,087	429	17**
1972	4	424,675	29,764	0
1973	296	343,550	893	0
1974	14	488,200	68,611	0
1975	359	408,899	4,470	7**
1976	112	1,954,827	336,141	41**
1977*	6,133	1,049,462	7,528	221**
<u>CHUM SALMON</u>				
1969	894	1,001,934	740,528	0
1970	326	4,011,265	965,138	115**
1971	2,689	1,067,047	722,509	4,024**
1972	613	2,719,131	1,034,058	782
1973	386	3,291,548	1,341,457	0
1974	124	1,686,987	813,615	4
1975	424	3,710,090	2,554,995	175**
1976	2,001	2,781,652	509,379	49**
1977*	8,517	5,141,177	4,047,371	10,492**

*Preliminary Figures.

**Catch made in May or September.

Source: CFEC, "1976 Catch Data Tabulation from Gross Earning File: Computer printout dated 4/10/78, R01-03B-4550, for the specified years. For 1977 this printout is dated 5/21/78.

TABLE 9

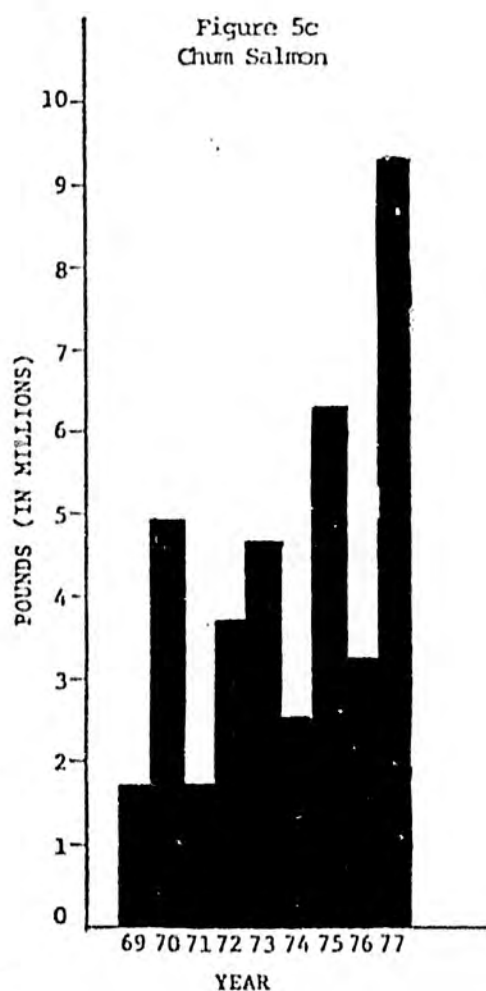
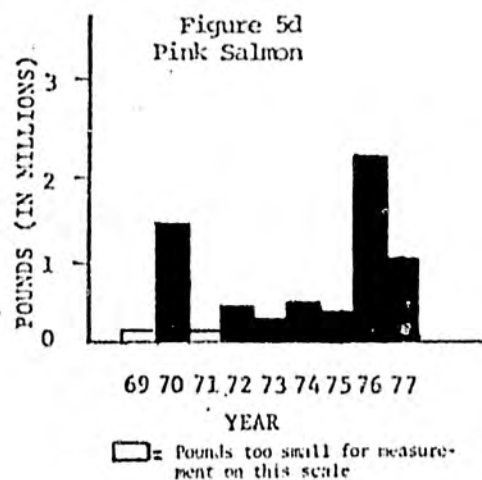
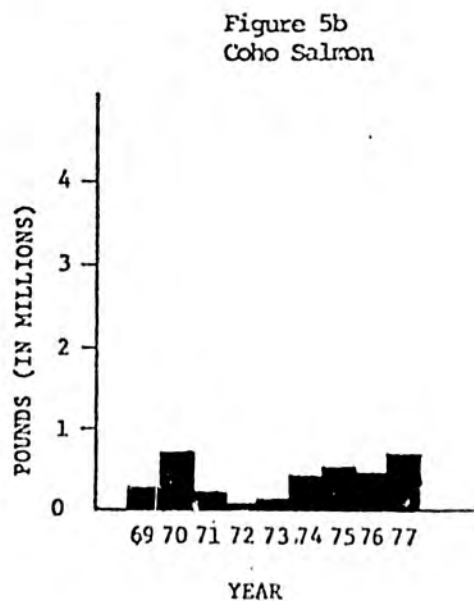
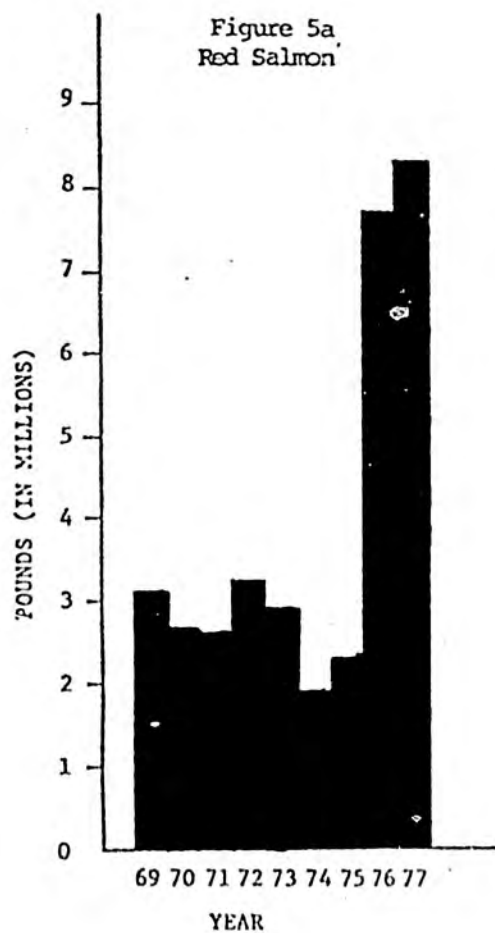
TOTAL CATCH IN POUNDS BY YEAR FOR EACH SPECIES OF SALMON
HARVESTED WITH DRIFT GILLNET GEAR IN THE
COOK INLET MANAGEMENT AREA, 1969-1977*

Year	King	Red	Coho	Pink	Chum
1969	6,727	3,155,015	231,208	32,885	1,743,356
1970	9,689	2,681,031	747,143	1,411,911	4,976,844
1971	7,328	2,644,875	213,697	23,552	1,796,269
1972	13,419	3,287,770	128,356	454,443	3,754,584
1973	8,103	2,890,805	179,846	344,739	4,633,391
1974	11,259	1,916,583	454,941	556,825	2,500,730
1975	4,803	2,343,737	570,759	413,735	6,265,684
1976	14,203	7,509,968	501,818	2,290,474	3,292,863
1977*	102,132	8,377,988	733,004	1,063,344	9,207,557

*Preliminary Figures for 1977.

Source: Table 8 (but less 2,019 total pounds of salmon for 1976). This is due to fish ticket errors with gear codes. Table 9 reflects the correct poundage, while Table 8 does not.

Figure 5(a-d).-Total Catch of Salmon With Drift Gill-net Gear in The Cook Inlet Area by Species and Year, 1969-1977*



*Preliminary figures for 1977

Source: Table 9

APPENDIX

METHOD OF PRICE ADJUSTMENT

The prices received by the fishermen in any particular year (these are given in Table 7) were inflated by a factor designed to express them in 1976 dollars. The "inflation factor" for each year was obtained using the U.S. Department of Labor's Wholesale price index for all commodities. The index for the year whose price it was desired to inflate was subtracted from the index for 1976. The percentage increase in the index was then determined and the price was inflated by that percentage.

The multiplier for 1969 was calculated by finding that the difference between the indices 1969=106.5 and 1976=182.9 was 76.4. The difference meant a 71.74% increase in the index between 1969 and 1976. The multiplier for 1969 was therefore 1.717. The king salmon price received by the fishermen in 1969 was .38, the inflated price was (1.717) (.38) or .65.

The following table shows the work involved in calculating the inflation factors.

Inflation factor calculations

Year _i	WPI _i *	WPI ₇₆ - WPI _i	% change in WPI between year _i and 1976	Inflation multiplier for year _i
69	106.5	76.4	71.74	1.717
70	110.4	72.5	65.67	1.657
71	113.9	69	60.58	1.606
72	119.1	63.8	53.57	1.536
73	134.7	48.2	35.78	1.358
74	160.1	22.8	14.24	1.142
75	174.9	8	4.57	1.046
76	182.9	0	0	1.00

*for all commodities, 1967=100.

Source: U.S. Department of Labor.

SUMMARY OF COST AND NET RETURN INFORMATION FOR THE
PRINCE WILLIAM SOUND DRIFT GILLNET FISHERY

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of the Research Staff
Commercial Fisheries Entry Commission
Pouch KB, Juneau, Alaska 99811

December, 1978

INTRODUCTION

The following tables and figures summarize gross earnings, price, and catch information for the salmon drift gillnet fishery in the Prince William Sound management area from 1969 to 1976, and present the results of a survey designed to obtain information on the operating costs of fishermen in that fishery in 1976. Estimates of catch size have been made from fish tickets, and prices have been derived from processor's annual reports, computations from contracts reached with processors by the Cordova Aquatic Marketing Association, and estimates made by fishermen. The operating cost survey was carried out by mail and personal interview in the late summer and fall of 1977. Eighty-three fishermen, or 17% of the 477 fishermen who used their permanent or interim-use entry permits in the fishery in 1976 provided completed questionnaires. Using this information, average net returns in 1976 are estimated for the entire drift gillnet fleet, and for those fishermen grossing more and less than \$20,000. A pair of tables summarizes the average prices for entry permits from 1975 to the first part of 1978, and outlines the status of permanent and interim-use permits through 1977.

This paper has been prepared to report the survey results to fishermen who responded to the operating cost survey mentioned above. We hope it will be useful to them. The Commission will appreciate any comments or suggestions on the data or on the method of presentation.

OPERATING COSTS

The cost information summarized in Table 1 was obtained in the late summer and fall of 1977 with a survey of the drift gillnet fishermen operating in Prince William Sound, the Copper River and Bering River areas. The data obtained from the survey has been arranged in four ways.

Column A of Table 1 lists the average cost in each category for the total boats sampled; the number of usable responses on which each average is based is listed in parentheses. Column B of Table 1 gives the average of the survey responses for all the respondents who grossed \$20,000 or over from salmon drift gillnetting, and Column C of Table 1 gives the average responses for the fishermen who were surveyed and made under \$20,000. A comparison of figures 1 and 2, immediately following the notes to Table 1, shows that the fishermen who responded to the questionnaire tended to be those with gross revenues above the 1976 fleet average of \$19,582; to offset this bias among the sampled fishermen, each cost was calculated as a weighted sum of the averages for that cost for the vessels grossing \$20,000 and over, and for the vessels grossing under \$20,000. The weights, based on the percentage of vessels in the sample fleet in each income category, were .414 for those grossing \$20,000 and over and .587 for those grossing under \$20,000. For example, from Table 1, line 1, column B we can find that the average for insurance for the fishermen grossing \$20,000 and over was \$362 and from column C we find that the average cost for insurance among those grossing under \$20,000 was \$263. Multiplying \$362, by .414 and \$263 by .587 and adding the products gives the weighted cost of insurance in Column D, \$312. The result of this operation was a final average for each cost weighted such that the bias among the sampled fishermen is compensated for.

The vessel length and vessel horsepower for the sample fleet and for the total drift gill-net fleet in the Prince William Sound management area were checked to determine if the sample fleet was biased in this respect. It was found that the average vessel lengths for the sampled fleet and for the total drift gill-net fleet were 26.7 and 26.4 feet respectively, while the average horsepowers for the sample fleet and the total fleet were 201.4 and 217.1 respectively. This indicates that the sample fleet is representative of the total fleet with respect to vessel length and vessel horsepower.

Net returns to Labor and Management in line 19 of Table 1 were obtained by subtracting all fixed and variable expenses and the opportunity costs of money tied up in the vessel, gear, and year's fishing operations from gross earnings. The opportunity cost is the income given up by the fisherman when he invested his money in the fishery rather than in a business or asset of equal risk. If the fisherman had invested his money in a business he would receive income from that investment; this income may be greater or less than that earned by fishing, but in any event it is lost when the decision is made to fish, and its loss should be reckoned by the fisherman as a cost.

In a real sense, the cost of any action is the opportunities for other actions that are given up. The cost of gas or a new leadline is the opportunity of doing something else with the money: buying a new hunting rifle, going to a good restaurant for dinner, or purchasing new buoys for crab pots. In this respect so-called "opportunity costs" are costs like any other, a lost opportunity. Those interested in the amount of "ready cash" available to the average fishermen at the end of the season should use Table A-1 found in the Appendix to this report, this Table does not include any opportunity cost.

Insurance costs and the costs for dues, moorage, administration, vessel repairs, and depreciation obtained in response to questions on the survey were assumed to be for the operation of the vessel in all of its fisheries. Since the average fisherman sampled earned 81% of his gross fishing income from salmon drift gillnetting, these costs were prorated according to the proportion of gross earnings that each fishing vessel derived from fishing salmon with drift gillnet gear to determine what part of these costs should be assigned to the drift gillnetting activities.

Please note that interest payments have not been included in Table 1. The objective of this report is to provide operating cost information to the fishermen so that they may compare their performance with that of others in the fishery. Interest payments vary widely reflecting the unique financial position of each individual fisherman. Therefore to attain comparability of the costs of actual fishing operations, interest is not included as a cost category.

If the purpose of this report was strictly to determine the average net returns to the fishing business including relevant opportunity costs and interest payments, please refer to Table A-2 found in the Appendix to this report.

The notes following Table 1 are essential to an interpretation of the categories and estimates contained in it. The average net return may be underestimated due to the reasons mentioned in paragraphs 17 and 18 in the notes.

TABLE 1*

SUMMARY OF AVERAGE COSTS FOR DRIFT GILL-NET FISHING
FOR SALMON IN THE PRINCE WILLIAM SOUND, COPPER
RIVER AND BERING RIVER AREAS in 1976.

Cost Category	Averages for the Sampled Fleet			(D) Total Fleet (476) Weighted Sum
	(A) Total Sampled Vessels	(B) Grossed \$20,000 and Over	(C) Grossed Under \$20,000	
1. Insurance	\$ 311 (76)	\$ 362 (37)	\$ 263 (39)	\$ 312
2. Dues	109 (80)	111 (40)	58 (40)	80
3. Moorage	153 (80)	179 (40)	127 (40)	149
4. Administration	204 (73)	260 (36)	149 (37)	195
5. Vessel Repairs	936 (75)	842 (38)	1,033 (37)	955
6. Depreciation	820 (52)	1,017 (28)	591 (24)	768
7. License Fees	91 (83)	97 (41)	86 (42)	90
8. Fuel	849 (75)	1,013 (40)	660 (35)	806
9. Galley Expenses	847 (76)	907 (39)	784 (37)	835
10. Gillnetting Equip ment Repairs	1,380 (27)	1,436 (12)	1,337 (15)	1,380
11. Travel & Freight	511 (76)	638 (38)	389 (38)	492
12. Special Clothes	179 (78)	169 (39)	189 (39)	181
13. Fish Assessments	66 (81)	98 (40)	35 (41)	62
14. Crewshare	512 (83)	589 (41)	437 (42)	501
15. Opportunity Cost of Investment	1,948 (50)	2,351 (27)	1,476 (23)	1,839
16. Opportunity Cost of Holding an Entry Permit	529	529	529	529
17. TOTAL COSTS	\$9,445	\$10,598	\$8,143	\$9,174
18. AVERAGE GROSS EARNINGS	\$21,151 (83)	\$32,465 (41)	\$10,106 (42)	\$19,582 (476)
19. NET RETURN TO LABOR AND MANAGEMENT	\$11,706	\$21,867	\$ 1,963	\$10,408

Source: 1977 Prince William Sound Drift Gill-Net Operating Cost Survey conducted by
Commercial Fisheries Entry Commission; CFEC Vessel Data Multiple Listing
computer generated file for 1976, prepared November 12, 1977; Table 3.

*Excludes interest payments.

INFORMATION ON THE DIFFERENT COST CATEGORIES USED IN TABLE 1.

1. This cost consists of insurance payments.
2. This cost category consists of union and association dues.
3. This category includes moorage and storage charges and moorage related utility charges.
4. Administrative costs include costs such as telephone, legal services, bookkeeping, bank charges, and property taxes, but does not include interest charges and repayments on loans for purchase of the vessel or gear. One of the interviewers working for the Entry Commission on this survey reported that the fishermen being interviewed sometimes had trouble thinking of the type of costs that went to make up this category, and questions from the interviewer were necessary to obtain the information. In a mail survey this prompting would have been unavailable, and the administrative costs might have been underestimated.
5. This category includes vessel and engine repairs, and repairs to gear such as anchors, lines and electronics. It was found from 78 questionnaires with responses that 7 years was the average age of the vessels used by these fishermen.
6. Depreciation was based on the vessels' market value and was calculated using the straight line method over 15 years and assuming that the vessel would have no resale value. The depreciation was calculated for the vessel, which is a long-lived asset, but it was not calculated for the drift gillnet fishing gear. Based on 51 questionnaires with responses it was found that the 1976 average market value of the vessel for the total 56 vessels was \$16,037 and \$18,685 for the fishermen grossing \$20,000 and over; \$12,815 for those fishermen grossing under \$20,000.
7. This cost was not taken from the survey responses, but was estimated for each fisherman on the assumption that one vessel license, one gear license, one commercial license and one entry permit would be required for the operation of each vessel. The vessel and commercial license costs were prorated among the various fisheries in which the vessel was operated. Distinctions were made between the costs for resident and non-resident licenses and between the permit fees for poverty level and non-poverty level permit holders. It was assumed that the costs of commercial and gear licenses for crew members were borne by the crew members themselves and did not enter into the costs of the vessel operator. The cost of an entry permit was assumed to be its renewal cost.

INFORMATION ON THE DIFFERENT COST CATEGORIES IN TABLE 1 (Cont.)

8. This category includes the costs of fuel and engine lubricants.
9. This category includes the galley expenses.
10. This category includes the costs involved in purchase of and repairs to drift gillnet gear. Based on 50 questionnaires with responses, it was found that the average 1976 market value of drift gill-nets for the 50 vessels was \$4,364, for those fishermen grossing \$20,000 and over it was \$5,109, and \$3,489 for those who grossed under \$20,000.
11. This category includes the costs of travel and freight.
12. This category includes the costs of special items of clothing.
13. Fish caught in the Prince William Sound, Copper and Bering River areas are assessed to raise money for the private nonprofit hatchery program in the area. The assessment is 3¢ for each fish caught in the Sound, and 2¢ for each fish caught on the Copper and Bering River flats. Information on the location of catch by species is not readily available for each fisherman and so to approximate the cost of this assessment to each fisherman, each species was assigned a tax according to where it was primarily taken in 1976. This tax was 3¢ a fish for pinks and chums, taken mostly in the Sound, and 2¢ a fish for kings, reds, and cohos, which are taken mostly on the Copper River and Bering River flats.
14. This category consists of payments to crewmembers. On the basis of the responses received it was found that 12 vessels out of the 83 (14%) had paid crewmembers (other than the operator) on their vessels while drift gill-netting for salmon. From the 83 questionnaires, it was found that 2.4% was the average percent of gross earnings paid to crewmembers. It was also found that most men in this fishery drift gillnet for salmon on a one-man one boat basis.

INFORMATION ON THE DIFFERENT COST CATEGORIES IN TABLE 1 (Cont.)

15. The opportunity cost of investment was calculated at a 12% yearly rate over a year on the market value of the vessel and drift gillnet gear. The market values on the survey were assumed to be the market values in 1977, the year the survey was conducted and were discounted by 6% to obtain an estimate of the market values in 1976. The value of the vessel was prorated according to the percentage of the gross revenue earned with that vessel in the salmon drift gillnet fishery.
16. The Entry Commission asks everyone buying or selling an entry permit to indicate the price at which the transfer is made. This survey of permit transfer prices is voluntary, and the responses are kept completely anonymous. The opportunity cost of owning a permit is assumed to be 12% of a permit value of \$4,406. That price, estimated from the permit transfer survey responses, was the average value of permits sold during 1976. In November and December of 1976, after the referendum election on limited entry, the value of a Prince William Sound drift gillnet permit rose sharply to \$8,417, implying that the average price for the whole year was undervalued due to uncertainty about the election. (For more information on entry permit prices turn to Table 3 in this report.)
17. Total costs is the sum of all cost categories (1-16). Since the survey was conducted through the mail, it was impossible to make sure that each fisherman answered every question. Whenever a blank occurred instead of an answer, that item on the questionnaire involved was ignored for the purpose of computing the average cost. For each cost category the number of responses used is in parentheses next to the average gross earnings, the number of blanks for each question can be readily computed. Note that this method of dealing with blanks gives an upward bias to the estimates of average costs since some of the answers that were left blank could in fact be zero's.
18. These are the average gross earnings of those responding to the survey. None of the average gross earnings figures are based on information derived from the survey, but instead on information available to the Commission from fish tickets and estimates of average prices shown in Tables 6 and 7. Average gross earnings in Column D are those for the entire fleet (476). The average gross earnings does not include bonuses or in-kind payments. It should be noted that the average gross earnings actually received is higher than is shown in this report. It was found from 67 questionnaires with responses that 24% received a bonus. The average bonus for the sample fleet was 0.8% of their gross earnings.

INFORMATION ON THE DIFFERENT COST CATEGORIES IN TABLE 1 (Cont.)

19. Care is required in interpreting the "Net Return to Labor and Management" line. This could be a very good or very poor return depending on the amount of effort spent during the season. Some insight into the amount of effort spent during the season can be obtained by estimating the number of separate days or weeks on which a fisherman made landings with his boat. In the following estimates, multiple landings made on one day or during one week are counted as one day or one week of landings. Using this measure of effort, landings were made from the vessels surveyed on an average of:

<u>Sample fleet</u>	<u>Number of Observations</u>	<u>Average Number of Separate Days or weeks on which Landings were made</u>	
		<u>Days</u>	<u>Weeks</u>
TOTAL	83	26.5	9.4
Grossing \$20,000 and over		33.6	11.3
Grossing under \$20,000		19.6	7.6
Total Prince William Sound <u>Drift Gill-Net Fleet</u>	476	26.4	9.3

Source: CFEC "1976 - Gross Earnings" by ADF&G Number dated June 17, 1978.

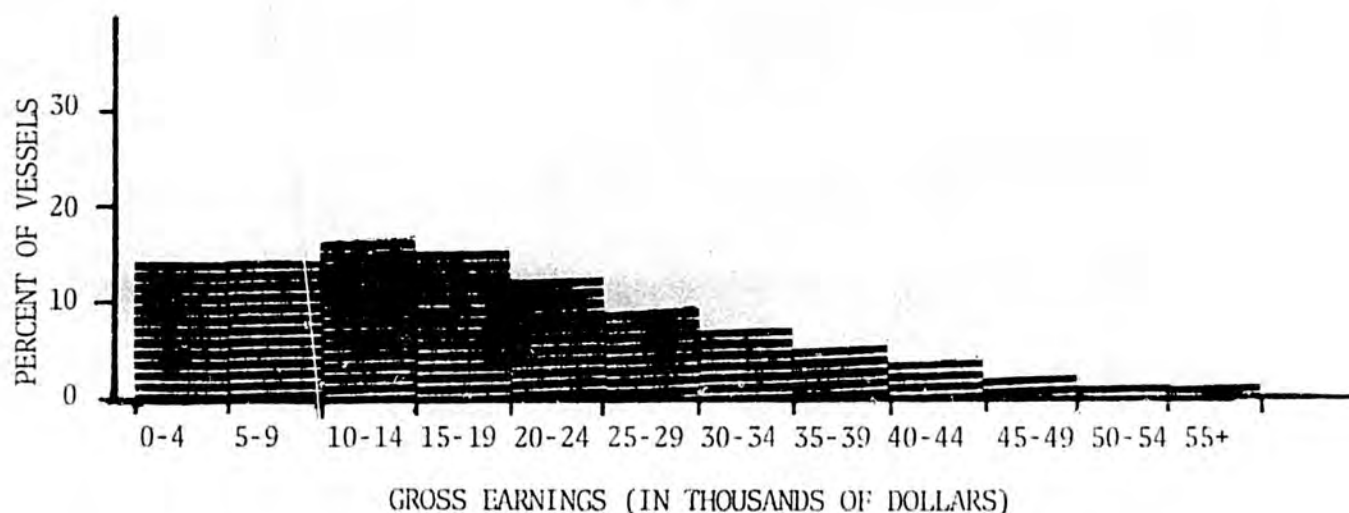


Figure 1.-Percent of the Total Prince William Sound Management Area Drift Gillnet Fleet per Gross Earning Increments for Salmon Catch for 1976. (Based on 476 Vessels)

Source: Alaska Department of Fish and Game computer file R11 dated March 5, 1978.

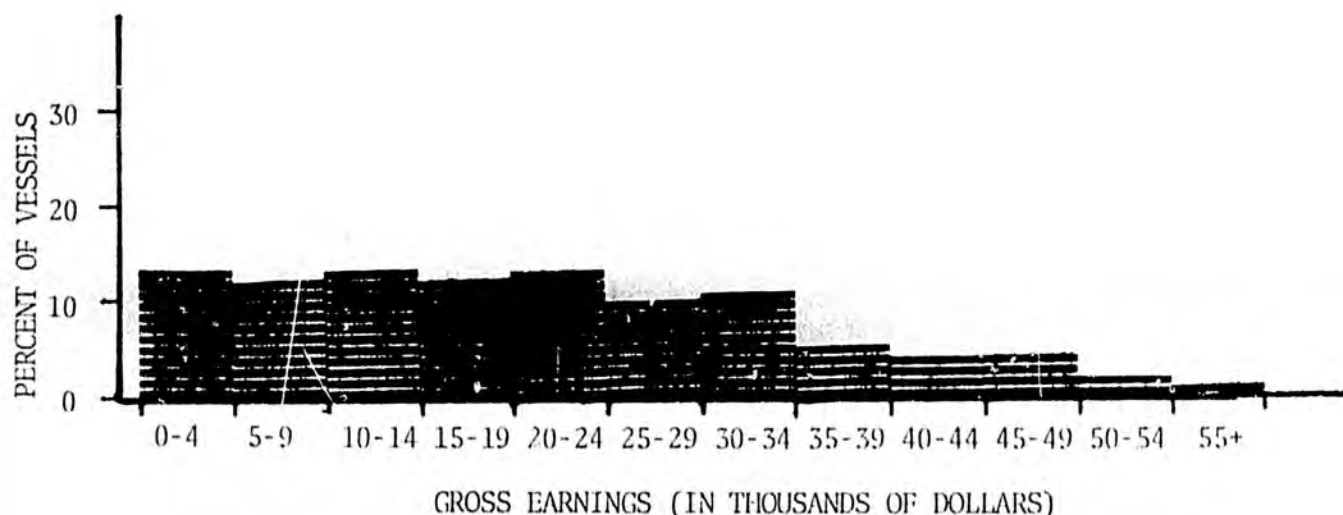


Figure 2.-Percent of the Sample Prince William Sound Management Area Drift Gillnet Fleet per Gross Earning Increments for Salmon Catch for 1976. (Based on 85 Vessels)

Source: 1977 Prince William Sound Drift Gillnet Operating Cost Survey conducted by the Commercial Fisheries Entry Commission; CFEC 1976 Vessel Multiple Listing dated November 12, 1977.

ENTRY PERMITS STATUS AND PRICES

The following table presents some of the important statistics on permit status in the Prince William Sound Management Area Drift Gillnet Fishery.

TABLE 2

STATUS OF SALMON DRIFT GILLNET ENTRY PERMITS IN THE
PRINCE WILLIAM SOUND MANAGEMENT AREA
1974-1977

Year	Number of Permit Holders				Percent of Total Permits Used to Land Fish
	Permanent	Interim	Total*	Used to Land Fish	
1974	0	557	557	**	**
1975	494	89	531	444	83.6%
1976	514	25	533	477	89.5
1977	524	8	532	500***	94.0

*This is not the sum of permanent plus interim permits since several fishermen in each year started with interim-use permits but were granted permanent permits before the year ended.

**Data Unavailable

***Preliminary Estimates.

Source: CFEC "Number of Permits Fished by Year by Fishery", special computer run dated March, 1978, for 1977 figures it was run May, 1978; CFEC Permit Status computer generated files dated December 31st for each of the appropriate years; and CFEC Fishery List dated 6/78 for 1975-1977.

Estimates of the average prices paid for drift gillnet entry permits around the state are listed in Table 3. These prices, obtained from the survey of fishermen buying or selling permits mentioned earlier, are averages of the prices which people who bought permits said they paid. The number of individuals who bought permits and who responded to our voluntary survey with price information are given in parentheses. These price estimates have not been converted into constant 1976 dollars.

TABLE 3
COMPARISON OF ALASKA DRIFT GILLNET ENTRY PERMIT PRICES
BY AREA. AVERAGE PRICE ESTIMATES FOR 1975-1978.

Area	1975	Average Price For: 1976	1977	1978	1978 Prices Most Frequently Paid
Southeastern	\$9,625 (28)	\$10,212 (12)	\$16,261 (21)	\$34,604 (24)	\$40,000
Prince Wm. Sound	3,089 (9)	4,406 (16)	13,750 (28)	27,742 (25)	\$25,000
Cook Inlet	3,911 (9)	5,552 (29)	10,832 (26)	36,825 (20)	\$45,000
Peninsula-Aleutians	*	6,333 (3)	10,285 (7)	15,000 (5)	N/A
Bristol Bay	1,165 (16)	2,536 (25)	6,440 (53)	21,638 (72)	\$25,000

*No estimate can be made.

For comparative purposes, the price estimates for salmon purse seine permits in the Prince William Sound Management area are:

1975	Average	\$ 8,000
1976	"	10,700
1977	"	29,800
1978	Average	24,272
1978	Price Most Frequently Paid . . .	\$25,000

Source: Survey conducted by the CDEC of individuals buying and selling permits; data compiled by Elizabeth Stewart of the CDEC Research Staff.

GROSS EARNINGS

The gross earnings by species for each year are estimated in Table 4 using the adjusted salmon prices in Table 7 (adjusted to constant 1976 dollars)^{1/} and the total yearly catch figures in Table 9. The total gross earnings in Table 5 are drawn from Table 4.

The average gross earnings in Table 5 are obtained using estimates of the total number of vessels making landings. The average gross earnings per permit holder who made landings has also been calculated in Table 5 for 1975 and 1976 (shown in parentheses). Prior to 1975 this data was not available since commercial license numbers were not required on fish tickets; since that time Limited Entry permit numbers have been required and the data for gross earnings by entry permit holders is available from 1975.

The information in these tables show that there has been a general increase in the gross earnings attributable to drift gillnet caught salmon in the Prince William Sound, Copper and Bering River areas during the years 1969 to 1976. With the exception of 1970 and 1975, the average gross earnings from fishing with drift gill nets for the five species of salmon has increased steadily, even when the impact of inflation has been eliminated by measurement in constant 1976 dollars. Relatively low catches of red salmon in 1971 and 1975 and depressed prices in 1975 were mainly responsible for the decline in gross earnings in those years.

^{1/} The method used to convert the price received by fishermen into constant dollars is outlined in the Appendix to this report.

TABLE 4

TOTAL GROSS EARNINGS IN THE PRINCE WILLIAM SOUND MANAGEMENT AREA
 DRIFT GILLNET FISHERY BY SPECIES AND YEAR, 1969-1976,
 EXPRESSED IN CONSTANT 1976 DOLLARS

Gross Earnings in Constant 1976 Dollars						
Year	King	Red	Coho	Pink	Chum	
69	\$ 200,862	\$ 2,627,498	\$ 390,188	\$ 5,247	\$ 17,567	
70	293,825	3,487,984	1,146,264	24,857	15,050	
71	259,132	2,317,186	1,001,292	6,382	22,811	
72	429,741	3,339,803	545,655	39,605	75,177	
73	486,288	3,090,624	1,824,808	247,283	493,416	
74	520,766	4,364,839	524,163	665,860	342,844	
75	406,274	1,921,908	495,499	314,306	101,663	
76	1,323,570	6,088,602	1,135,910	313,259	459,470	

Source: Tables 7 and 9

TABLE 5

TOTAL AND AVERAGE GROSS EARNINGS IN THE PRINCE WILLIAM SOUND
MANAGEMENT AREA DRIFT GILLNET FISHERY BY YEAR, 1969-1976
EXPRESSED IN CONSTANT 1976 DOLLARS

Year	Total Gross Earnings	Number of Different Vessels Making Landings	Average gross Earnings Per Vessel
1969	\$ 3,241,362	502	\$ 6,457
1970	4,967,980	624	7,962
1971	3,606,803	550	6,558
1972	4,429,981	570	7,772
1973	6,142,419	547	11,229
1974	6,418,472	496	12,940
1975	3,239,650	442 (444)*	7,330 (7,297)**
1976	9,320,811	476 (477)*	19,582 (19,540)**

* Figure in parenthesis represents number of separate entry permits which were used to make landings in the Prince William Sound Management area in this year.

** Figure in parenthesis represents the average gross earnings per permit holder who made landings.

Source: Table 4; ADFG-78; Commercial Fisheries Entry Commission "Number of Permits Fished by year by Fishery" computer files generated for 1975, 1976, prepared in mid March 1978.

EX-VESSEL PRICES, 1969-1976

The estimated prices actually received by the fishermen^{2/} are shown in Table 6 and Figure 3 (a-e).

Table 6 - Prices in dollars per pound in the round to the fishermen for drift gillnet caught salmon in the Prince William Sound, Copper and Bering River areas from 1969 to 1976.

Year	King	Red	Coho	Pink	Chum
69	.300	.300	.300	.120	.110
70	.300	.300	.300	.160	.130
71	.360	.320	.225	.160	.130
72	.415	.365	.340	.185	.155
73	.525	.695	.725	.375	.365
74	.715	.755	.665	.360	.435
75	.695	.505	.645	.355	.315
76	1.465	.915	.715	.415	.450

Source: Estimates by the Commercial Fisheries Entry Commission, (CFEC), State of Alaska.

In Table 7 and Figure 4 (a-e) the salmon prices have been adjusted into constant 1976 dollars to eliminate the impact of inflation. The price increases in this table and figure are not due to price inflation in the U.S. economy during this period, but to an increase in prices paid to fishermen for salmon relative to prices for other goods. Figure 4 shows that the price for each of the five species of salmon, expressed in constant dollars, has increased substantially over the past eight years.

^{2/} These prices include the estimated value of post season price adjustments but do not include bonuses or in-kind payments.

Figure 3 - Prices in dollars per pound in the round to the fishermen for drift gillnet caught salmon in Prince William Sound, Copper and Bering River areas from 1969 to 1976.

Figure 3(a)
King Salmon

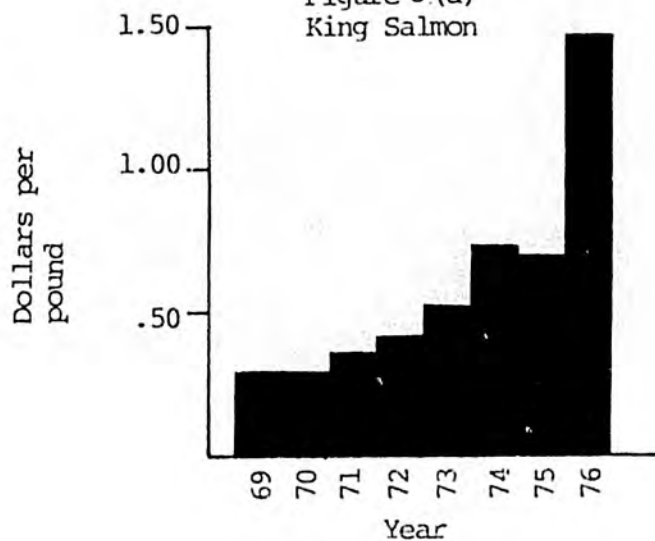


Figure 3(b)
Red Salmon

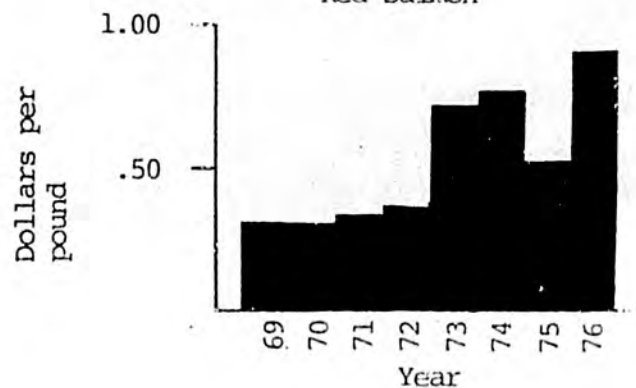


Figure 3(c)
Pink Salmon

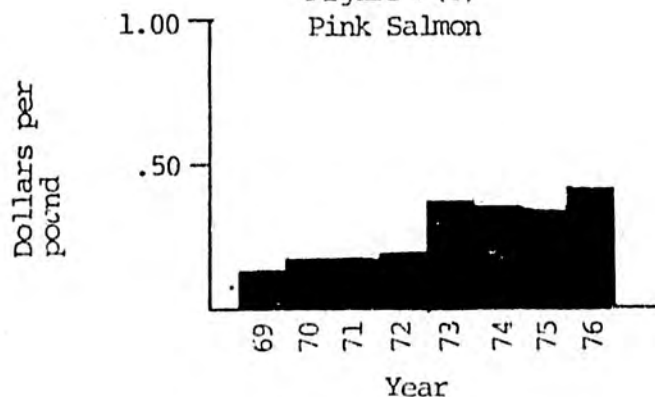


Figure 3(d)
Coho Salmon

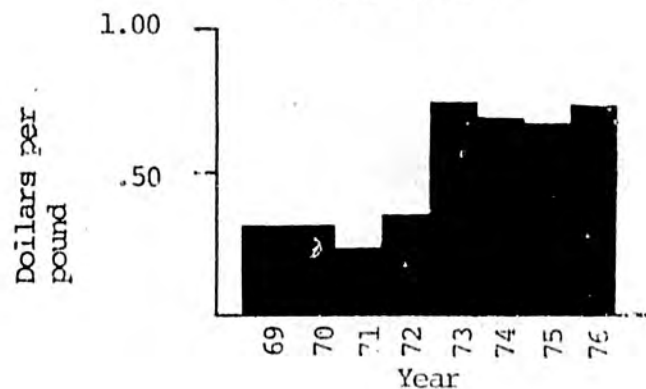
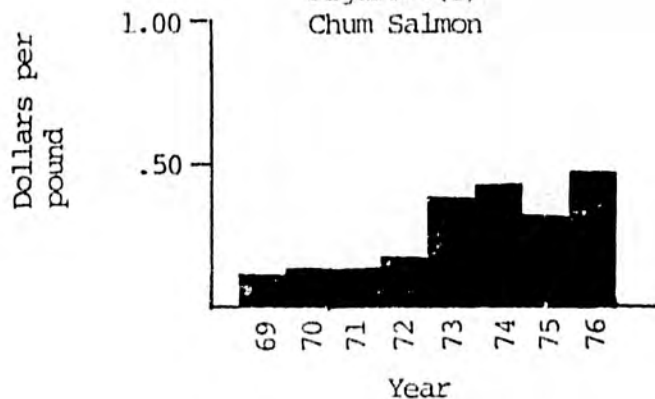


Figure 3(e)
Chum Salmon



Source: Estimates by Commercial Fisheries Entry Commission
State of Alaska.