

ALASKA LEGISLATURE SPECIAL COMMITTEE / SUBJECT FILES 8672

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fishermen who no longer used their permits would be much better off to sell them. However, speculation would be prevented and more permits would be available for purchase.

If permits were made non-transferable, unused permits would have to be returned to the state, but most fishermen would probably stop renewing their permits anyway when they no longer fished, and permits are already revoked under current law when not renewed for two consecutive years. The effectiveness of the participation requirement is therefore uncertain, but the cost of administration would be low, and the law would ensure that permits were held only by active fishermen.

DISCUSSION:

A more detailed analysis of the limited entry legislative options summarized above is provided in the following pages. The comments focus primarily on the economic, social, and administrative implications of the various options and, for the sake of brevity, only the more important problems and impacts are discussed.

I. CAPITAL GAINS TAX OPTION

The four most important areas of concern regarding this option are the effect of such a tax on the rate of permit transfers, the compensation question, the setting of permit prices, and enforceability. With regard to the establishment of statutorily fixed permit prices, it would seem desirable to have the permit price in each fishery bear some relationship to the potential economic value of using that permit. For example, a Kodiak purse seine permit should clearly have a higher value than a Kodiak set gill net permit, since a much larger income can be realized in the purse seine fishery.

The problem lies in determining the potential economic value of each fishery and type of permit. The great variability in the yearly salmon runs and in the vessels used in each fishery makes it quite difficult to calculate an average permit value on this basis. It may therefore be necessary to use a less precise, but more workable method of setting permit prices.

One such method would be to use the average permit prices in each fishery over the past year, two years, or several years, and reduce this value by a given amount to arrive at a set of "reasonable" statutory permit prices. The obvious catch in this approach is in the definition of a reasonable permit price. A fisherman who has just spent \$80,000 for a permit would tend to favor a statutory price close to that amount, while a fisherman who was issued a permit for only the application fee might support a lower, or even zero price. Similarly, current permit holders would have an incentive to favor higher permit prices, whereas crew members or others trying to obtain a permit would want permit prices as low as possible. So, a "reasonable" permit price could run from zero to \$80,000 or more, depending on who is defining the term.

An additional factor which must be considered is the compensation question. The legal implications of reducing or eliminating the value

of entry permits are still not completely clear, but there seems to be a general feeling among the Committee members that from an equity or fairness standpoint, compensation for permit expenditures should at least be considered. I am under the further impression that most Committee members feel that if a compensation program were to be adopted, the program should reimburse permit holders for the amount each holder paid for his permit(s), or a percentage of that value, rather than for the amount which could have been received for the permit on the open market. The apparent consensus is that the state has no obligation, legal or ethical, to compensate those permit holders who were originally issued their permits for free, even though a higher value could have been received for the permits if the value were not reduced by legislative action.

The compensation issue is closely related to the capital gains tax option, as well as to any option which would limit transferability of entry permits. Decisions about compensation would have a major impact on the setting of permit prices under the capital gains tax option, and vice versa. The fundamental purpose behind this option, as I understand it, is to allow easier access to entry permits for those fishermen who would like to run their own boats but are unable to afford a permit at today's prices. At first glance, it might appear that this purpose would best be served by the setting of permit prices at very low levels, so that almost anyone with enough initiative could afford an entry permit.

But although such a plan may make permits more affordable, it would also reduce the number of permits available for sale, unless complete compensation were provided. One of the most basic principles of economics is that of supply and demand relationships, and the implication of this principle for this case is that if permit prices are statutorily reduced, fewer permits will be offered for sale, other things being equal. Considering the extreme case, if the legislature declared that permits could not be sold at all but must be transferred for free, the number of permits transferred would be much lower than current levels. Since no economic gain could be realized from permit transfers, permit holders would have no incentive to pass on their permit, even if they were no longer fishing. A "use it or lose it" requirement could free up some permits, but the number would be small in relation to the demand for permits.

It should be mentioned that permit transfers would not cease entirely if the value of the permit were eliminated. Based on the Entry Commission's permit transfer survey, it is estimated that 25 to 33 percent of transfers to date have not involved money in the transaction, and an additional percentage have been substantially below market value. The majority of these transfers were probably to relatives or close crew members and would continue with reduced or eliminated permit values, but such transfers would not increase access to entry permits in comparison to the present situation.

If entry permit values were statutorily reduced, rather than eliminated, the drop in permit transfers would be less severe, with the decrease in

transfers expected to correspond roughly to the degree by which values were reduced. If permit prices are lowered by only 10% of their open market value, the impact of this action on the number of transfers would be fairly minor, but the improvement in access to permits by low-income fishermen would also be small. Unless a compensation program is implemented, there will always be this trade-off between permits available for transfer and permit affordability.

The effects of a compensation plan in conjunction with the capital gains tax option are fairly predictable, and depend primarily on the extent of compensation offered and the amount by which permit prices are reduced. If compensation is limited to the amount paid for a particular permit, there is still likely to be a marked decrease in permit transfers associated with a major statutory reduction in permit prices. Those original permit issues who might sell their permits in coming years would have less incentive to do so if permit prices were limited by statute, since they paid nothing for their permits and would not be eligible for compensation under such a plan. Those most likely to sell their permits would be fishermen who purchased permits just before the legislation limiting prices was enacted, because they could receive nearly full value for their permits.

It is possible that a compensation program could increase the number of permits for sale in some fisheries above that of an open market situation. This could occur if a series of poor harvests and/or low fish prices reduced the profitability of a particular fishery. In this situation, permit prices would probably drop, but if permit holders were entitled to recover their purchase price, they could avoid the loss caused by lower prices and more permits would be for sale than if an open market existed.

Except for the situation just discussed, it is uncertain whether a capital gains tax system will actually improve access to entry permits, even if compensation is provided. Although permits may be more affordable, the possible reduction in permit transfers could outweigh the benefit of lower permit prices. The only compensation plan that would appear likely to maintain current transfer rates would be one which duplicated the open market situation; permit holders would have to be compensated for the difference between the statutory price and the fair market value of their permit. This is an expensive proposition, even if no further inflation in permit values occurs. I have calculated the total average market value of all permanent entry permits (including herring) to be over \$360 million as of June, 1979.* This is a conservative estimate and the total value has probably increased by now. Given the magnitude of this total value, it is doubtful that the legislature would adopt a fair market value compensation plan.

A compensation program which reimbursed permit holders for the difference between the amount paid for a permit and the statutory price, or some fraction of that difference, would be much less expensive but could still run into many millions of dollars, and would still have the dampening effect on permit transfers discussed above. I have estimated the total value expended for entry permits since 1975 (not including multiple purchases of the same permit) to be approximately \$38 million.*

*Based on the Commercial Fisheries Entry Commission Permit Transfer Survey.

Thus if permits were completely devalued and a decision were made to reimburse permit holders for the purchase price of their permits, a state expenditure in the neighborhood of \$40 million would be required. If permit prices were fixed at 50 percent of their 1979 averages, roughly \$15 million would be necessary to make up the difference between the purchase prices and the statutorily set permit values. The alternative amortization approach discussed later would reduce the compensation cost significantly, but at least several million dollars could be required to compensate permit holders for a 50 percent price reduction. The Interim Committee must consider whether this funding could be more effective in achieving its goals if used for one of the other options, such as the loan program. The question which was raised about the resident/non-resident effects of the capital gains tax option is a very salient one, but it will be discussed below in the section on the loan program option.

The section on implementation options for the capital gains tax seems fairly complete, with the exception of a method for verifying the value of vessels, gear, or other equipment included in the permit sale. It may be desirable to add a section requiring that current certified appraisals or surveys be required of vessels, gear, etc., which are combined with the permit in the transaction. Such appraisals should also be required of any in-kind compensation which is used to purchase the permit.

Permit holders will have an obvious incentive to circumvent any price control system. The proposal, if strictly enforced, appears to be workable (though I still question its cost effectiveness), but I have little experience in the price control area. Considering the high values at stake here, the Committee may want to hire an economist and/or lawyer familiar with price control methodology to draft the enabling legislation if this option is pursued.

In reading through Commission files, I came across a transcript of a discussion with Dr. James Crutchfield of the University of Washington, one of the leading economists in the fisheries area and also a former price control economist. Dr. Crutchfield was adamantly opposed in the transcript to any method of controlling entry permit prices. He did not go into much detail about the reasoning behind his view, but his comments indicate that there may be more severe problems regarding enforceability than are readily apparent. He stated that he "could think of a dozen ways to avoid (price controls) without even trying." Crutchfield suggested higher landing taxes and/or permit fees as better ways to keep permit prices to reasonable levels. Fisherman resistance would be the principal problem with Crutchfield's suggestion.

II. LOAN PROGRAM OPTION

The proposed changes to the Commercial Fishing Loan Program appear to be one of the more feasible and effective options under consideration. It has been asked whether statutorily set permit prices would make permits more available to Alaska residents than non-residents. It is possible that some advantage would be given to Alaskans by fixed prices, but the loan program appears to give Alaskans a much greater advantage, since non-residents can legally be excluded from eligibility for state

loans. Statutorily reduced permit prices would put entry permits within the reach of more Alaskans, but would also do the same for lower-income non-residents, and it is therefore unlikely that Alaska residents would be given greater access to entry permits than non-residents.

Of all the options under consideration, expansion of the loan program is likely to encounter the least resistance from present entry permit holders. The program offers the potential for low-income fishermen to obtain permits, without affecting the ability of permit holders to transfer their permits as they wish and to recover their purchase price. The state appears to have considerable legal freedom in the structure of its loan programs, thus allowing the modification of the current fishing loan program to meet specific needs.

However, it appears that the present loan program has not met the needs of low income fishermen desiring to purchase entry permits. Preliminary research has indicated that 75 percent of the commercial fishing loans have been to individuals with a net worth of over \$100,000. Although a sizable number of loans have been made to rural and lower-income fishermen, almost all of these loans have been for the purpose of upgrading vessels, rather than the purchase of entry permits. The proposed loan option provides that "priority shall be given to those applicants who demonstrate substantial financial need, and who substantially depend upon fishing as a source of livelihood." This wording may not be strong enough. If the Committee resolves that more emphasis should be given in the loan program to the acquisition of entry permits, as opposed to vessel improvement, specific legislative standards to this effect may be required.

One possible addition to the loan program option would be a section providing that fishermen acquiring entry permits previously held by non-residents would receive more favorable terms on their loans. This could be accomplished through lower interest rates, partial grants, or other provisions. The obvious intent of such a policy would be to increase resident participation in the limited fisheries. The additional cost to the state of preferential loan terms for the purchase of non-resident permits can be justified because the benefits to the state and its residents are substantially greater than the benefits resulting from the purchase of resident permits.

The acquisition of a non-resident permit by an Alaskan fisherman means that a larger percentage of the income generated by the use of that permit is likely to be spent in Alaska, thus providing more income for other Alaskans (this is known as the multiplier effect). In addition, the crew members are more likely to be Alaska residents, further adding to the benefits derived from the use of an entry permit by an Alaskan fisherman.

The probable effect of the preferential loan terms on the market for entry permits would be that non-residents would have an added incentive to sell their permits to Alaskans, since those resident fishermen qualifying for loans could afford to pay more for a non-resident permit than a resident one because of the better loan terms. The resident permit holders, on the other hand, should have less incentive to sell their permits, because fishermen obtaining loans would rather purchase a non-

resident permit and would pay less for a permit from an Alaska resident. The market for entry permits is complex and there are other factors at work, but in general, these are the results that could be expected from the implementation of preferential loan terms for purchasing non-resident entry permits. It should be noted that the preceding discussion would not apply if permit prices were also statutorily fixed, since fishermen would not be allowed to pay more for one permit than another (within the same fishery). However, if it were constitutional, legislation could be enacted which would provide a supplementary payment to non-residents selling their permits to Alaskans. These supplementary payments would have the same effect, and would take the place of the preferential loan terms.

The loan program is not, it should be stressed, an easy answer to the current problems of the limited entry program. The high cost of entry permits would require substantial expenditures by the state if the loan program is to be the primary vehicle for improving access to entry permits. As a case in point, an estimated 109 permits were purchased in the Bristol Bay drift gill net fishery during the first nine months of this year. Financing of these permit purchases through the Commercial Fishing Loan Program would require an estimated \$5.9 million in this one fishery alone.*

It is true that funds expended for the loan program are eventually returned to the state, with interest, but the low interest rates on fishing loans represent a major opportunity cost to the state, because the state foregoes the much higher return that could be realized from alternative investments in bonds, etc.

An additional problem is that extensive use of state loans for permit purchases could contribute to further inflation in permit prices if price controls are not enacted. Loan recipients would be able to pay more for permits than if they had not received state financing, and this would have a tendency to push permit prices higher. The extent of this impact would depend primarily on the number of loans issued and the degree to which the loan terms increased the purchasing power of resident permit buyers. Further increases in permit prices would reduce the effectiveness of the loan program by making permits less affordable, so this possible impact should be given careful consideration.

The effect of the proposed loan program option on the development of bottomfish, herring, and other fisheries must also be assessed. While it may be desirable to encourage resident entry into the limited fisheries, an emphasis on this aspect of the loan program could discourage diversification into developing and non-limited fisheries. The limited salmon and herring fisheries are, for the most part, a fully exploited resource, in contrast to other fishery resources which are just beginning to be commercially harvested in Alaska. A careful balance must therefore be struck between the use of loan funds for the purchase of entry permits and the use of funds for developing fisheries.

III. APPRENTICESHIP OPTION

The basic idea behind an apprenticeship system is an attractive one: Entry permits would be issued to those individuals who had demonstrated

*Based on the CFEC Permit Transfer Survey.

their competence in and commitment to fishing by serving as a crew member on a vessel for a given number of years. This system would continue the natural progression from crewman to skipper that generally characterized the fishing industry prior to limited entry. An apprenticeship program would also ensure that persons obtaining entry permits were experienced fishermen and were able to use those permits in an efficient and safe manner.

Although the idea is a sound one, legal, economic, and administrative complications make it difficult to transform the idea into a workable apprenticeship program. The first stumbling block is a 1969 Federal court decision which overturned an apprenticeship program enacted by the Alaska legislature in 1968. The basis of the decision was that the program allowed fishermen to choose the apprentices involved, and that this act violated the Fourteenth Amendment of the U.S. Constitution. The decision stated in part: "Under the scheme, entry into the salmon fishing industry is controlled not by the state but by local fishermen in each area...whose own benefit would ordinarily not be served by assisting potential competition to qualify."

The first requirement of any apprenticeship program is therefore that the state, and not the fishermen, must determine the participants in the program. This requirement creates a substantial administrative burden, but also creates a more serious problem within the fishing industry by disrupting the conventional hiring practices employed in the fisheries. The idea of having to accept a complete stranger of unknown ability for a crewman is not likely to go over well with the majority of permit holders, particularly those that usually employ family members as crew.

In addition, the 1969 court decision gives the impression that it may be unconstitutional to use fishing experience in any standards of qualification for an apprenticeship program. The legal problems involved have not been sufficiently clarified, but it appears that using crewman experience as a prerequisite for admission to the program would create the same situation addressed in the 1969 decision, just one step removed. In other words, the fishermen would not be choosing the apprentices, but would still be choosing individuals who in the future would qualify for the program on the basis of their previous experience as a crew member. To avoid this legal problem, a separate set of eligibility requirements have been developed to supplement the apprenticeship option. Under this plan, crewmember experience accrued prior to the enactment of the program would still be used as a determinant of apprenticeship eligibility, but the experience requirements would be supplemented with economic hardship criteria that did not rely on fishing experience. It appears that this modification would circumvent the constitutional difficulties discussed above, but not without altering the future distribution of entry permits and the corresponding equity of the apprenticeship program.

The alternative economic hardship and dependence criteria which have been developed are intended to provide a means by which greater consideration can be given to hardship on the community level, rather than just the individual level. This issue is explored in detail in Dr. Rogers' paper. It is important to note that the alternative hardship criteria are intended to supplement, not replace, the criteria by which

individual hardship and dependence are evaluated. Fishing involvement, in terms of both participation and fishing income, was the major factor used in the ranking of applicants during the initial issuance of entry permits. While it may be desirable to supplement criteria based on fishing involvement with more broadly based criteria which consider the community situation, it is questionable whether such criteria alone would result in the most equitable distribution of entry permits under an apprenticeship program or any other system of permit transfer. The resolution of the legal issues surrounding the use of crewman experience as a basis for apprenticeship eligibility is therefore one of the most important tasks remaining if the apprenticeship option is to be pursued.

There are a number of other problems with the apprenticeship option. One of these is that the number of new entrants to the limited fisheries under an apprenticeship system would probably be much lower than current levels unless complete compensation for the fair market value of permits were provided to permit holders who returned their permits to the state. This issue is explored more thoroughly in the discussion of the capital gains tax option, but the basic difficulty is that without the profit incentive for transferring a permit, far fewer permits will be returned to the state than are presently transferred to other individuals. Thus, the state may be forced to buy permits if sufficient permits are to be available for the apprenticeship program.

A second problem is that it would be impossible for permit holders to switch to another limited fishery without serving another period of apprenticeship. And if a provision were drafted which would allow trades between permit holders, only permits from low income fisheries would ever return to the state, since fishermen holding permits for high value fisheries who wished to leave fishing would find many persons wanting to trade a permit of lesser value. An incentive would be created for the development of a black market in permit trades.

An apprenticeship program would also eliminate intra-family transfers unless some sort of "qualified transferee" list is created, from which permit holders are free to choose when they desire to transfer their permit. Over 25 percent of permit transfers to date have been estimated to be between family members, so substantial weight should be given to the continuance of this pattern in any alternative system of permit transfer.

Besides the possible compensation costs discussed earlier, an apprenticeship program would have considerable administrative costs. The number of applicants and potential qualifiers would be many times larger than the number of applicants during the issuance of the original entry permits, for there are many more crewmen than there were gear license holders during the original eligibility period. In addition, the application process for an apprenticeship program would not be a one-time affair, but would continue indefinitely into the future as more persons qualified and more permits became available. The Commercial Fisheries Entry Commission or other administering agency would require a significant permanent increase in staff and funding.

IV. AMORTIZATION OPTION

The amortization option is apparently intended to establish a time

limit on entry permits. It would also provide an alternative method of compensation for current permit holders in the event that an apprenticeship program or other system of transferability is enacted and permit holders can no longer sell their permits. However, in its present form the purposes of the option are too vague and it does not appear to be the best answer to the compensation problem. After the discussion of the amortization option as drafted, a different amortization approach which may be a more effective method of compensation will be presented for consideration.

The logic behind option A is difficult to follow. This option would allow the amortization of vessels and gear at 10 percent per year, after which the entry permit would revert to the state, unless renewed by the original permit holder, who would have to demonstrate consistent use of the permit. In the first place, it is unclear why permit holders should be compensated, through amortization, for vessels and gear, since the individual would retain possession of these under any option and is free to sell them at any price and to any individual he chooses. Perhaps it is thought that because a permit holder could no longer sell his boat and permit together under this option, his boat and gear would be of lesser value without a permit included. But in both 1978 and 1979, only an estimated 13 percent* of permit transfers included vessels and/or gear in the transaction, so the cessation of combined transfers should not cause significant hardship.

With regard to the time limit inherent in both option A and B, it would seem that a simple participation or use requirement would be more effective. Since the permit holder is given the right to renew his permit at the end of the amortization period, the time limit is really superfluous. The only time when permits would revert to the state would be when permits were no longer used, regardless of the time limit. Dropping the time limit and substituting the use requirement would result in permits reverting to the state as soon as they were no longer fished, rather than at the end of the time limit.

Option B is a more reasonable approach to the compensation question than option A, because it addresses the value of the permit, which is the item being devalued, rather than the vessel and gear. However, it is questionable whether permit holders who were originally issued their permits by the state should be allowed to amortize the fair market value of their permits, since they received them for only an administrative fee. Compensation of this type would appear to be a windfall gain and difficult to justify. One argument for such compensation is that some permit holders are counting on the value of their permits as a retirement nest egg. If this is a major problem, some type of special exception should be made for these persons, instead of giving compensation to all of the original issuees regardless of financial standing.

Neither of the amortization options presented appear to be the most equitable and cost effective method of compensating those permit holders who did buy their permits for their purchase investment. Both of the proposed options would establish a fixed 10 percent per year amortization schedule, so that the amount of amortization would depend solely on the

*Based on the CFEC Permit Transfer Survey.

purchase price of the vessel and gear (option A), or of the permit (option B). Such a system takes no account of the length of time which a permit has been held or of the earnings derived from the use of the permit. Instead of allowing a fixed 10 percent write-off each year, it would be more desirable to relate the amortization schedule to the net return on the permit investment at the time when the permit is no longer fished and reverts to the state.

Incorporating the return which a permit holder has realized on his investment into the amortization option would provide a more equitable system of compensation, because consideration would be given to each fisherman's individual economic position, rather than relying on an arbitrary formula or schedule. Under this type of system, those permit holders whose net fishing earnings during the time of permit ownership equaled or exceeded the purchase price of the permit, plus a "reasonable" return on the investment in permit, vessel, and gear (10-15 percent per year), would be allowed no amortization or other compensation, since they had received "their money's worth" from the use of the entry permit.

On the other hand, permit holders who had not recovered their permit investment, plus a reasonable return, would be allowed to amortize the difference between this value and the purchase price of their permit, with the amortization amount not to exceed the permit purchase price. For example, take the case of a fisherman who had bought a permit for \$50,000, a boat and gear for another \$50,000, and fished for three years. If a "reasonable" rate of return were determined to be 10 percent, then a reasonable net fishing income for the example fisherman for the three years would be \$80,000 (permit price of \$50,000 + return on investment of \$30,000 ($\$100,000 \times 10\% \times 3 \text{ years}$)).

Therefore, if the fisherman made \$80,000 or more during the three years he fished his permit, he would receive no compensation when his permit reverted to the state. A net fishing income of less than \$80,000 would make the fisherman eligible to amortize the difference between his income and \$80,000, not to exceed \$50,000. If his earnings were \$50,000, the fisherman could amortize \$30,000 over a specified period of time.

Three major problems can be foreseen with this alternative approach to compensation. The first is that it is necessary to determine a "reasonable" rate of return. This determination would take into account current market rates of interest, the high degree of risk in fishing, and historical earnings in the limited fisheries. Although difficult, this obstacle does not appear to be insurmountable.

The second problem is that a permit holder is not just an investor, but is also the skipper of the fishing operation. It is therefore necessary to account for the portion of the permit holders' income which is earned from skippering the vessel, apart from the return on his investment. I am not familiar enough with fishermen's bookkeeping practices to know just how this would be done, but it should be feasible.

The third need is to define the meaning of amortization more precisely, so that it is clear whether the former permit holders would qualify for a tax credit, or just a tax deduction from gross income. This requires a policy decision on the degree of compensation to be given to current

permit holders, since a tax credit would entitle the former permit holders to save the entire amount of amortization, while a tax deduction would only save them a fraction of the amortization amount. The cost to the state for a tax credit would of course be much greater, but it would still be less than compensating fishermen for the entire purchase price of their permits.

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AS A UNIT IN THE ORIGINAL DOCUMENT.

Transfer Patterns in Alaskan
Limited Entry Fisheries

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Final Report
for the Limited Entry Study Group
of the Alaska State Legislature

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Although the efforts of all are appreciated and recognized, I alone am responsible for the findings, interpretations, and errors found in this report. It does not necessarily represent the views of the Limited Entry Study Group, the Alaska State Legislature, or the State of Alaska.

I. Introduction

Alaska's limited entry program for commercial fisheries was enacted in 1973 under the authority of AS 16.43 following earlier unsuccessful attempts. The purposes of limited entry, as specified by an amendment to the State Constitution in 1972, are to promote "resource conservation, to prevent economic distress among fishermen and those dependent upon them for a livelihood and to promote the efficient development of aquaculture in the state." AS 16.43 itself seeks "to promote the conservation and sustained yield management of Alaska's fishery resource and the economic health and stability of commercial fishing in Alaska by regulating and controlling entry into the commercial fisheries in the public interest and without unjust discrimination." Although the enabling legislation creating Alaska's Commercial Fisheries Entry Commission could not specifically require that regulating and controlling entry into the commercial fisheries promote the economic health and stability of commercial fishing by Alaskan residents, such considerations are clearly of importance to the people of Alaska and the legislature. This concern about the economic contribution of Alaska's fisheries to the well-being of Alaskans is underscored in the Commercial Fishing Loan Act which declares that "It is the policy of the State . . . to promote . . . the development of a predominant resident fishery."

Of the various characteristics of Alaska's limited entry program, the most controversial and potentially detrimental to the State's stated goal of a "predominantly resident fishery" is the provision for permanent permits to be freely transferable from one person to another for the "bid" or market price.¹

¹

This provision is subject to a statutory limitation of one permit per person in a given fishery as defined by species, gear type, and administrative area.

This provision also makes possible substantial reordering of participation in the fisheries among various segments of the Alaskan population as well.

The purpose of the research results reported here is to analyze the transfer patterns in Alaska's limited entry fisheries resulting from this provision for market transferability. More specifically the objectives are three fold:

- 1) to identify transfer patterns in the limited entry fisheries that have occurred;²
- 2) to identify patterns of new entry into limited entry fisheries; and
- 3) to analyze the socioeconomic impacts on various sectors of the Alaskan population in terms of employment in and economic return from the limited entry fisheries.

The remainder of the report is divided into four sections, three present information on each of the objectives stated above and a concluding section examines the most important findings regarding the implications of market transferability for the future conduct of Alaska's limited entry fisheries.³ Several different types of data were needed to complete this research. Data types and methodology are explained in Appendix A. Other Appendices list the local rural and urban communities for each fishery, provide detailed breakouts of the residency of initial permit holders by year, summarize transfer patterns among residency categories by year, summarize familial transfers within and across residency categories by year and discuss the incidence of permit holders making dubious claims to residency.

²

Permanent transfers only (not emergency transfers) have been analyzed for this report.

³

It should be noted that the analysis has only been conducted on salmon fisheries.

II. Transfer Patterns in the Limited Salmon Fisheries

Using the Commercial Fisheries Entry Commission's record of permanent permit issues and permanent transfers, an enumeration of Alaskan limited entry permanent permit holders has been made by year, fishery, sex, age and residency to determine patterns of permanent transfers. Residency was divided into the categories 1) nonresident, 2) Alaskan rural local, 3) Alaskan urban local, 4) Alaskan rural nonlocal and 5) Alaskan urban nonlocal for each fishery. In addition, familial transfers have also been identified using last name as the guide to familial membership. A discussion of transfer incidence will precede presentation of findings on transfer patterns by sex, age, family relationship and residency.

Transfer Incidence

Table 1 summarizes the number of permits transferred temporarily or permanently at least once (many have been transferred multiple times) for each fishery. A stability index has been computed by dividing the total number of permits transferred by the total number of permanent permits issued for that particular fishery. The more stable a fishery is the lower the index will be since the lower the proportion of initial issuees who have transferred their permits will be. On a statewide basis, 36.5% of all permanent permits have been transferred at least once either temporarily or permanently. Naturally there are regional and fishery variations on this statewide figure. The least stable fishery is the Kodiak beach seine fishery with 60.6% of the permanent permits issued being transferred while the Lower Yukon gillnet rate of 10.4% indicates it has been the stablest fishery in the state between 1976-1979. Computation of stability indexes by gear type indicates that 39.2% of initial permit holders in the six purse seine fisheries (Southeast, Prince William Sound, Cook Inlet, Kodiak, Chignik, and Peninsula-Aleutians) have transferred their permits. These

Table 1
Number of Permanent Permits
Transferred
by
Fishery and Gear Type

<u>Fishery/Gear Type</u>	<u>Total Number of Permits</u>	<u>Number of Permits Transferred</u>	<u>Number of Permits Not Transferred</u>	<u>Stability Index Percent of Permits Transferred (Rank)</u>
Southeastern				
Drift gillnet	462	226	236	48.9% (3)
Purse seine	414	164	250	39.6% (13)
Statewide power troll	933	436	497	46.7% (4)
Yakutat set gillnet	166	69	97	41.6% (11)
Prince William Sound				
Drift gillnet	531	226	306	42.5% (8)
Purse seine	258	108	150	41.9% (9)
Set gillnet	28	10	17	35.7% (16)
Cook Inlet				
Drift gillnet	555	266	289	47.9% (5)
Purse seine	75	31	44	41.3% (12)
Set gillnet	743	327	416	44.0% (7)
Kodiak				
Beach seine	33	20	13	60.6% (1)
Purse seine	374	165	209	44.1% (6)
Set gillnet	185	95	90	51.3% (2)
Chignik purse seine	90	18	72	20.0% (20)
Peninsula-Aleutians				
Drift gillnet	156	65	91	41.7% (10)
Purse seine	117	35	82	29.9% (18)
Set gillnet	110	34	76	30.9% (17)

Number of Permanent Permits Transferred

2

<u>Fishery/Gear Type</u>	<u>Total Number of Permits</u>	<u>Number of Permits Transferred</u>	<u>Number of Permits Not Transferred</u>	<u>Stability Index Percent of Permits Transferred</u>	<u>(Rank)</u>
Bristol Bay					
Drift gillnet	1717	674	1043	39.2%	(14)
Set gillnet	912	340	572	37.3%	(15)
Kuskokwim gillnet	781	119	662	15.2%	(23)
Lower Yukon gillnet	702	73	629	10.4%	(25)
Norton Sound gillnet	177	26	151	14.7%	(24)
Kotzebue gillnet	180	44	136	24.4%	(19)
Upper Yukon					
Gillnet	49	8	41	16.3%	(22)
Fishwheel	113	22	91	19.5%	(21)
Totals	9861	3601	6260	36.5%	

range from a high of 44.1% in the Kodiak purse seine fishery to a low of 20.0% in the Chignik purse seine fishery. In the five drift gillnet fisheries (Southeast, Prince William Sound, Cook Inlet, Peninsula-Aleutians, and Bristol Bay), 42.6% of the permanent permits have been transferred. These range from a high of 48.9% in Southeast to a low of 39.2% in Bristol Bay. In the six set gillnet fisheries (Yakutat, Prince William Sound, Cook Inlet, Kodiak, Peninsula-Aleutians, and Bristol Bay), 40.8% of the permanent permits have been transferred. These range from a high of 51.3% in the Kodiak set gillnet fishery to a low of 30.9% in the Peninsula-Aleutians fishery. The AYK (Arctic-Yukon-Kuskokwim) fisheries exhibit the greatest degree of stability with only 14.1% of the permanent permits in these fisheries having been transferred. They range from a high of 24.4% in the Kotzebue gillnet fishery to a low (previously noted) of 10.4% in the Lower Yukon fishery. Low rates of transfer in these fisheries are due to the later date of initial issue (3/76 as opposed to 1/75 for the other fisheries), to the isolation of these fisheries from major urban centers, and the low value of net earnings derived from these fisheries. As previously noted, the percent of permits transferred in the Kodiak beach seine fishery is the highest of any fishery at 60.6% while the power troll fishery is also quite high with an index of 46.7%.

Table 2 summarizes 1) the total number of permanent transfers annually in each fishery since permits were first issued, 2) the total statewide annual transfer figure, and 3) tabulates the average number of permanent transfers per permit per year. Since 1975 the number of statewide permanent transfers has increased every year, albeit much more slowly over the past two years than previously. The increase in the number of transfers in 1976 over 1975 was 31%; in 1977, 37.3% more transfers occurred than in 1976; and in 1978, 17.3%

Table 2

Number of Permanent Transfers
By Fishery and Year

Fishery	75	76	77	78	79 (thru 8/20/79)	Total	Average Number of Permanent Transfers Per Permit Per	
							Year	(Rank)
Southeast purse seine	51	24	49	51	25	200	.097	(12)
Southeast drift gillnet	93	59	67	74	50	343	.148	(4)
Statewide power troll	139	77	150	138	96	600	.161	(2)
Yakutat set gillnet	9	15	16	20	12	72	.108	(11)
Prince William Sound								
Purse seine	20	41	27	32	37	157	.122	(8)
Drift gillnet	40	70	81	81	50	322	.121	(9)
Set gillnet	2	0	2	5	2	11	.079	(18)
Cook Inlet purse seine	3	7	12	9	5	36	.096	(13)
Cook Inlet drift gillnet	30	75	83	84	71	343	.124	(5)
Cook Inlet set gillnet	44	78	88	123	79	412	.111	(10)
Kodiak purse seine	20	42	68	60	40	230	.123	(7)
Kodiak beach seine	0	2	9	15	7	33	.200	(1)
Kodiak set gillnet	22	37	28	27	26	140	.151	(3)
Chignik purse seine	4	4	6	3	1	18	.040	(22)
Peninsula-Aleutians								
Purse seine	3	6	15	12	11	47	.080	(17)
Drift gillnet	4	16	28	27	22	97	.124	(5)
Set gillnet	4	5	15	14	10	48	.087	(16)
Bristol Bay drift gillnet	81	127	211	226	180	825	.096	(13)
Bristol Bay set gillnet	23	67	71	130	118	409	.090	(15)
Kuskokwim	-	9	17	50	33	109	.035	(23)
Lower Yukon gillnet	-	6	8	24	22	60	.021	(25)
Norton Sound gillnet	-	0	1	6	9	16	.023	(24)
Kotzebue gillnet	-	4	3	17	17	41	.058	(19)
Upper Yukon gillnet	-	1	1	2	4	8	.041	(21)
Upper Yukon fishwheel	-	2	2	11	6	21	.046	(20)
Total	592	774	1058	1241	933	4598		

more transfers occurred than in 1977. Projecting the rate of transfer which occurred during the first eight months of 1979 over the final four would produce a total of 1400 transfers for 1979 or a 12.8% increase over 1978. However, the actual number of permanent transfers in 1979 is likely to be lower than this projection because the last quarter generally sees fewer transfers than the other three quarters.

If the incidence of emergency transfers and multiple permanent transfers of a single permit corresponded with the rate of permanent transfers, one would predict a one to one relationship between the rank of fisheries on the stability index (percent of permits transferred column from Table 1) and the average number of permanent transfers per permit per year column in Table 2. Although such a relationship appears to hold for some fisheries, notably the Kodiak beach seine fishery and the Lower Yukon gillnet fishery, which are respectively first and last on both measures, discrepancies can be discerned as well. For example, the statewide troll fishery is fourth on the stability index but second on the permanent transfers per permit per year measure. This means that the power troll fishery is characterized by a higher rate of permanent transfers and a lower rate of emergency transfers than the Kodiak set gillnet and Southeastern drift gillnet fisheries in which a greater percentage of permits have been transferred but fewer permanent transfers per permit per year have occurred. Similar comparisons of the relative occurrence of emergency and permanent transfers can be made but they are only a peripheral concern of this report.⁴

⁴

An emergency transfer can be granted only in cases of unavoidable hardship due to illness, disability or death. Under an emergency transfer as opposed to a permanent transfer, the permit reverts to holder who initiated the emergency transfer.

The next sections of the report identifying transfers patterns by sex, age, family relationships, and residency address issues of continuity in the limited entry fisheries. Put another way, these data are critical to an understanding of whether or not market transferability is altering the composition of the Alaskan fishing corps from what it was when permanent permits were first issued.

Sex

Most fishing adaptations around the world are dominated by male participants and Alaska's limited entry salmon fisheries collectively are no exception to this rule. As Table 3 indicates, statewide, females held approximately 11.6% of the permanent permits as of June 30, 1979. The table also indicates a continuing trend of greater female participation from 1975 to the present. It is apparent from Table 3 that females are predominant in only one fishery, the Bristol Bay set gillnet fishery where they hold 52% of the permits. In addition, females hold a significant number of permits in the Cock Inlet, Yakutat and Kodiak set gillnet fisheries. Females hold 38.2% of permits in the six set gillnet fisheries, 3.9% of permits in the five drift gillnet fisheries, and less than 1% of permits in the six purse seine fisheries. Females make up 7.9% of permit holders in the AYK fisheries, 9.1% in Kodiak beach seine fishery, and 1.6% in the power troll fishery. The foregoing indicates that in general the more technologically sophisticated and the greater the net earnings from a given fishery, the fewer the numbers of female permit holders there are in a fishery.

Transfer patterns have had a major impact on sex ratios only in a few fisheries. In the Bristol Bay drift gillnet fishery there has been a 16% decline in female permit holders. Most other fisheries show relatively small fluctuations, but females have gained permits in twice as many fisheries as they have lost. Females have gained a substantial number of permits in the Prince William Sound and Cook Inlet drift gillnet fisheries and the Kodiak and Bristol

Table 3

Female Permanent Permit Holders
By Fishery and Year¹

Fishery	1975		1976		1977		1978		1979	
	No. of Females	Total No. of Permits	No. of Females	Total No. of Permits	No. of Females	Total No. of Permits	No. of Females	Total No. of Permits	No. of Females	Total No. of Permits
Southeast										
Purse seine	0	398	0	409	0	409	0	413	0	414
Drift gillnet	7	431	4	451	5	459	4	462	7	462
Statewide										
Power troll	11	824	14	881	15	924	16	933	15	933
Yakutat										
Set gillnet	27	148	41	156	39	156	34	161	40	166
Prince William Sound										
Purse seine	2	210	3	247	6	255	9	257	6	258
Drift gillnet	19	494	21	514	25	523	31	528	30	531
Set gillnet	2	28	2	28	4	28	4	28	6	28
Cook Inlet										
Purse seine	0	49	0	63	0	72	0	74	0	75
Drift gillnet	8	453	14	514	23	538	29	549	35	555
Set gillnet	103	657	210	711	220	729	222	742	227	743
Kodiak										
Purse seine	2	334	2	358	5	363	4	371	6	374
Beach seine	0	19	0	22	1	30	1	33	3	33
Set gillnet	28	139	47	176	51	180	54	184	56	185
Peninsula-Aleutians										
Purse seine	1	108	0	112	1	113	0	115	0	117
Drift gillnet	7	152	7	153	7	152	4	156	4	156
Set gillnet	12	82	15	105	14	106	13	108	14	110
Chignik purse seine	0	85	0	90	0	90	0	90	0	90

Female Permanent Permit Holders

2

Fishery	1975		1976		1977		1978		1979	
	No. of Females	Total No of Permits	No. of Females	Total No. of Permits	No. of Females	Total No. of Permits	No. of Females	Total No. of Permits	No. of Females	Total No. of Permits
Bristol Bay										
Drift gillnet	23	1416	49	1621	59	1657	69	1700	58	1717
Set gillnet	334	716	388	759	409	819	450	889	475	912
Kuskokwim										
Gillnet			15	591	26	749	30	767	39	781
Lower Yukon										
Gillnet			41	678	52	675	51	694	50	702
Norton Sound										
Gillnet			5	169	17	171	16	176	18	177
Kotzebue										
Gillnet			6	118	15	173	19	177	20	180
Upper Yukon										
Gillnet			5	35	8	44	11	47	9	49
Fishwheel			1	51	15	107	17	108	22	113
Total	586	6743	890	9012	1017	9522	1088	9762	1140	9861
% of Female	(8.7%)		(9.9%)		(10.7%)		(11.1%)		(11.6%)	

1

Female enumeration as of June 30 of each year while number of permanent permits is a year end total except for 1979, when it is as of August 20.

Bay set gillnet fishery.

Age

One of the concerns voiced at the time of implementing the limited entry was that such a system would tend to lock in those who initially received permits. This would preclude entry by younger people and perhaps lead to a decline in the efficiency and productivity of the fisheries as older fishermen with deteriorating skill and motivation came to predominate. This has not been the case as market transferability has led to a reduction in the average age of permit holders in 22 out of the 25 limited entry salmon fisheries.⁵

Table 4 summarizes data on the average age of permit holders in the limited entry salmon fisheries since initial issuance of permits. Overall, the average age of permit holders has dropped from 43.1 years old in 1975 to 40.3 years old in 1979. The three fisheries in which average age in 1979 is higher than in 1975 are the Chignik purse seine fishery, the Bristol Bay set gillnet fishery, and the Lower Yukon gillnet fishery. The modest increase in age in the Chignik purse seine fishery is not surprising due to the low number of transfers in that fishery (see Table 2) and the high net earnings accruing to that fishery (see Table 16). The Lower Yukon is also characterized by a low number of transfers (see Table 2) as initial issuees retained their permits. The 1975-1977 average gross in this fishery was \$3,724; however, this is the poorest region in the state with salmon fishing virtually the only source of income for many families. The Bristol Bay set gillnet average age has shown fluctuations, not the steady aging trend found in the other two. This is likely the result

⁵

Granting permanent permits has been a continuing process beginning in 1975 and continuing in some fisheries to the present. Late issuance of permanent permits to younger individuals is likely a factor in lowering the average age of permit holders in several fisheries, most notably the Kuskokwim gillnet fishery.

Table 4
Mean Age of Permanent Permit Holders
By Fishery and Year¹

<u>Fishery</u>	<u>1975</u>	<u>1976</u>	<u>Year</u> <u>1977</u>	<u>1978</u>	<u>1979</u>
Southeast purse seine	46.6	46.0	45.1	44.6	44.6
Southeast drift gillnet	43.0	42.5	41.8	41.5	41.8
Statewide power troll	48.1	47.3	46.9	46.3	46.4
Yakutat set gillnet	39.6	36.9	37.5	37.1	37.1
Prince William Sound purse seine	45.3	42.9	42.2	42.1	41.9
Prince William Sound drift gillnet	39.3	38.3	38.2	37.9	38.7
Prince William Sound set gillnet	44.4	45.8	44.1	43.4	42.8
Cook Inlet purse seine	43.9	43.3	41.4	39.6	40.1
Cook Inlet drift gillnet	47.8	44.4	48.3	43.2	42.5
Cook Inlet set gillnet	39.3	37.0	36.9	37.3	36.6
Kodiak purse seine	42.6	41.6	41.0	40.0	39.5
Kodiak beach seine	41.9	40.7	39.4	37.7	38.5
Kodiak set gillnet	39.2	38.3	36.9	37.9	37.9
Peninsula-Aleutians purse seine	41.3	41.9	40.8	40.1	40.5
Peninsula-Aleutians drift gillnet	41.7	40.8	39.7	40.7	39.9
Peninsula-Aleutians set gillnet	41.0	41.6	38.8	39.6	40.1
Chignik purse seine	39.9	40.0	39.5	40.9	42.1
Bristol Bay drift gillnet	46.7	44.5	43.9	43.5	43.0
Bristol Bay set gillnet	33.7	36.0	35.3	34.1	33.9
Kuskokwim gillnet		52.7	28.7	38.4	38.3
Lower Yukon gillnet		37.3	37.5	37.8	38.1
Norton Sound gillnet		42.7	42.0	42.5	42.2
Kotzebue gillnet		40.5	40.9	40.1	40.1
Upper Yukon gillnet		53.7	43.3	44.3	44.0
Upper Yukon fishwheel		40.9	39.2	39.9	40.2
Total	43.1	42.9	41.6	40.5	40.3

¹
June 30 of each year.

of families with several children who were initial issuees selling permits to an older person outside the family.

In 1975 and in 1979, power trollers had the highest average age, 48.1 and 46.4 years respectively; while in both years Bristol Bay set gillnetters had the lowest average age, 33.7 and 33.9 respectively. In 1979 the average age across both the purse seine and drift gillnet fisheries was 41.9 years while the set gillnet average was 37.6. The lower average age of set gillnetters is due primarily to a much larger group of permit holders in the 11-20 age range than in the purse seine and drift gillnet fisheries. The average age in the AYK fisheries in 1979 was 39 years of age.

This overall decline in average age of permit holders can be partially attributed to the fact that permanent permits were not issued until 1975 in most fisheries and March of 1976 in others. Initial issuees were awarded their permits based primarily on participation in a given fishery during the period 1969 to 1972. It is probably that many participants in the 1968-72 period had left the fishery by 1975 and sold their permits immediately upon receipt. This is especially true in the power troll fishery. In addition, participants in the period from 1969-72 would all have aged an additional two years between their application and receipt of a permanent permit. Despite these factors, it is still true that market transferability has provided a mechanism for the retirement of the aging fishermen and entry of the younger fishermen in most of Alaska's limited entry salmon fisheries.

Family Relationship

The continuation of family fishing traditions through the transfer of permits to offspring is an important consideration for many Alaskan fishermen. Table 5 summarizes the number of familial transfers and the percentage of all transfers that are familial for each fishery. It should be recalled that the definition of a familial transfer used here is that the transfer be from one

Table 5

Summary of Intrafamilial
Permanent Permit Transfers
By Fishery and Gear Type

<u>Fishery/Gear Type</u>	<u>Total Number of Permits</u>	<u>Number of Permanent Transfers</u>	<u>Number of Familial Transfers</u>	<u>Familial Transfers As Percentage of Permanent Transfers</u>
Southeast				
Purse seine	414	200	28	14.0%
Drift gillnet	462	343	74	21.6%
Statewide power troll	933	600	78	13.0%
Yakutat set gillnet	10	72	15	20.8%
Prince William Sound				
Purse seine	258	157	29	18.5%
Drift gillnet	531	322	44	13.7%
Set gillnet	28	11	1	9.0%
Cook Inlet				
Purse seine	75	36	11	30.5%
Drift gillnet	555	343	83	24.2%
Set gillnet	743	412	98	23.9%
Kodiak				
Purse seine	374	230	43	18.7%
Beach seine	33	33	9	27.3%
Set gillnet	185	140	22	15.7%
Peninsula-Aleutians				
Purse seine	117	47	22	46.8%
Drift gillnet	156	97	22	22.7%
Set gillnet	110	48	21	43.7%
Chignik purse seine	90	18	8	44.4%
Bristol Bay				
Drift gillnet	1717	825	202	24.5%
Set gillnet	912	409	108	26.4%
Kuskokwim gillnet	781	109	73	67.0%
Lower Yukon gillnet	702	60	40	66.7%
Norton Sound gillnet	177	16	8	50.0%
Kotzebue gillnet	180	41	19	46.3%
Upper Yukon				
Gillnet	49	11	6	54.5%
Fishwheel	113	21	6	28.6%
Totals	9861	4601	1070	23.2%

person to another person with the same last name as the first person. This rule thus eliminates from consideration transfers to in-laws and maternal relatives which could also be conceptualized as familial. However, time and cost factors prohibited collection of this additional data. Another additional note which deserves mentioning is that each and every familial transfer appearing in the Entry Commission's records has been tabulated. This includes multiple permanent transfers from father to son and back again, husband to wife and back again, or brother/sister to brother/sister and back again. Transfer patterns of this type are not widespread but multiple transfers of this variety might skew the results in fisheries with few permanent transfers.

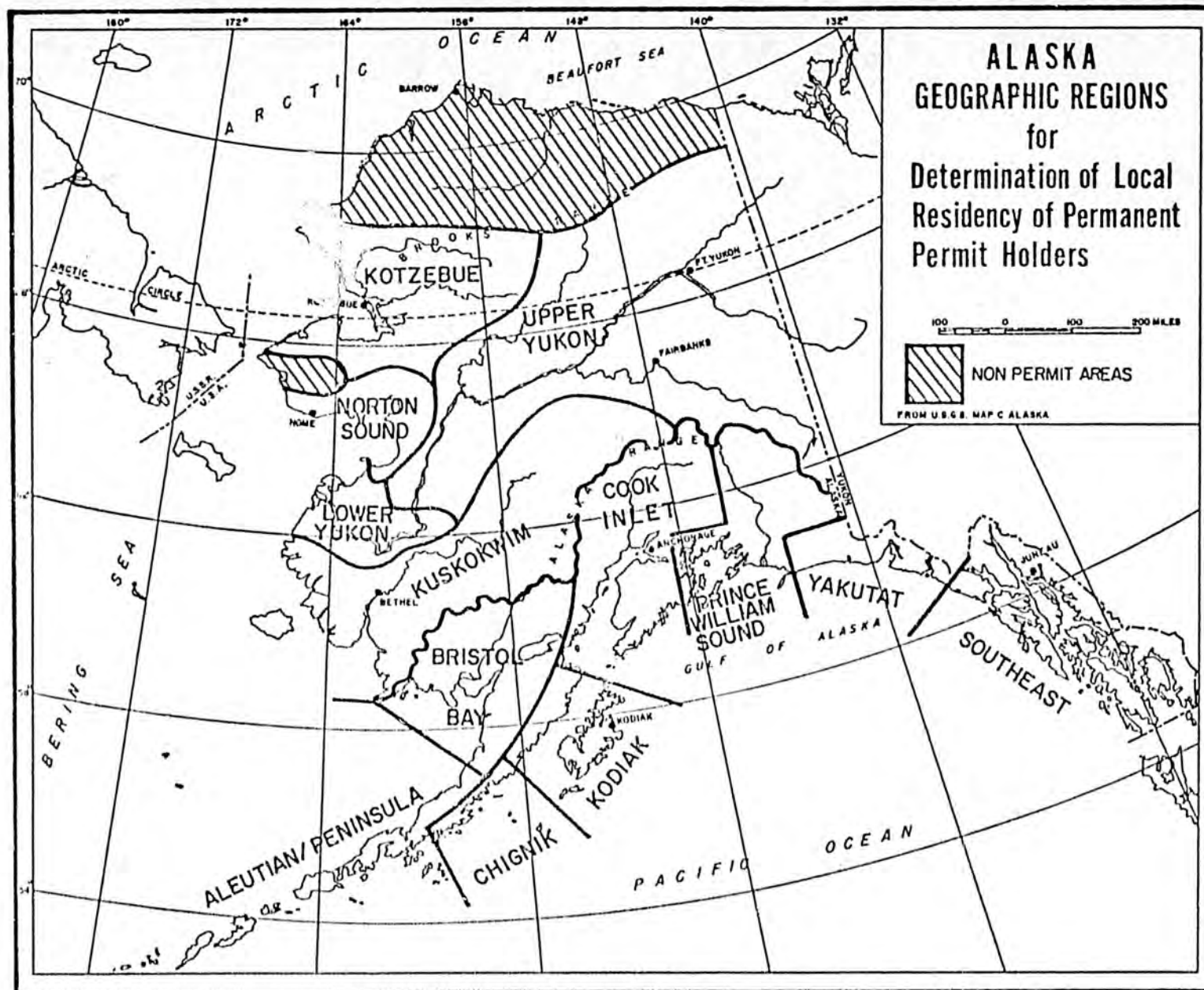
The overall rate of familial transfers is 23.2%. The range is from lows of 13% in the power troll fishery and 13.7% in the Prince William Sound drift gillnet fishery to highs of 67% in the Kuskokwim gillnet fishery and 66.7% in the Lower Yukon gillnet fishery. Although one might expect that family fishing traditions, as displayed by intrafamilial transfers, might be more pronounced in technologically complex fisheries requiring considerable training and experience, that does not appear to be the case. In fact the trend seems to be in precisely the opposite direction as 17% of all permanent transfers in the purse seine fisheries (the most technologically complex) are intrafamilial while 22% in the drift gillnet fisheries and 24.3% in the set gillnet fisheries (the least technologically complex) are intrafamilial. It might also be the case that these figures include "temporary" permanent transfers to a family member while the original permit holder participates in another fishery or works at other employment. This would imply greater mobility and less stability among permit holders in fisheries with relatively low net earning potential.

Intrafamilial transfers are extremely high in the AYK fisheries where they comprise 58.9% of all permanent transfers. It is clear, despite the low net earnings available from these fisheries, that permits and fishing income derived from them are vitally important to the families which hold them. It also seems likely that it is relatively rare to find individuals in these fisheries holding permits in other fisheries to which they could switch. This can be deduced from the low overall rate of transfers which will be discussed later.

In general, the statewide figure of 23.2% intrafamilial transfers indicates a fairly strong preference by fishermen to be able to transfer permits to family members. The importance of intrafamilial transfers, however, varies widely from fishery to fishery.

Residency

The Commercial Fisheries Entry Commission has tracked resident-non-resident transfer patterns for the limited entry fisheries and summarized this data in their annual reports. This reporting is the result of the traditional concern by Alaskans that state residents derive the primary benefits from Alaska's fisheries and represents a continuation of pre-statehood resentments toward absentee cannery operators and trap owners. Residency definitions for this research have been further subdivided into five categories: nonresident, Alaskan rural local, Alaskan urban local, Alaskan rural nonlocal, and Alaskan urban nonlocal. The standard population figure of 2,000 used by the Department of Community and Regional Affairs has been used to differentiate urban from rural. Population figures provided by the Department of Community and Regional Affairs for 1978 have been applied to place communities in urban or rural classification for all five years 1975-1979. This procedure was used so that no community would appear as rural in one year and urban the next. Figure 1



is a map of the geographic regions used for determination of local-nonlocal residency. In general, the boundaries are those used by the Department of Fish and Game and the Entry Commission for management and/or permit areas. Where those boundaries were insufficient, watershed characteristics have been used to complete the geographic demarcation of the regions. Appendix B provides a listing of the urban and rural communities in the various local regions which at least one permit holder has listed as his address during the period from 1975-1979.

Before examining transfer patterns by residency, an example of how classification was accomplished is in order. A person who has a Southeast Alaska drift gillnet permit is classified as a nonresident if he lists his residency with the Commission as outside Alaska. The same individual would be classified as Alaskan rural local if he listed as his residency a community of less than 2,000 within the geographic region labeled Southeast in Figure 1. He would be classified as an Alaskan urban local if he lived in a community larger than 2,000 in Southeast Alaska. If he lived in a community larger than 2,000 persons elsewhere in the state of Alaska, he would be classified as an Alaskan rural nonlocal. This same procedure was used to classify all permit holders in all fisheries.⁶

Table 6 summarizes the number and percentage of initial issues in each residency category for each fishery. "Initial issues" refers to all initial permit holders whether they received their permanent permit in 1975 or in August of 1979. Statewide, 66.9% of initial permit holders were residents of their local areas and 77.6% were residents of the state.⁷ In no

⁶

Several minor variations on this classification scheme are noted in the Appendix B.

⁷

For a discussion of various problems with residency determination, see Appendix E.

Table 6
Residency of Initial
Permanent Permit Holders
By Fishery
(8/20/79)

Fishery	NR	ARL	Residency		ARN	AUN	Total
			AUL				
Southeast purse seine	205	91	118		0	0	414
Southeast drift gillnet	156	80	222		0	4	462
Statewide power troll	275	198	448		2	10	933
Yakutat set gillnet	18	174	0		5	19	166
Prince William Sound purse seine	55	7	172		3	21	258
Prince William Sound drift gillnet	137	10	336		21	27	531
Prince William Sound set gillnet	7	0	19		0	2	28
Cook Inlet purse seine	0	31	43		0	1	75
Cook Inlet drift gillnet	183	91	262		6	13	555
Cook Inlet set gillnet	54	189	468		4	28	743
Kodiak purse seine	106	73	160		10	25	374
Kodiak beach seine	2	10	19		1	1	33
Kodiak set gillnet	49	38	80		4	14	185
Peninsula-Aleutian purse seine	14	100	0		0	3	117
Peninsula-Aleutian drift gillnet	44	95	0		0	17	156
Peninsula-Aleutian set gillnet	7	92	0		0	11	110
Chignik purse seine	21	29	24		4	12	90
Bristol Bay drift gillnet	728	662	0		101	226	1717
Bristol Bay set gillnet	149	567	0		25	171	912
Kuskokwim gillnet	0	444	165		172	0	781
Lower Yukon gillnet	1	624	0		67	10	702
Norton Sound gillnet	0	162	14		1	0	177
Kotzebue gillnet	0	42	135		0	3	180
Upper Yukon gillnet	0	39	8		2	0	49
Upper Yukon fishwheel	0	99	11		3	0	113
Totals	2211 (22.4%)	3897 (39.5%)	2704 (27.4%)		431 (4.4%)	618 (6.3%)	9861

fishery were there as many as 50% nonresident initial permit holders; the percentage of nonresident initial holders range from a high of 49.5% in the Southeast purse seine fishery to a low of 0% in the Cook Inlet purse seine fishery as well as five of the six AYK fisheries. Statewide, 43.9% of initial permit holders were Alaskan rural residents and 33.7% were Alaskan urban residents. Of the 4,328 rural Alaskan initial permit holders, 1655 or 38.2% were permit holders in the AYK fisheries where rural permit holders comprised 82.7% of the initial fishermen. In the remainder of the state's limited entry fisheries, rural residents were issued 34% of all initial permanent permits. In fisheries other than the predominantly rural and local AYK fisheries, nonresidents obtained 28.1% of the initial permanent permits leaving 37.9% in the hands of urban Alaskans.

When people transfer their permits, to whom do they transfer them? As discussed in the section on familial transfers, overall permits are transferred 23.2% of the time to someone with the same last name. If it is not transferred to a family member, it appears permits will be transferred to a friend, neighbor, or other individual from the holder's home community or a similar community in the local region. Table 7 summarizes transfers among and between residency categories. I have labelled each of these categories a cohort for purposes of this discussion thus when a resident of a given category transfers his permit to another resident of that same category (as printed in detail for each fishery by year in Appendix D) this is termed an intra-cohort transfer. When a resident of a given category transfers his permit to a resident of another category, this is termed a cross-cohort transfer.

Table 7 summarizes intra-and cross-cohort permanent transfers by fishery. Across all limited entry salmon fisheries, 69.7% of permanent transfers are intra-cohort while 30.3% are cross-cohort. The range is from a high of 81.7%

Table 7
Intra-Cohort and Cross-Cohort
Permanent Transfers
By Fishery

Fishery	Intra-Cohort		Cross-Cohort		Total Transfers
	Transfers	(%)	Transfers	(%)	
Southeast purse seine	125	(62.5%)	75	(37.5%)	200
Southeast drift gillnet	248	(72.3%)	95	(27.7%)	343
Statewide power troll	382	(63.7%)	218	(36.3%)	600
Yakutat set gillnet	55	(76.4%)	17	(23.6%)	72
Prince William Sound purse seine	106	(67.5%)	51	(32.5%)	157
Prince William Sound drift gillnet	202	(62.7%)	120	(37.3%)	322
Prince William Sound set gillnet	4	(36.4%)	7	(63.6%)	11
Cook Inlet purse seine	31	(86.1%)	5	(13.9%)	36
Cook Inlet drift gillnet	263	(76.7%)	80	(23.3%)	343
Cook Inlet set gillnet	295	(71.6%)	117	(28.4%)	412
Kodiak purse seine	140	(60.9%)	90	(39.1%)	230
Kodiak beach seine	18	(54.5%)	15	(45.5%)	33
Kodiak set gillnet	72	(51.4%)	68	(48.6%)	140
Chignik purse seine	8	(44.4%)	10	(55.6%)	18
Peninsula-Aleutians purse seine	34	(72.3%)	13	(27.7%)	47
Peninsula-Aleutians drift gillnet	77	(79.4%)	20	(20.6%)	97
Peninsula-Aleutians set gillnet	42	(87.5%)	6	(12.5%)	48
Bristol Bay drift gillnet	633	(76.7%)	192	(23.3%)	825
Bristol Bay set gillnet	268	(65.5%)	141	(34.5%)	409
Kuskokwim gillnet	88	(80.7%)	21	(19.3%)	109
Lower Yukon gillnet	49	(81.7%)	11	(18.3%)	60
Norton Sound gillnet	11	(68.8%)	5	(31.2%)	16
Kotzebue gillnet	33	(80.5%)	8	(19.5%)	41
Upper Yukon gillnet	6	(75.0%)	2	(25.0%)	8
Upper Yukon fishwheel	14	(67.0%)	7	(33.0%)	21
Total	3204	(69.7%)	1394	(30.3%)	4598

intra-cohort transfers in the Lower Yukon fishery to a low of 36.4% intra-cohort transfers in the Prince William Sound set gillnet fishery. Only four fisheries (Prince William Sound set gillnet, Kodiak set gillnet, Chignik purse seine and Kodiak beach seine) show less than 60% intra-cohort transfers. The six purse seine fisheries average 64.5%; the five drift gillnet fisheries average 73.7%, the six set gillnet fisheries average 67.4%, and the AYK fisheries average 78.8% intra-cohort transfers.

Appendix D summarizes intra-and cross-cohort intrafamilial transfers by fishery and year. Even more than the general cohort transfer pattern, intrafamilial transfers are overwhelmingly intra-cohort. Of a statewide total of 1070 intrafamilial transfers, 934 or 87.3% were intra-cohort while 126 or 12.7% were cross-cohort. The next section presents findings relevant to the question of whether or not cross-cohort transfers have altered the composition of Alaska's fishing corp by residency category in any important ways.

Table 8 summarizes the outcomes of transfers among fishermen in different residency categories. Appendix C provides detailed annual accounting of transfers among different residency categories. Statewide there has been a slight gain of resident permit holders and consequently a slight drop in the number of nonresident permit holders. The 25 percent decrease represents only 1.1% of nonresidents' initial holdings. The primary reason for this gain is the power troll fishery of Southeast Alaska where nonresident permit holders have declined from 275 initially to 216 at present, a decrease of 59. The two other significant gains shown by residents are in the Southeast drift gillnet fishery where residents have gained 18 permits and the Kodiak purse seine fishery where they have gained 9 permits. If the power troll fishery is ignored, there would be a net loss of 34 permits or an insignificant 1.8% decline. Nonresidents have made most significant gains in the Southeast

Table 8

Gains and Losses
of
Permanent Permits Compared
to
Initial Issuance by Residency and Fishery
(as of 8/20/79)

Fishery	NR	ARL	Residency		AUN
			AUL	ARN	
Southeast purse seine	+23	-27	+ 1	-	+3
Southeast drift gillnet	-18	+ 5	+14	+1	-2
Statewide power troll	-59	- 4	+66	-2	-1
Yakutat set gillnet	- 2	+ 3	-	+1	-2
Prince William Sound purse seine	+ 7	- 3	-9	+2	+ 3
Prince William Sound drift gillnet	- 2	- 3	-12	+3	+14
Prince William Sound set gillnet	- 2	-	+ 1	-	+ 1
Cook Inlet purse seine	+ 1	+ 1	- 2	-	-
Cook Inlet drift gillnet	-	+14	- 9	-	- 5
Cook Inlet set gillnet	- 5	+ 4	+ 8	-1	- 6
Kodiak purse seine	- 9	+ 1	+ 7	-2	+ 3
Kodiak beach seine	+ 2	- 3	-	-1	+ 2
Kodiak set gillnet	- 7	- 4	+17	-3	- 3
Peninsula-Aleutian purse seine	+ 1	- 1	-	-	-
Peninsula-Aleutian drift gillnet	+ 6	- 7	-	+1	-
Peninsula-Aleutian set gillnet	0	0	0	0	0
Chignik purse seine	- 2	0	+ 1	-	+ 1
Bristol Bay drift gillnet	+29	-43	-	-7	+21
Bristol Bay set gillnet	+10	-46	-	+6	+30
Kuskokwim gillnet	-	- 3	+ 4	-3	+ 2
Lower Yukon gillnet	+ 1	- 8	-	-1	+ 8
Norton Sound gillnet	+ 1	- 4	+ 1	-	+ 2
Kotzebue gillnet	-	- 6	+ 7	-	- 1
Upper Yukon gillnet	-	- 2	+ 1	-	+ 1
Upper Yukon fishwheel	-	- 1	+ 2	-2	+ 1
Totals	-25	-137	+98	-8	+72
Percent Decrease	(-1.1%)(-3.5%)(+3.6%)(-1.9%)(+11. 6%)				

- no permits in category

0 no change in number of permits in category

purse seine fishery where they have picked up 23 permits, and in the Bristol Bay drift and set gillnet fisheries where they have gained 29 and 10 permits respectively.

A look at residency transfer patterns by gear type reveals that non-residents have gained permits in four of the six purse seine fisheries for a net increase of 21 permits or 5.2% of their initial holding of 401. The five drift gillnet fisheries show nonresidents gaining in two and losing in two while staying even in the fifth but gaining a net of 15 permits or a 1.4% increase over initial holdings of 1248 permits in these fisheries. Non-residents have lost permits in four set gillnet fisheries, gained in two others and stayed even in the seventh for a net loss of 6 permits or a 2.1% decrease in their initial holdings of 284 permits in these fisheries. In the AYK fisheries nonresidents have gained 2 permits so that they now hold a total of 3 out of 2002 permits in these fisheries.

Turning now to gains and losses among various categories of state residents, Table 8 indicates that rural residents have lost 145 permits while urban residents have gained 170. Alaskan rural locals have suffered the most severe decline; their drop of 137 permits represents a 3.5% decrease from their initial holding of 3897 permits. Alaskan rural nonlocals have lost only 8 permits or a decrease of 1.9% from their initial total of 431.

One might expect that given the predominance of rural permit holders in the AYK fisheries, that these fisheries would be the ones hardest hit by permit losses. However, as Table 8 reveals, this has not been the case. Rural fishermen in the AYK fisheries have lost only 30 permits out of an initial total of 1655 or 1.8%. The most drastic reductions in rural permit holdings have occurred in fisheries (not all such fisheries, however) where there was initially

a fairly balanced mix of nonresident, Alaskan rural and Alaskan urban fishermen. In fisheries other than the predominantly rural AYK fisheries, rural permit holders have lost 115 permits which represents a 5% decline from their initial number of 2326 permits. Fisheries in which rural Alaskans show the greatest decline in permit holdings include the Southeast purse seine fishery where rural fishermen have lost 29.7% of their permits (a decline from 91 to 64), the Bristol Bay drift gillnet fishery where they have lost 50 of their initial 763 permits (a decrease of 6.6%) and the Bristol Bay set gillnet fishery where they have lost 40 of their initial 592 permits (a decline of 6.8%). Rural residents have recorded significant gains in only the Cook Inlet drift gillnet fishery where the increase of 14 permits represents a 15.4% increase over their initial figure of 91 permits.⁸

The flip side of Alaskan rural and nonresident losses is Alaskan urban permit gains. Urban Alaskans, in gaining 170 permits, have increased their holdings 5.1% from 3,322 to 3,492. Urban Alaskans have gained permits in three of the six purse seine fisheries, lost in two others and held even in one, for an overall gain of 8 permits. However, local urban fishermen have lost 2 permits and nonlocal urban fishermen have gained 10 permits, a slight 1.9% increase over their initial figure of 51%. The purse seine fishery in which urban locals recorded the largest decrease was in Prince William Sound where the loss of 9 permits represents a 5.2% decline from the initial 172 permits. Urban locals have gained most dramatically in the Kodiak purse seine fishery where the increment of 7 permits is a 4.4% increase over the initial holder of

8

The rural population of Cook Inlet is significantly different from that of nearly every other region due to its much smaller proportion of Alaskan natives.

160. Urban nonlocal gains are fairly widely dispersed with gains of 3 permits being recorded in the Southeast, Prince William Sound, and Kodiak purse seine fisheries by Alaskan urban nonlocals.

Overall in the five drift gillnet fisheries, Alaskan urban fishermen have picked up 21 permits or a modest 2.2% from their initial level of 93%. The most impressive gains were in the Southeast and Bristol Bay drift gillnet fisheries where increases of 12 and 21 represent 5.3% and 9.3% increases respectively. However, as in the purse seine fisheries, local urban gillnetters have lost 7 permits while nonlocals have gained 28, a substantial 9.8% increase over their initial level of 28%. The Prince William Sound drift gillnet fishery is the most salient example of this trend where urban locals have lost 12 permits and urban nonlocals gained 14.

In the six set gillnet fisheries urban Alaskans have picked up 46 permits, 20 by urban nonlocals and 26 by urban locals. This is an overall increase of 5.7% from an initial figure of 812. There, as in the purse seine and drift gillnet fisheries, the urban nonlocal gain of 30 permits or an 8.2% increase over the initial figure of 245, outstrips the urban local gain of 26 permits or 4.6% of the 567 initially awarded. Urban locals registered their largest gain in the Kodiak set gillnet fishery, where the increase of 17 permits represents a 21% increase from 80, and in the Cook Inlet set gillnet fishery, where the increase of 8 permits represents a 1.7% increase from an initial level of 171. It should be noted there are no urban local set gillnet holders in the Yakutat, Peninsula-Aleutians or Bristol Bay fisheries because there are no communities larger than 2,000 in those areas.

Fluctuations in the proportions of permits held by various residency categories in the AYK categories have been extremely small due in large part to the later issue of permanent permits in these fisheries, the low number of

transfers involved and the low gross and net earning available from these fisheries. It is perhaps noteworthy that of the 30 permits from these fisheries no longer in rural residents' hands, 28 of them are now held by urban Alaskans, 15 by urban locals and 13 by urban nonlocals. This represents a 4.5% increase from 333 permits by urban locals and an 100% increase from 13 initial permits by urban nonlocals. Proportionally the greatest shift in the residency of AYK permit holders occurred in the Kotzebue gillnet fishery where the 6 permit decline by rural locals represents 14.3% of their initial 42 while the 7 permit increase by urban locals represents a 5.2% increase above their initial 135 permits.

Do the patterns identified in the previous paragraphs among residency categories represent a continuing trend or are they merely a momentary anomaly caught at a down point on an oscillating cycle of minor fluctuations which could shortly rebound in the opposite direction? Table 9 presents a summary by year of gains and losses by residency category across all the limited entry salmon fisheries. The pattern of permit flow between residents and nonresidents does not allow for any simple statement of trend or cycle because of the relatively small overall percentage shift that the number of permits involved represents. Likewise the relatively small drop in urban local permit holders during the first eight months of 1979 could easily be shifted to an increase during the last third of the year. On the other hand, there is a clear and escalating trend since 1976 for rural residents to lose permits, particularly rural locals. There is likewise a clear and escalating trend for urban nonlocals to gain permits. Further discussion of this issue will be taken up in the conclusion of this report.

Table 9

Annual Statewide Gains and Losses
of
Permanent Permits by Residency
1975-1979
(8/20/79)

	<u>1975</u>	<u>1976</u>	<u>Year</u> <u>1977</u>	<u>1978</u>	<u>1979</u>	<u>Total</u>
NR	-62	- 2	+12	+ 1	+26	-25
ARL	+17	-13	-51	-39	-51	-137
AUL	+37	+14	+34	+19	- 6	+98
ARN	- 2	+ 4	+ 4	- 8	- 6	- 8
AUN	+10	- 3	+ 1	+27	+37	+72

III. Entry Into the Limited Salmon Fisheries

With complete implementation of limited entry, the ability to participate as a gear license holder is governed by whether or not a permit is held for a given fishery. A person without a permit may legally purchase a permit from a person with a permit or be given a permit without charge, for example, as an inheritance or a gift. One of the provisions of the limited entry statute as initially constructed and later amended, prohibits entry permits from being "pledged, mortgaged, leased, or encumbered in any way;" however, despite the proscription of lease arrangements, this seems to be a fairly common method for entering the fishery in addition to the methods cited above. This section considers these various routes of entry, first examining the purchase, gift, and lease routes in terms of the frequency of each and then investigating relative sources of funding available for the purchase of permits. The second section will include an examination of the State commercial fishing loan program's impact on entry into the limited salmon fisheries.

Purchase, Gift and Lease Entry

Table 10 summarizes the types of permanent transfers by fishery based on the Commercial Fishery Entry Commission's voluntary survey data as presented in their 1978 report. Columns 1, 2, and 3 taken together can be considered as a class of transfers in which monetary value in some form is exchanged for a limited entry permit. Column 4 represents the gift (and inheritance) class of permit transfer, while column 5 is a good indicator of lease or return arrangements of some variety that accompanies a permanent transfer. Although the voluntary survey includes a question concerning reasons for transfers of permits, the data were not summarized in the 1978 report. However, the Commission staff member charged with processing the data estimated that the three leading indicated reasons for transfers, account-

Table 10
Types of Permanent Transfers
By Fishery¹

Fishery	Transfer Type					(1975-1978) Total Responses to CFEC Survey	(1975-1978) Total Transfers
	Purchased	Traded	Combination Buy	Free of Charge	Other		
Southeast purse seine	59	1	2	5	14	81	175
Southeast drift gillnet	85	6	6	13	18	128	293
Statewide power troll	200	5	23	25	21	274	504
Yakutat set gillnet	14	0	0	11	4	29	60
Prince William Sound							
Purse seine	30	4	4	1	4	43	120
Drift gillnet	79	2	3	17	11	115	272
Set gillnet	1	0	0	0	0	1	9
Cook Inlet purse seine	11	0	0	2	3	16	31
Cook Inlet drift gillnet	83	4	5	21	20	133	272
Cook Inlet set gillnet	77	3	21	37	16	154	333
Kodiak purse seine	45	4	3	20	10	82	190
Kodiak beach seine	6	0	0	2	3	11	26
Kodiak set gillnet	23	0	7	15	10	55	114
Chignik purse seine	2	0	0	2	4	8	17
Peninsula-Aleutians							
Purse seine	5	0	0	4	5	13	36
Drift gillnet	15	0	0	6	9	30	75
Set gillnet	7	2	0	1	5	15	38
Bristol Bay drift gillnet	170	7	20	74	65	336	645
Bristol Bay set gillnet	54	1	3	58	33	149	291
Kuskokwim gillnet	5	2	1	29	6	46	76
Lower Yukon gillnet	7	0	0	16	5	28	38

Types of Permanent Transfers

2

<u>Fishery</u>	<u>Transfer Type</u>					(1975-1978) Total Responses to CFEC Survey	(1975-1978) Total Transfers
	<u>Purchased</u>	<u>Traded</u>	<u>Combination Buy</u>	<u>Free of Charge</u>	<u>Other</u>		
Norton Sound gillnet	4	0	0	1	0	5	7
Kotzebue gillnet	1	0	0	3	4	8	24
Upper Yukon gillnet	0	0	0	0	0	0	4
Upper Yukon fishwheel	5	0	0	0	0	5	15
Total	988	45	98	363	270	1765	3665
Percentage	(56%)	(2.5%)	(5.6%)	(20.6%)	(15.3%)		

¹
Based on CFEC survey reported in 1978 annual report, Appendix 3.

ing for 67-75% of all permanent transfers, were death, illness and retirement. The fourth most frequent listing for permanent transfers was leasing. It is possible that some other types of permanent outright financial transactions are included in the "other" column but the likelihood of this appears low. Therefore, it is possible to roughly consider the "other" column an index of lease-type permanent transfers.

On a statewide basis, 64.1% of all permanent transfers (56% purchase, 2.5% trade, 5.6% combination) appear to be of the exchange of monetary value variety while 20.6% appear to be of the gift variety. This leaves a residual of 15.3% for lease-type or unusual financial transfers. On a gear-type basis, 70% of permanent transfers in the six purse seine fisheries are monetary exchanges. These range from a high of 88.4% in the Prince William Sound fishery to a low of 25% in the Chignik fishery. Gift transfers account for 13.2% of purse seine transfers ranging from a high of about 25% in the Kodiak and Chignik fisheries to 9% in the Cook Inlet fishery. The overall potential for lease residual in the purse seine fisheries is 16.8% with the Chignik fishery registering the highest, 50%, while Prince William Sound is the lowest at 10.7%. In the five drift gillnet fisheries, 65.4% of permanent transfers are of the purchase type, 17.7% are of the gift type, leaving a residual of 16.9% for potential leases. Purchase percentages range from a high of 75.8% in Southeast to a low of 50% in the Peninsula-Aleutians; gift percentages range from a high of 22% in Bristol Bay to a low of 10.2% in Southeast. Lease potentials range from a high of 30% in the Peninsula-Aleutians fishery to a low of 12% in Prince William Sound. In six set gillnet fisheries, 55.4% of permanent transfers are purchases and 32.4% are gifts, leaving a residual of 12.2% for leases. Purchase percentages vary from a high of 65.6% in Cook Inlet to a low of 48% in Yakutat; gift percentages vary from a high of

38.7% in Bristol Bay to 13.3% in the Peninsula-Aleutians. Lease potential residuals are distributed from a high of 26.7% in the Peninsula-Aleutians to 10.4% in Cook Inlet. In the AYK fisheries, 27.2% of permanent transfers are purchases and 53.3% are gifts, leaving 19.5% in the potential lease residual. Four of the six fisheries had less than 10 reported survey responses which makes comparison among the fisheries impossible. The difference between the AYK fisheries and the rest of the state's fisheries is again as salient as it was for the number of transfers and rate of intrafamilial transfer.

In order to purchase a permit, monetary value from some source is necessary to exchange for the permit. Table 11 summarizes sources of financing used to purchase permits which the CFEC voluntary survey on permit transfers revealed. Across all the limited salmon fisheries 53.3% of permits exchanged for value were financed. Interestingly, the most important source of financing is the permit transferer who was called on 16.3% of the time to finance the transaction. In descending order of lending importance of the specific categories are banks 16.2%, processors 8.4%, credit associations 3.8%, and the State loan program at 2.8%. The category of "other" which accounts for 5.8% of transfers, includes various combinations of financing arrangements from the other five sources, as well as such additional sources as relatives, friends, BIA, village corporations, and regional corporations. As might be expected, due to the high price and traditional processor involvement in vessel ownership, the purse seine fisheries show the highest rate of processor financing of the gear types in that 18% of all permits exchanged for value included financial assistance from processors. Comparable rates in the drift and set gillnet fisheries were 8.7% and 3.3% respectively.

What of the remaining 46.7% of permits exchanged for value which were not reported in the CFEC survey as having been financed? This figure is

Table 11
Sources of Financing
for
Permit Purchases
By Fishery (1975-1978)¹

Fishery	Transferor	Sources of Financing				Credit Assn.	Other	Total # of Permits Exchanged for Value	% of Permit Transfers	Total # Permits Free of Charge	# of Permit Transfers	Total Responses to CFEC Survey
		Processor	Bank	State Loan								
Southeast												
Purse seine	13	21	6	0	1	3	62	(76.5%)	5	(6.2%)	81	
Drift gillnet	16	4	26	7	1	9	97	(75.8%)	13	(10.2%)	128	
Statewide												
Power troll	34	2	47	8	6	12	228	(83.2%)	21	(7.7%)	274	
Yakutat												
Set gillnet	2	0	3	0	0	2	14	(48.3%)	11	(37.7%)	29	
Prince William Sound												
Purse seine	5	3	9	1	1	2	38	(88.9%)	1	(2.3%)	43	
Drift gillnet	15	20	14	3	2	6	84	(73%)	17	(14.8%)	115	
Set gillnet	1	0	0	0	0	0	1	(-)	0	(-)	1	
Cook Inlet												
Purse seine	1	1	0	4	1	0	11	(68.8%)	0	(0%)	16	
Drift gillnet	12	5	10	0	10	7	92	(69.2%)	21	(15.8%)	133	
Set gillnet	17	5	8	1	12	2	101	(65.6%)	37	(24%)	154	
Kodiak												
Purse seine	8	6	5	3	2	1	52	(63.4%)	20	(24.4%)	82	
Beach seine	3	0	0	0	0	0	6	(54.5%)	2	(18.2%)	11	
Set gillnet	10	0	1	0	1	3	30	(54.5%)	15	(27.3%)	55	
Peninsula-Aleutians												
Purse seine	1	0	1	0	0	0	5	(38.5%)	4	(30.8%)	13	
Drift gillnet	5	0	3	0	0	1	15	(50%)	6	(20%)	30	
Set gillnet	2	0	0	0	0	0	9	(60%)	2	(13.3%)	15	
Chignik purse seine	1	0	0	0	1	0	2	(25%)	2	(25%)	8	

Sources of Financing
for
Permit Purchases

Fishery	Transferor	Sources of Financing				Credit Assn.	Other	Total # of Permits Exchanged for Value	% of Permit Transfers	Total # Permits Free of Charge	% of Permit Transfers	Total Responses to CFEC Survey
		Processor	Bank	State Loan								
Bristol Bay												
Drift gillnet	27	13	40	5	12	14	197	(58.6%)	74	(22%)		336
Set gillnet	8	2	5	0	2	2	58	(38.9%)	58	(38.9%)		149
Kuskokwim gillnet	0	0	1	0	1	0	8	(17.4%)	29	(63%)		46
Lower Yukon gillnet	2	0	1	0	0	0	7	(25%)	16	(57.1%)		28
Norton Sound gillnet	1	0	2	0	0	0	4	(80%)	1	(20%)		5
Kotzebue gillnet	0	0	1	0	0	0	1	(12.5%)	3	(37.5%)		8
Upper Yukon gillnet	0	0	0	0	0	0	0	(-)	0	(-)		0
Upper Yukon fishwheel	0	0	0	0	0	2	5	(100%)	0	(-)		5
Total	184	95	183	32	43	66	1131		363			1765
(%)	(16.3%)	(8.4%)	(16.2%)	(2.8%)	(3.8%)	(5.8%)	(64.1%)		(20.6%)			

¹
Source: CFEC Annual Report 1978, Appendix 3.

obtained by subtracting the total of all permits financed from the total of all permits exchanged for value. The discrepancy between these two totals (528 permits or 46.7%) can be interpreted in two ways. The first is that many of those surveyed did not report the type of financing obtained at all, and the second is that no financing was needed for permit purchase. It seems likely that both are included. The claim that a significant number of those not reporting financing but indicating that the permit transfer involved an exchange of value are in fact purchases, is enhanced by the fact that 59.4% of purse seine transfers for value involve some financing while the comparative figures for the drift gillnet, set gillnet and AYK fisheries are 59.2%, 41.5% and 40% respectively. It is logical that the cheaper the permit, the higher the incidence of outright purchase will be as these figures tend to indicate. The slight difference in reported financing between purse seine and drift gillnet permits might represent under-reporting of financing in purse seine transfers due to the fact that significantly higher average value of purse seine permits (\$53,000) over drift gillnet permits (\$26,000) through 1978 would predict substantially higher finance needs in the purse seine fishery.

Additional information on various sources of financing for permit purchases was sought by means of a survey (see form in Appendix A) sent to 110 Alaskan banks, 9 Seattle banks, 54 processors, and 29 Alaskan credit associations. Of the total of 200 institutions surveyed, 150 responses were received for a return rate of 75%. The return was highest among credit associations (79%), next highest among Alaskan and Seattle banks combined (72%) and lowest among processors (48%). Of the actual total of 172 loans reported, 143 (83%) were by Alaskan banks, 22 (13%) were by processors, and 7 (4%) were by credit associations. Of the 150 responses, 65% indicated they had never financed a permit. This was highest among credit associations where 87% had never

financed a permit while 81% of the processors and 58% of the banks indicated they had never made loans for permit purchases. Interestingly, several credit associations were not aware it was possible to make a loan for a permit purchase and one indicated they would like to be involved in permit loans but lacked the capital base. Even more remarkable was the surprise of several of the smaller banks to learn that other banks were making permit loans.

The number of bank loans reported is an under-representation of actual loans for permits from those institutions for several reasons. First, banks reported on active loans only so those loans already paid off are not represented. Second, several banks indicated various ways in which a loan could be made without the bank knowing how the funds were actually used. Finally, the two Seattle banks who reported involvement in permit loans did not give precise figures. One suggested that their involvement had been so limited that it would be of no consequence to new entry into the Alaskan salmon fisheries. The lion's share of bank loans for permit purchases are held by one Alaskan institution. That institution estimated that 20% of their loans were interim loans pending State loan approval.

A number of banks, credit associations, and processors indicated formal institutional policies not to finance permit purchases. Thirty percent of the credit unions, 23% of the processors and 13% of the banks stated they did not loan for permit purchases. The most elaborate policy was that of one major processing firm whose spokesman explained they did not loan for permits because the permit cannot be used as collateral, the limited entry program is under constant legal assault, false market prices have been established in almost all fisheries due to several good seasons, and the firm does not take real estate as collateral. The response also noted that few fishermen asking for assistance in permit purchases had significant equity in their vessels to secure a loan for a permit.

It is obvious from comparing the figures on processor's return rate on this survey and their rate of refusal to finance permits with those in Table 11 on processor financing that processors are significantly under-represented in the survey returns. One processor sent a response specifically declining to participate; another indicated that it did not keep records of these kinds of transactions, and a third did not understand how permit financing could be a legitimate function of State government, let alone a subject of research by a university. Hostility of the processing industry toward State government and what they regard as excessive demands for information from them is certainly neither new nor unusual.

In the discussion above on "other" sources of financing it was noted that the BIA, village and regional corporations are potential sources of financing for Alaskan natives. Mr. Halvorson of the BIA office in Juneau stated that his office could not make economic development loans to individuals but only to tribal organizations (IRA councils). To his knowledge none of the five tribal organizations who had obtained economic development loans from the BIA since 1975 had used their funds to aid permit purchases. Given that three of the tribal governments are involved in fish processing, it is possible that some BIA funds have been used for permits, but since the tribal governments involved were not contacted directly, there is no certainty of this. No survey forms were sent to village or regional corporations; however, superficial indications suggest very limited involvement by the native corporations in permit purchases. Several individuals indicated a desire and hope that these institutions would become more involved in fisheries than they have to date.

The survey requested information on requirements for the financing of permit loans including the number of years experience in a fishery, whether

the individual is a boat owner or not, the types of collateral required and whether or not the individual had to have a history of loans or fishing with the firm. Only banks and processors provided enough concrete responses to these questions to be meaningful. Of the nine Alaskan banks responding, seven indicated that a specific number of years experience was necessary -- two required five years, two required three, two required two and one required one year experience. Two of the seven required that the applicant be a previous boat owner while five did not. All of those responding required collateral at least equal to the value of the permit in the form, ususally, of vessels and real estate although tangible, unsecured assets were acceptable to most. One indicated that in certain rare cases no collateral might be required. Perhaps of greatest significance was the data on whether an applicant had to have held a previous loan with the institution. Eight of the nine Alaskan banks indicated that this was indeed a requirement for a loan to purchase a permit. It should be noted that the nine responses represent a large number of banks because each individual branch of a given institution is represented in the total figure of 110 contacted and 78 responding.

Fish processors ranged widely in their requirements for permit loans. Only one of five required more than three years experience in the specific fishery for which the permit was being requested while three only required one year. Two of the five required the person to have been a previous boat owner and four of five required the applicant to have fished for the firm previously. Two indicated that in certain cases no collateral would be required, while all five accepted vessels and gear as collateral. One firm also listed real estate as acceptable collateral. Interestingly, one firm indicated a stiffening of its years of experience policy due to difficulties with permit loanees.

Entry through the State Loan Program

One source of financing for the purchase of limited entry permits, with data more readily available for analysis, is the State's commercial fishing loan program. Tables 12, 13, 14, and 15 summarize information gathered from the State's files on commercial fishing loans involving limited entry permits. Before turning to a discussion of the tables, an introduction to the loan program in general is in order. The purpose of the State's commercial fishing loan program established in 1973 is to promote the rehabilitation of the State's fisheries, develop a predominantly resident fishery, help maintain commercial fishing gear and vessels throughout the State, and, since 1978, finance the purchase of limited entry permits by means of long-term financing. Prior to 1978, very few loans were made for the purchase of permits through the loan program. This was due to the relatively small amount of money in the program, and the fact that the State loan program was similar to private sources of financing, in that since the permit could not be foreclosed on, the applicant had to have unsecured collateral sufficient to cover the loan. The total amount loaned for vessels in FY 1975 was \$2,400,000. By '79 it had skyrocketed to \$28,000,000; over a 1000% increase!

In 1978, the legislature amended the law so the State could foreclose on permits. This new provision was built into the commercial fishing loan program by allowing limited entry permits to be used as collateral for up to 75% of their value as appraised through the Entry Commission's voluntary survey. This legislative step was the result of the realization that only persons with significant assets were able to purchase permits using private financing sources. It was hoped that through the new procedure more of the aspiring, experienced, yet undercollateralized fishermen would have a way to get into the fishery.

During the 1979 legislative session, loan values against permits were

relaxed to allow 90% of the value of the permit to be loaned and experience in the fishery provision were also reduced to one year. This step was taken because rapid escalation in permit prices was resulting in considerable lag between market price in one quarter and the State's appraised value from the previous quarter. This discrepancy plus the 75% provision meant that an individual might have to provide over 50% of the purchase price of a permit out of pocket.¹⁰ Data on loans for permit purchases show that of 56 cases where the price paid for the permit was indicated in the application, 31 (55.3%) were above the appraised value at the time of purchase, 18 (32.1%) were below the appraised value, and 7 (12.6%) were the same price.

As a result of these provisions, the number of State loans for permits has increased dramatically since October 1978 as Table 12 displays. If the number of loans awarded during the first four months of FY 80 were extrapolated over the remainder of the year, the total would be 48. It is possible that this number could be exceeded by as much as 50% since the first quarter of the calendar year generally sees a great deal of loan activity. However, the relative portion of the State loan program in the overall picture of limited entry permit purchasing must be assessed. Using the earlier projected rate of 1400 permanent transfers in FY 80 and assuming, based on the CFEC voluntary survey, that 53.3% of all permanent transfers involve financing, then approximately 750 permit transfers with financing will occur in FY 80. A conservative figure of 48 State loans would amount to 6.4% of financed transfers while it would take 75 to give the State 10% of the total number financed.

The geographic distribution of State loans involving permits is skewed toward the Southeastern region of the state. Of the 82 loans involving permits which the Division of Business Loans lists, 45 or 55% are in House Districts

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This 90% provision is, of course, applicable across-the-board to all permits, even those issued initially to individuals with few or no other assets. This fact is cause for concern among some officials of the State's loan program.

Table 12

State Commercial Fishing Loans
For Permit Purchases
By Fishery and Fiscal Year

<u>Fishery</u>	<u>FY 76</u>	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80¹</u>	<u>Total²</u>
Southeast purse seine	0	0	0	3	0	3
Southeast drift gillnet	1	1	1	4	3	10
Statewide power troll	0	0	0	8	7	15
Yakutat set gillnet	0	0	0	0	0	0
Prince William Sound purse seine	1	0	0	4	1	6
Prince William Sound drift gillnet	0	0	0	2	1	3
Prince William Sound set gillnet	0	0	0	0	0	0
Cook Inlet purse seine	0	0	0	1	0	1
Cook Inlet drift gillnet	0	0	0	6	3	9
Cook Inlet set gillnet	0	0	0	0	0	0
Kodiak purse seine	0	0	1	4	0	5
Kodiak beach seine	0	0	0	1	0	1
Kodiak set gillnet	0	0	0	1	0	1
Chignik purse seine	0	0	0	0	0	0
Peninsula-Aleutians purse seine	0	0	0	0	0	0
Peninsula-Aleutians drift gillnet	0	0	0	0	0	0
Peninsula-Aleutians set gillnet	0	0	0	0	0	0
Bristol Bay drift gillnet	0	0	0	10	1	11
Bristol Bay set gillnet	0	0	0	0	0	0
NO STATE LOANS FOR AYK PERMITS						
Totals	2	1	2	44	16	65

¹

As of November 1, 1979.

²State Division of Business Loan records list 82 loans involving permits from 1976 to November 1, 1979. Of those 82, 72 files were examined. Of the remaining 10, 2 not reviewed were housed in Fairbanks, 1 was unavailable in the Anchorage office, and 5 were unavailable in the Juneau office. 3 from the Anchorage office were apparently in Juneau.

1, 2, 3 and 4 with District 4 accounting for 23 of the 45. The next highest number of loans for permits is District 13 (Kenai, Homer) whose residents have received 11 of the 82 permit loans.

Table 12 summarizes how loans for permit purchases are distributed by fishery. As might be expected from the geographic distribution of State loans involving permits, the Southeastern purse seine, drift gillnet, and power troll fisheries account for a large portion of the total. The 15 loans for permits in the power troll fishery alone account for 23.1% of all loans for permit purchases, while the combined total with the Southeast purse seine and gillnet loans comes to 43.1%. The next most popular fishery for State loans is the Bristol Bay drift gillnet fishery where 11 loans make up 16.9% of the total loans for permit purchases. It is also the only fishery west and north of Kodiak for which a State loan has been used to purchase a permit.

How have State loans been distributed by gear type? Of the 65 State loans for permit purchases, 15 have been for power trolling, 15 for purse seining, 33 for drift gillnetting, 1 for beach seining and 1 for set gillnetting. This pattern compares fairly closely to the overall distribution of financing by gear type. Analysis of data in Table 11 from the CFEC voluntary survey reveals that of 592 reported cases of financing of permits, 288 or 48.6% were in the drift gillnet fisheries, 109 or 18.4% were in the power troll fishery, 101 or 17.1% were in the purse seine fisheries, 89 or 15% were in the set gillnet fisheries and 11 or 1.9% were in the AYK fisheries. The only major discrepancy from this pattern in the State program is in the set gillnet fisheries where only 1.5% of loans for permit purchases have occurred.

There is, however, an important reason for this which has implications for the general practice of financing for permit purchases. The Division's

consider the overall commercial fishing loan rate of refusal of completed applications to be low, between one in four or five (20-25%). The two most frequent reasons for refusal they cited were lack of sufficient collateral to cover the loan and inability to service the debt from fishing income. Data on refusals of applications for State loans for permit purchases show that 13 loans were turned down in FY 79 and 13 have been refused thus far in FY 80. These figures represent 17.6% of all applications for State loans involving permits in FY 79 but a much more substantial 41.9% in FY 80. District 13 has the highest number and rate of refusals with 4 of 13 in FY 79 and 7 of 13 thus far in FY 80. Although loan committee minutes do not indicate what fishery applications involving permits which are denied are from, it can be assumed that District 13 applications include a high percentage of Cook Inlet drift gillnet permits. Given the Division's requirement for debt servicing out of fishing income, it is not surprising there would be a high rate of refusal for permit purchases in this fishery due to the high appraised permit value in relation to the low gross and net earned in this fishery in 1979.

There are other aspects of the data on the State loan program and its overall integration with the tremendously diverse potential user group it is mandated to serve that require comment. First, note in the preceding paragraph that the phrase "of completed applications" was underlined. The intent of this was to highlight the fact that the application process, although made as simple as possible yet still reflect accepted financing procedures, is a complicated and time consuming task which many people begin and fewer complete. At present the commercial fishing loan application check-off list includes the following items: application form, letter of intent, list of collateral offered to secure loan (including marling survey, construction bid and/or appraisal), photos of vessel(s) or other assets being offered as collateral, current financial statement, pro forma financial statement, credit authorization forms (3), authorization to

position in making loans for permit purchases (or any commercial fishing loan for that matter) is that applicants must have the capability of meeting the debt service from their fishing income alone.¹¹ It is obvious from Table 18 that most set gillnet applicants would be hard pressed to make a case for meeting their debt service out of fishing income alone. The broader implications of this situation are that transferors and banks, the two major private sources of financing, are much less concerned about where the funds are going to come from to pay off their loans than the State is. This point is reinforced by the fact that banks appear to place as much weight on applicants' past loan performance with their institution and general credit rating as on the specifics of their fishing performance. The upshot is that those with sources of income other than fishing are more attractive candidates in the private sector for permit financing than are those for whom fishing is their sole source of income. If this is a tendency the State wishes to offset, then the State loan program must be expanded and modified.

In the previous paragraphs on the State loan program two different terminologies were used. The first is State loans involving permits and the second is State loans for permit purchases. Table 13 provides an explanation for the difference between the two. Because the regulation for the use of a permit as collateral in obtaining a State commercial fishing loan does not specify that the permit can only be used as collateral on itself or another permit, some applicants have used their permits as collateral on vessel upgrade, new vessels, and purchasing of other permits. In addition, Division personnel indicate that it would be possible to use the permits as collateral in the Small Business program as well, although apparently no one has tried to to date. Another use of the

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Obviously the loan examiners are not totally oblivious to applicants' alternate sources of income but formally such considerations are not supposed to affect their determinations.

Table 13

Classification of State Commercial Fishing Loans
Involving Permits

By House District¹

House District	New Entry (including vessel in some cases)	Collateral for vessel and/or gear	Obtain Additional Permit(s)	Refinance	Other	Total ²
1	5	0	2	0	2	9
2	3	0	4	2	0	9
3	1	1	0	1	0	3
4	7	2	6	0	0	15
5	4	0	5	0	0	9
6	1	0	0	0	0	1
7-12	4	0	0	0	0	4
13	4	0	6	0	0	10
14	5	0	1	0	0	6
16	1	2	1	0	0	4
Total (%)	35 (50%)	5 (7.1%)	25 (35.8%)	3 (4.2%)	2 (2.9%)	70

¹ Two of the 72 files examined did not have sufficient information to make a determination for this classification.

² Not enough information in the file to make this classification on one permit purchase from district 3 and one from district 5.

program is refinancing earlier permit purchases. Because the State loan program's rate of interest (9.5% after June 1, 1979; 7.5% before that) is lower than prevailing market rates, many applicants are attracted to the program to refinance earlier permit purchases. The Division's position is that they will not grant a loan if more than 50% of the total request is for refinancing. Nevertheless, considerable leeway for refinancing is present as the following example points out. Say an individual purchased a Southeast drift gillnet permit in 1978 for \$35,000 with a bank loan of 11% and paid off \$20,000 by August of 1979. In September of 1979, the person applies for a State loan for a new vessel costing \$60,000 plus the remaining \$15,000 on the permit note at the State's lower rate of 9.5%. The permit and the new vessel are put up as collateral and the State decides to make this loan because of the total \$75,000, only \$15,000 or 20% is refinancing. This loan will show up in Division statistics as a vessel/permit loan; however, it is clearly a case of refinancing. The problem of determining what is and what is not refinancing is made even hazier by the frequent use of bank and processor loans as interim financing, pending State approval of a loan application. In these cases, if the permit purchase had occurred six months or more prior to submission of the State loan application, then the loan was classified as a case of refinancing. Table 13 indicates refinancing has been relatively infrequent to date.

Of the 70 loans for which enough information was available to place the case in one category or another, 50% of the State loans involving permits were for new entry into the limited fisheries by a person who did not hold a permit in another limited fishery. The second most frequent case was for a permit holder to purchase an additional permit in another fishery. These 25 cases account for 35.8% of loans involving permits. Five cases or 7.1% were permits being used for collateral for vessel and/or gear purchases.

If one of the goals of the legislature, in allowing use of the permits as collateral for State commercial fishing loans, was to provide an avenue for under-collateralized persons to enter the fishery, how well has this goal been met? Table 14 summarizes data on the net worth of 66 loan recipients on whom sufficient data was available. Sixty-five percent of State loans involving permits have gone to individuals (including 3 cases of joint or corporate application) with net worth in excess of \$100,000; 26% have net worth in excess of \$200,000 and 16.7% have net worth greater than \$250,000. On the other end of the continuum, only 11% of loanees have net worth less than \$50,000 and only 4.5% less than \$30,000. This would seem to indicate that if one of the goals of the State is to reach the poorer, less collateralized person through its loan program, then it is probably not doing as much as it was expected to.

In terms of the residency categories developed earlier for examination of transfer trends, what has been the distribution of State loans for permit purchases? Table 15 reveals that 86% of all State loans have gone to urban residents. Urban locals have obtained 71% and urban nonlocals 15%. The most striking finding in this regard is the urban nonlocal purchases in the Bristol Bay drift gillnet fishery where State loans have aided in the purchase of eight permits. These are nearly all examples of diversification by predominantly nonlocal Alaskan gillnetters who are purchasing Bristol Bay permits in addition to permits held in other fisheries. The 14% of State loans going to rural residents is startlingly below their initial issuance level of 34% in the non-AYK fisheries.

In general, the State's loan program can be seen to reflect the basic transfer pattern trends by residency discussed earlier; however, a good case could be made that it has accentuated the trend of urban gain and rural decline in permit holdings among Alaskans to a limited extent. There is no data for determining what the impact of the State loan program on resident-nonresident percentages of

Table 14

Net Worth of Individuals
Obtaining State Commercial Fishing Loans
Involving Permits

By House District¹

House District	\$30,000 or less	\$30-50,000	\$50-100,000	\$100-150,000	\$150-200,000	\$200-250,000	Greater than \$250,000	Total
1	1	0	2	1	2	1	0	7
2	0	0	2	2	2	1	2	9
3	0	1	0	2	0	0	0	3
4	1	1	4	2	4	2	1	15
5	0	0	1	1	3	0	3	8
6	0	0	0	0	0	0	0	0
7-12	1	2	0	0	1	0	0	4
13	0	0	2	2	3	1	2	10
14	0	0	2	0	1	0	3	6
16	0	1	2	0	0	1	0	4
Total (%)	3 (4.5%)	5 (7.6%)	15 (22.7%)	10 (15.2%)	16 (24.2%)	6 (9.1%)	11 (16.7%)	66

¹ Of the 72 files examined, 66 had sufficient information for classification.

Table 15
Residency of Recipients
of
State Commercial Fishing Loans
For Permit Purchases by Fishery

Fishery	ARL	Residency		AUN
		AUL	ARN	
Southeast purse seine	0	3	0	0
Southeast drift gillnet	1	9	0	0
Statewide power troll	3	12	0	0
Yakutat set gillnet	0	0	0	0
Prince William Sound purse seine	0	5	0	0
Prince William Sound drift gillnet	0	2	0	1
Prince William Sound set gillnet	0	0	0	0
Cook Inlet purse seine	0	1	0	0
Cook Inlet drift gillnet	2	7	0	0
Cook Inlet set gillnet	0	0	0	0
Kodiak purse seine	0	4	0	1
Kodiak beach seine	0	1	0	0
Kodiak set gillnet	0	1	0	0
Chignik purse seine	0	0	0	0
Peninsula-Aleutians purse seine	0	0	0	0
Peninsula-Aleutians drift gillnet	0	0	0	0
Peninsula-Aleutians set gillnet	0	0	0	0
Bristol Bay drift gillnet	3	0	0	8
Bristol Bay set gillnet	0	0	0	0
NO STATE LOANS FOR AYK PERMITS				
Totals	9	46	0	10

permit holders has been, but this could be collected by tracking down the residency of persons from whom permits have been purchased using State loan funds. Some shift has occurred but there is no simple way of estimating how much. Obviously it has not been a major factor in resident-nonresident flow to this date.

Nor is it possible to make any precise statement about the geographic distribution among Alaskans of State loan recipients compared with the geographic distribution of Alaskan recipients of other types of financing since the CFED voluntary survey did not include this information. However, distribution of financing for permits to regional fisheries might provide a rough comparative index to apply to State and other sources of financing. Using this measure, permits in the three Southeast fisheries (purse seine, drift gillnet, power troll) make up 43.1% of State loans and are 31.7% of all other financed permit purchases. Comparative figures for the three Prince William Sound fisheries were 13.8% of State loans and 12.9% of all other sources of financing. The Cook Inlet regional fisheries received 15.4% of State loans for permit purchases while their rate from all other sources of financing was 14.8%. In Kodiak the figures are 10.8% of State loans, 6.6% from all other sources while in Bristol Bay the figures are 16.9% of State loans and 20.7% of all other financing. These figures indicate that for the most part State financing of permits by regional fisheries diverges from the pattern of other financing only in Southeast where State loans make up a substantially larger portion of financing than are made available from other sources, and in Bristol Bay where State loans make up a somewhat smaller portion of financing than are made available from other sources.

Is it possible that the low number of loans for permits and the relative distribution of loans for permits is related to State loan program requirements which result in an inordinately large number of refusals to applicants in general, or from certain regions seeking funds for permit purchases? Division personnel

verify financial information, tax returns (last three years), personal resume, and accident report. The data cited above on refusals refer only to applications that passed the hurdle of submitting all the above paperwork. It seems reasonable to assume that a good percentage of people who submit an application for a State loan never reach the point of having their application sent forward to the loan review committee for approval simply because they fail to secure some of the items listed above. It would be difficult to argue that State funds are equally accessible to all state residents since state residents are not equally able to comprehend let alone comply with the administrative requirements of the State loan program. The procedure is neither undecipherable nor excessively burdensome to those with educational skills to understand the application and with some experience with bank loans or loans from other financial institutions. However, without these skills and/or experiences, the State loan application becomes a significant obstacle to overcome. It would appear rural residents are least likely to have the skills necessary for completion of an application for a State loan.¹²

A second point related to the first has to do with dissemination of information about the State loan program for permit purchases and outreach capabilities of the Division to provide services to all Alaskans. At present the Division has five loan examiners stationed in Juneau, four in Anchorage, and one in Fairbanks. Anchorage personnel indicated they made trips to the regional centers (Kodiak, Dillingham, Bethel, etc.) on a demand basis when applications from those areas are received. It may be that a more extensive dissemination and outreach program in conjunction with further simplification of the application procedure could increase rural Alaskan use of the State loan program for permit purchases.

A third item from the State loan application which may have some differential impact on certain segments of the population is the loan costs item. At present

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Data on use of the State loan program in Districts 17, 18, 19, 21, and 22 show that residents of those rural areas are getting little benefit from the program. However, rural residents of Districts 15 and 16 make extensive use of the program for vessel purchases but virtually no use for permit purchases.

the applicant must pay for credit reports, title insurance, appraisals, surveys and other direct costs out of pocket. These expenses might be an additional deterrent to some applicants but no data were collected on what costs associated with these items normally amount to.

In regard to the question raised at the beginning of this discussion on State loan requirements, it would seem that the issue is not one of excessively restrictive financial-residential-experiential requirements but probably more a question of administrative requirements and the structural integration of the loan program with the characteristics of the potential applicant population. It is not a question of whether potential applicant can meet the requirements as they do not appear to be excessively burdensome. Rather, are potential applicants aware of the program, do they understand the application process, and are they able to get the information necessary to meet the Division's requirements? It would seem that the latter elements are more important in explaining the distribution of State loans for permit purchases to urban and rural fishermen than are the former.

In closing this discussion of the State loan program and its impact on entry into the limited salmon fisheries, one problem presently confronting Division personnel in implementing the commercial fishing loan program should be addressed. Presently the State loan program requires a person to be a resident of the State for five years preceding his application. Division personnel indicated that determination of residency presents a problem in approximately 20% of commercial fishing applications. One of the operating rules used by the Division to combat ambiguity surrounding this term if questions arise is to use a rule of permanent abode. In other words, has the applicant maintained a continuous permanent abode in the State during the past five years. Part of the Division's difficulty in residency determination stems from the wide variety of

definitions used within State government, none of which seem to suit their specific needs. For example, in the Division's view, the Department of Revenue has no significant stake in whether a person claim to be a resident or not so they generally accept whatever category (resident or nonresident) a person claims. This lack of precise consistent objective application of a standard makes Department of Revenue data on residency of little use to the Division of Business Loans. Although infrequent because applicants making dubious claims usually drop their applications when asked for additional evidence of residency, Division personnel stated that several persons who contested the State's denial of a loan on grounds of not meeting the residency requirement have been rebuffed.

The major source of financing available for permit purchases is the transferor. This fact alone means that permit purchases are regarded as shaky ventures at best by most traditional sources of financing. There is little information to go on with regard to the nature of permit purchases in which the transferor provides the financing. One major processing firm indicated that it had helped to draft contracts between permit sellers and permit buyers even though it was not financially involved in the transaction. The firm's spokesman indicated the transferors were willing to carry contracts after receiving downpayments of 25% to 35% of the purchases; however, he gave no indication if the contracts were secured by collateral or not. Hypothetically it would seem that transferors must act in general like other sources of private financing, i.e. require unsecured collateral to cover the value of the permit. On the other hand, because of the misunderstandings about what one can and cannot do legally with a permit with regard to leasing, mortgaging and foreclosing, and because it would seem probable that transferors finance permit transfers more readily for relatives, friend, and fishing acquaintances whose participative history and performance are well known to them, it is possible that many transferor financ-

ing arrangements are unsecured. This probably doesn't present a problem for purchases made on the upswing in fish prices and permit values of recent years but could become a problem in fisheries where permit purchase prices have exceeded the present earning power of the permit. A notable example of such a situation is the Cook Inlet drift gillnet fishery. It will be instructive to see how defaults in instances of transferor financing are handled should they begin to occur in this fishery.

IV. Socioeconomic Impacts of Transfer Patterns in the Limited Salmon Fisheries

This section considers what the impact of the transfer patterns discussed in Section II have been on various segments of the Alaskan population in terms of income from and employment in the limited salmon fisheries. A brief comment on the distribution of the rent from the fisheries, which is an important topic but not one addressed by this report, closes the section.

Income

In order to analyze income shifts due to transfer patterns, data on net earnings from limited salmon fisheries compiled by Dr. George Rogers and Jack Kreinheder for 1977 were taken from their preliminary report, "Socio-economic Data Base for Fishery Areas and Census Divisions." Table 16 presents a gross estimate of the net value of each limited salmon fishery for which data was available. Table 17, using figures from Tables 8 and 16, estimate the loss or gain of net earnings to various residency groupings using net earnings from 1977 and permit totals from 1979.¹³

The most important socioeconomic impacts are those dealing with the distribution of net earnings by residency category. First, how have the distribution of net earnings between residents and nonresidents been impacted by transfer patterns? Tables 7 and 8 indicate that nonresidents held 28.1% of permits initially issued in the non-AYK fisheries and have lost 23 or 1% of those permits since that time. Based on the proportion of permits initially issued to nonresidents, their share of net earnings in the non-AYK fisheries

¹³Obviously, net earnings from most Alaskan fisheries fluctuate widely from year to year. The most important change in Table 17 if net earnings from 1979 were available would be in the Southeast purse seine fishery where net earnings would drop significantly and in the Bristol Bay drift gillnet fishery where net earnings would rise significantly. These two would likely offset each other so that the overall picture of gains and losses by residents, nonresidents, Alaskan urban and Alaskan rural fishermen would probably be fairly close to the totals presented in Table 17.

Table 16
 Net Value
 of
 Limited Entry Salmon Fisheries
 in
 1977¹

Fishery	Number of Permits (A) ² in 1977 (Permanent & Interim)	Average Net Earnings (B)	(A) X (B) = (C) Total Net Value of Fishery
Southeast purse seine	412	56,560	(371) 20,983,760
Southeast drift gillnet	473	14,340	(426) 6,108,840
Statewide power troll	976	1,834	(878) 1,610,252
Yakutat set gillnet	158	624	(142) 88,608
Prince William Sound purse seine	273	17,147	(246) 4,218,162
Prince William Sound drift gillnet	531	8,433	(478) 4,030,974
Prince William Sound set gillnet	29	n/a	(26) n/a
Cook Inlet purse seine	82	24,500	(74) 1,813,000
Cook Inlet drift gillnet	574	9,029	(517) 4,667,993
Cook Inlet set gillnet	731	3,545	(658) 2,332,610
Kodiak purse seine	376	29,627	(338) 10,013,926
Kodiak beach seine	n/a	n/a	n/a
Kodiak set gillnet	185	14,905	(166) 2,474,230
Chignik purse seine	91	161,682	(82) 13,257,924
Peninsula-Aleutians purse seine	113	20,408	(102) 2,081,616
Peninsula-Aleutians drift gillnet	154	10,400	(139) 1,445,600
Peninsula-Aleutians set gillnet	108	4,758	(97) 461,526
Bristol Bay drift gillnet	1722	10,071	(1550) 15,610,050
Bristol Bay set gillnet	835	869	(751) 652,619

NO DATA AVAILABLE ON AYK FISHERIES

Total 91,851,690

¹

Source: Rogers and Kreinheder (1979)

²

A random sample of 150 Bristol Bay drift gillnet permanent permit holders and 110 Bristol Bay set gillnet permanent permit holders revealed that approximately 10% of permit holders in these fisheries made no landings in 1975, 1976 and 1977. Using this gross and admittedly problematic figure, the permanent permit figure has been reduced by 10% for each fishery in order to control for the factor of permit non-use.

in 1977 would have been 30.5%. Despite the nonresident decline in permits since initial issue due to transfers, their overall share of net earnings has increased to 31.5% of the \$91,851,690 figure presented in Table 16. The \$725,329 net gain shown in Table 17 represents a 2.6% increase in nonresident net earnings. As discussed earlier in this report, the explanation for the fact that even though nonresident permit holdings have declined, nonresident net earnings have increased is because nonresident permit holdings have declined in the power troll and set gillnet fisheries where net earnings are comparatively low and have increased in the purse seine and drift gillnet fisheries where net earnings are comparatively high. It is especially noteworthy that nonresident permit gains in the Southeast purse seine fishery and the Bristol Bay drift gillnet fishery account for 87% of nonresident gains.

How have transfer patterns in permit holdings by various classes of Alaskan residents affected income distribution to those residency classes? Tables 7 and 8 indicate that in the non-AYK rural fisheries rural residents were issued 34% of initial permanent permits and urban residents were issued 37.9%. The rural loss of 115 permits in non-AYK fisheries represents a 6.9% decrease while the urban gain of 132 permits represents a 4.4% increase. With their initial proportion of permits, Alaska's rural residents would have garnered 29.1% of net earnings and urban residents 40.4%. The net earnings decline of \$2,051,904 resulting from transfers by rural residents found in Table 17 represents a drop of 7.7%, and the net earnings increase of \$1,326,575 resulting from transfers to urban residents represents an increase of 3.6%. Losses in the Southeast purse seine and Bristol Bay drift gillnet account for 88% of the rural decline. Urban gains are much more evenly distributed with the Chignik, Kodiak and Southeast purse seine fisheries plus the Bristol Bay drift gillnet fishery accounting for 57% of urban gains.

Table 17

Gains and Losses in Net Earnings,
By Fishery and Residency for 1979¹

Fishery	ARL	AUL	Residency Categories			
			ARN	AUN	NR	
Southeast purse seine	-1,518,750	+56,253	-	+168,750	+1,293,750	
Southeast drift gillnet	+71,700	+200,760	+14,340	-28,680	-258,120	
Statewide power troll	-7,336	+121,044	-3,668	-1,834	-108,206	
Yakutat set gillnet	+1,872	-	+624	-1,248	-1,248	
Prince William Sound purse seine	-51,441	-154,323	+34,294	+51,441	+120,029	
Prince William Sound drift gillnet	-25,299	-101,196	+25,299	+118,062	-16,866	
Prince William Sound set gillnet	n/a	n/a	n/a	n/a	n/a	
Cook Inlet purse seine	+24,500	-49,000	-	-	+24,500	
Cook Inlet drift gillnet	+126,406	-81,261	-	-45,145	-	
Cook Inlet set gillnet	+14,180	+28,360	-3,545	-21,270	-17,725	
Kodiak purse seine	+29,627	+207,389	-59,254	+88,881	-266,643	
Kodiak beach seine	n/a	n/a	n/a	n/a	n/a	
Kodiak set gillnet	-59,620	+253,385	-44,715	-44,715	-104,335	
Peninsula-Aleutians purse seine	-20,408	-	-	-	+20,408	
Peninsula-Aleutians drift gillnet	-72,800	-	+10,400	-	+62,400	
Peninsula-Aleutians set gillnet	-	-	-	-	-	
Chignik purse seine	-	+161,682	-	+161,682	-323,364	
Bristol Bay drift gillnet	-433,053	-	-70,497	+211,491	+292,059	
Bristol Bay set gillnet	-39,974	-	+5,214	+26,070	+8,690	
NO DATA AVAILABLE ON AYK FISHERIES						
Totals	Gain	+268,285	+1,028,870	+90,171	+826,377	+1,821,836
	Loss	-2,228,681	-385,780	-181,679	-142,892	-1,096,507
	Net	-1,960,396	+643,090	-91,508	+683,485	+725,329

¹

Based on 1977 data from Rogers and Kreinheder (1979).

Employment

Most of Alaska's limited salmon fisheries require several persons to operate the gear effectively in addition to the permit holder or operator. Some portion of the net (or gross in some fisheries) earnings discussed above are distributed to the other persons employed. These earnings are commonly termed labor costs. Table 18, derived from data compiled by Rogers and Kreinheder, provides an estimate of the proportion of the gross earnings which labor costs represent in the various limited fisheries. Another way to think about labor costs is as jobs, part-time and seasonal for the most part, but nevertheless representing a certain number of income earning opportunities in each fishery. Each fishery varies in the number of persons required to effectively manage the gear, yet it is also true that there is a modal or typical crew for each fishery as well. Crew sizes for purse seining tend to be largest (as the labor costs in Table 18 indicate) with six being the standard crew size (including permit holder/operator) in Southeast and four in the other areas. Most of the drift gillnet fisheries are considered two-person operations (with the exception of Prince William Sound) as is the power troll fishery. The set gillnet fisheries, based on comparative figures from Table 18, also appear to involve two persons in most areas.

The importance of transfer patterns for crew employment stems from the question of who gets the crew positions when a permit is transferred. Just as permit holders tend to transfer permits to relatives, friends, and members of the same or similar communities, so do permit holders tend to hire relatives, friends, and persons they are in contact with frequently. If permit transfers sustain the continuity of residency distribution, then it follows that crew employment ~~patterns~~ will more than likely also be sustained. However, if there are substantial modifications in permit distribution then crew employment

Table 18
Rank Order
of
Limited Entry Salmon Fisheries
On Various Measures, 1975-1977

<u>Fishery</u>	<u>Average Gross Earnings</u>	<u>(Rank)</u>	<u>Average Net¹ Earnings</u>	<u>(Rank)</u>	<u>Percent Nonresident</u>	<u>(Rank)</u>	<u>Labor Costs as % of Gross</u>
Chignik purse seine	94,856	(1)	70,593	(1)	21.1%	(11)	42.3%
Southeast purse seine	48,714	(2)	26,750	(2)	55.1%	(1)	49.8%
Kodiak purse seine	39,151	(3)	71,982	(3)	25.9%	(6)	42.8%
Peninsula-Aleutians purse seine	31,343	(4)	17,424	(4)	12.8%	(14)	34.2%
Prince William Sound purse seine	29,999	(5)	12,161	(6)	24%	(8)	29%
Cook Inlet purse seine	27,980	(6)	13,491	(5)	1.3%	(18)	50.6%
Southeast drift gillnet	19,296	(7)	8,303	(7)	29.9%	(5)	17.7%
Peninsula-Aleutians drift gillnet	18,836	(8)	6,850	(11)	32.1%	(4)	23.4%
Cook Inlet drift gillnet	17,882	(9)	6,026	(12)	33%	(3)	19%
Prince William Sound drift gillnet	16,650	(10)	6,884	(10)	25.4%	(7)	2.4%
Bristol Bay drift gillnet	14,577	(11)	7,081	(8)	44.1%	(2)	31.7%
Kodiak set gillnet	14,120	(12)	6,979	(9)	22.7%	(10)	55.6%
Kodiak beach seine	12,328	(13)	No Data		12.1%	(15)	No Data
Statewide power troll	11,318	(14)	-449	(16)	23.2%	(9)	33.7%
Yakutat set gillnet	10,157	(15)	-1961	(17)	9.6%	(16)	25%
Cook Inlet set gillnet	9,963	(16)	-141	(15)	6.6%	(17)	42.8%
Peninsula-Aleutians set gillnet	8,709	(17)	1,851	(13)	0	(21)	38.5%
Kotzebue gillnet	4,291	(18)	No Data		0	(21)	No Data
Bristol Bay set gillnet	4,093	(19)	38	(14)	17.4%	(13)	21.6%
Lower Yukon gillnet	3,724	(20)	No Data		.3%	(20)	No Data
Kuskokwim gillnet	2,775	(21)	No Data		0	(21)	No Data
Upper Yukon fishwheel	2,536	(22)	No Data		0	(21)	No Data
Norton Sound gillnet	2,324	(23)	No Data		.6%	(19)	No Data
Upper Yukon gillnet	1,702	(24)	No Data		0	(21)	No Data
Prince William Sound set gillnet	No Data		No Data		0	(21)	No Data

¹
Source: Rogers and Kreinheder (1979)

will more than likely reflect the new distribution. In fact there is a multiplier effect on crew employment if permit transfers deviate from their initial distribution; the multiplier is different for each fishery and is a function of 1) the average crew size in a given fishery, and 2) the proportion of crewmen from different residency classes who fish with permit holders from different residency classes. An example will help explain this pattern. In the Southeast purse seine fishery, six is the normal crew size. Let us suppose that of the five crewmen needed in addition to the captain (permit holder), four are usually drawn from the same residency cohort as the captain. Now taking the example into the real world, Table 8 indicates that Alaskan rural permit holders have declined by 27 in the Southeast purse seine fishery since 1975, and nonresident permit holders have increased their holdings by 23 permits. Using the multiplier of 4 mentioned above, Alaskan rural locals have lost 108 crew positions (in addition to the 27 captain positions represented by the permits) while nonresidents have gained 92 crew positions.

The previous example, although hypothetical, is based on research experience in the Southeast purse seine fishery and is fairly realistic. Unfortunately, data on the demographic characteristics of crewmen are unavailable for the various fisheries so that attempts to estimate the overall impact of permit transfers on employment would be highly speculative. It is also likely that multiplier figures are highly variable from fishery to fishery which further complicates attempts at estimating the employment impacts of permit transfer patterns.

Economic Rent

Economic rent is a rate of return over and above the rate of return that could be expected if the fishery were open to free entry. Generally, this is measured by revenues minus costs, where costs include a "normal rate of

return" (a rate of return that could be earned by investing capital in the best alternative endeavor.) Suppose a fisherman whose assets were \$50,000 had revenues of \$20,000 and out-of-pocket expenses (including his own wages) of \$10,000. If a normal rate of return were 10%, the fisherman would extract economic rent of \$5,000. This rent occurs as a result of the limitation on entry.

In briefest and simplest terms, the economic rent from the limited salmon fishery is this higher level of profit. This higher level of profit is capitalized into the value of the permit. In general, the major beneficiaries of the limited entry program have been those who initially received permits. The value of the permit embodies all these future economic profits. When the permit is traded, the initial holder of the permit retains these profits, whereas the purchaser of the permit has paid for this capitalized profit. If the fishery were not stable and expectations of the future profitability of the fishery increased, the value of the permit would increase. If the permits were purchased and resold, the interim owners would retain a portion of the rents. Thus, it is not only the initial conferees that reap the economic rents, but in an expanding fishery secondary permit holders also receive part of the rents.

From a public policy standpoint, there are many different ways of instituting limited entry, each of which has implications as to the disposition of the rent. Complete transferability would leave the rents with the initial and subsequent holders. Another institutional form could return significant portions of the rent to the public. Other alternatives, each with different implications about the location of the rent are possible. These issues and alternatives are vitally important and must be given open and direct consideration by the legislature if the entire rent from the Alaskan limited salmon fisheries is not to be conferred on any particular group by default.