

**2002 SURVEY OF BRISTOL BAY SALMON DRIFT
GILLNET FISHERY PERMIT HOLDERS:
PRELIMINARY SUMMARY OF RESPONSES**

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2002 SURVEY OF BRISTOL BAY SALMON DRIFT GILLNET FISHERY PERMIT HOLDERS: PRELIMINARY SUMMARY OF RESPONSES

INTRODUCTION

The Commercial Fisheries Entry Commission (CFEC or Commission) conducted a survey of permit holders in the Bristol Bay salmon drift gillnet fishery in 2002. The purpose of the survey was to collect data needed to determine an optimum number of permits for the fishery. By law, an optimum number determination is required before the state can consider establishing a voluntary buy-back program to reduce the size of the fishing fleet.¹

Because of the large number of permanent permits currently in the Bristol Bay salmon drift gillnet fishery (1,865 permanent entry permits in 2001), interviewing a sufficient portion of permit holders would have been prohibitively costly and time intensive. Instead, a sample of one in four current permit holders was randomly drawn and surveyed by mail using a printed questionnaire. Surveys were mailed to the sample of 440 permit holders on April 18, 2002. In an effort to minimize nonresponse, those who did not respond were contacted up to three additional times through mailings and/or by telephone. At this time, 310 surveys have been completed and returned, for an overall response rate of 70.5%.²

The Commission anticipated that information gathered through the course of this study would be useful to permit holders and to the state in making decisions about the future of the Bristol Bay salmon drift gillnet fishery. This report offers a preliminary summary of

¹ See AS 16.43.290.

² For more information on the sample selection, survey methodology, and procedures, see *2002 Survey of Bristol Bay Salmon Drift Gillnet Permit Holders: A Review of Survey Methodology and Implementation Procedures*, CFEC Report 02-5N.

data obtained from survey respondents. The survey data also will be used by the Commission in the optimum number study, expected to be complete in 2003.

SURVEY RESPONSE

The response rate to CFEC's 2002 survey of Bristol Bay salmon drift gillnet permit holders is currently 70.5% overall, but a view of respondents by resident type shows a considerable variation in response rates across four resident type categories. The four resident types, which will be referenced throughout this report, are as follows³:

- Alaska local rural: *Alaska* residents of *rural* communities that are *local* to the Bristol Bay salmon fishery (all communities local to this fishery are designated as rural)
- Alaska nonlocal rural: *Alaska* residents of *rural* communities that are *not local* to the fishery
- Alaska nonlocal urban: *Alaska* residents of *urban* communities that are *not local* to the fishery
- Nonresident: *Nonresidents* of Alaska

Nonresident permit holders in the sample responded to the survey at the highest rate, 78.6%. Alaska nonlocal rural permit holders closely followed with a response rate of 76.7%. Alaska nonlocal urban permit holders responded at a rate of 60.3% and Alaska local rural permit holders responded at a rate of 58.3%. Table 1 shows each resident

³ A permit holder was classified as a nonresident if their permanent mailing address was out of state, even if they paid in-state resident fees at the time of permit renewal. Alaska residents are broken out into rural and urban dwellers; and into those who are local to Bristol Bay and those who are nonlocal to Bristol Bay. 1990 US census population data were used to identify Alaskan communities as either rural or urban (2000 data were not yet available). Urban includes all towns with population of 2,500 or more, and those towns that are on a road system and are in close proximity to urban centers. Local includes all communities in the Bristol Bay area, which extends inland up the Nushagak River and includes the Tikchik Lake system, Lake Iliamna, and Lake Clark.

type and the respective percentages of the population, the sample, and the survey respondents. The last column shows the survey response rate within each resident type.

Table 1. Population, survey sample, and survey response by resident type for the 2002 survey of Bristol Bay salmon drift gillnet permit holders

Resident type	Population ⁴	% of Population	Survey Sample	% of Sample	Survey Respondents	% of Respondents	Response Rate by Resident Type
Alaska residents by type:							
Alaska local rural	427	24.3%	103	23.4%	60	19.4%	58.3%
Alaska nonlocal rural	123	7.0%	30	6.8%	23	7.4%	76.7%
Alaska nonlocal urban	325	18.5%	78	17.7%	47	15.2%	60.3%
All Alaska resident types	875	49.8%	211	48.0%	130	41.9%	61.6%
Nonresidents	882	50.2%	229	52.0%	180	58.1%	78.6%
Total	1,757	100%	440	100%	310	100%	70.5%

Note: Residency may have changed for some permit holders after the population and sample were first selected. The information provided here is a summary of the population and sample using the residency determined prior to the survey mailing.

A comparison of the percent of population and percent of sample in Table 1 shows that each resident type was sampled at a rate within 2% of their make-up in the population. For example, Alaska local rural permit holders represent 24.3% of the population; the randomly drawn survey sample was 23.4% Alaska local rural. A differential response rate by resident type, however, resulted in as much as a 7.9% difference in the make-up of the respondents in comparison to the population. With a low response rate from

⁴ Throughout this report, the term “population” refers to the time-specific sampling frame from which the sample was selected. The sampling frame included all year-end 2001 Bristol Bay salmon drift gillnet permit holders with the exception of the following: permits held by estates; permits held by persons who transferred their permit away between January 1, 2002 and March 27, 2002; permits held by persons who did not fish their permit in any of the years 1999-2001, *and* had not fished any other Bristol Bay salmon drift gillnet permit in the past; and permits held by the Commercial Fishing and Agriculture Bank or the Department of Community and Economic Development.

Alaska local rural residents (58.3%), relative to the other resident types, the extent to which they are represented in survey responses is 4.9% less than their make-up in the population (percent of respondents minus percent of population). Conversely, nonresidents and Alaska nonlocal rural permit holders are represented at a higher rate in survey responses than they are in the population.

While the overall response rate is good for a survey of this length and complexity, the reader should be cautioned about extrapolating directly from the sample to the population given the significant number of nonrespondents. Because of the considerable number of nonrespondents and the differential response rate by resident type, there is the possibility of some nonresponse bias.⁵ For this preliminary summary, the total sample response is presented for most questions. Responses are shown by resident type provided for many questions. In addition, item non-response (number of blanks) is shown for each question.

The survey mailed to all 440 members of the sample was a 20-page booklet, containing sixteen pages of questions. The survey included questions regarding the following:

- Current condition of the fishery and of the permit holder's fishing operation
- Intensity and congestion in the fishery
- Costs, crew, and vessel information and earnings in the permit holder's most recent year in the fishery
- Costs and crew information and earnings in an earlier year of the permit holder's operation
- Future of the fishery and outlook for the permit holder's fishing operation

⁵ Some comparisons against ancillary data suggest that the respondents are reasonably representative within Alaska local rural and nonresident resident types. Comparisons with CFEC's 2001 ancillary estimates of pounds landed for persons in the sample showed that those who did not respond to the survey appeared to have slightly lower pounds landed (less than 1%), on average, than did respondents within the Alaska local rural and nonresident resident types. Alaska nonlocal rural respondents and Alaska nonlocal urban respondents showed a more significant difference from nonrespondents in average number of pounds landed per respondent. For these resident types the average number of pounds landed per respondent was 42.3% and 27.1% higher, respectively, than the average per nonrespondent. Across all resident types, the average number of pounds landed per respondent was 14.5% higher than the average number of pounds landed per nonrespondent (differences are expressed as percentage of average pounds landed per respondent).

This report provides a preliminary summary of survey results. Where responses are expressed as percentages by answer category, note that percentages may not always sum to exactly 100% due to rounding.

CURRENT CONDITION OF THE FISHERY

The first section of the survey asked permit holders to summarize their experience in recent years of the fishery, starting with the profitability of their Bristol Bay salmon drift gillnet fishing operation in the most recent year they participated. Since the average gross earnings in the fishery have varied dramatically from year to year and the first questions are specific to the most recent year the respondent fished, only responses from permit holders with the same most recent year of participation are compared. In this report, permit holders who reported participation in the 2001 Bristol Bay salmon drift gillnet fishery on the survey are included in the presentation of responses for the first two survey questions. Two hundred fifty respondents reportedly fished in 2001.

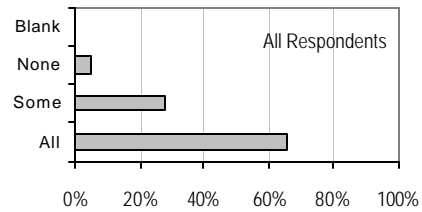
Impact of Recent Economic Decline on Fishing Operations

Results reveal that while a majority of permit holders were able to pay all of their basic operating expenses (66%) and crew (81%) with earnings from the fishery in 2001, few were able to earn a return on their investments in the fishery, pay themselves for the time they spent in the fishery, or make enough to set aside money for future investments in the fishery. In addition, only 28% of the respondents who acknowledged having permit or vessel loans were able to make complete payments on their loan(s) with fishery earnings.⁶ Responses by resident type are displayed in the tables that follow. Graphs accompanying each table show responses across all resident types.

⁶ Respondents were instructed to leave the question regarding loan payments blank if they did not have a loan. Therefore, the number of nonblank responses (148) was assumed to be the number of permit holders with loans for this calculation.

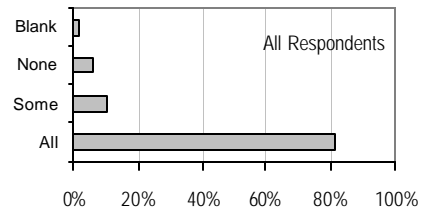
I was able to pay my operating costs (gear, fuel, food, insurance, etc.):

	All	Some	None	Blank
Local Rural	61.4%	31.8%	2.3%	4.5%
Nonlocal Rural	58.3%	41.7%	0.0%	0.0%
Nonlocal Urban	50.0%	42.5%	7.5%	0.0%
Nonresident	72.1%	22.1%	5.8%	0.0%
Grand Total	66.0%	28.0%	5.2%	0.8%



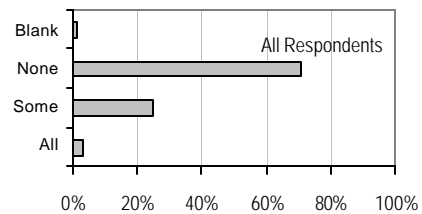
I was able to pay my crew the amount I owed to them:

	All	Some	None	Blank
Local Rural	61.4%	27.3%	9.1%	2.3%
Nonlocal Rural	66.7%	16.7%	8.3%	8.3%
Nonlocal Urban	82.5%	2.5%	7.5%	7.5%
Nonresident	87.7%	7.1%	5.2%	0.0%
Grand Total	81.2%	10.4%	6.4%	2.0%



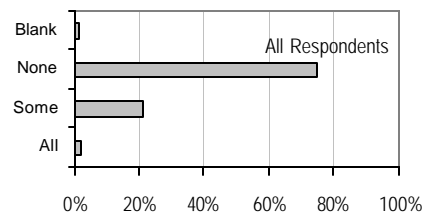
I made enough to earn a fair return on my investments in the fishery:

	All	Some	None	Blank
Local Rural	2.3%	31.8%	61.4%	4.5%
Nonlocal Rural	0.0%	25.0%	75.0%	0.0%
Nonlocal Urban	2.5%	15.0%	80.0%	2.5%
Nonresident	2.6%	19.5%	77.3%	0.6%
Grand Total	2.4%	21.2%	74.8%	1.6%



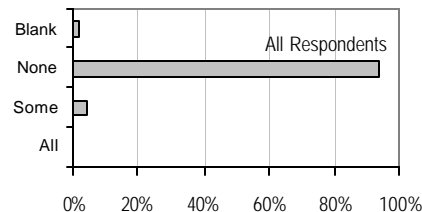
I made enough to pay myself a fair amount for the time I spent in the fishery:

	All	Some	None	Blank
Local Rural	0.0%	40.9%	54.5%	4.5%
Nonlocal Rural	8.3%	16.7%	75.0%	0.0%
Nonlocal Urban	0.0%	15.0%	82.5%	2.5%
Nonresident	4.5%	24.0%	71.4%	0.0%
Grand Total	3.2%	25.2%	70.4%	1.2%



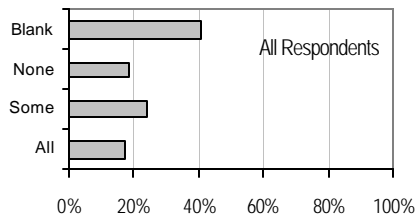
I made enough to set aside money needed for future vessel or equipment upgrades:

	All	Some	None	Blank
Local Rural	2.3%	2.3%	90.9%	4.5%
Nonlocal Rural	0.0%	8.3%	91.7%	0.0%
Nonlocal Urban	0.0%	2.5%	95.0%	2.5%
Nonresident	0.6%	4.5%	94.2%	0.6%
Grand Total	0.8%	4.0%	93.6%	1.6%

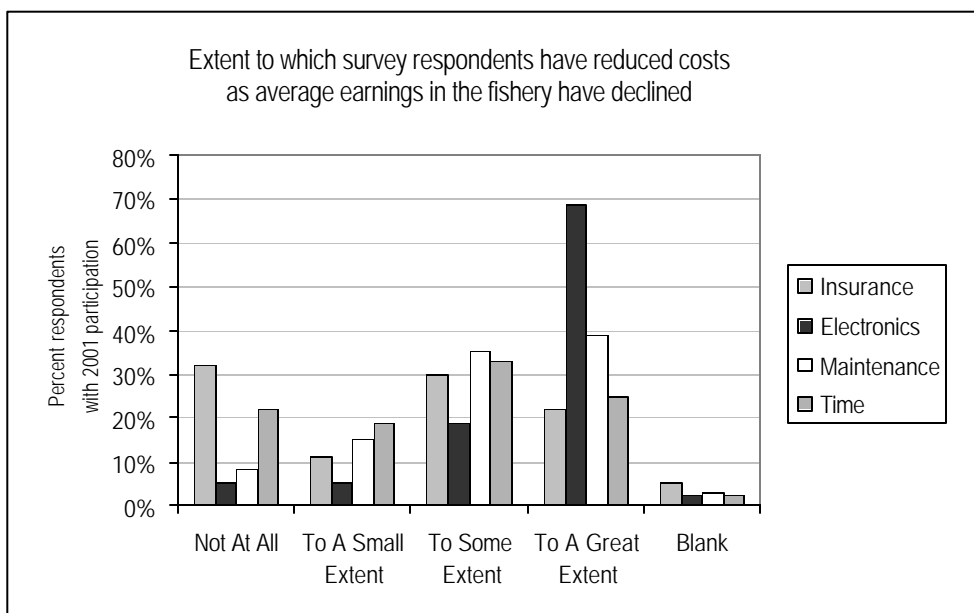


I was able to make my permit and/or vessel loan payments (permit holders were instructed to leave this question blank if they did not have loans):

	All	Some	None	Blank
Local Rural	22.7%	18.2%	20.5%	38.6%
Nonlocal Rural	8.3%	25.0%	33.3%	33.3%
Nonlocal Urban	25.0%	20.0%	22.5%	32.5%
Nonresident	13.6%	26.0%	16.2%	44.2%
Grand Total	16.8%	23.6%	18.8%	40.8%



The second question of the survey asked permit holders what steps they have taken to reduce costs as the average earnings in the fishery have declined. Again, only the 250 respondents who reported participation in the 2001 Bristol Bay salmon drift gillnet fishery are included in the presentation of responses for this question. Seventy-five percent of the 250 respondents who reported to have fished in 2001 have reduced the amount of time they spend in the fishery. Sixty-seven percent indicated they have reduced their insurance coverage, and 91% have reduced or postponed maintenance on vessels, gear, or equipment. The chart and tables below shows the extent to which respondents reduced their expenditures in 2001.



I have reduced my insurance coverage:

	Not At All	A Small Extent	To Some Extent	To A Great Extent	Blank
Local Rural	36.4%	4.5%	27.3%	25.0%	6.8%
Nonlocal Rural	50.0%	0.0%	33.3%	16.7%	0.0%
Nonlocal Urban	20.0%	7.5%	37.5%	32.5%	2.5%
Nonresident	31.2%	15.6%	31.2%	21.4%	0.6%
Grand Total	31.2%	11.6%	31.6%	23.6%	2.0%

I have reduced spending on new electronics and equipment:

	Not At All	A Small Extent	To Some Extent	To A Great Extent	Blank
Local Rural	11.4%	0.0%	22.7%	63.6%	2.3%
Nonlocal Rural	0.0%	16.7%	33.3%	50.0%	0.0%
Nonlocal Urban	0.0%	0.0%	15.0%	82.5%	2.5%
Nonresident	1.9%	5.2%	17.5%	75.3%	0.0%
Grand Total	3.2%	4.0%	18.8%	73.2%	0.8%

I have reduced/postponed maintenance on my vessel, gear, or electronics:

	Not At All	A Small Extent	To Some Extent	To A Great Extent	Blank
Local Rural	11.4%	9.1%	36.4%	40.9%	2.3%
Nonlocal Rural	0.0%	25.0%	50.0%	25.0%	0.0%
Nonlocal Urban	5.0%	5.0%	42.5%	45.0%	2.5%
Nonresident	7.8%	15.6%	33.8%	41.6%	1.3%
Grand Total	7.6%	13.2%	36.4%	41.2%	1.6%

I have reduced the time I spend at the fishery:

	Not At All	A Small Extent	To Some Extent	To A Great Extent	Blank
Local Rural	15.9%	22.7%	34.1%	25.0%	2.3%
Nonlocal Rural	33.3%	8.3%	41.7%	16.7%	0.0%
Nonlocal Urban	17.5%	12.5%	40.0%	30.0%	0.0%
Nonresident	27.9%	19.5%	33.1%	19.5%	0.0%
Grand Total	24.4%	18.4%	34.8%	22.0%	0.4%

Possible Causes for the Economic Decline in the Fishery

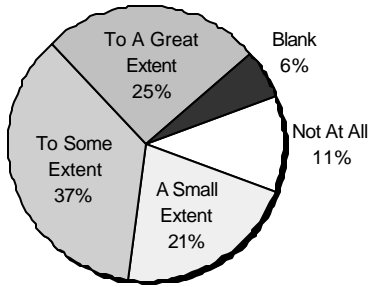
The third and final question in the first section of the survey asked permit holders what they believe has led to the recent economic decline in the fishery. Response categories ranged from “not at all” to “to a great extent”. For these questions, all 310 respondents are included in the summary of responses, irrespective of their most recent year of participation.

Of the list of possible causes for the decline, the growth in production of farmed salmon received the highest percentage (87%) of respondents selecting “to a great extent”. Second to farmed salmon, 52% of respondents felt that the number of permits in the fishery has, “to a great extent”, led to the decline. Interception fisheries and inadequate marketing efforts closely follow.

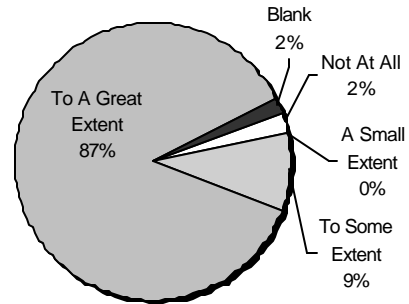
In contrast, 54% of respondents felt that fishery management either has “not at all” negatively impacted the economics of the fishery, or has only contributed to the decline “to a small extent”. Thirty-eight percent of respondents felt that harvester-processor relations were “not at all” or “to a small extent” responsible for the economic decline. Responses to each of the eight issue categories included in the survey are summarized on the following charts.

Views of survey respondents on the extent to which various issues have led to the recent economic decline of the Bristol Bay salmon drift gillnet fishery

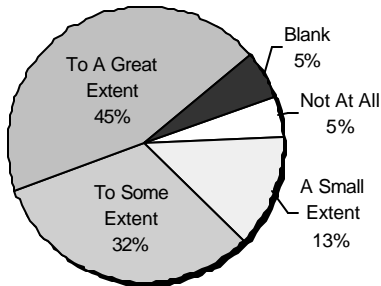
Changes in Consumers' Preference



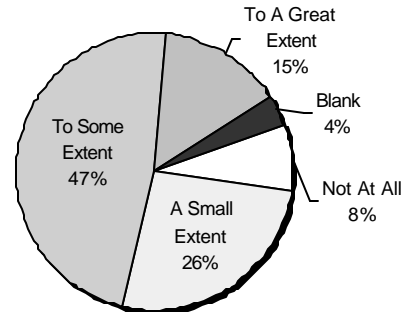
Growth of Farmed Salmon Production



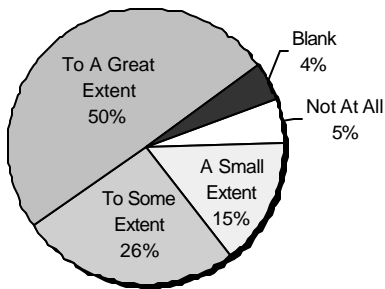
Inadequate Marketing Efforts



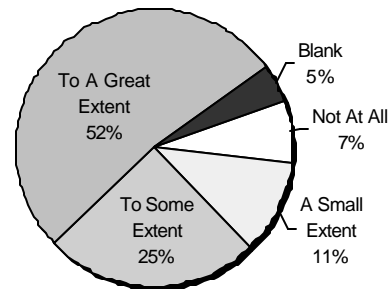
Natural Cycles in Run Size



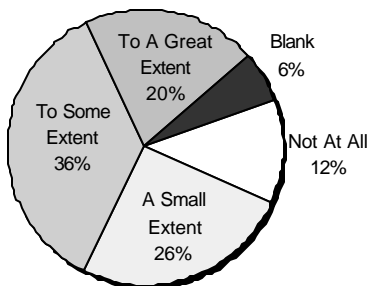
Interceptions Fisheries



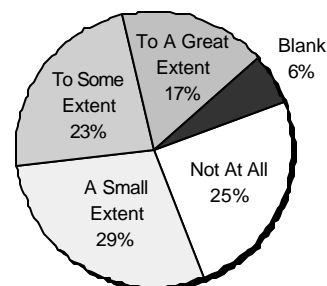
Number of Permit Holders in the Fishery



Harvester-Processor Relations



Fishery Management



Congestion in the Fishery

In the second section of the survey, permit holders were asked to share their experience with collisions or damage to equipment due to congestion in the Bristol Bay salmon drift gillnet fishery. They were also asked if they felt that reducing the number of permits in the fishery would reduce the amount of congestion. These questions were asked because of the concern in the optimum number standards for harvesting in an “orderly, efficient manner” and the fishery’s reputation for intensely crowded and aggressive openings in some areas.⁷ The questions with their answer categories and responses are presented below. All 310 respondents are included in the results.

How often have you experienced damage to your fishing gear or equipment as a result of congestion in the Bristol Bay salmon drift gillnet fishery?

	<u>Percent of Respondents</u>
Never	2.3%
Once	4.5%
Every Few Years	19.7%
Nearly Every Year	38.4%
Multiple Times Per Year	34.8%
No Response (blank)	0.3%

Do you think reducing the number of boats would reduce the amount of congestion in the fishery?

	<u>Percent of Respondents</u>
Yes	86.5%
No	5.5%
Uncertain	7.7%
No Response (blank)	0.3%

⁷ See AS 16.43.290(2).

FUTURE OF THE FISHERY

Permit holders were asked questions related to the future of the fishery and of their fishing operation. They were asked to think about their plans for the future and views about buy-back programs. In addition, they were asked if they would be willing to sell their permit in a buy-back program, and if so, what amount would they provide as an offer to sell if offers were being solicited. All 310 respondents are included in the results discussed in this section.

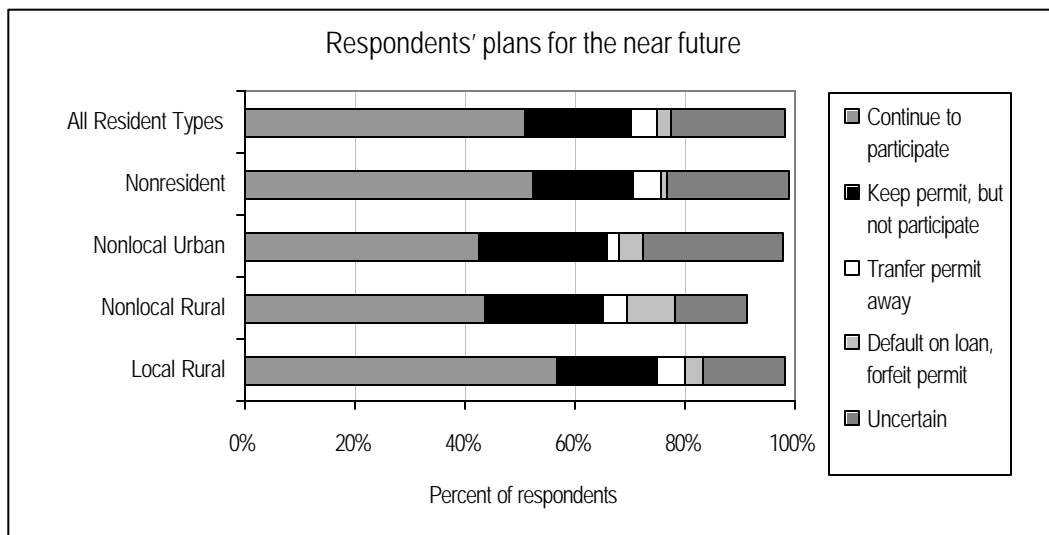
Outlook on Future Prices

The first question related to the future of the fishery asked permit holders if they felt salmon prices will on average be higher, lower, or about the same as prices in 2001. Twenty-nine percent of all respondents felt future prices would be, on average, higher or much higher than in 2001. Thirty-six percent felt they would be about the same, and 23% of respondents felt future prices would be lower. Ten percent had no opinion, and 2% left the question blank. Alaskan respondents were generally more pessimistic than nonresidents in response to this question. Thirty-seven percent of Alaskan respondents local to the fishery and 33% percent of all Alaskan respondents felt future salmon prices would be lower than in 2001, while only 16% of nonresidents felt prices would be lower.

Permit Holders' Plans for the Near Future

Permit holders were asked to choose one of four scenarios to describe their near future plans in the fishery, given their experience in the fishery and their outlook on the fishery. Fifty-one percent of respondents indicated they would continue to participate in the fishery. Nineteen percent of respondents are planning to keep their permit, but not participate until the economics of the fishery improve. Five percent are planning to permanently transfer their permit away, and exit the fishery. Only 3% felt that they would default on their permit and/or vessel loan and forfeit their permit to the lender. Twenty-one percent were uncertain, and 2% left the question blank. Alaska nonlocal

urban respondents and nonresident respondents accounted for most of the uncertainty, 26% and 22% respectively. Fifty-seven percent of Alaskan respondents local to the fishery and 52% of nonresident respondents indicated they plan to continue to participate in the fishery. Only 43% of all Alaskan respondents who are not local to the fishery reported that they plan to continue participating in the near future. Responses are displayed on the following graph. Note that the balance not shown on the graph is the portion of survey respondents who left this question blank.



Permit Buy-Back Programs

Alaska's limited entry law has a provision for a fisherman-funded buy-back program. Should the optimum number study conclude that the optimum number is less than the number of permits outstanding in the fishery, a buyback program would be one option for reducing the number of permits in the fishery. The survey asked several questions on buy-back to ascertain permit holder interest in buy-back options and to obtain data to make rudimentary estimates on what a buyback program might cost.

Permit holders were asked how they feel about a buy-back program to reduce the number of entry permits in the Bristol Bay salmon drift gillnet fishery, if permit holders were taxed a percentage of their earnings from the fishery to fund the buy-back program. The

buy-back program described on the questionnaire was for permits only, so did not include vessels. Answer categories ranged from strongly opposed to strongly favorable. Twenty percent of all respondents were strongly opposed to the fisherman funded buy-back program, and 9% were somewhat opposed. Sixty percent of respondents either somewhat favored (25%) or strongly favored (35%) the program. Eight percent expressed no opinion, and 3% left the question blank. Note that specifics of the program were not provided and some persons indicated they would need to know more about the program before they could answer.

In comparison, 81% of all respondents somewhat (16%) or strongly (65%) favored a buy-back program if funded by an alternative funding source, and not by fishermen. Results to both buy-back program questions are displayed on the following table by resident type and by funding source.

Buy-back program funded by fishermen:

	Strongly Opposed	Somewhat Opposed	Somewhat Favorable	Strongly Favorable	No Opinion	Blank
Local Rural	23%	2%	27%	28%	15%	5%
Nonlocal Rural	26%	13%	26%	13%	13%	9%
Nonlocal Urban	17%	11%	19%	40%	11%	2%
Nonresident	19%	10%	27%	38%	4%	2%
Grand Total	20%	9%	25%	35%	8%	3%

Buy-back program funded by other source:

	Strongly Opposed	Somewhat Opposed	Somewhat Favorable	Strongly Favorable	No Opinion	Blank
Local Rural	13%	2%	17%	52%	10%	7%
Nonlocal Rural	0%	4%	17%	43%	26%	9%
Nonlocal Urban	4%	9%	17%	62%	4%	4%
Nonresident	1%	4%	16%	73%	5%	2%
Grand Total	4%	4%	16%	65%	7%	4%

Offers to Sell in a Permit Buy-Back Program

In the final survey question, permit holders were asked to imagine there is a one-time permit buy-back program (permits only) for the Bristol Bay salmon drift gillnet fishery. They were told the goal of the program is to purchase and retire as many limited entry permits as possible, given the available funds, and that permit holders would submit “offers to sell” their permits to the program. The buy-back program would occur only if the offers to sell were low enough to remove the desired number of permits with the funds that are available. Permit holders were asked if they would be willing to sell their Bristol Bay salmon drift gillnet permit in a permit only buy-back program, and for what minimum price if the program were soliciting offers to sell.

Sixty-seven percent of the respondents (209 persons), overall, indicated that they would sell their permit in a permit only buy-back program.⁸ Twenty-seven percent of all respondents and 52% of local respondents stated that they would not sell for any amount. Five percent left the question blank.

Summary statistics on values provides as offers to sell are on Table 2. The summary statistics include the number of respondents (N) who both indicated they would sell in a buy-back program *and* provided a value. The average (mean) value; the standard deviation; and the 25th, 33rd, and 50th percentiles are shown. The percentiles are the value at which 25, 33, and 50 percent, respectively, of the respondents’ offer to sell values were equal to or less than the percentile value. For example, the table shows 25% of the respondents provided an offer to sell equal to or less than \$50,000, and 33% provided an offer to sell equal to or less than \$70,000. Note that most of the offers were well above the market value of permits that actually sold over the time period the survey was taken.⁹

⁸ Of those persons willing to sell in a permit only buy-back program, 202 provided the minimum dollar amount for which they would be willing to sell at the time they were completing the survey; and 7 left the dollar amount blank.

⁹ The *CFEC 2002 Estimated Monthly Permit Value Report* contains value estimates for permit transactions in Alaska’s limited fisheries based on data collected in CFEC’s transfer survey. During the four-month period over which surveys were received, CFEC estimated permit value for Bristol Bay drift gillnet permits ranged from \$18,200 (April) to \$17,500 (July).

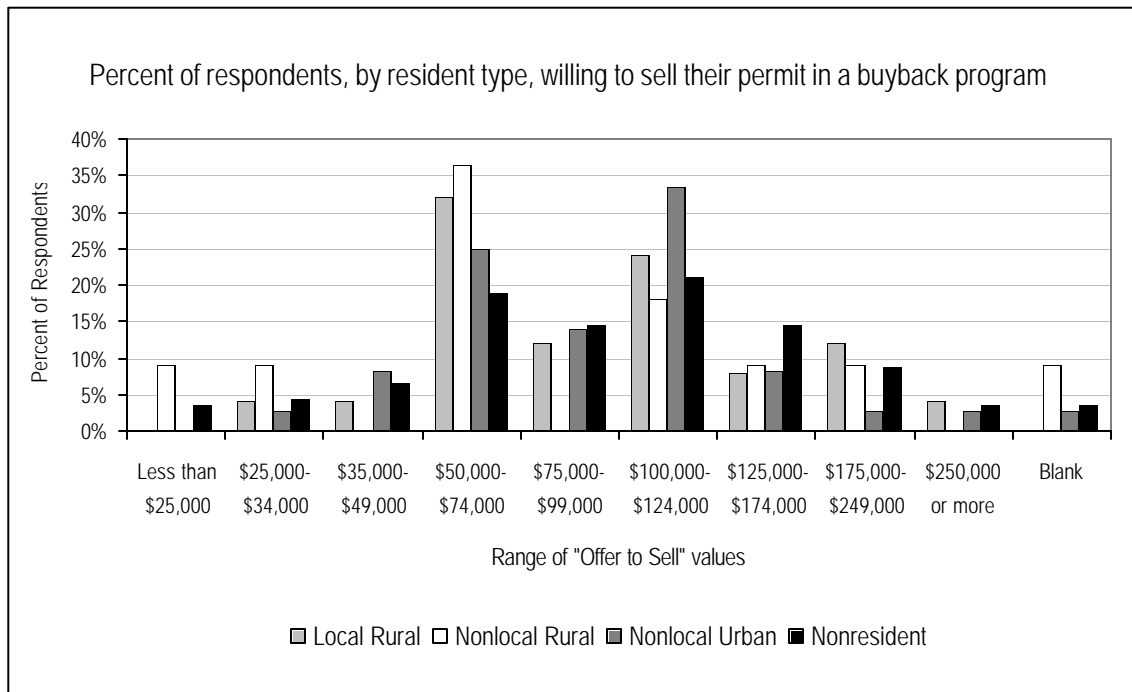
Table 2. Offer to sell values provided by respondents willing to sell their permit in a permit only buy-back program

	Local Rural	Nonlocal Rural	Nonlocal Urban	Nonresident	All Resident Types
Number willing to sell (who also provided a value)	25	10	35	132	202
Mean value	\$98,760	\$80,500	\$90,229	\$101,222	\$97,987
Std Deviation	\$57,689	\$50,687	\$45,601	\$66,589	\$61,536
25 th percentile	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
33 rd percentile	\$69,000	\$50,000	\$60,000	\$70,000	\$70,000
50 th percentile (Median value)	\$85,000	\$65,000	\$90,000	\$92,500	\$85,000
Number willing to sell at undisclosed (blank) value	0	1	1	5	7
Not willing to sell	31 (51.7%)	10 (43.5%)	9 (19.2%)	34 (18.9%)	84 (27.1%)
No response	4 (6.7%)	2 (8.7%)	2 (4.3%)	9 (5.0%)	17 (5.5%)

The offer to sell values provided by respondents were grouped into ranges and the number of respondents within each range is shown on the following table by resident type and across all resident types. Table 3 includes all individuals who indicated they would sell their permit in a buy-back program for either the amount they provided, or an undisclosed value (seven respondents who indicated they would be willing to sell their permit in the program left the offer line blank). The same information is presented by percent of respondents in each category on the chart that follows.

Table 3. Number of respondents willing to sell their permit in a permit only buy-back program at the amount the respondent provided as an offer to sell

Range of "offer to sell" values	Local Rural	Nonlocal Rural	Nonlocal Urban	Non-resident	All Resident Types
Less than \$25,000	0	1	0	5	6
\$25,000 to \$34,000	1	1	1	6	9
\$35,000 to \$49,000	1	0	3	9	13
\$50,000 to \$74,000	8	4	9	26	47
\$75,000 to \$99,000	3	0	5	20	28
\$100,000 to \$124,000	6	2	12	29	49
\$125,000 to \$174,000	2	1	3	20	26
\$175,000 to \$249,000	3	1	1	12	17
\$250,000 or more	1	0	1	5	7
Offer amount left blank	0	1	1	5	7
Grand Total (number of individuals willing to sell)	25	11	36	137	209
Percent of individuals willing to sell, by resident category	41.7%	47.8%	76.6%	76.1%	67.4%

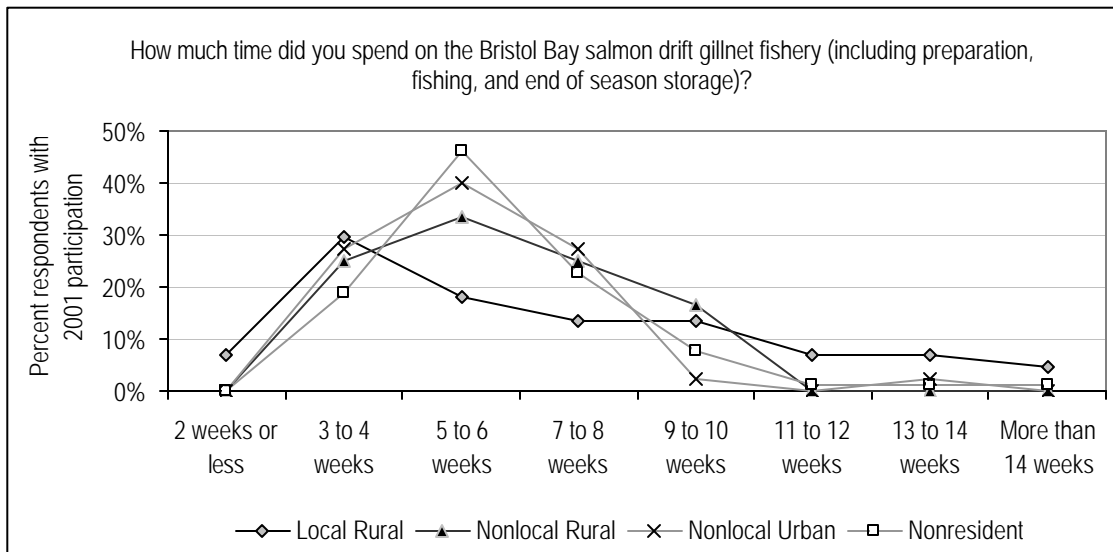


FISHERY COSTS AND EARNINGS IN 2001

Permit holders were asked for their time and operating costs in the most recent year they participated in the Bristol Bay salmon drift gillnet fishery. Results in this section will be shown for all respondents who reported 2001 as their most recent year of participation (250 respondents). For questions related to specific operating costs, the group for which summary data is provided in this report will be further narrowed to permit holders who indicated they were either: 1) the permit holder and skipper, or 2) the permit holder, skipper, and vessel owner in their 2001 fishing operation.

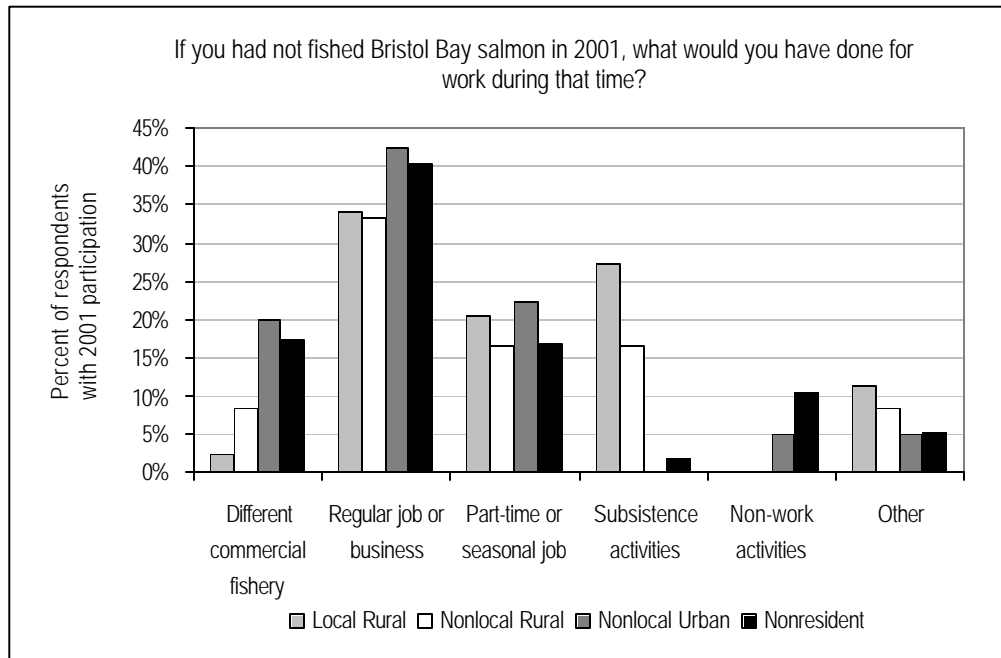
Time Costs

Permit holders were asked how much time they spent in the fishery, including time spent preparing their vessel and gear, participating in the fishery, and storing their vessel and gear after the fishery. Two hundred forty-nine respondents of the 250 who reportedly fished in 2001 answered the question. Responses for all resident types are shown below.

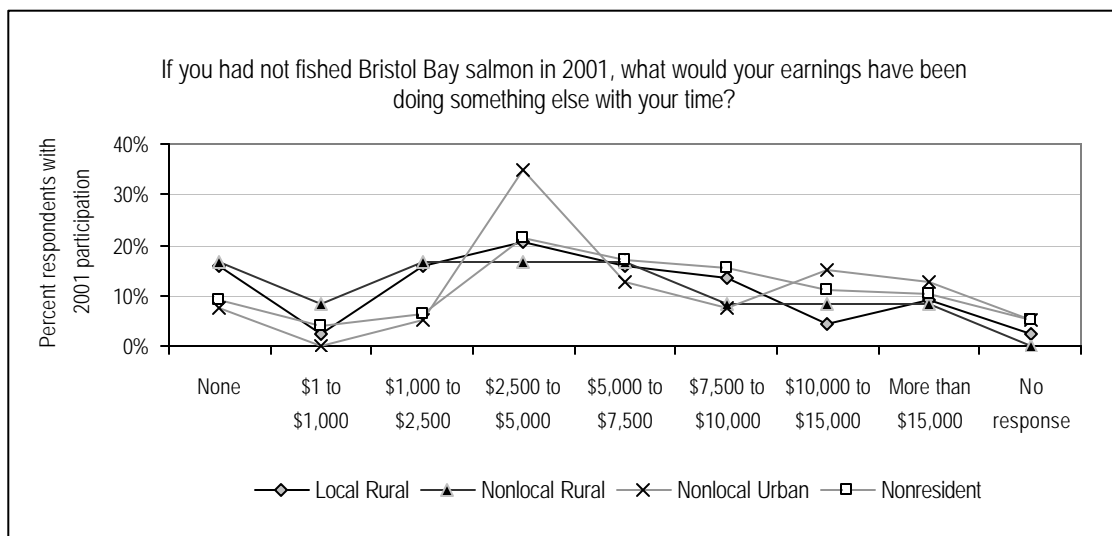


Permit holders were also asked what they would have done for work and how much they could have earned doing something else (during the time spent on the fishery) if they had

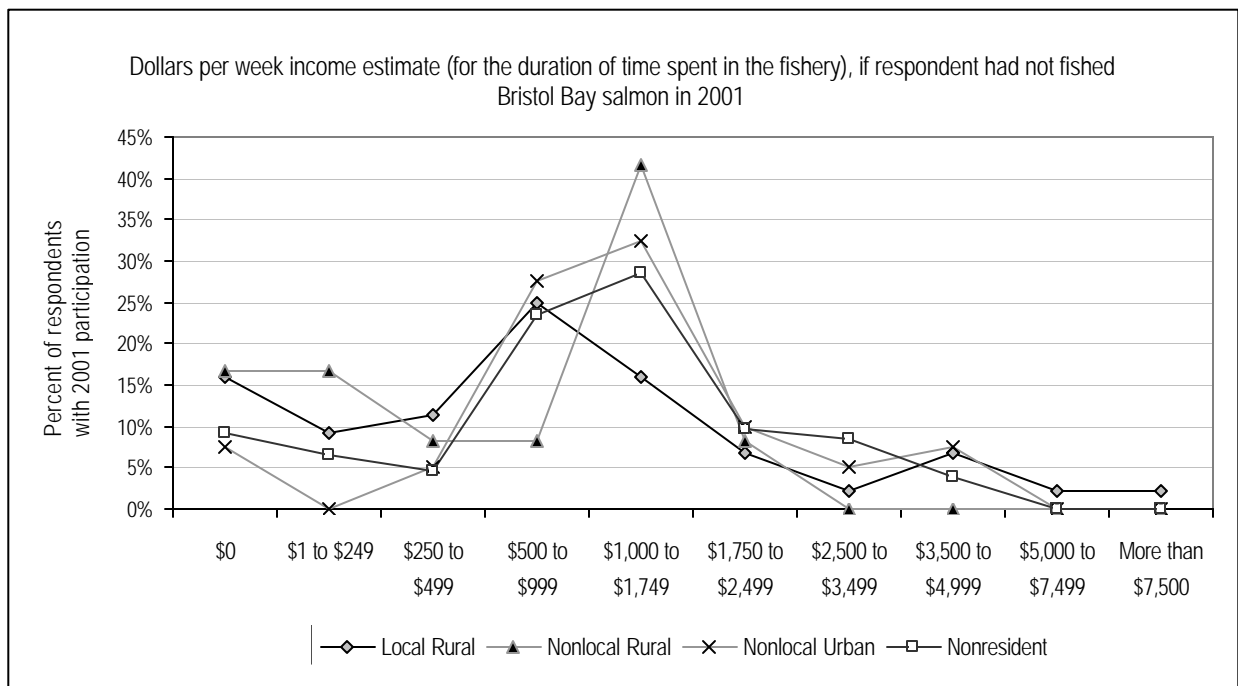
not fished in their most recent year in the fishery. Of the 250 respondents who most recently fished in 2001, 18 respondents (7%) either left the question blank or did not provide a single clear response, and 16 (6%) wrote in an “other” activity that did not fit into any of the available categories. Results are on the following chart.



The amount of income respondents think they could have earned if they had not participated in the fishery is shown by resident type in the following chart. Of the 250 respondents who participated in 2001, 11 (4%) left this question blank.



Responses to the questions regarding the amount of time permit holders spent in the fishery and the amount of money permit holders could have earned if they had not participated in the fishery are combined below to produce a dollars per week earnings estimate. The dollars per week estimate is equal to the amount of income each respondent thought they could have made if they had not participated in the fishery divided by the amount of time the respondent spent preparing for the fishery, participating in the fishery, and preparing vessel and gear for storage at the end of the season. Respondents were only able to check a box next to a range of time and income options provided on the survey, so the calculations were based on the midpoint of the range.¹⁰ The percentage of permit holders within a range of estimated values are shown by resident type on the following table and chart.



¹⁰ Since the amount of time in the fishery and the amount respondents believed they could have earned if doing other work were both expressed as ranges on the survey, the calculation of dollars per week is based on the midpoint of the range selected by permit holders. With no midpoint defined at the upper end of the survey categories, “More than 14 weeks” was set to 14.5 and “More than \$15,000” was set to \$15,000.

Operating Costs

Permit holders were asked what role they played in their fishing operation in the most recent season they participated. Of the 250 permit holders who participated in 2001:

- 85% (213 respondents) were the permit holder, skipper, and vessel owner.
- 8% (19 respondents) were the permit holder and skipper, but not the vessel owner.
- 4% (11 respondents) were the permit holder only (not the skipper or vessel owner).
- 3% (7 individuals) did not indicate their role in the fishery.

Fifteen distinct cost categories were listed on the survey. Permit holders were asked to provide their expenditure in each for their most recent year of participation. In addition to the fifteen categories provided, two blank spaces allowed respondents to write in any other expenses for their fishing operation. Data gathered from the survey is displayed in this report by broad groupings of costs categories. For instance, permit holders were asked to provide their routine maintenance costs and their extraordinary or unexpected maintenance costs. In this report, the results are presented under a single, all-inclusive, maintenance category.

Only cost information gathered from respondents who identified themselves as either 1) the permit holder and skipper or 2) the permit holder, skipper, and vessel owner in their fishing operation will be presented in this section of the report, and only 2001 fishers are included. There were 213 respondents who provided cost data for 2001 as the permit holder, skipper, and vessel owner in their operation and 19 as the permit holder and skipper, but not vessel owner. Collectively, this group will be referred to as permit holders who were also the skipper in their fishing operation. Not all of these 232 individuals, however, provided data for every cost category on the survey.

Responses are summarized in Table 4. Examination of observations in the upper one percentile (1-2 observations) of cost categories revealed outliers (unexplainably high

values far outside the range of most responses) in some cost categories. Outliers were removed from the data from which summary statistics were calculated. The number of observations (N) contributing to the summary data for each cost category and the mean (average value), median (middle value), and standard deviation are provided.

Table 4. Operation costs in the 2001 Bristol Bay salmon drift gillnet fishery for respondents who were the permit holder and skipper in their operation¹¹

		Local Rural (n=40)	Nonlocal Rural (n=11)	Nonlocal Urban (n=33)	Nonresident (n=148)
Transportation (to the fishery, from the fishery, taxi/shuttle service, lodging, misc. travel expenses, and freight)	N	31	11	32	144
	Mean	\$1,006	\$1,763	\$1,631	\$2,384
	Median	\$700	\$1,500	\$1,299	\$2,500
	Std Deviation	\$815	\$1,053	\$929	\$985
Food	N	34	11	33	143
	Mean	\$1,432	\$1,124	\$1,095	\$1,317
	Median	\$1,500	\$1,075	\$828	\$1,200
	Std Deviation	\$641	\$413	\$691	\$726
Fuel, oil, and lubricants	N	35	11	33	144
	Mean	\$1,498	\$1,010	\$1,521	\$1,421
	Median	\$1,164	\$650	\$1,300	\$1,300
	Std Deviation	\$1,234	\$747	\$940	\$856
Maintenance (routine and extraordinary/ unexpected)	N	37	11	32	138
	Mean	\$2,601	\$1,477	\$2,772	\$2,128
	Median	\$2,200	\$1,000	\$1,500	\$1,538
	Std Deviation	\$1,930	\$1,387	\$2,816	\$2,007
Nets (net hanging, net repair, and web)	N	36	11	31	141
	Mean	\$1,573	\$961	\$1,397	\$1,290
	Median	\$1,382	\$800	\$1,000	\$1,000
	Std Deviation	\$1,165	\$879	\$961	\$1,030

¹¹ Observations in the upper one percentile were thought to be outliers and were removed from calculations in the following cost categories: fuel, food, maintenance, nets, insurance, and administrative services.

Table 4., continued

		Local Rural (n=40)	Nonlocal Rural (n=11)	Nonlocal Urban (n=33)	Nonresident (n=148)
Miscellaneous gear and supplies	N	33	11	32	135
	Mean	\$677	\$967	\$688	\$640
	Median	\$421	\$650	\$500	\$475
	Std Deviation	\$800	\$840	\$563	\$833
Insurance (P & I, hull, lay-up)	N	29	11	31	138
	Mean	\$1,798	\$1,540	\$1,952	\$1,900
	Median	\$1,931	\$2,000	\$2,000	\$1,786
	Std Deviation	\$1,004	\$956	\$947	\$911
Moorage, gear storage, and haulout	N	32	11	30	136
	Mean	\$700	\$1,531	\$1,633	\$1,515
	Median	\$500	\$1,800	\$1,650	\$1,500
	Std Deviation	\$540	\$836	\$983	\$1,084
Property tax	N	26	10	27	135
	Mean	\$412	\$577	\$705	\$534
	Median	\$310	\$400	\$500	\$477
	Std Deviation	\$546	\$529	\$611	\$401
Raw fish tax (state and local, calculated by CFEC based on estimated gross earnings by district)	N	40	10	32	146
	Mean	\$331	\$612	\$506	\$713
	Median	\$200	\$573	\$403	\$551
	Std Deviation	\$291	\$480	\$369	\$552
Vessel and permit license fees (obtained from CFEC files)	N	40	10	32	146
	Mean	\$239	\$250	\$269	\$643
	Median	\$250	\$250	\$250	\$650
	Std Deviation	\$84	\$0	\$80	\$56
Administrative services (bookkeeping, bank fees, legal fees, memberships and dues)	N	31	9	32	139
	Mean	\$394	\$803	\$604	\$793
	Median	\$300	\$720	\$500	\$650
	Std Deviation	\$366	\$687	\$477	\$589

Gross Earnings and Crewshare Expense

Permit holders were asked for their gross earnings from the fishery (including bonuses) and for the total amount they paid in crewshares in the Bristol Bay salmon drift gillnet fishery. Responses for 2001 fishery participants who were the skipper for their operation are summarized in Table 5. The observations in the upper one percentile (1-2 observations) of crewshare values were assumed to be outliers, and were thrown out of the data from which summary statistics were calculated. The number of observations (N) contributing to the summary data for each category and the mean (average value), median (middle value), and standard deviation are provided.

Table 5. Gross earnings, crewshare expense, and net returns estimates in the 2001 Bristol Bay salmon drift gillnet fishery for respondents who were the permit holder and skipper in their operation¹²

		Local Rural (n=40)	Nonlocal Rural (n=11)	Nonlocal Urban (n=33)	Nonresident (n=148)
Gross earnings (provided by respondents)	N	34	11	33	141
	Mean	\$17,723	\$22,334	\$20,963	\$26,498
	Median	\$16,950	\$16,000	\$17,500	\$23,865
	Std Deviation	\$6,719	\$14,707	\$12,007	\$15,959
Number of paid crew (not including the skipper/respondent)	N	38	11	33	146
	Mean	1.50	1.73	1.58	1.64
	Median	2.00	2.00	2.00	2.00
	Std Deviation	0.69	0.65	0.71	0.65
Crewshare (payment to all crew except the skipper/respondent)	N	37	10	33	139
	Mean	\$3,242	\$3,662	\$4,056	\$4,920
	Median	\$3,000	\$2,550	\$3,000	\$4,000
	Std Deviation	\$1,899	\$2,837	\$3,539	\$3,854

¹² Crewshares in the upper one percentile were thought to be outliers and were not included in the calculation of these summary statistics.

Net Operating Income

Gross earnings and costs can be combined to estimate measures of net returns to the permit holder and investment. An estimate of net operating income was calculated by subtracting costs from gross earnings for each respondent who provided data in all cost categories included in the definition of net operating income, shown on Table 6. Some individuals did not provide their gross earnings, but did provide cost data. For those persons, CFEC's gross earnings estimate for Bristol Bay drift gillnet salmon landings was thought to be a reasonable substitute. The mean, median, and standard deviation of 2001 gross earnings and net operating income estimates in the fishery are shown across all respondents who fished as the permit holder and skipper in 2001. Note some important costs have not been deducted; estimates of economic profits would be lower.

Table 6. Net operating income estimates and gross earnings from which the estimates were calculated in the 2001 Bristol Bay salmon drift gillnet fishery for respondents who were the permit holder and skipper in their operation

		Local Rural (n=40)	Nonlocal Rural (n=11)	Nonlocal Urban (n=33)	Nonresident (n=148)
Gross earnings	N	40	11	33	148
(CFEC gross earnings estimates are used if respondent did not provide their earnings)	Mean	\$17,530	\$22,334	\$20,963	\$26,042
	Median	\$16,950	\$16,000	\$17,500	\$22,750
	Std Deviation	\$6,345	\$14,707	\$12,007	\$15,928
Net operating income ¹³ =	N	19	7	23	111
Gross earnings –	Mean	\$1,169	\$6,936	\$3,712	\$6,552
Crewshares,	Median	\$660	-\$770	\$2,485	\$4,293
Transportation, Food,	Std Deviation	\$4,817	\$13,202	\$8,825	\$11,977
Fuel, Maintenance,					
Nets, Misc. gear,					
Insurance, Moorage/					
haulout, Property					
tax, Raw fish tax,					
Vessel and permit					
license fees, Admin.					
services					

¹³ Note this measure of net operating income does not include interest payments or depreciation. Nor does it include the opportunity cost of investment or the opportunity cost of the permit holder/skipper's time. Only individuals who provided a response in each of the survey cost categories on which the net operating equation depends were included in this calculation.

Investments in the Fishery

Survey questions asked permit holders to provide annual vessel loan payment information and annual permit loan payment information. CFEC asked questions about loans to capture the amount of annual loan payments and interest paid by Bristol Bay salmon drift gillnet permit holders. Interest payments on loans are needed to calculate some measures of net return.¹⁴

Permit holders were also asked for information on the current value of their vessel, and possible alternative or supplemental uses for their vessels. CFEC gathered vessel value information with the intent of using the values in calculations of depreciation and the opportunity cost of the investment. In recent years, vessel values in the Bristol Bay region have declined as the returns in the fishery have fallen. A comparison of vessel values reported on the survey with ancillary data on vessel values available in CFEC data files may provide some insight to the level of impact the decline in Bristol Bay salmon fishery earnings has had on vessel values.

Responses from all 310 survey respondents are presented in this section; however, not all are vessel owners and only 16.5% of respondents appear to have both a vessel and a permit loan.¹⁵

Vessel Loans

Permit holders were asked for the amount of their annual vessel loan payment. If available, they were asked to provide a breakout of principal and interest. Otherwise, they had the option of providing the total payment (principal plus interest). Respondents without a loan were asked to write \$0 in the space provided. Of the 310 survey respondents, 111 (36%) indicated that they have an annual vessel loan payment, and 140

¹⁴ Principal payments are generally not included in measures of net returns.

¹⁵ Two hundred sixty seven (87.25%) of those who responded to the question indicated they had an ownership interest in the vessel they used in the most recent year they fished the Bristol Bay drift gillnet fishery. Thirty-nine respondents (12.75% of those who responded to the question) did not have an ownership interest in the vessel they used. Four persons did not respond to the question.

(45%) indicated they either do not have a loan or they had stated earlier in the survey that they do not own a vessel. The remaining 59 respondents (19%) left the loan information blank. CFEC was unable to determine if these persons: 1) have a loan and chose not to provide the amount, or 2) do not have a loan, but mistakenly and left the questions blank instead of writing \$0.

Table 7 shows the number of vessel loans by resident type. The category “unclear” consists of those individuals who left the questions regarding the amount of their vessel loan blank. Some of these individuals may have a loan.

Table 7. Percent of respondents with vessel loans in 2001

	Local Rural	Nonlocal Rural	Nonlocal Urban	Non-resident	All resident types
Do not have a vessel loan	38%	43%	38%	49%	45%
Have annual vessel loan payments	30%	30%	34%	39%	36%
Unclear	32%	26%	28%	12%	19%

The interest and total payments due annually on vessel loans are summarized below for all survey respondents. Six respondents could not separate their permit loan payment from their vessel loan, so their responses are not included in the following summary. The number of observations (N) contributing to the summary data for each payment category and the mean (average value), median (middle value), and standard deviation are provided. Note that the sum of all observations shown in Table 8 is less than the 111 respondents who reported to have loan payments (63 observations are included in the interest payment summary and 102 observations are included in the total interest plus principal payment summary). Persons who have a combined vessel and permit loan, persons who reportedly do not pay interest on their loan, the exclusion of outliers from each payment category, and incomplete reporting, can account for the difference.

Table 8. Annual vessel loan interest and total payments by resident type¹⁶

		Local Rural	Nonlocal Rural	Nonlocal Urban	Nonresident
Vessel loan interest annual payment ¹⁷	Number of zeros	24	10	18	89
	N	7	4	8	44
	Mean	\$3,634	\$3,750	\$3,368	\$4,781
	Median	\$3,100	\$3,000	\$3,500	\$3,950
	Std Deviation	\$2,342	\$3,096	\$2,151	\$3,071
Vessel loan interest and principal annual payment	Number of zeros	23	10	18	89
	N	18	7	15	62
	Mean	\$9,799	\$10,515	\$11,635	\$13,811
	Median	\$8,500	\$10,500	\$9,700	\$12,000
	Std Deviation	\$5,683	\$4,507	\$7,751	\$7,872

Vessel Value

The survey asked vessel owners to provide information about the value of their vessel. Questions included the year in which they purchased the vessel, the purchase price, the most recent marine survey value, and the estimated current market value in their opinion.¹⁸ The summary statistics based on the results of these questions are shown by the year in which the vessel was purchased. They are shown for all respondents who provided information, and who purchased their vessel after 1978.

The information provided in this report is limited to a summary of data obtained from the survey. Clearly, vessel values are dependent on the attributes of each vessel, so variability is high among vessels when grouped simply by year purchased. The optimum number study will look to CFEC vessel license files for more information about each vessel for which survey data were provided, and will provide a more detailed analysis of the fleet.

¹⁶ Zero values are not included in the calculation of summary statistics. The upper one percent of observations, across all resident types, has been removed from the data.

¹⁷ Permit holders were asked to provide the interest and principal portions of their loan payments, but had the option of reporting the total payment if they could not break out the two components. Several individuals opted to report the total payment, leaving the interest payment blank.

¹⁸ The dollar amounts for purchase price and most recent survey price are as the survey respondent reported, and have not been adjusted to a constant “real” dollar amount.

Table 9. Vessel values by year in which the vessel was purchased (nominal dollars)

Year Purchased	Purchase Price			Most Recent Survey Value			Current Market Value		
	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
2001	7	\$33,000	\$12,193	7	\$65,429	\$34,413	8	\$31,125	\$15,881
2000	7	\$141,071	\$113,778	6	\$113,750	\$118,678	7	\$68,286	\$46,964
1999	8	\$91,563	\$69,474	6	\$115,500	\$33,981	8	\$50,275	\$33,561
1998	10	\$117,700	\$115,549	10	\$149,000	\$134,397	8	\$84,000	\$50,985
1997	14	\$64,143	\$51,829	12	\$44,754	\$33,292	12	\$28,588	\$23,606
1996	14	\$118,214	\$82,909	13	\$98,615	\$69,188	14	\$59,286	\$57,852
1995	18	\$105,972	\$85,823	15	\$85,667	\$66,820	18	\$49,889	\$36,969
1994	6	\$121,832	\$116,810	6	\$106,833	\$96,011	6	\$70,000	\$72,457
1993	14	\$127,890	\$99,730	14	\$90,571	\$58,998	14	\$56,286	\$50,054
1992	6	\$96,050	\$77,640	5	\$95,000	\$77,701	4	\$38,750	\$41,708
1991	17	\$145,412	\$78,502	15	\$124,267	\$50,555	15	\$65,133	\$42,572
1990	9	\$139,111	\$54,769	8	\$92,250	\$28,090	9	\$48,889	\$16,729
1989	19	\$115,789	\$70,190	14	\$68,643	\$45,356	17	\$45,618	\$31,523
1988	4	\$121,250	\$45,529	4	\$87,000	\$74,337	4	\$55,000	\$57,009
1987	12	\$88,033	\$52,521	11	\$68,182	\$34,805	12	\$32,500	\$23,979
1986	12	\$90,417	\$46,759	12	\$77,917	\$43,717	11	\$45,545	\$39,339
1985	11	\$87,091	\$55,922	8	\$103,125	\$113,974	10	\$55,200	\$53,366
1984	7	\$116,857	\$24,443	7	\$93,571	\$41,504	7	\$39,000	\$27,695
1983	12	\$79,400	\$40,586	6	\$62,000	\$34,641	10	\$39,700	\$26,932
1982	11	\$86,909	\$31,772	9	\$71,111	\$30,185	10	\$43,400	\$21,246
1981	4	\$70,875	\$23,074	4	\$62,625	\$25,250	4	\$54,500	\$44,546
1980	15	\$66,700	\$29,200	14	\$52,786	\$43,890	13	\$33,300	\$26,368
1979	10	\$46,111	\$27,610	7	\$63,000	\$24,933	8	\$29,313	\$17,327

Table 10, below, shows a summary by resident type of all vessel value information obtained from survey respondents, irrespective of the year in which the vessel was purchased. The number of observations (N) contributing to the summary data for each value category and the mean (average value), median (middle value), and standard deviation are provided.

Table 10. Vessel values by resident type (nominal dollars)

		Local Rural	Nonlocal Rural	Nonlocal Urban	Nonresident
Purchase price	N	44	19	35	165
	Mean	\$70,955	\$59,129	\$119,086	\$102,434
	Median	\$55,000	\$55,000	\$85,000	\$85,000
	Std Deviation	\$51,460	\$49,056	\$91,981	\$70,166
Most recent marine survey value	N	32	15	32	152
	Mean	\$64,125	\$63,870	\$90,047	\$86,941
	Median	\$47,500	\$55,000	\$80,500	\$69,000
	Std Deviation	\$61,455	\$48,948	\$65,387	\$64,526
Current estimated market value ¹⁹	N	39	17	35	157
	Mean	\$43,187	\$28,103	\$47,443	\$49,369
	Median	\$35,000	\$30,000	\$35,000	\$37,500
	Std Deviation	\$36,205	\$21,231	\$36,674	\$40,628

¹⁹ Current estimated market value is the survey respondent's estimate of market value for their Bristol Bay salmon drift gillnet vessel at the time the survey occurred, April through July 2002.

Other Potential Uses for Vessel

Permit holders were asked if the vessel they fished in their most recent season was built specifically for the Bristol Bay salmon fishery. In addition, they were asked what activities they believed their vessel could be used for outside of the Bristol Bay salmon fishery. A list of possible activities included other fisheries, recreation, and charter activities. The purpose of this question was to find out what other opportunities might exist for the vessels should a fleet reduction program occur.

Of the 310 survey respondents, 83.7% thought the vessel was built exclusively for use in the Bristol Bay salmon fishery. Though there were a high percentage of individuals who believed the vessel they fished was intended for use in the Bristol Bay salmon fishery, many indicated it would be possible to use their vessel in other activities. Responses are shown below for all 310 survey respondents.

Respondents' views on the possibility of using the vessel they most recently fished in Bristol Bay for activities outside the Bristol Bay salmon drift gillnet fishery

	Unlikely or Impossible	Possibly	Easily	Blank
Togiak, Security Cove, or Goodnews Bay roe herring gillnet fishery	7%	28%	62%	3%
Other roe herring gillnet fisheries	13%	37%	44%	6%
Togiak roe herring purse seine fishery	41%	31%	22%	6%
Halibut or Pacific cod long line or jig fishery	28%	43%	25%	5%
Other salmon drift gillnet fisheries	5%	33%	59%	3%
Convert to private recreational vessel	37%	38%	19%	5%
Convert to commercial hunting, sport fish, or sightseeing charter vessel	36%	41%	18%	5%

Permit Loans

In addition to vessel loans, respondents were asked about their permit loans. As with the vessel loan questions, they were asked to provide a breakout of principal and interest. Otherwise, they had the option of providing the total payment. Respondents without a loan were asked to write \$0 in the space provided. Ninety-one (29%) of the 310 survey respondents provided a nonzero permit loan amount. The percent of respondents with permit loans by resident type and across all respondents are shown in Table 11. As with the vessel loan section, there is an “unclear” category to indicate the number of individuals who left the permit loan section blank.

Table 11. Percent of respondents with permit loans in 2001

	Local Rural	Nonlocal Rural	Nonlocal Urban	Non-resident	All resident types
Do not have a permit loan	68%	65%	57%	63%	64%
Have annual permit loan payments	18%	26%	43%	30%	29%
Unclear	13%	9%	0%	7%	7%

Table 12 shows the annual interest and total annual payments due on permit loans by resident type. As discussed in the vessel loan section, there were six respondents with a combined permit and vessel loan. Since the permit loan payment could not be separated from the vessel loan, these values are not included in loan payment summary data. The number of observations (N) contributing to the summary data for each payment category and the mean (average value), median (middle value), and standard deviation are provided. Note that the sum of all observations shown in Table 12 is less than the 91 respondents who reported to have loan payments (45 observations are included in the interest payment summary and 80 observations are included in the total payment summary). Persons who have a combined vessel and permit loan, persons who

reportedly do not pay interest on their loan, the exclusion of outliers from each payment category, and incomplete reporting, account for the difference.

Table 12. Annual permit loan interest and total payments by resident type²⁰

		Local Rural	Nonlocal Rural	Nonlocal Urban	Nonresident
Permit loan interest annual payment ²¹	Number of zeros	43	15	27	114
	N	2	4	9	30
	Mean	\$3,546	\$4,453	\$4,323	\$5,855
	Median	\$3,546	\$4,700	\$3,235	\$5,038
	Std Deviation	\$4,662	\$3,854	\$3,948	\$3,483
Permit loan interest and principal annual payment	Number of zeros	41	15	27	114
	N	10	6	19	45
	Mean	\$9,892	\$11,617	\$12,968	\$16,788
	Median	\$6,900	\$11,200	\$10,000	\$16,000
	Std Deviation	\$11,732	\$4,612	\$6,760	\$8,299

²⁰ Zero values are not included in the calculation of summary statistics. The upper one percent of observations, across all resident types, has been removed from the data.

²¹ Permit holders were asked to provide the interest and principal portions of their loan payments, but had the option of reporting the total payment if they could not break out the two components. Several individuals opted to report the total payment, leaving the interest payment blank.

SUMMARY

Survey respondents provided nearly all of the data presented in this report. The time and energy permit holders put into answering the Commission's extensive survey have been a major contribution to the optimum number study and the resulting data.

Further analysis of the survey data summarized in this report and analysis of the survey cost and earnings data collected for years earlier than 2001 will be completed to assist the Commission in the determination of an optimum number of entry permits in the fishery. Available survey data and CFEC records will be used to model net returns in the fishery over time.

Though a significant amount of work remains to be done before an optimum number determination can be made, information generously provided by survey respondents and other Bristol Bay fishermen has laid a strong foundation for the study.