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Characterizing Crew and Fuel Price Impacts: A Survey of Pacific Halibut and Sablefish Quota Share Holders

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Abstract

In February 2010, the University of Alaska Fairbanks and the Alaska Sea Grant conducted a mail out survey to quota share (QS) holders of the Alaska IFQ program for halibut and sablefish. This survey was conducted to gather more information on crewmembers and cost of fuel prices for the Alaska halibut and sablefish fishery. Specifically, we targeted the survey to look at trends in the fishery as they relate to the number of full- and part-time crew positions, the extent to which QS holders fish from their home port, and the locations where gear and supplies are purchased. The survey also collected QS-holder perceptions about the impacts of recent variations in fuel prices and operation costs, and the chances of a QS holder purchasing more halibut or sablefish quota shares in the future.

The survey was mailed to a stratified random sample of 895 halibut QS holders and 400 sablefish QS holders. The stratification was divided into 12 areas to better characterize possible differences among QS holders in different vessel classes. A total of 1,295 surveys were distributed by mail and 365 were returned. Returned rates varied from 16% to 37% in relation to the stratification. In addition, there was an online version of the survey that received 69 responses not included in the control group.

The six-part survey begins with a series of questions (questions 1–5) about whether the respondent fishes from his/her own vessel or on another's vessel, the number of crew onboard when QS is being fished, and the number of QS holders aboard when QS is being fished. The second section surveys the residency of crew in relation to where they fish (questions 6–9). The third section surveys the difficulties of hiring crew and asks about home port and where supplies are purchased (questions 10–12). The fourth section surveys the percentage of gross revenues

spent on operational costs (questions 13 and 14). Impacts of changes in fuel prices are analyzed in questions 15–18. The final section (questions 19–22) explores a QS holder’s interest in purchasing additional halibut or sablefish QS.

Results showed that the crew in certain areas on smaller vessels tended to be drawn from the local region while the crew on the larger vessels in more remote areas tended to be drawn from outside the local region. Results also showed that more remote areas of Alaska tended to have higher operating costs and greater difficulty finding crew compared to areas of Alaska that had larger population bases. Financing to purchase more QS for halibut and sablefish was more difficult to obtain for those in remote areas but these same areas had the highest response to purchase more QS (Area 4, halibut; AI, in sablefish)

Preliminary results of the survey were released in January 2011 and this more comprehensive analysis was completed in the spring of 2012.

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1.1 Introduction:

The Alaska halibut and sablefish Individual Fishing Quota (IFQ) program was adopted in 1991. The North Pacific Fishery Management Council (NPFMC) voted to recommend implementation of an (IFQ) program for the halibut (*Hippoglossus stenolepis*) and sablefish (*Anoplopoma fimbria*) fisheries off Alaska. The proposed structure of the recommended plan was approved by the Secretary of Commerce in 1991 and implemented in January 1995. IFQs changed the fundamental character of the halibut and sablefish fisheries from temporally compressed derbies into a more manageable fishery.

The NPFMC implemented the program with the goals of spreading out the season, increasing the ex-vessel price, improving safety, and reducing congestion on the grounds (CFEC 1995). An additional goal of the NPFMC was to avoid radically restructuring the fishery. The NPFMC did this by placing constraints on the amount of quota share that could be held by one person and the amount of IFQ that could be fished from a single vessel (CFEC 1996). There is some evidence that the IFQ program has met some of the NPFMC's goals; however, there continues to be concern about the long-term potential changes that might occur under the IFQ program. This is particularly true with Alaska's coastal communities that depend on commercial fishing for their economic base (Dinneford et al. 1999). A recent study that looked at small remote fishing communities from 1995 to 1999 suggests that residents in these communities are more likely to sell than buy quota (Carothers and Lew 2010).

The halibut and sablefish IFQ fisheries have become very important for the economy of Alaska and the Pacific Coast. In 2010, 1,090 halibut IFQ vessel landings totaled 54.8 million lbs. with the total fishery value over \$200 million, an increase of \$65.8 million over the 2009 value.

For sablefish 363 IFQ vessel landings totaled 25.2 million lbs. with a value of \$88.4 million (NOAA State of the coast). In 2011 there was a strong demand for fresh halibut which has led to record price in Homer from \$6.55 to \$7.40 per pound. There has also been a strong demand in overseas markets for sablefish which has set a record in Homer with the price ranging from \$6.05 to \$9.35 (Welch 2011).

Alaska's Pacific halibut and sablefish IFQ fisheries are widely regarded as well-managed. Managers of these fisheries have been on the forefront of fisheries science in developing methods for understanding the population dynamics and in setting quotas that avoid overfishing.

Previous studies of Alaska's IFQ halibut and sablefish fisheries have included surveys of registered buyers, analyses of changes in safety, and assessments of effects of IFQs on conservation and management issues; only one report, ISER (1995) mentions crew ISER (1998) examined changes in fishing safety and changes in unreported discards. Dewees examined the British Columbia halibut fishery effects on crew during the transition of the fishery to an individual vessel quota system (2006).

This survey is specifically designed to focus on characterizing crewmembers and includes a question on the effects of cost variation in fuels on fishing under the IFQ program. Specifically, this survey questions fishermen on the following topics:

- trends in the fishery as they relate to the number of full- and part-time crew positions
- the extent to which Quota Share (QS) holders fish from their home port
- recruiting qualified crew
- locations where gear and supplies are purchased
- costs for fuel, insurance, bait, gear maintenance, and vessel and crew share
- QS-holder perceptions about effects of recent variation in fuel prices

- purchasing more quota share in the future

This report provides baseline information for other researchers investigating the Alaska halibut and sablefish IFQ fishery. It also provides information to help QS holders better understand some of the areas that have not been covered in previous studies.

1.2 Methods:

In February 2010, the University of Alaska Fairbanks and Alaska Sea Grant conducted a mail out survey of a stratified random sample of 895 halibut QS holders and 400 sablefish QS holders. The purpose of the stratification was to characterize possible differences among QS holders in different vessel classes and regions as well as differences between small (less than 20,000 pounds) and large (20,000 lbs. or more) QS holders. The survey was designed to collect information on recent trends in the fishery as they relate to the number of full- and part-time crew positions, locations where gear and supplies are purchased, the extent to which QS holders fish from their own vessels or from vessels owned by others, and QS-holder perceptions about the impact of recent variation in fuel prices, halibut catch limits, etc.

The halibut IFQ program created four QS classes based on vessel size and whether the vessel was equipped to freeze its catch:

A shares—QS initially allocated to large vessels that had the capability to freeze halibut onboard;

B shares—QS initially allocated to catcher vessels greater than 60 feet overall length;

C shares—QS initially allocated to catcher vessels between 36 and 60 feet overall length;

D shares—QS initially allocated to catcher vessels less than 35 feet overall length.

Area-specific halibut quota shares were allocated for each of the four vessel categories in each of the eight International Pacific Halibut Commission (IPHC) Management Areas (2C, 3A, 3B, 4A, 4B, 4C, 4D, and 4E) off Alaska (Figure 1.1).

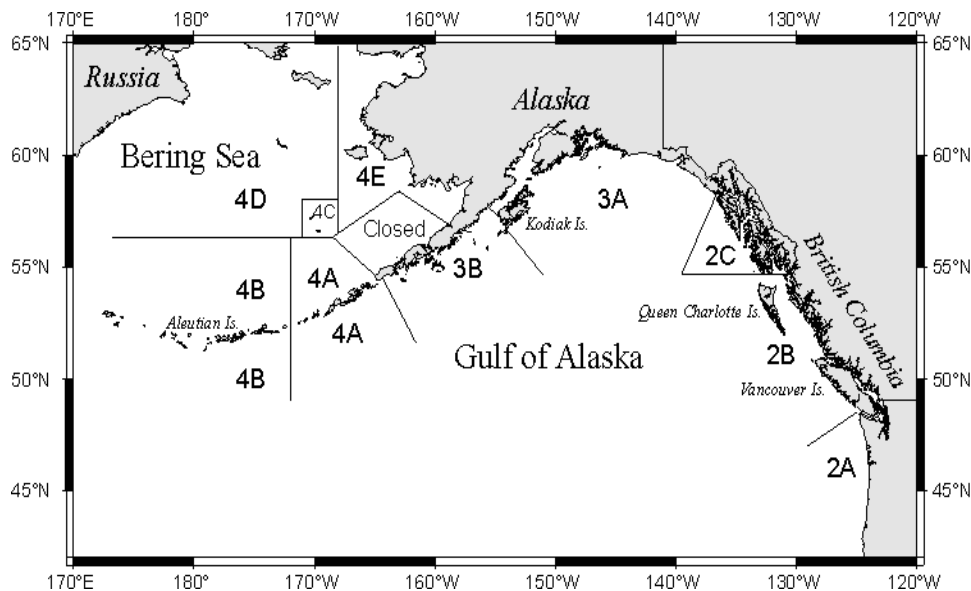


Figure 1.1. IPHC regulatory areas. Survey was only administered to Alaskan QS holders and did not include area 2B and area 2A. (Source: IPHC)

The Sablefish IFQ program created three classes of QS based on vessel size and whether the vessel was equipped to freeze its catch:

A shares—QS initially allocated to large vessels that had the capability to freeze sablefish onboard;

B shares—QS initially allocated to catcher vessels greater than 60 feet length overall;

C shares—QS initially allocated to catcher vessels less than 60 feet.

Area-specific sablefish QS were allocated for each of the six sablefish management regions (Bering Sea, Aleutian Islands, Western Gulf of Alaska, Central Gulf of Alaska, West Yakutat, and Southeast Outside) off Alaska (Figure 1.2).

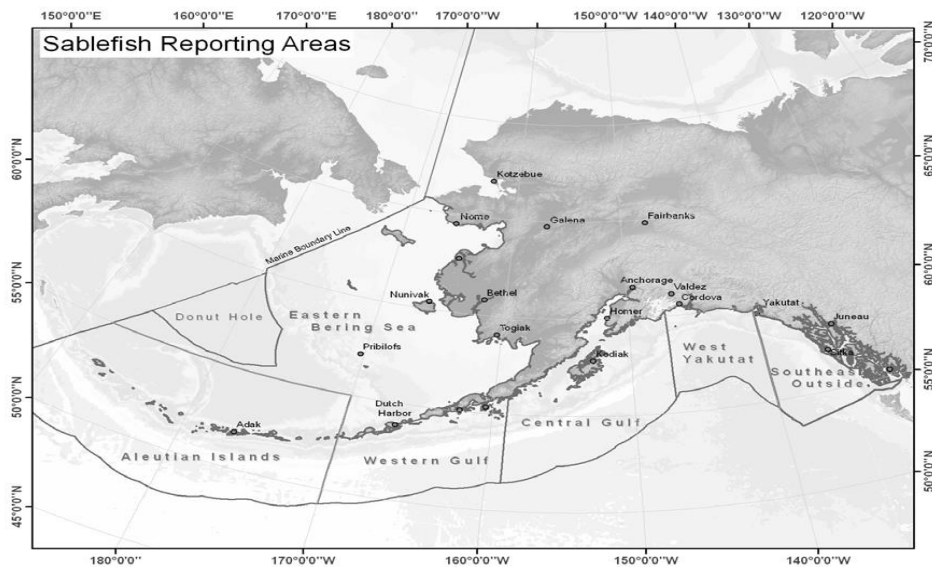


Figure 1.2. Sablefish reporting areas. (Source: NMFS)

Because the number of halibut QS holders in IPHC Areas 4A-E is fairly small, the five areas were aggregated into a single Bering Sea stratum. A total of 28 strata were defined for the halibut fishery: four management areas by four vessel categories with small (less than 20,000 lbs.) and large (20,000 lbs. or more) operation scale strata for B-, C-, and D-class shares. A total of 30 strata were defined for the sablefish fishery: six areas by three vessel classes with small (less than 20,000 lbs.) and large (20,000 lbs. or more) operation scale strata for B- and C-class shares.

The survey was designed to ask specific questions on recent trends in the fishery as they relate to the number of full- and part-time crew positions, locations where gear and supplies are purchased, and the extent to which QS holders fish from their home port. The questions were designed to be concise and clear to the IFQ QS holder. Industry members, researchers, and agencies provided detailed advice on the questionnaire design.

1.3 Results and discussion

Survey instrument and response rate

The survey was mailed out to a stratified random sample of 895 halibut and 400 sablefish QS holders. The survey was stratified to better characterize possible differences among QS holders in different vessel classes and regions as well as differences between small (less than 20,000 lbs.) and large (20,000 lbs. or more) QS holders and vessel classes (Freezer A class, B class, C Class and D in halibut). A copy of the survey is included as an appendix to this chapter. The survey was designed to collect information from vessel owners and QS-holders about the impact of recent variations in fuel prices, halibut catch limits, and other topics. Post cards were sent 3 weeks after the survey was sent to remind participants to complete the survey. Survey response rates are summarized in Table 1.1 and Table 1.2.

Table 1.1. Sample size.

	Halibut	Sablefish
Sample size (number of survey mailed)	895	400
Number of complete surveys returned	254	111
Returns by size and type total		
A share and QS holders over 20,000 lb.	112	59
QS holders under 20,000	142	52

Table 1.2. Response rate.

	Sent	Returned
A Share Halibut Freezer	47	11
B Share Halibut >20000	141	46
B Share Halibut < 20000	126	20
C Share Halibut >20000	142	46
C Share Halibut <20000	164	39
D Share Halibut >20000	24	9
D Share Halibut < 20000	251	83
A Share Sablefish	63	11
B Share Sablefish >20000	62	13
B Share Sablefish <20000	58	18
C Share Sablefish >20000	108	35
C Share Sablefish <20000	109	34
Total	1,295	365

The response from the survey was a random cross section of the IFQ populations that met the goal of being a stratified sample. This response rate was average compared to most mail surveys. The completed survey was returned for a total response rate of 28.2 percent. Response rates for individual sample size varied from a low of 15.9 percent for halibut B share less than 20,000 pounds to a high of 37.5 percent for halibut D share over 20,000 pounds.

Figure 1.3 shows locations of the responses for the survey; the larger the dot, the more response from the locations. This map does show a similar distribution of the halibut QS population.

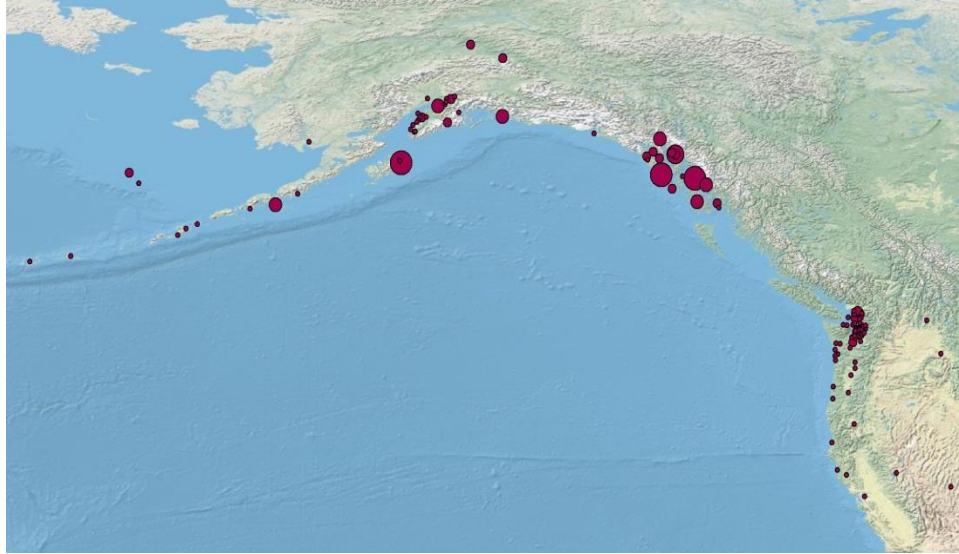


Figure 1.3. Map of response, the wider the dots more response.

The first section of the questionnaire asks QS holders if they fished from their own vessel, the number of crew onboard when their quota share is being fished, and the difference in the number of QS holders aboard when fishing in 2009. This section shows some of the decision-making processes associated with the number of crew on halibut and sablefish IFQ vessels.

Question 1

Question 1 explored trends in the fishery as they relate to the number of IFQ holders who fished from their own vessel. Results indicate that higher proportions of halibut QS holders fish from their own vessels than is the case for sablefish QS holders. Sixty-six percent of halibut QS holders fished on their own vessel; 33 percent fished on someone else's vessel; and 1 percent fished on their own vessel and on someone else's. In contrast, 56 percent of sablefish QS holders fished on their own vessels, while 40 percent fished on someone else's, and 4 percent fished on their own vessel and on someone else's (Table 1.3).

Table 1.3. QS holders who fished from their own or another's vessel in 2009.

	Halibut	Sablefish
Fished on own vessel	66%	56%
Fished on someone else's vessel	33%	40%
Both	1%	4%
Total responses	375	218

The propensity to fish from one's own vessel varies across vessel size class and by magnitude of QS holdings (Figure 1.4). For example, nearly 70 percent of the halibut B-class and C-class QS holders with QS holdings in excess of 20,000 lbs. fished from their own vessels. In contrast, nearly 70 percent of the D-class with large QS holdings fished from someone else's vessel. In general, small QS holders had a higher tendency to fish aboard someone else's vessel.

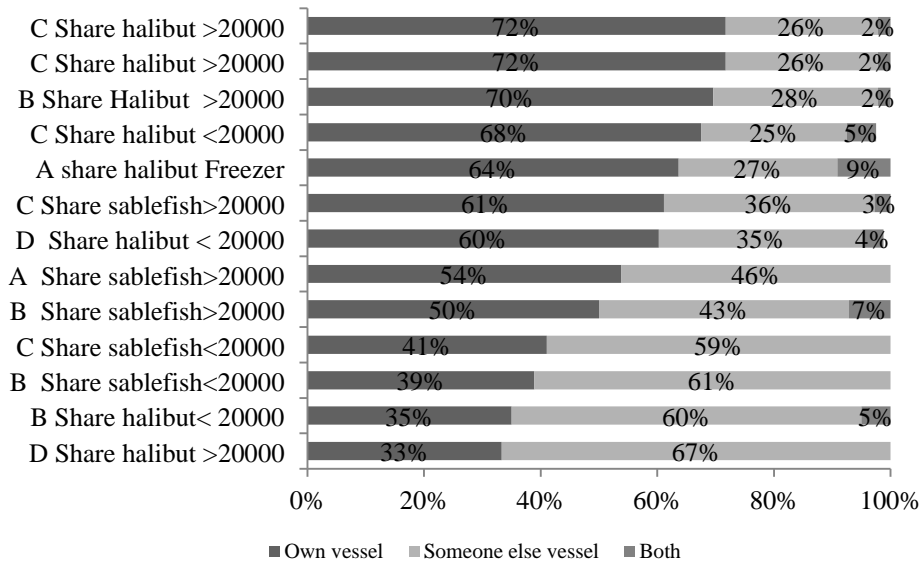


Figure 1.4. Percent of QS holders who fished from their own or other vessels in 2009.

Question 2

Question 2 presented respondents with a list of the halibut and sablefish management areas off Alaska and asked them to identify areas they fished for halibut and sablefish during 2009. Many of the IFQ QS holders selected several areas in response to this question and the first response was selected. A plurality (49 percent) of the halibut QS respondents reported fishing in IPHC Area 3A, 34 percent fished in Area 2C, 12 percent fished in Area 3B, and 5 percent fished in Areas 4A, 4B, 4C, or 4D.

In comparing the survey data with the number of landed halibut for 2009, we found very close similarities in the response and the actual landings for 2009. Area 2C and 3A had a slightly larger response rate which may be due to the strong interest in issues that are related to 2C (lower TAC and charter issues).

Question 2 asked the same question for the sablefish fishery. Forty-seven percent of respondents with sablefish QS fished in Area SO, 31 percent fished in Area Central Gulf, 10 percent fished in West Yakutat, and the remaining 12 percent fished in the Aleutian Islands, Bering Sea, or Western Gulf. Comparing the sablefish survey data with the 2009 numbers landed in these areas, we found slightly more respondents from Southeast Outside than the actual proportion of total catch recorded from Southeast Outside in 2009.

Question 3

The third question asked respondents to identify the number of crew onboard the vessel during the fishing season. Crew size varies as a function of vessel size and a number of factors. Twenty-seven percent of halibut QS holders reported that they had three licensed crew on the vessel for the 2009 season, 26 percent reported having two licensed crew, and almost 20 percent reported having one crew member. Crew size in the sablefish fishery was larger.

The last category in table 1.4 asks about numbers of licensed crew aboard halibut and sablefish boats when they were engaged in fishing trips for other species. This table shows that half the respondents stated there were three to four QS holders onboard vessels and 21 percent responded they only had one licensed QS holder onboard (Table 1.4).

Table 1.4. Numbers of harvesting crewmembers on trips that targeted halibut, sablefish, and other species in 2009.

Licensed Crew	Halibut	Sablefish	Other Target Species
1	19.6%	13.6%	20.5%
2	26.1%	20.9%	11.5%
3	27.3%	27.2%	25.6%
4	16%	24.6%	25.6%
5	8.9%	10.5%	14.1%
6	1.78%	2.1%	2.6%
8	0%	0.5%	
10	0.3%	0.5%	
Total responses	337	191	78

Another way to analyze this data is to compare the large halibut QS holders with the small QS holders (Figure 1.5). In this figure you can see that the total number of crew onboard for the 2009 season was higher for the large halibut QS holders with 28 percent having three crewmembers and 24 percent having four crewmembers.

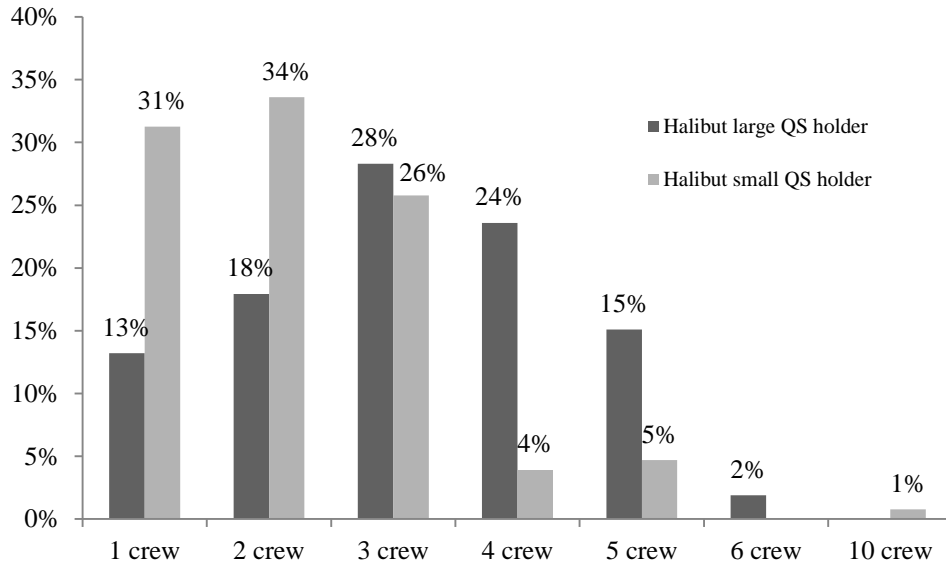


Figure 1.5. Numbers of harvesting crewmembers on trips that targeted halibut by QS holders' size.

The sablefish fishery was similar to the halibut fishery. Figure 1.6 shows in more detail the large sablefish QS holders with the smaller sablefish QS holders. Thirty five percent of large sablefish QS holders 4 crewmembers compared to smaller QS holders who had 20 percent.

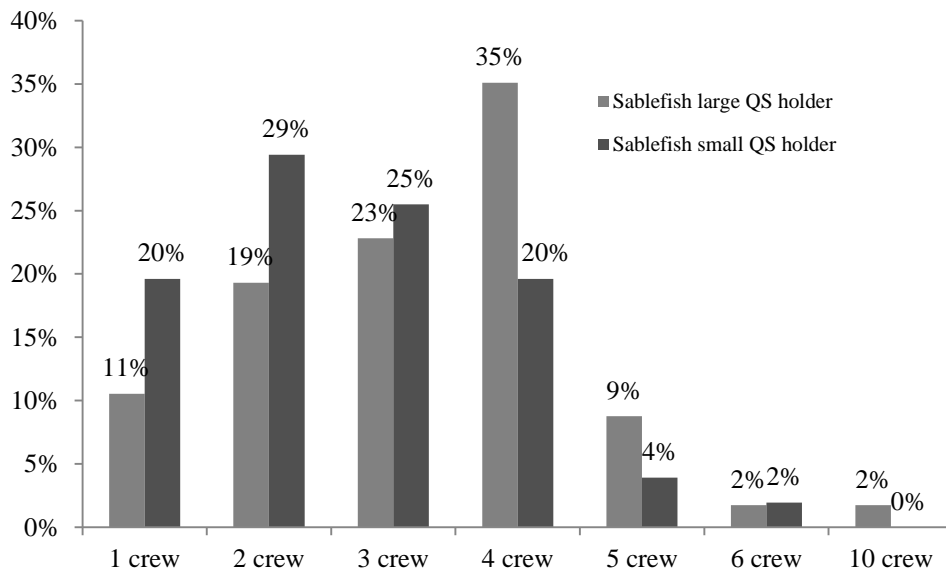


Figure 1.6. Numbers of harvesting crewmembers on trips that targeted Sablefish by QS holders' size.

Question 4

The fourth question was asked to better understand the turnover of crewmembers each season. The sablefish fishery had a higher percentage of keeping four and five crewmembers all season than did halibut holders. Halibut and sablefish crew retention is the same on boats with two and three crew. Halibut vessels with a single crewman tended to retain that crewman for the entire season (except when fishing for other species).

Table 1.5 Number of licensed harvest crew who fished the entire season

Number of crew	Halibut	Sablefish	Other Species
1	23.3%	13.7%	27.6%
2	27.0%	26.4%	22.4%
3	23.3%	23.1%	18.4%
4	15.0%	21.4%	19.7%
5	8.7%	12.1%	11.8%
6	2.0%	2.7%	0.0%
7	0.3%	0.0%	0.0%
10	0.3%	0.5%	0.0%
Total responses	300	182	76

In looking at the number of crewmembers kept all season by size of QS holder, you get a clearer picture of the distribution (Figure 1.7). The number of crew that fished the entire season was higher in larger crews for larger halibut QS holders. Smaller QS holders had a smaller number of crew that fished the entire season. For halibut, 23 percent of respondents indicated that the entire crew of four stayed the whole season and 13 percent of vessels were fished by 5 crewmembers.

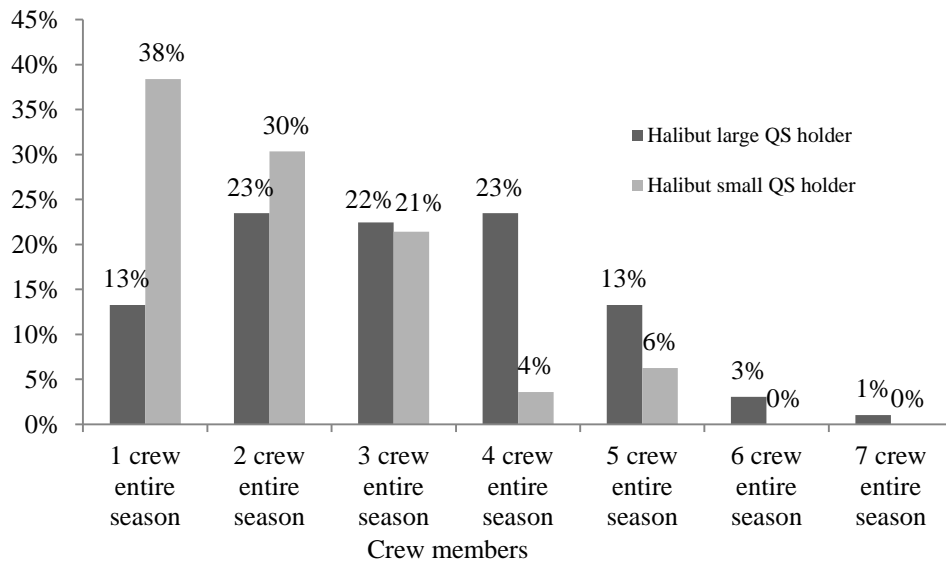


Figure 1.7. Number of licensed harvest crew who fished the entire halibut season by size of QS holdings.

Sablefish was similar to halibut in a comparison of larger QS holders with smaller QS holders. For sablefish large QS holders, 27 percent kept four crewmembers all season. Smaller QS holders were more likely to keep much smaller crews.

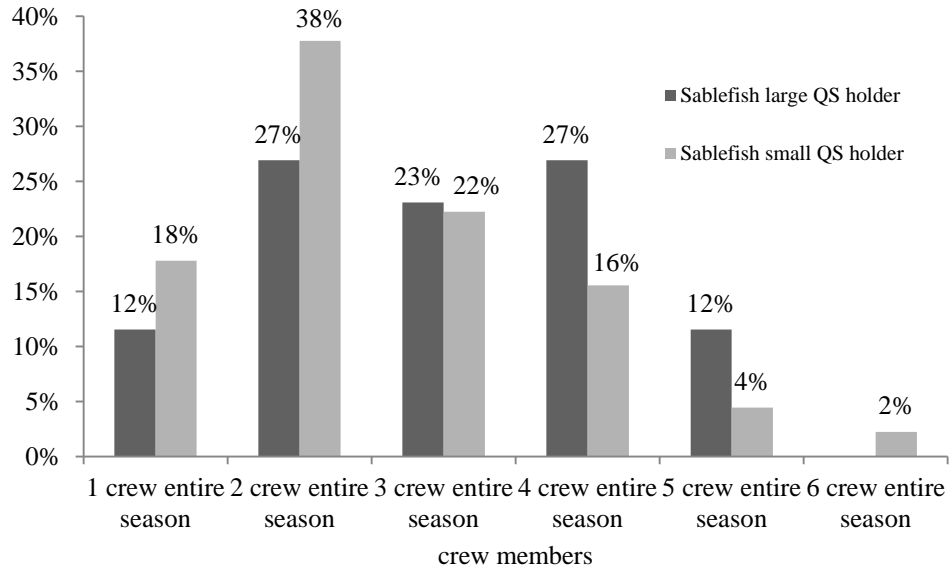


Figure 1.8. Number of licensed harvest crew who fished the entire sablefish season by size of QS holdings.

Question 5

Question 5 was designed to elicit information on the number of QS holders on a vessel during a trip. The response shows similar numbers between halibut and sablefish QS holders that would fish on their vessel. Sablefish vessels had a larger percentage of 3 and 4 QS holders while halibut vessels had a higher percentage of 2 and 5 QS holders (Table 1.6).

Table 1.6. Number of QS holders besides the respondent who fished their QS aboard the respondent's vessel.

QS Holders	Halibut	Sablefish
1	37.7%	40.2%
2	24.7%	18.9%
3	15.2%	18.1%
4	6.7%	12.6%
5	10.3%	7.1%
6	3.1%	1.6%
7	0.9%	1.6%
8	0.4%	0.0%
9	0.4%	0.0%
Total responses	222	127

The survey included a series of questions about where their crew lived in relation to where the most of their fishing activity occurs.

Question 6

The sixth question asks QS holders about where the most of their fishing activity for halibut took place. The answers from the survey were similar to vessel landings in Areas 3A and 2C. Similar to question 2 in the response rate by area and fishery, the halibut fishery in 3B had a slightly higher response rate.

Question 7

Question 7 of the survey asked if the crew resided in the same area as the fishery or if they lived elsewhere in Alaska or were residents from out of state. Information about crewmembers on vessels in Alaska and where they fish in relation to where they live has always been difficult to measure. This question addresses this gap and gives an idea of where crew

reside. Figure 1.9 shows the residence of the halibut crew that fished on the vessel. The first, second, and third crew were primarily from the local area while the fourth through the sixth crew were primarily from outside Alaska. This might suggest that the larger vessels with larger crew had a larger percentage that lived outside Alaska. This was an average of all data entered by the QS holder that shows which areas have crew that live near the fishing grounds. A small percentage (4%) answered that they had 7 to 10 crewmembers on-board over the season. These could be QS holders who advertise to fish their quota on available boats.

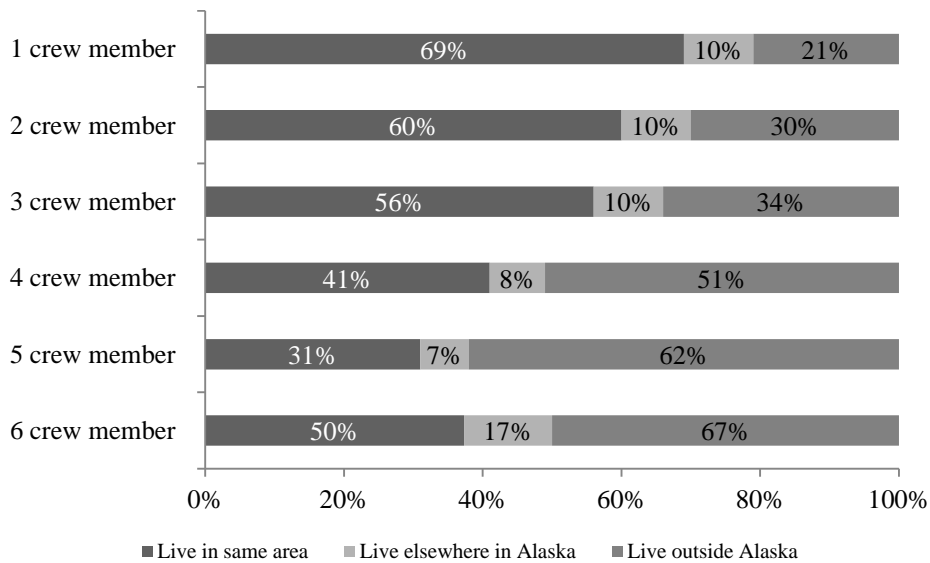


Figure 1.9. Residency of individual crew in the halibut fishery.

The next section considers these same questions by area; it is very difficult to analyze the crewmembers' location in relation to where they fish. Crewmembers commercial fishing are unlike seafood processing workers who are paid a wage or salary. Instead, crew are paid a share of the harvest value. As a result, their employment does not generate payroll records that could be used as a basis for estimating employment in Alaska. One way to gain more information on the crew is through surveys such as this one. Many crewmembers live in Alaska and in the same

community from which they fish, some live in other towns around Alaska, and some live outside of Alaska and come each year to Alaska to crew on vessels.

This question sought to determine where crew lived in relation to where most of their fishing activity took place. Figure 1.10 indicates that a plurality of crew that fish in areas 3B (Sandpoint) were not Alaska residents. In contrast, most of crewmembers aboard vessels that fished in areas 2C (Southeast Alaska) and 3A (Kodiak to Yakutat) were local residents.

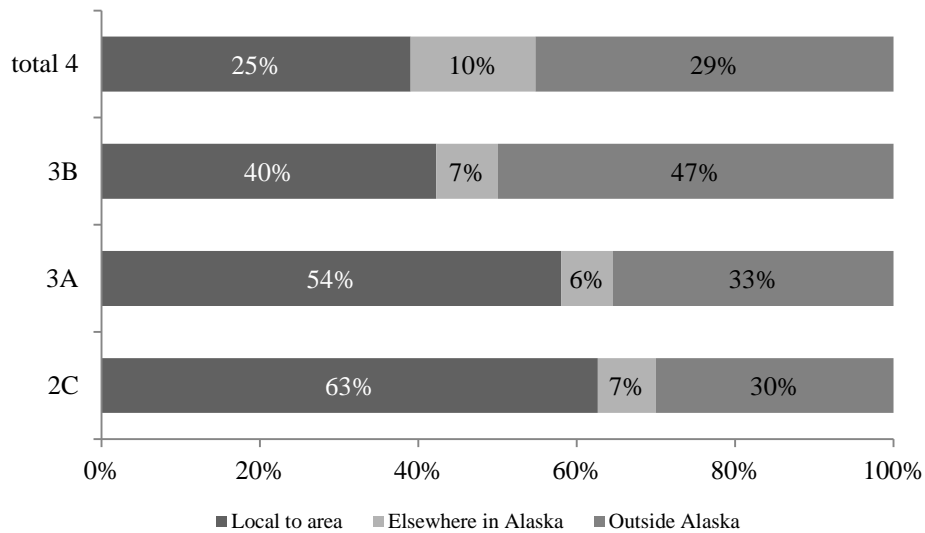


Figure 1.10. Residencies of crewmembers who fished for halibut by area in 2009 (Average response from QS holder of where crew lived).

Question 8

The eighth question asked respondents to identify where the majority of their fishing activity occurred in 2009. Most QS holders fished in Southeast Outside and Central Gulf which is similar to the IFQ allocations and landings (NOAA Fisheries 2009). The response rate was slightly higher in Southeast Outside and Western Gulf.

Question 9.

The ninth question sought additional information about the relationship between areas fished and the residence of crewmembers for the sablefish fishery. Respondents were told that these two questions seek to determine where crew live in relation to where most of your sablefish fishing activity took place in 2009. Where the sablefish crewmembers live in relation to where they fish is also difficult to measure. Many of the crewmembers live in Alaska and in the same community they fish, some live in other towns around Alaska, and some live outside of Alaska and come each year to crew on vessels. The residence patterns of the sablefish crew are similar to those of halibut crew. The first and second crewmembers were most frequently from the local area; the fourth through sixth crewmembers were typically from outside the state. This again suggests that most of the larger vessels crew lived outside Alaska.

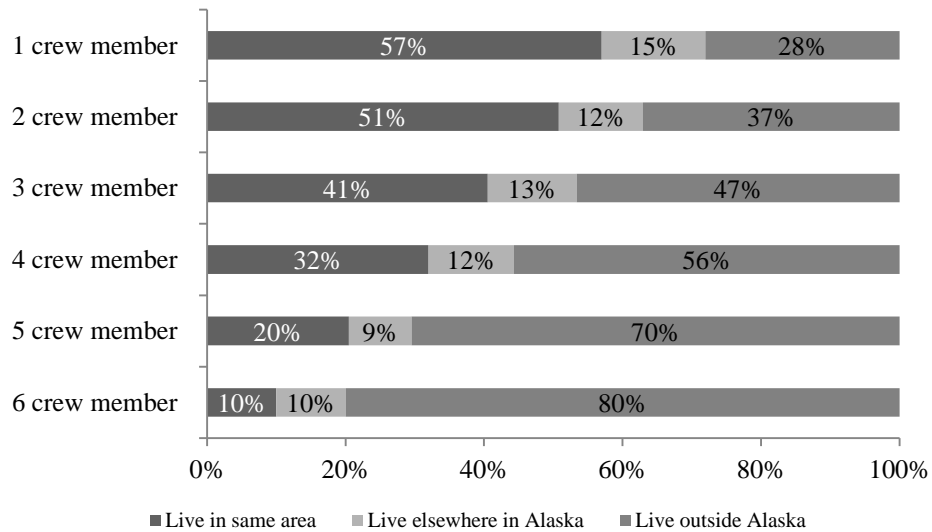


Figure 1.11. Residency of individual crew in the sablefish fishery (Average response from QS holder of where crew lived).

A large percentage of respondents who fished sablefish in 2009 lived outside of Alaska except Southeast Outside. Figure 1.12 shows that the Southeast Outside (SO) region had the highest percentage of residents: 75 percent lived in Southeast Alaska, 5 percent lived elsewhere in Alaska, and 20 percent lived outside of Alaska. The Aleutian Islands (AI) region had the largest proportion of respondents that live outside Alaska; 71 percent; where 6 percent lived in the Aleutian Islands region and 24 percent lived elsewhere in Alaska.

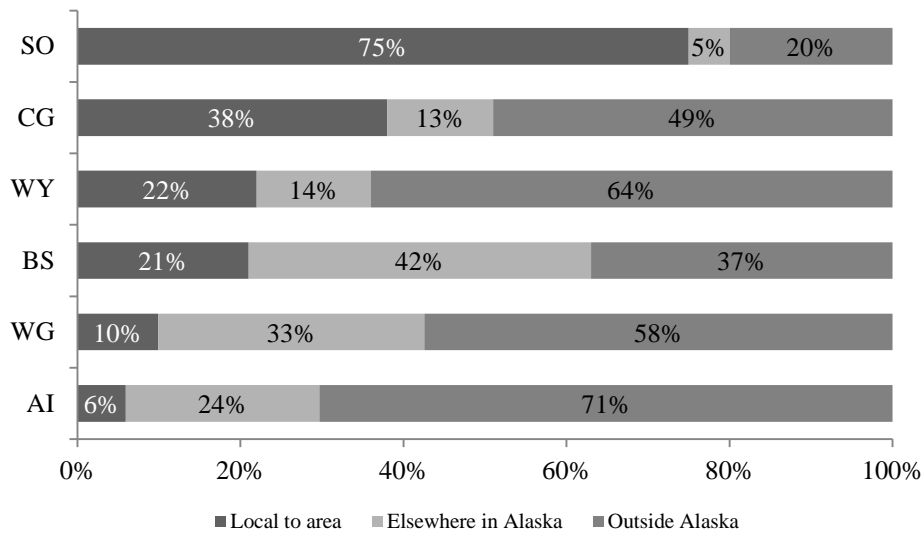


Figure 1.12. Areas where respondents fished for sablefish in 2009.

The next figure represents patterns of crew hiring in relation to permit categories. For smaller C and D QS holders, crew are 7 or 8 times more likely to live in the area where they fish. For C and D large QS holders, crews are twice as likely to live in same region where they fish. For halibut A and B shares, the crew is split evenly between living in the same location and living outside Alaska.

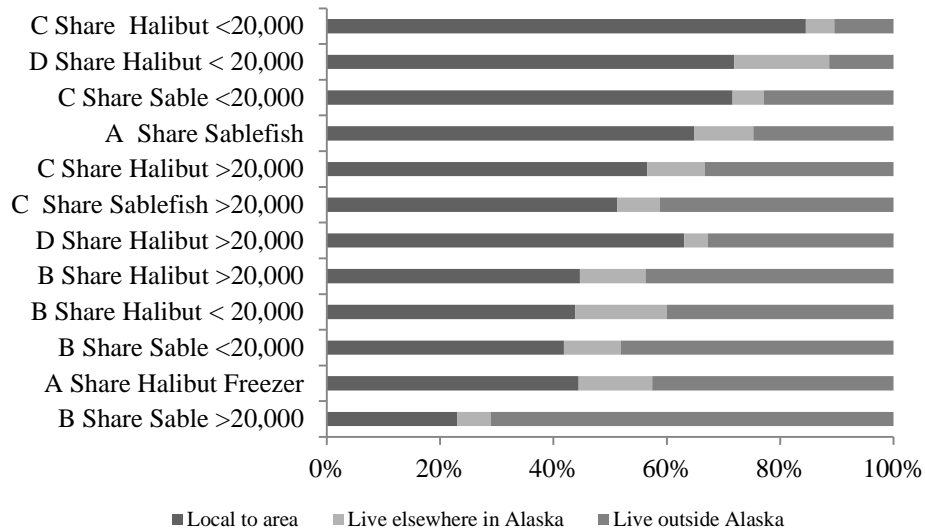


Figure 1.13. Crew residency in relation to vessel class and QS holdings in 2009. QS holdings of less than 20,000 lbs. are denoted “small”; QS holdings of more than 20,000 lbs. are denoted “large”.

In general, larger QS holders had a larger percentage of crew living outside Alaska. This table looks at the average of data entered by the respondents by area and QS holdings. Over 71 percent of the sablefish B share QS holders with over 20,000 lbs. of QS live outside Alaska; 23.8 percent of the large QS holders live in the same regions where they fish and 5.9 percent live elsewhere in Alaska. Crew on larger boats that fish in remote fisheries often reside outside Alaska.

Question 10

Question ten was designed to determine if the hiring of crew has gotten more difficult. Question 10 asked “Over the past 10 years, has it gotten easier or harder to hire qualified crew?” Some fishermen believe this is a problem but most think that there has not been a significant change.

Table 1.7. Difficulty of hiring qualified crew.

	Halibut	Sablefish
Much easier	13.4%	17.8%
Somewhat easier	17.9%	16.2%
No change	48.7%	47.1%
Somewhat harder	17.0%	14.7%
Much harder	3.0%	4.2%
Total responses	335	191

For both the halibut and sablefish fisheries, close to 50 percent of respondents stated there was not a problem in hiring crews. As the fishery has consolidated over the past 15 years, the crew has become more specialized and more experienced. Larger vessels have fewer problems keeping crew from year to year.

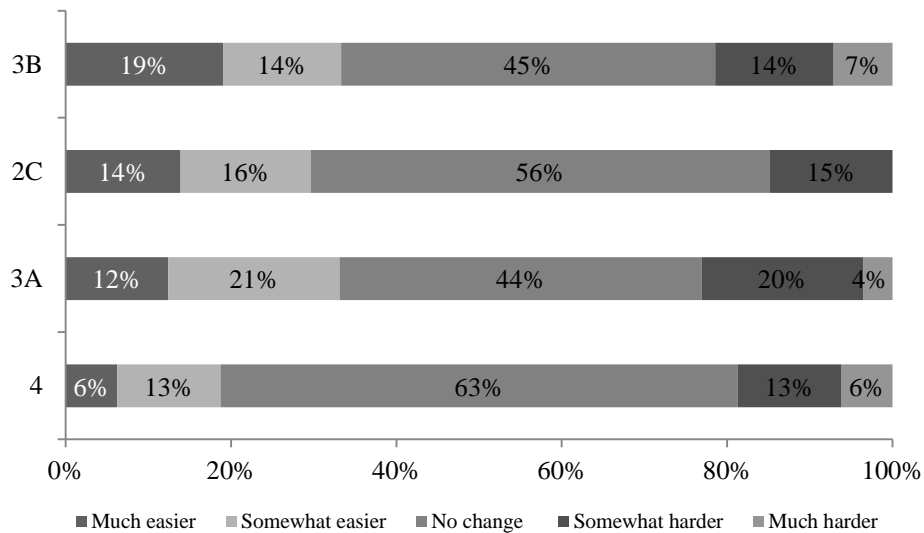


Figure 1.14. Difficult hiring quality crew for halibut fishery.

By area, it is slightly easier to hire crew for halibut in Southeast Alaska and Kodiak compared with sparsely population, long distance and extreme weather of the Aleutian Islands and Bering Sea. The sablefish fishery also has some difficulty finding crew in the Aleutian

Islands, Bering Sea, and West Yakutat, with less of a problem in Southeast Outside, Western Gulf, and the Central Gulf of Alaska.

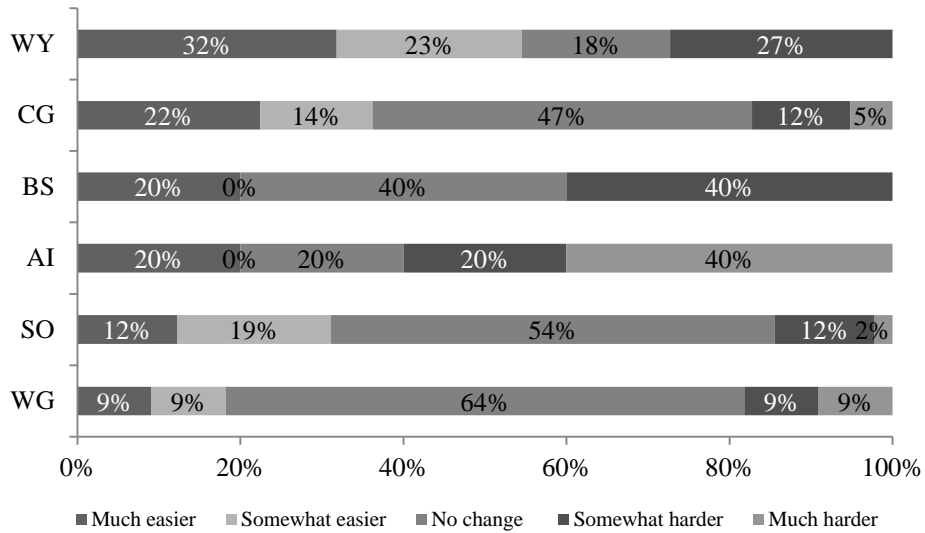


Figure 1.15. Difficult hiring quality crew for sablefish fishery.

The third section of the questionnaire asked: “In which community did you purchase most of your crew and vessel supplies for each target fishery?” Respondents replied they purchased their supplies in Alaska’s larger coastal cities. Home ports such as Kodiak, Petersburg, and Sitka offer more supplies than merely for their home fleet vessels. This is also true to a smaller extent in Cordova, Dutch Harbor, Hoonah, and Juneau. For the sablefish fishery, Dutch Harbor and Petersburg are key suppliers for fishing supplies. Other important supply ports include Homer, Juneau, and Kodiak.

Question 11

This question aims to identify the ports out of which vessels operated during the IFQ season. Question 11 asked for information about the port respondents operated out of most often while targeting halibut and sablefish. The results are presented in Table 1.8.

Table 1.8 Home ports and principal supply ports used by respondents.

	Halibut Home port	Sablefish Home port		Halibut Home port	Sablefish Home port
Adak	2	0	Ketchikan	5	3
Akutan	3	2	King Cove	3	2
Aleutian	1	1	Kodiak	38	16
Alitak	3	0	Pelican	4	0
Auke Bay	1	0	Petersburg	20	11
Cordova	13	9	Port Alexander	2	0
Craig	5	3	Port Protection	1	0
Dutch Harbor	10	11	Sand Point	0	0
Elfin Cove	4	2	Seward	37	31
Excursion Inlet	1	3	Sitka	46	55
Gustavus	1	0	St. George Island	1	0
Haines	4	0	Unalaska	1	0
Homer	69	20	Valdez	5	5
Hoonah	7	2	Whittier	1	0
Juneau	15	9	Wrangell	3	0
Kenai	1	0	Yakutat	8	2

Home ports such as Homer and Kodiak ranked higher as home ports for halibut, and Sitka ranked higher for sablefish. Other ports like Seward, Petersburg, Juneau, and Cordova had both halibut and sablefish more equally selected.

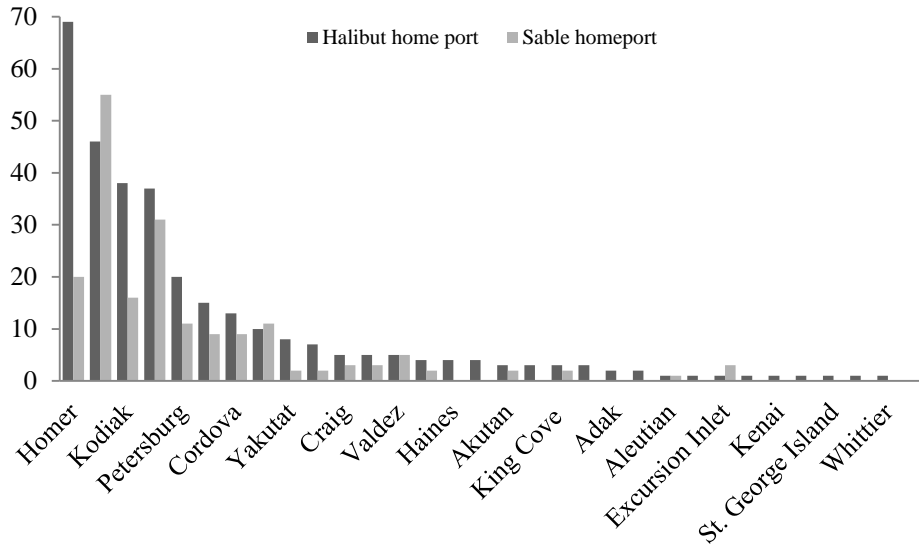


Figure 1.16. Home ports and principal supply ports used by respondents.

The home ports that respondents selected all correspond to Alaska’s top 10 ports listed in the annual Report to the Fleet, (The Pacific Halibut and Sablefish IFQ report for fishing year 2009). The top fishing ports for halibut are Homer and Kodiak, and sablefish top ports are Seward and Sitka.

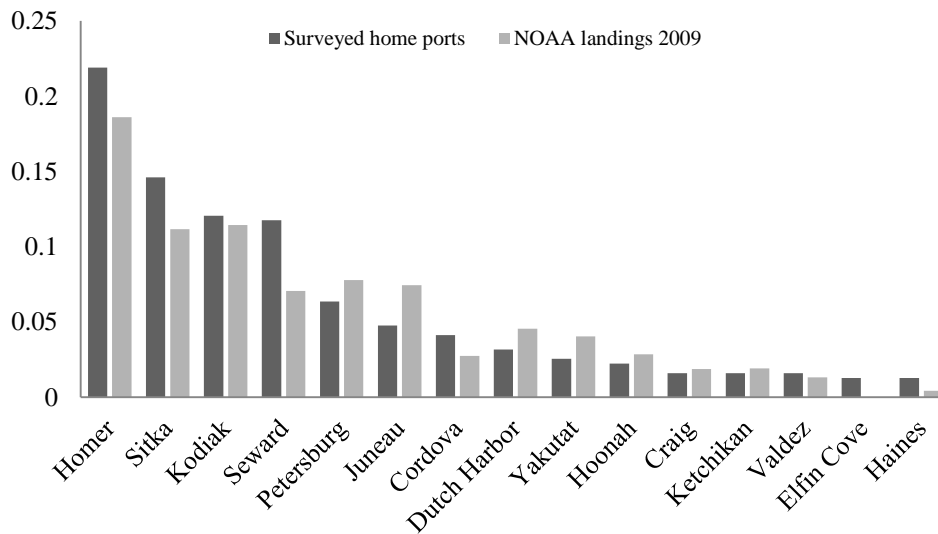


Figure 1.17. Compare surveyed home ports and landings for halibut.

Question 12

The question identifies where vessel operators purchased their supplies. Question 12 asked community did the responders purchase their vessel supplies for each target fishery?

Table 1.9. Respondents community purchased their supplies for the season

	Halibut supply	Sablefish supply		Halibut supply	Sablefish supply
Adak	1	0	Ketchikan	5	4
Akutan	1	0	King Cove	5	1
Aleutian	1	1	Kodiak	47	16
Alitak	0	0	Pelican	0	0
Auke Bay	0	0	Petersburg	30	15
Cordova	14	7	Port Alexander	0	0
Craig	3	2	Port Protection	0	0
Dutch Harbor	15	18	Sand Point	0	0
Elfin Cove	3	1	Seward	20	21
Excursion Inlet	0	0	Sitka	53	53
Gustavus	0	0	St. George Island	0	0
Haines	3	0	Unalaska	1	0
Homer	58	22	Valdez	4	3
Hoonah	12	3	Whittier	0	0
Juneau	19	11	Wrangell	5	2
Kenai	2	0	Yakutat	2	0

Home ports such as Kodiak, Petersburg, and Sitka offer more supplies than just to their home fleet vessels. This is also true to a smaller extent in Cordova, Dutch Harbor, Hoonah, and Juneau. For the sablefish fishery Dutch Harbor and Petersburg are key suppliers; other important supply ports include Homer, Juneau, and Kodiak.

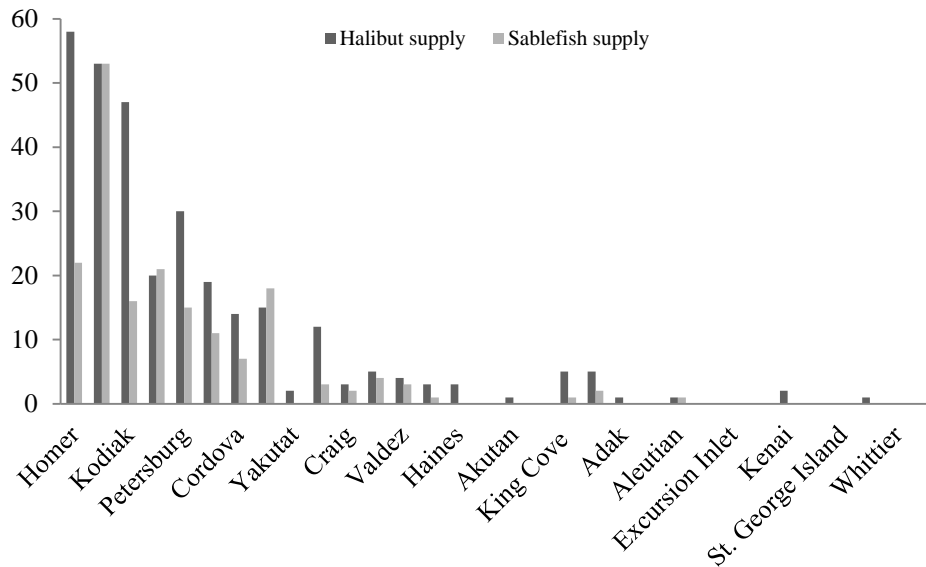


Figure 1.18. Supplies for halibut and sablefish results.

The fourth section of the questionnaire surveys the percentage of gross revenues spent on operational costs. Question 13 was designed to better understand the operational costs of the respondents.

Question 13 Roughly, what percentage of your 2009 gross revenues from IFQ fisheries was spent on the following operational costs?

Table 1.10 Annual expenditures by vessels operating in the halibut IFQ fishery

	Fuel and Lube	Insurance	Bait	Fishing Gear	Vessel Maintenance
0-3%	19%	33%	35%	35%	19%
4-6%	35%	15%	24%	24%	35%
7-10%	24%	9%	11%	11%	24%
11-15%	11%	7%	4%	4%	11%
16-20%	4%	10%	6%	6%	4%
21% +	6%	19%	0%	0%	6%
Total responses	296	296	288	296	296

Table 1.10 lists responses under five cost categories. The first category of fuel and lube is defined as the amount of fuel (diesel or gasoline) and all oils for the generator and engines that were used during the time this vessel was fishing in the 2009 season. The second category asks the 2009 vessel insurance expense. This relates the cost of insurance to total expenditures of the vessel. The third asks the cost in this season for bait. Bait is bought in bulk and put on the longline hooks before the fishing begins; fishermen commonly use squid for sablefish and salmon or octopus for halibut. The fourth question asks the expenses for fishing gear (gloves, hooks, lines, etc.) for the year. The last question asks repair and maintenance expenses on the vessel for 2009 (including boat, electronic, and safety equipment repair and maintenance).

The expenses for the halibut are higher for vessel maintenance and fuel and lube. The percentage of operational costs spent on fuel for the halibut fishery was highest in the more remote area 4 with 34 percent of respondents selecting 16 percent or greater of their total costs. The lowest was 2C in which 60 percent of respondents selected that their cost was less than 6 percent of their operation costs. Area 3A closely followed 2C with 58 percent of respondents selecting that their cost was less than 6 percent of their operation costs.

This amount is less than the total expenditure that was recorded by another survey “Fall 2008 Alaska Commercial Fishermen and Tender Fuel Survey” completed by Sea Grant in the Fall of 2008. At the time of the survey (Fall 2008), the price for the fuel prices were relatively higher than when this survey was done February 2009. The results show that a price increase can have a significant effect on the fishery.

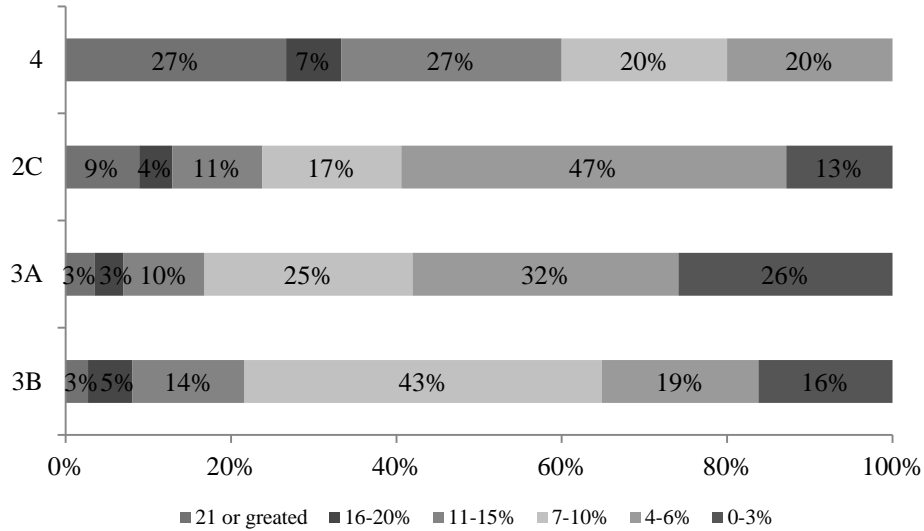


Figure 1.19. Regional variations in the relative share of fuel and lube costs as a component of annual expenditures for halibut IFQ boats in 2009.

Total operational cost for insurance for the halibut fishery was highest in area 4 with over 33 percent of respondents selecting 16 percent or greater of their total costs. The lowest was 3A in which 39 percent of respondents selected that their cost was less than 4-6 percent of their operation costs.

This analysis parallels the general insurance industry guidelines pertaining to commercial boats. Insurance costs derive from a number of factors that include age and type of boat and type of fishery. The biggest expense is the liability for the crew. As reflected in the answers received in the survey, the insurance for the crew that fishes in open water (Bering Sea) is going to pay a higher percentage for liability than a boat fishing on the Alaska inside passage.

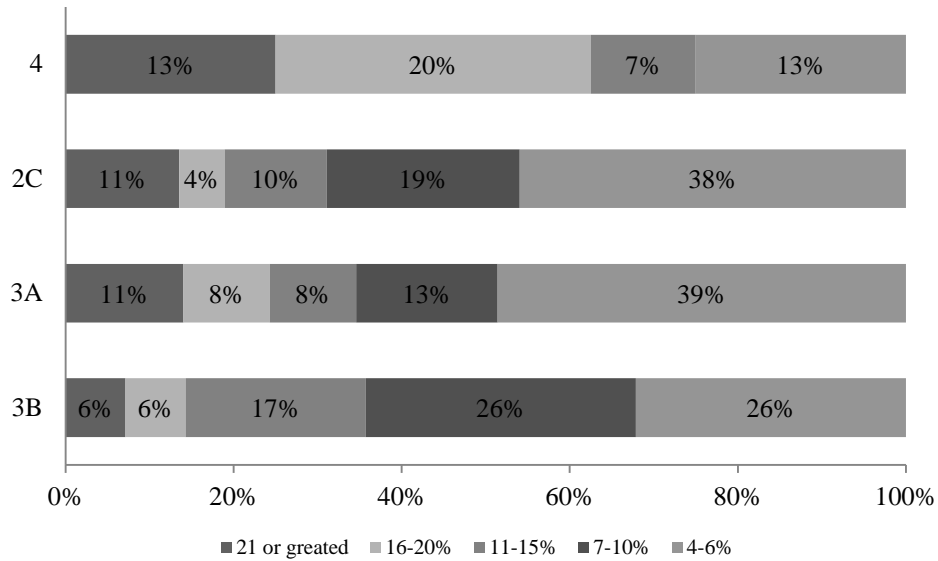


Figure 1.20. Regional variations in the relative share of insurance costs as a component of annual expenditures for halibut IFQ boats in 2009.

Total operation cost for bait for the halibut fishery was a relatively small expense for all areas. The highest was in area 4 with over 15 percent of respondents selecting 21 percent or greater of their total costs. The lowest was 3A in which 87 percent of respondents selected that their cost was less than 6 percent of their operation costs.

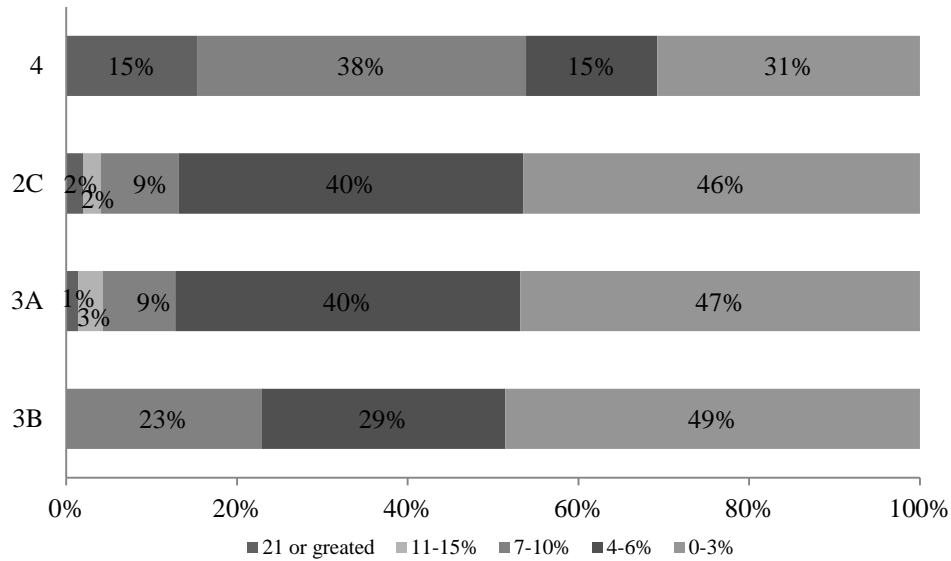


Figure 1.21. Regional variations in the relative share of bait costs as a component of annual expenditures for halibut IFQ boats in 2009.

Total operation cost of fishing gear for the halibut fishery was again a relatively small expense for all areas. The highest was in area 4 with over 13 percent of respondents selecting 21 percent or greater of their total costs. The lowest was 2C, 3B, and 3A in which 84–91 percent of respondents selected that their gear was less than 6 percent of their operation costs.

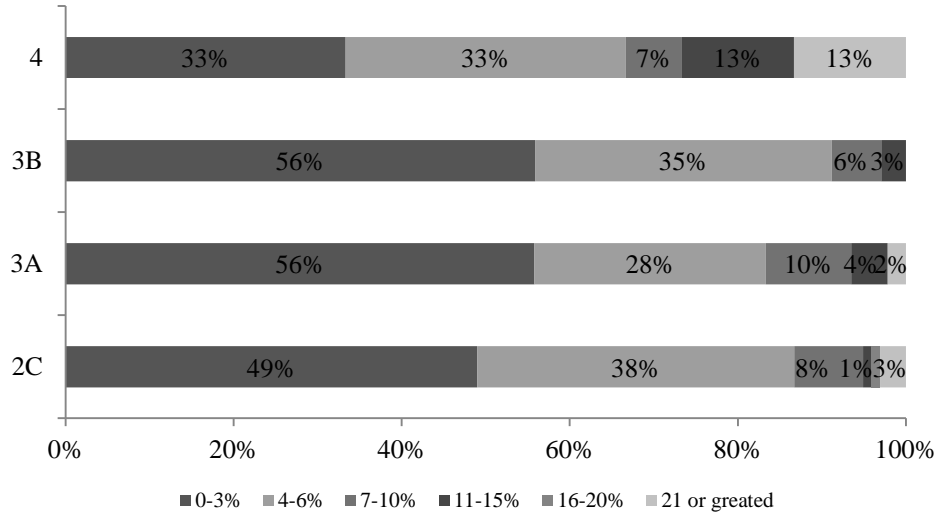


Figure 1.22. Regional variations in the relative share of fishing gear costs as a component of annual expenditures for halibut IFQ boats in 2009.

Total operation costs of vessel maintenance for the halibut fishery was highest in area 3A at 17 percent and 3B with 16 percent of respondents selecting their total costs were 16 percent or greater. Area 4 held the highest range (16–20 percent) of their operation cost. Area 2C maintenance costs were lower with their operation cost expenditures less than 15 percent.

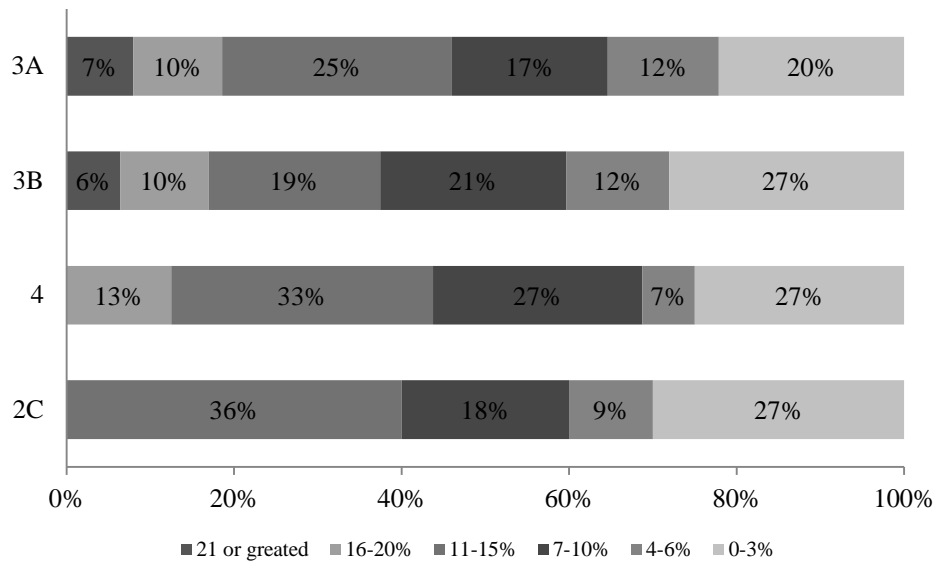


Figure 1.23. Regional variations in the relative share of vessel maintenance costs as a component of annual expenditures for halibut IFQ boats in 2009.

For the sablefish fishery, the percentage of the gross revenues spent on operational costs such as fuel, lube, insurance, and fishing gear are mostly under 6 percent of the gross revenue with bait, and vessel maintenance between 7–15 percent. By Area there is a higher percentage of expense on the purchase of bait and vessel maintenance.

Table 1.11 Annual expenditures by vessels operating in the sablefish IFQ fishery

	Fuel Lube	Insurance	Bait	Fishing gear	Vessel Maintenance
0-3%	23%	35%	17%	33%	14%
4-6%	33%	18%	34%	21%	22%
7-10%	21%	8%	35%	12%	33%
11-15%	12%	8%	12%	4%	15%
16-20%	4%	8%	1%	7%	9%
21% +	7%	22%	1%	0%	8%
Total responses	182	170	212	182	172

The percentage of operational costs spent on fuel for the sablefish fishery was highest in the Aleutian Islands with over 60 percent of respondents selecting 16 percent or greater for their total costs. The lowest was Western Gulf in which 100 percent of respondents selected that their cost was less than 15 percent of their operation costs.

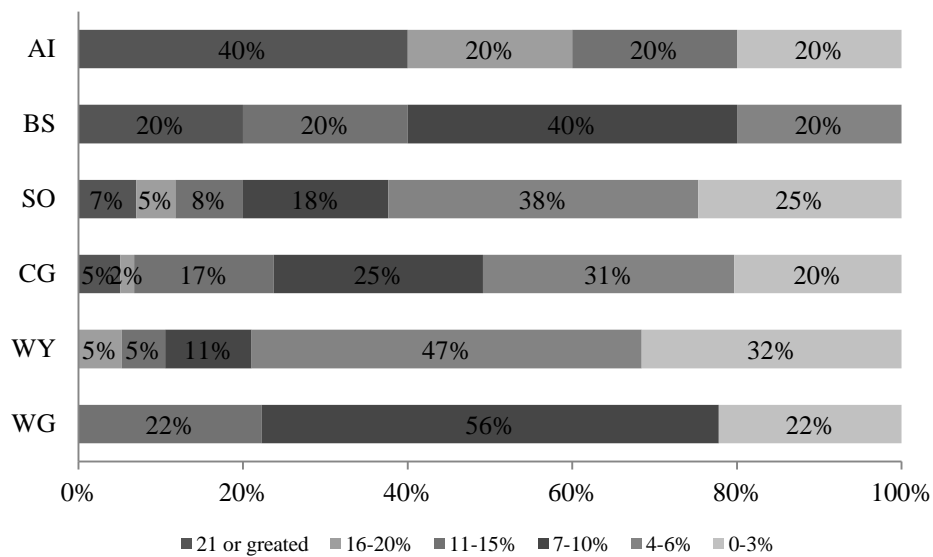


Figure 1.24. Regional variations in the relative share of fuel and lube costs as a component of annual expenditures for sablefish IFQ boats in 2009.

Total operational cost for insurance for the sablefish fishery was highest in the Bering Sea with over 80 percent of respondents selecting 16 percent or greater of their total costs. The lowest was Southeast Outside in which 68 percent of respondents selected that their costs were less than 6 percent of their operational costs.

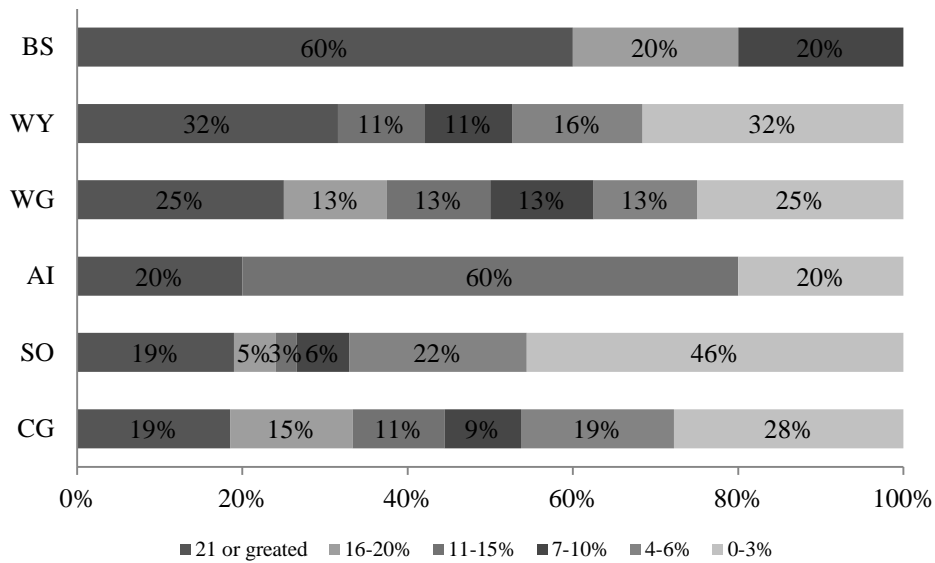


Figure 1.25. Regional variations in the relative share of insurance costs as a component of annual expenditures for sablefish IFQ boats in 2009.

Total operational costs of bait for the sablefish fishery was a relatively small expense for all areas. The highest was in Bering Sea with over 20 percent of the respondents selecting 21 percent or greater of their total costs. The lowest was West Yakutat and Southeast Outside in which between 85 and 90 percent of the respondents selected that their bait was less than 6 percent of their operation costs.

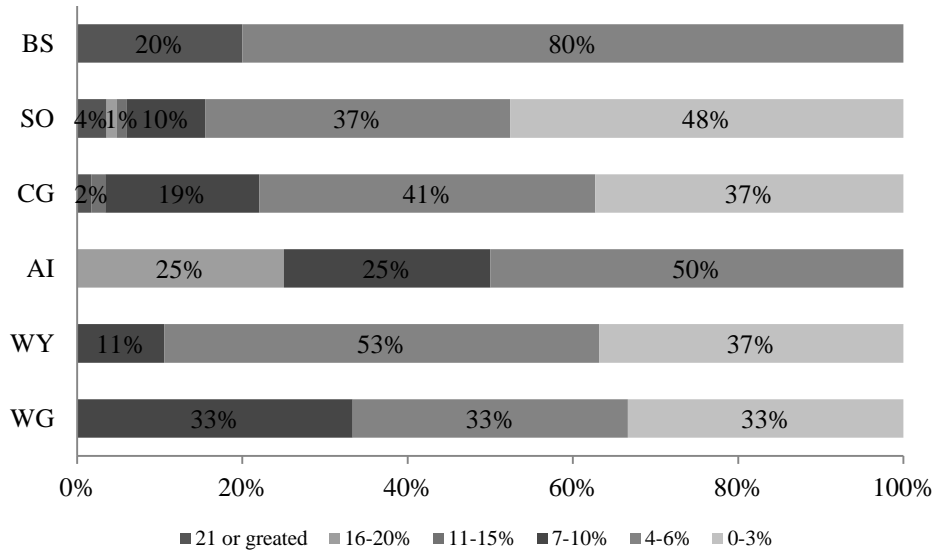


Figure 1.26. Regional variations in the relative share of bait costs as a component of annual expenditures for sablefish IFQ boats in 2009.

Total operational costs of fishing gear for the sablefish fishery was the highest in the Bering Sea with over 20 percent of respondents selecting 21 percent or greater of their total costs. The lowest was West Yakutat in which 84 percent of the respondents selected that their cost was less than 6 percent of their operational costs.

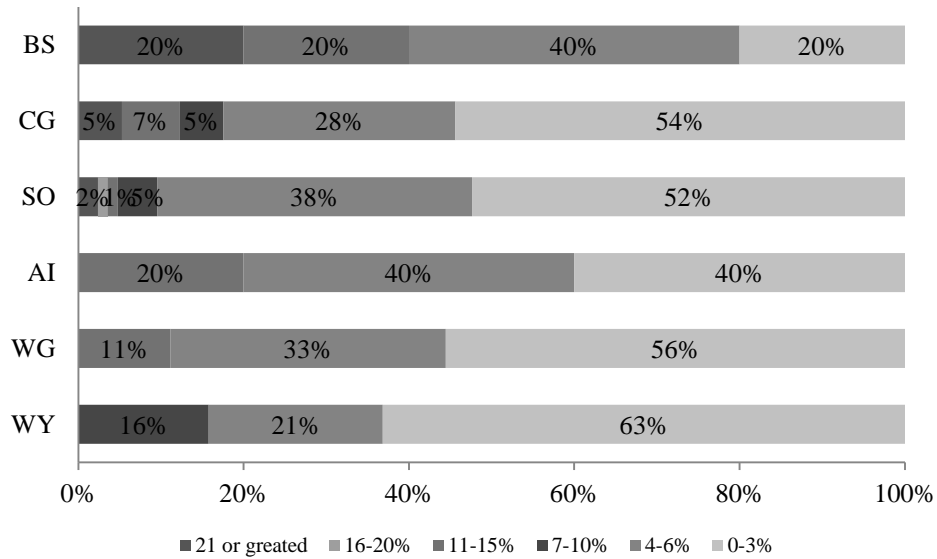


Figure 1.27. Regional variations in the relative share of fishing gear costs as a component of annual expenditures for sablefish IFQ boats in 2009.

Total operation cost for vessel maintenance for the sablefish fishery had the highest percentage in the Bering Sea with 40 percent of respondents selecting 21 percent or greater of their total costs. West Yakutat with 48 percent, had the lowest range of 0–6 percent of their operation cost.

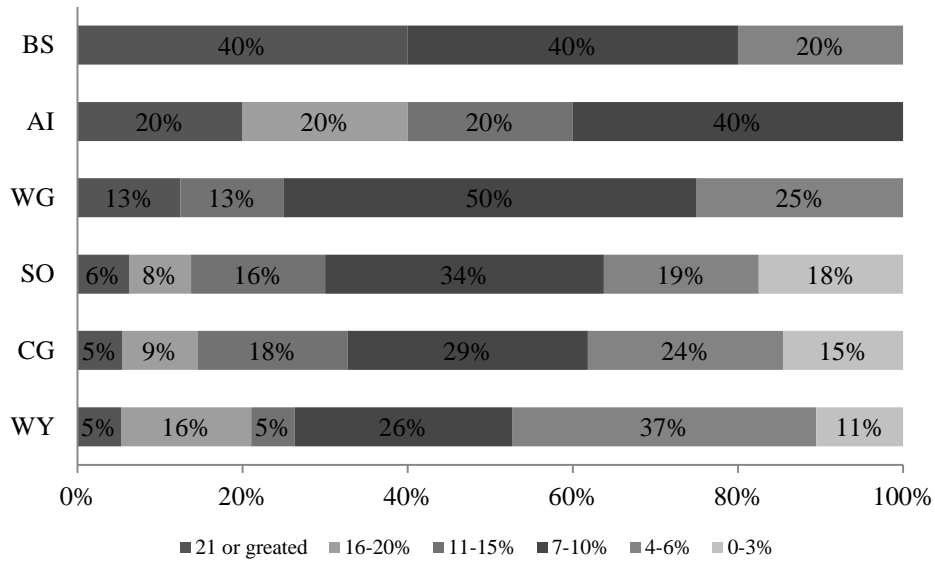


Figure 1.28. Regional variations in the relative share of vessel maintenance costs as a component of annual expenditures for sablefish IFQ boats in 2009.

In comparing annual expenditures by vessel operation with different types of vessel class and QS holding, you can better understand the effects of fuel prices on each class of vessel and QS holder. The large halibut quota holders for A share and B share had larger expenses for fuel than did the smaller quota holders. The large quota holders for sablefish were lower than small QS holders which might suggest that the vessels used for the large sablefish QS holders are much larger and might rate the fuel expense as a lower total percentage. It also might suggest that the larger vessels are more fuel efficient or get discounts with bulk fuel purchases.

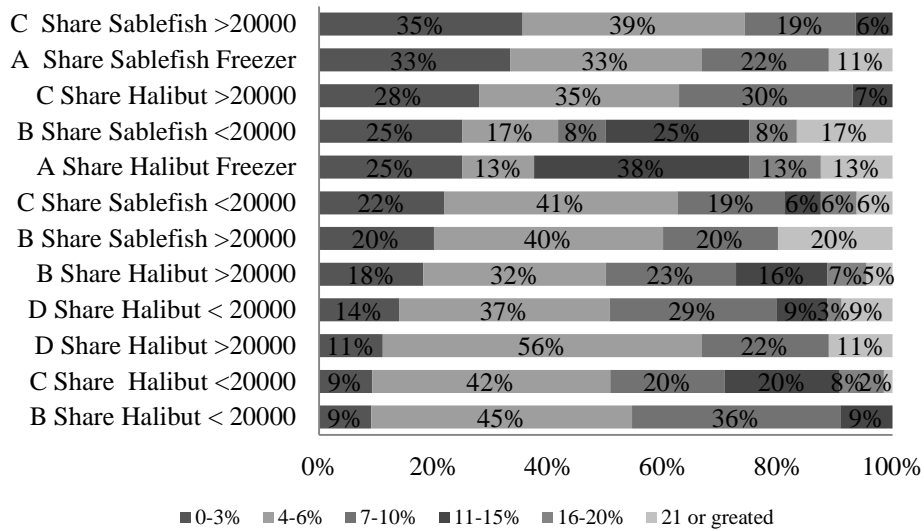


Figure 1.29. Regional variations in the relative share of fuel and lube costs as a component of annual expenditures for sablefish IFQ boats in 2009.

Bait cost in comparison to the QS holders and vessel class shows a similar pattern of fluctuation between sizes and class. Bait costs were slightly higher in A shares for both fisheries but mostly similar across all classes.

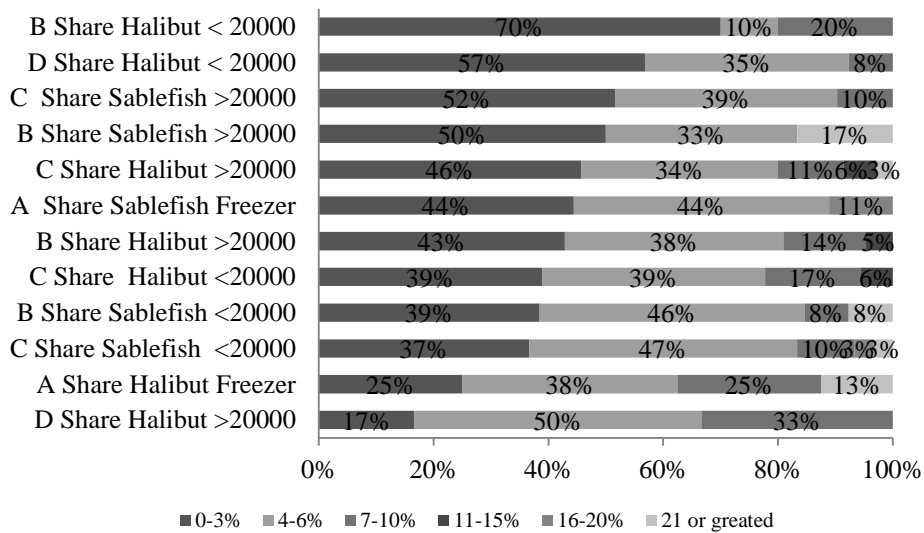


Figure 1.30. Regional variations in the relative share of bait costs as a component of annual expenditures for halibut and sablefish IFQ boats in 2009.

Fishing gear costs were slightly higher in A shares for halibut but mostly similar across all classes.

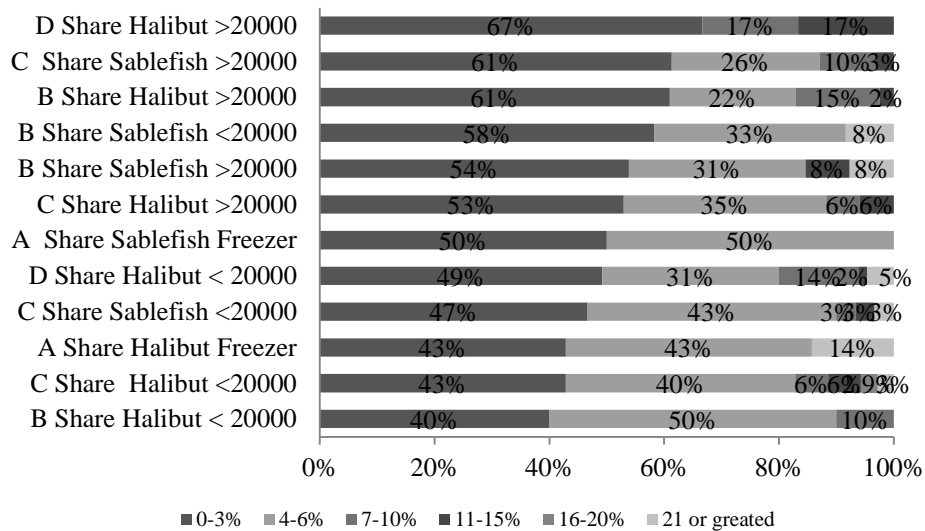


Figure 1.31. Regional variations in the relative share of fishing gear as a component of annual expenditures for halibut and sablefish IFQ boats in 2009.

Question 14

The scope of this question includes the percentage of the gross revenues spent on crew share, captain share, and vessel share for the halibut IFQ fishery. Crew share is the percentage that the crewmember is paid from the revenue of the vessel. Captain share is the amount that the captain is paid. Vessel share is the percentage that the vessel is allocated for a particular fishing trip.

Table 1.12 Crew share, Captain share, and Vessel share as percentages of 2009 gross revenues from participation in the halibut IFQ fishery.

	Crew share	Captain share	Vessel share
0-9%	11%	24%	10%
10-19%	30%	29%	14%
20-29%	30%	17%	21%
30-39%	13%	14%	25%
40-49%	10%	7%	19%
50% +	6%	9%	12%
Total response	375	278	290

Gross revenues spent on vessel share, crew share, and captain share for the halibut and sablefish IFQ fisheries varied by area. For halibut, the Aleutian Islands and the Bering Sea QS holders paid a higher percentage for the vessel share. Sablefish A share and large sablefish QS holders had the largest percentage selected to vessel share. For crew share, the larger halibut QS holders paid a higher amount to their crew than did larger sablefish holders. In general, the captains on the larger vessels paid a higher percentage to the crew than did captains on the smaller vessels. The smaller halibut vessels had the highest percentage of captain share. Crew expenses are more expensive in area 3B and area 4 with regard to the remote location.

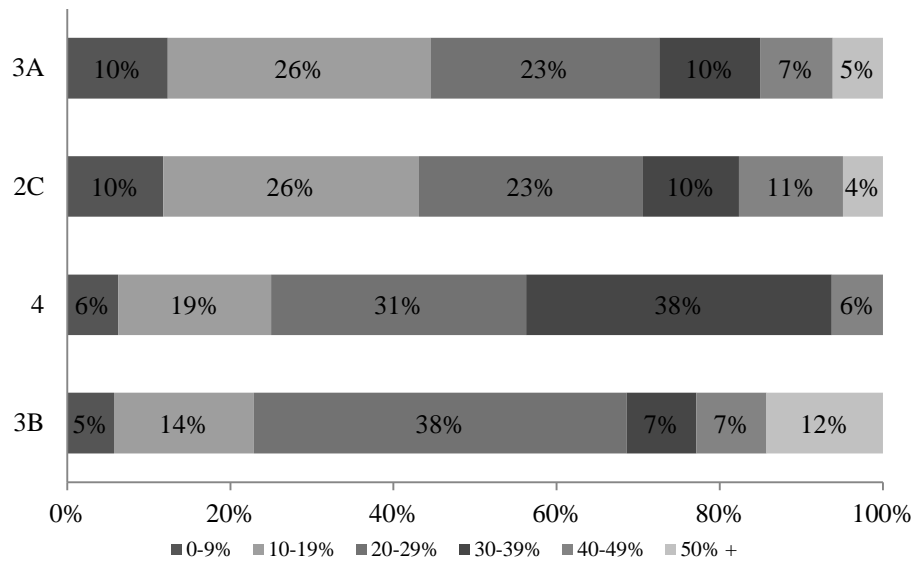


Figure 1.32. Regional variations in crew shares as percentages of annual gross revenues for halibut IFQ boats in 2009.

Captain expenses are more expensive in area 4 with regard to the remote location.

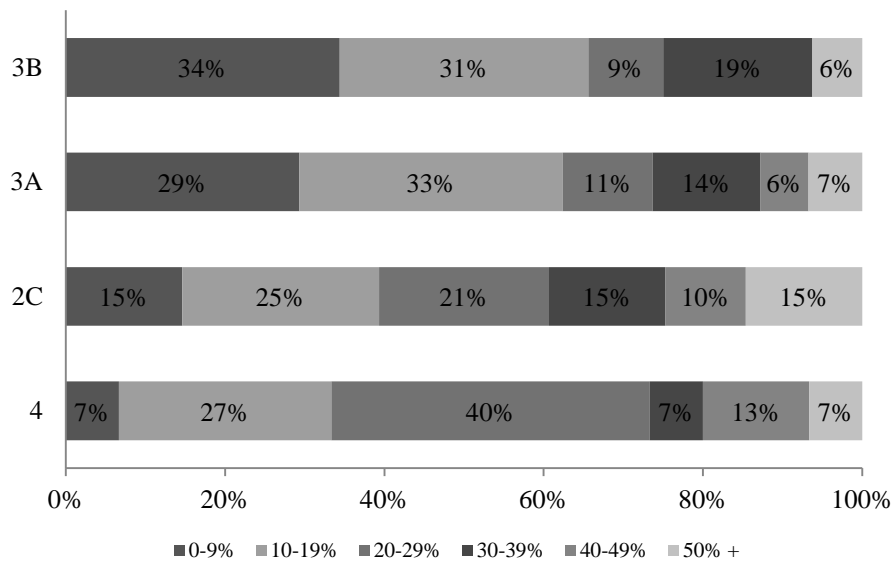


Figure 1.33. Regional variations in captain shares as percentages of annual gross revenues for halibut IFQ boats in 2009.

Vessel expenses are more expensive in area 4 with regard to the remote location.

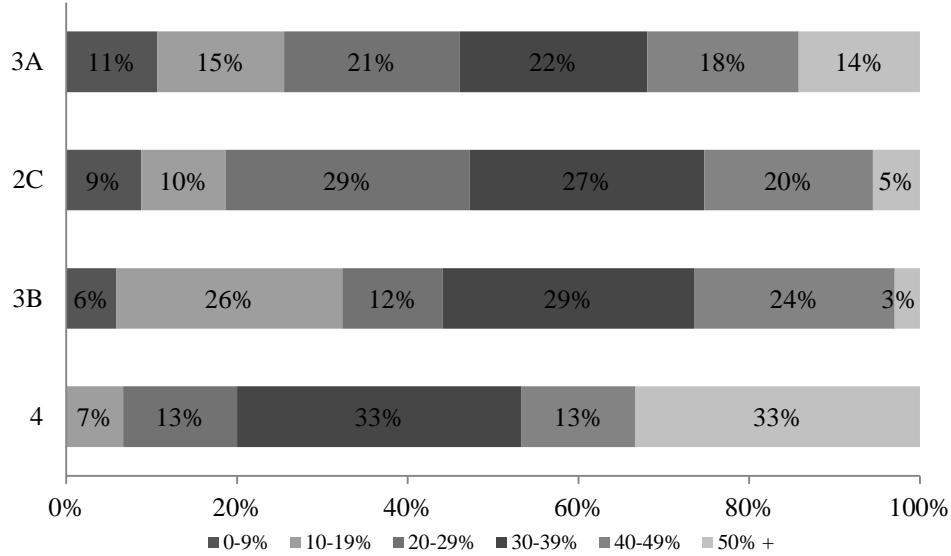


Figure 1.34. Regional variations in Vessel Shares as percentages of annual gross revenues for halibut IFQ boats in 2009.

This section shows the percentage of the gross revenues spent on crew share, captain share, and vessel share for the sablefish IFQ fishery.

Table 1.13 Crew Share, Captain Share, and Vessel Share as percentages of 2009 gross revenues from participation in the sablefish IFQ fishery.

	Crew share %	Captain share%	Vessel share %
0-9%	11%	22%	10%
10-19%	30%	28%	14%
20-29%	30%	9%	21%
30-39%	13%	6%	25%
40-49%	10%	5%	19%
50% +	6%	5%	12%
Total responses	375	218	290

Crew cost are more expensive in the Western Gulf with regard to the remote location.

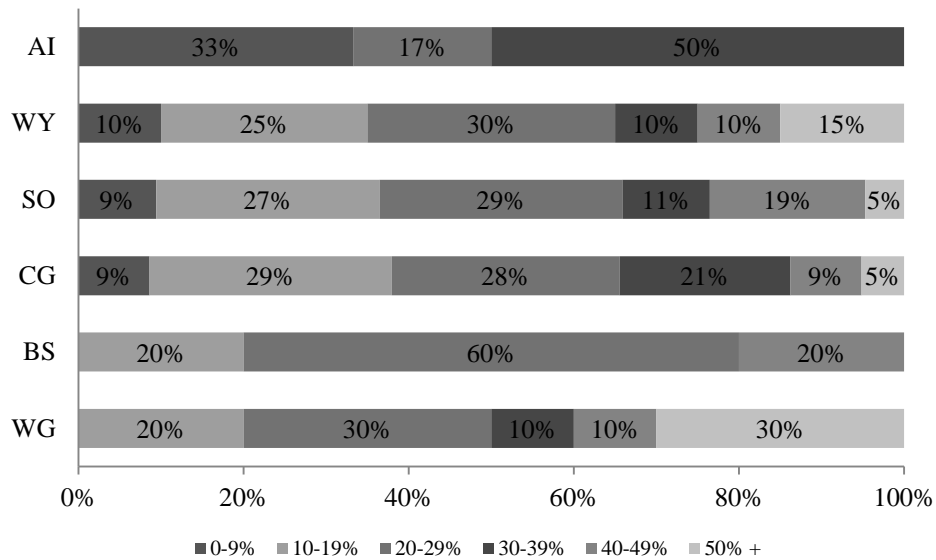


Figure 1.35. Regional variations in crew shares as percentages of annual gross revenues for sablefish IFQ boats in 2009.

Captain expenses are more expensive in the Western Gulf and Aleutian Islands with regard to the remote location.

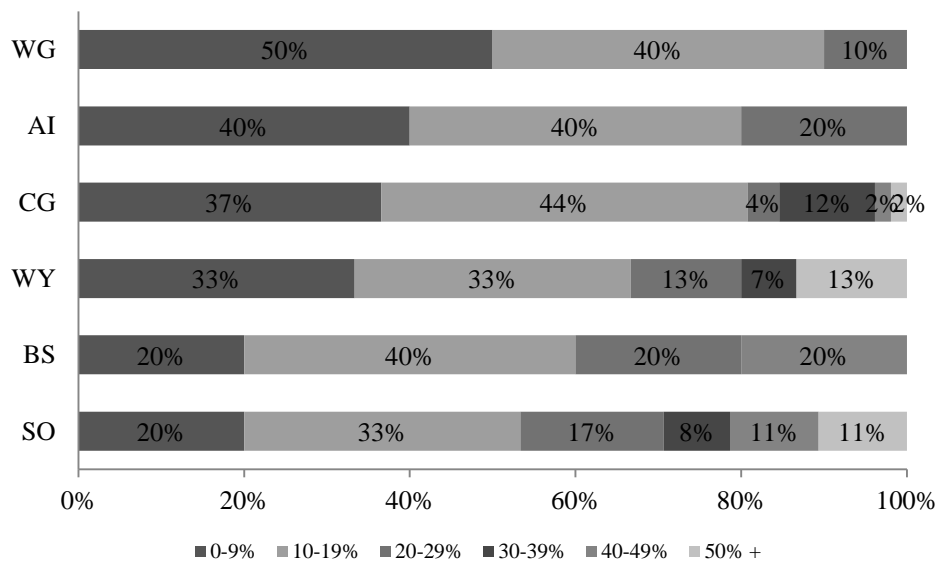


Figure 1.36. Regional variations in captain shares as percentages of annual gross revenues for sablefish IFQ boats in 2009.

Vessel share for the sablefish fishery was higher in the Aleutian Islands followed closely by the Bering Sea with regard to their remote locations.

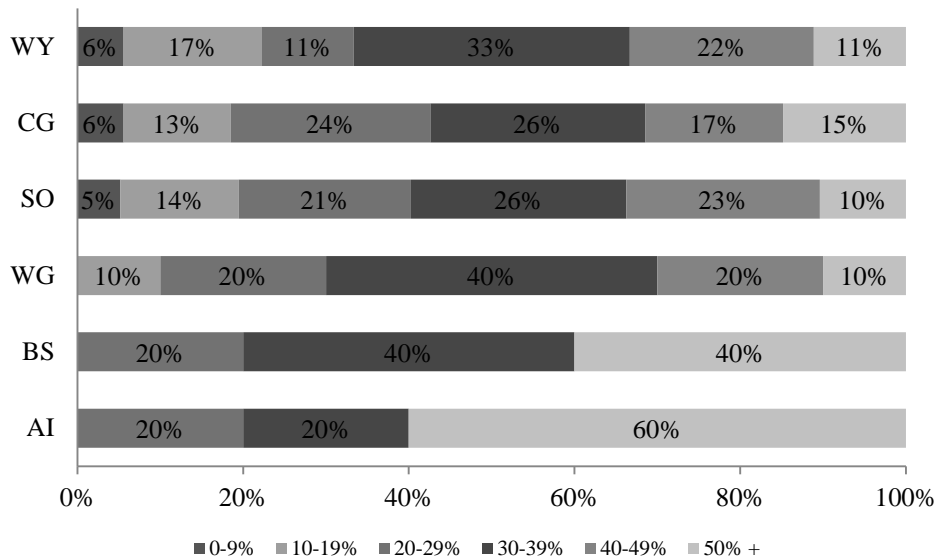


Figure 1.37. Regional variations in vessel shares as percentages of annual gross revenues for sablefish IFQ boats in 2009.

The survey included a series of questions about how fuel prices affected operations during the 2009 season. Most halibut and sablefish QS holders answered that fuel prices did not disrupt their fisheries in the 2009 season. Area 3B showed a higher percentage of being affected by fuel prices for halibut. Question fifteen was designed to determine if the price of fuel disrupted the season. Question 15: Did high fuel prices disrupt your fishing for halibut during 2009?

Table 1.14 Effects of fuel prices on halibut IFQ fishing operations in 2009.

Area	Affected by fuel prices	Not affected by fuel prices	Number of responses
2C	28%	72%	116
3A	27%	73%	169
3B	42%	58%	39
4	29%	71%	17
Overall	28%	72%	341

In the total response for halibut, almost three fourths responded that fuel prices did not disrupt their fisheries in the 2009 season. Response was similar across areas. However, 3B showed a different response of 42 percent of respondents stating that fuel prices did affect their 2009 fishing season. This response makes sense considering fuel prices in 2008 were the highest recorded price to date. There was a dramatic drop in price following 2008 which was a relief for QS holders.

In question sixteen the respondents were next asked about how fuel prices affected their 2009 fishing season for halibut, they ran the engine less, fished closer to delivery port, and made fewer trips. Viewing each question by area for halibut and sablefish, all areas selected, “ran the engine less” as the way most QS holders dealt with the increase in fuel prices.

For those respondents fishing for halibut “ran the engine less” received the most positive response followed by “I made fewer trips.” Ran the engine less is presumed to mean the skipper lowered RPMs and not that they had the engine off more.

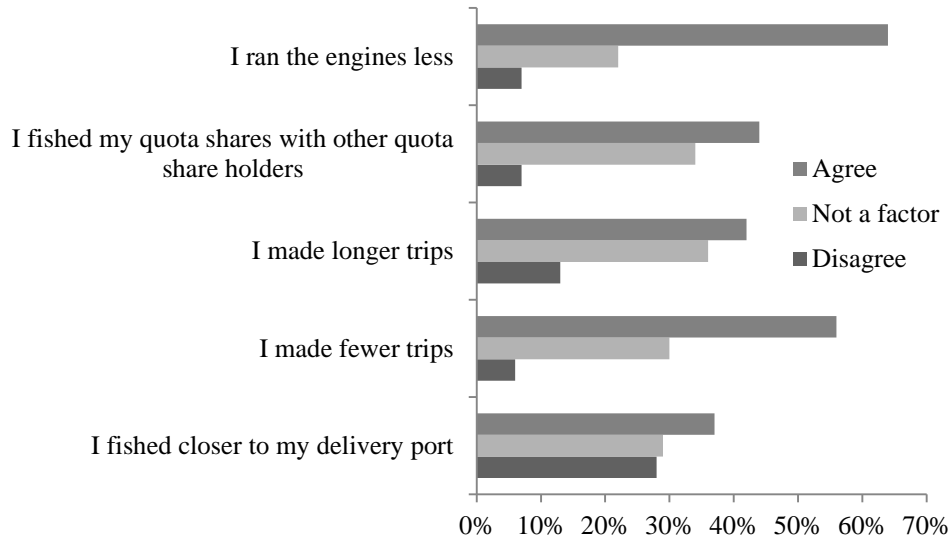


Figure 1.38. Effects of fuel prices on halibut IFQ boats in 2009.

A more detailed examination of regional variation in the responses suggests some interesting results. Figure 1.39 represents a regional breakout of respondents who reported that “I fished closer to my delivery port.” In general, all areas from the halibut fishermen responses agree with the statement of fishing closer to port. It seems that area 4 and area 3B favored fishing closer to their delivery point than do fishermen in areas 2C and 3A.

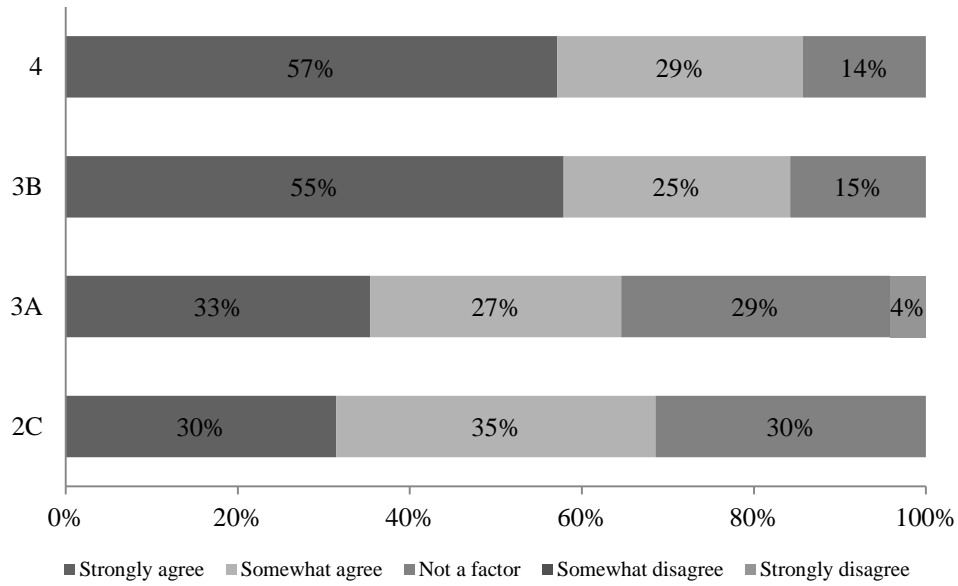


Figure 1.39. Degree of agreement with statement that fuel price concerns led to halibut fishermen fishing closer to delivery port.

Most of the agreement of taking fewer trips was one of the ways to deal with fuel price concerns. Area 4 and area 2C had a higher response rate followed closely by area 3A and area 3B.

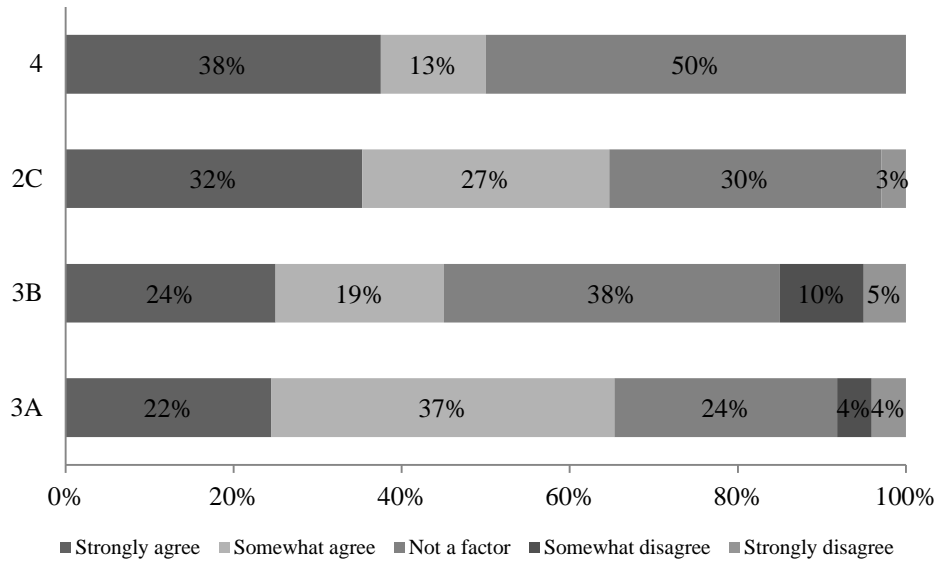


Figure 1.40. Degree of agreement with statement that fuel price concerns led to halibut fishermen taking fewer trips.

Halibut QS holders dealt with fuel price concerns by making longer trips. The response for this was highest in area 4 with 100 percent agreeing, followed by 3B. Half of the respondents from area 3B and 2C agreed with this method.

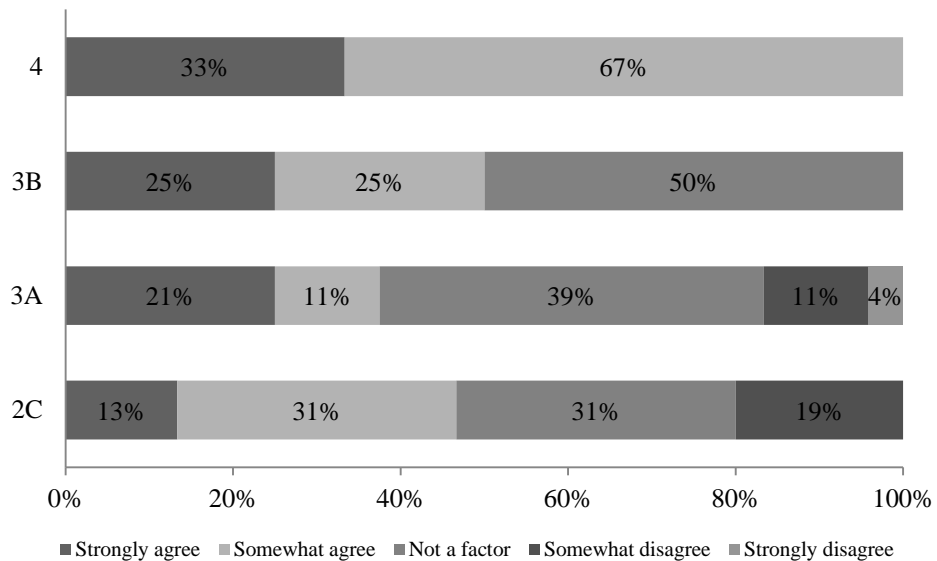


Figure 1.41. Degree of agreement with statement that fuel price concerns led to halibut fishermen making longer trips.

The fourth part of the question was: “I fished my QS with other QS holders”. Many QS holders are fishing together with other QS holders; this seems to be a factor to conserve fuel. The response was similar between area 3B, 3A, and 2C with between 46 to 47 percent agreeing but this was much lower with 75 percent of area 4 respondents selecting “not a factor.”

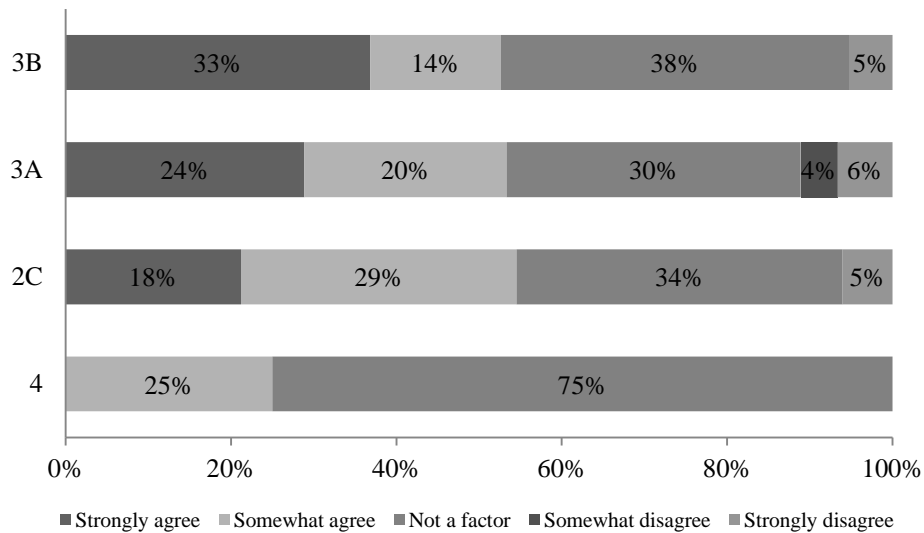


Figure 1.42. Degree of agreement with statement that fuel price concerns led to halibut fishermen fishing quota shares with other QS holders.

The final part of the question in this section was: “I ran the engine less.” Many QS holders agreed with the method of running the vessel less. Many commercial fishing vessels can decrease fuel consumption by reducing speed by just one or two knots and cut fuel consumption by 30 to 50 percent. (Fisk, Greg) This has the strongest agreement with the more remote area 4: area 3A, 2C , and 3B were slightly lower but in strong agreement on this question.

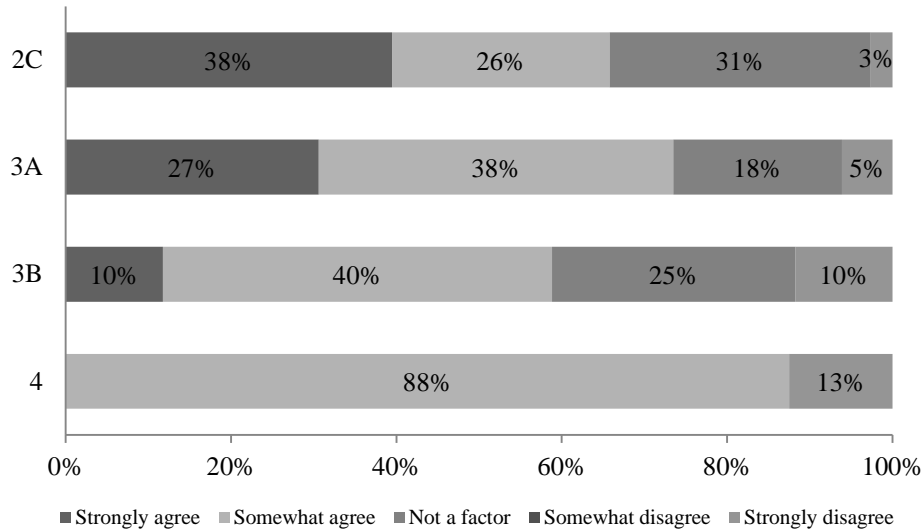


Figure 1.43. Degree of agreement with statement that fuel price concerns led to halibut fishermen to run their engine less.

The following two questions were the same but asked about the sablefish fisheries. Question seventeen was designed to determine if the price of fuel disrupted the season. Question 17: Did high fuel prices disrupt your fishing for sablefish during 2009?

Table 1.15 Effects of fuel prices on sablefish IFQ fishing operations in 2009.

Area	Affected by Fuel Prices	Not Affected by Fuel Prices	Number of responses
SO	27%	83%	6
WY	50%	50%	4
CG	29%	71%	56
WG	19%	81%	93
AI	44%	56%	9
BS	21%	79%	19
Overall	23%	77%	187

Over three fourths responded that fuel prices did not disrupt their fisheries in the 2009 season. Response was similar across areas with the exception of West Yakutat, showing 50 percent of the respondents stating that fuel prices did affect their 2009 fishing season.

The next question was a continuation of the previous question as a follow up to the question.

In question eighteen the respondents were next asked about how fuel prices affected their 2009 fishing season for sablefish. Question 18: If you answered “Yes” in question 17, please rate your level of agreement with the following statements. The most popular response from the sablefish fishermen was “I ran the engine less” followed by “I fished closer to my delivery port.”

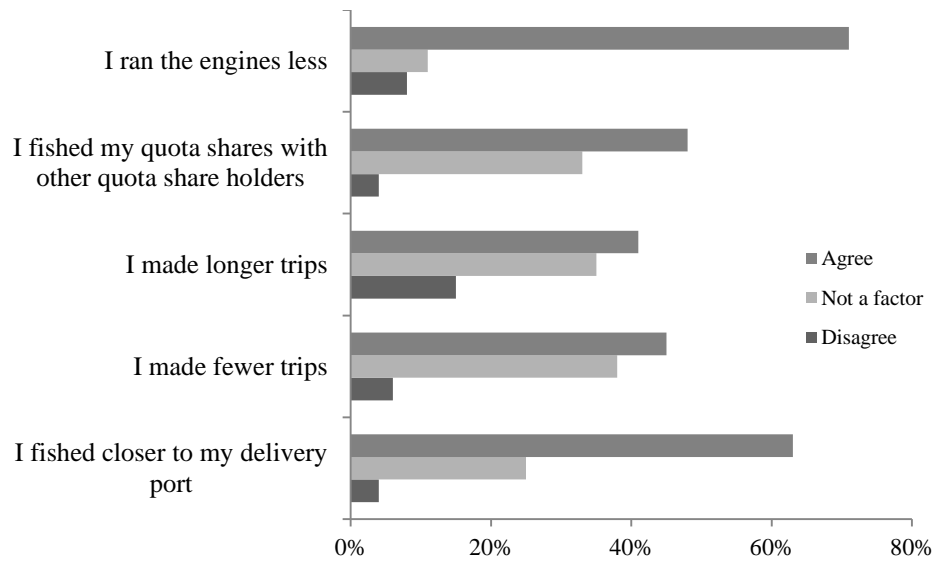


Figure 1.44. Effects of fuel prices on sablefish IFQ fishing operations in 2009.

By area, Southeast Outside, and Bering Sea (followed by West Yakutat and Aleutian Islands) had a higher percentage of positive response for “fishing closer to delivery port.” The sablefish fishermen’s response agrees with the statement that fishing closer to port was an option for rising fuel costs. Aleutian Islands had 100 percent agreement followed by Bering Sea,

Western Gulf, and West Yakutat, which all rated nearly 80 percent that fishing closer to their delivery point was a factor when there were concerns for fuel prices.

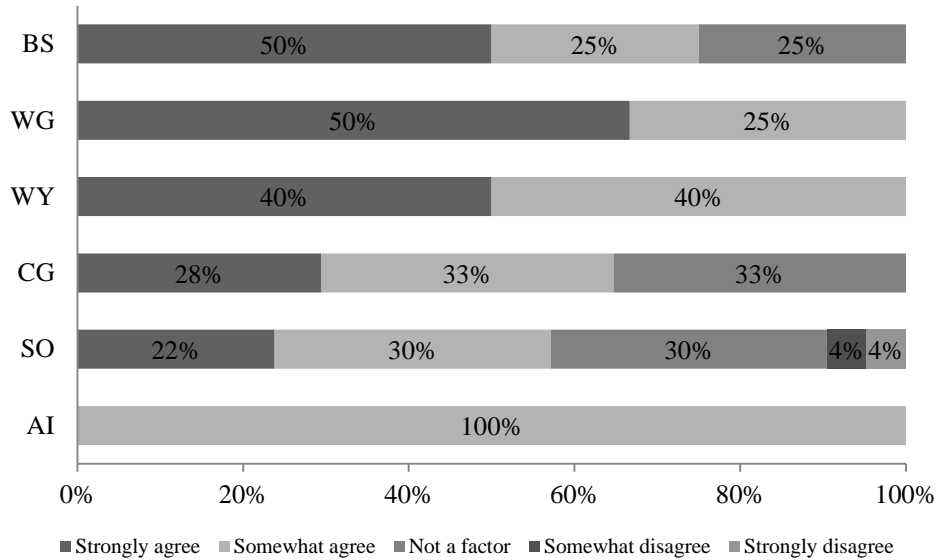


Figure 1.45. Degree of agreement with the statement that fuel price concerns led to sablefish fishermen to fish closer to their delivery port.

In the next question “I made fewer trips,” Central Gulf had a higher percentage that strongly agreed compared to the other respondents. Sablefish QS holders listed taking fewer trips as another way to deal with the fuel price. West Yakutat had a higher response rate at 60 percent. Bering Sea selected “not a factor,” which may be attributed to being an area where trips were taken once or twice a year due to their remoteness.

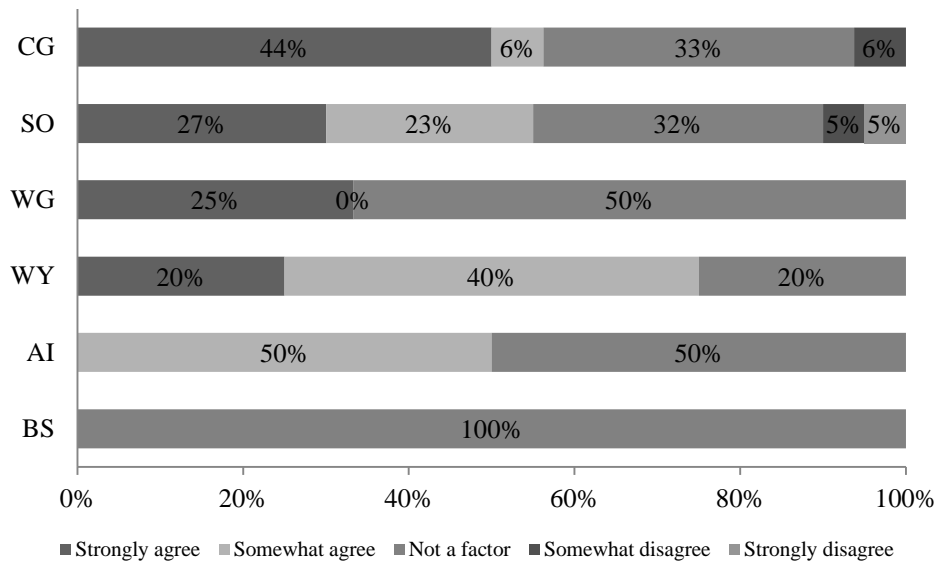


Figure 1.46. Degree of agreement with the statement that fuel prices concerns led to sablefish fishermen taking fewer trips.

The third question “I made longer trips” was highest in Western Gulf which may have been easier to combine two smaller trips into one longer trip to save fuel.

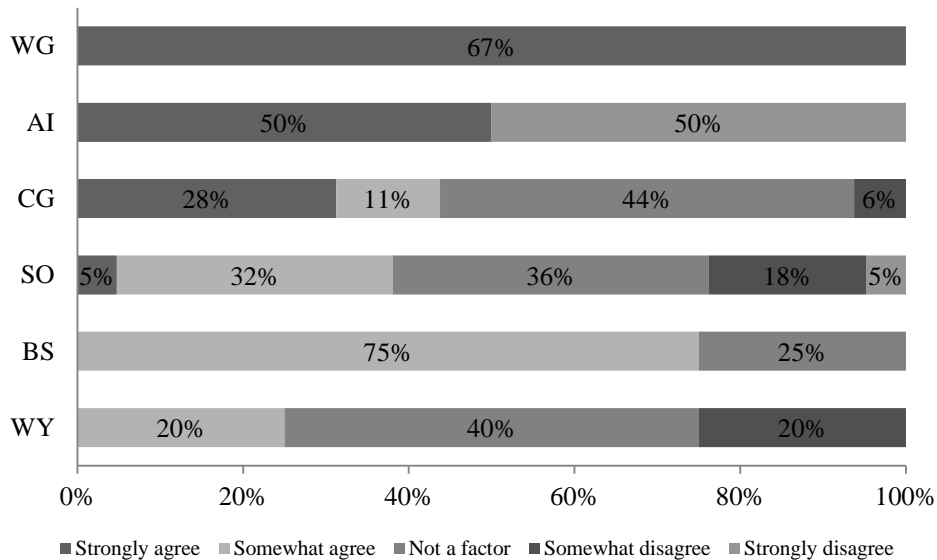


Figure 1.47. Degree of agreement with the statement that fuel prices concerns led to sablefish fishermen making longer trips.

For the fourth question “I fished my quota shares with other QS holders”, the response was Central Gulf with around 50 percent strongly agreeing and 17 percent somewhat agreeing. Central Gulf sablefish quota holders strongly agree that fishing together is important to conserve fuel. The response was similar between areas Southeast Outside, West Yakutat with around 46 percent agreeing but this was much lower with area Bering Sea stated that “not a factor” was around 75 percent of the response.

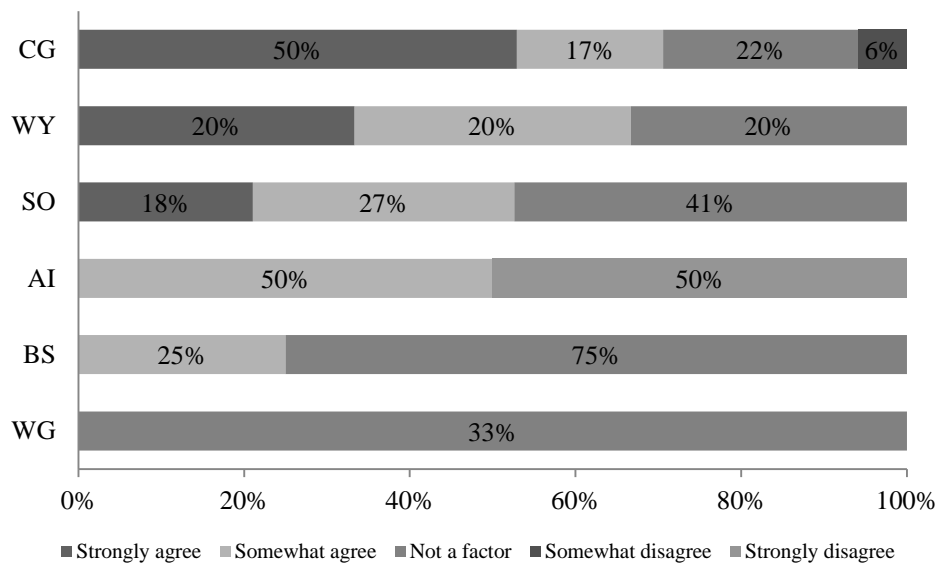


Figure 1.48. Degree of agreement with the statement that fuel prices concerns led to sablefish fishermen fishing their quota shares with other QS holders.

The final question in this section “I ran the engine less was highest in area Southeast Outside, and Bering Sea, and West Yakutat with Central Gulf being slightly lower but still fairly high. Many sablefish quota share holders also agreed that by running the vessel less at a lower rate. Many commercial fishing vessels can decrease fuel consumption by backing off the throttle to the point that stern waves starts to flatten the fuel and consumption drops (Fisk). This has the

strongest agreement with the more remote area of the Aleutian Islands with the other areas being slightly lower but in total agreement on this survey question.

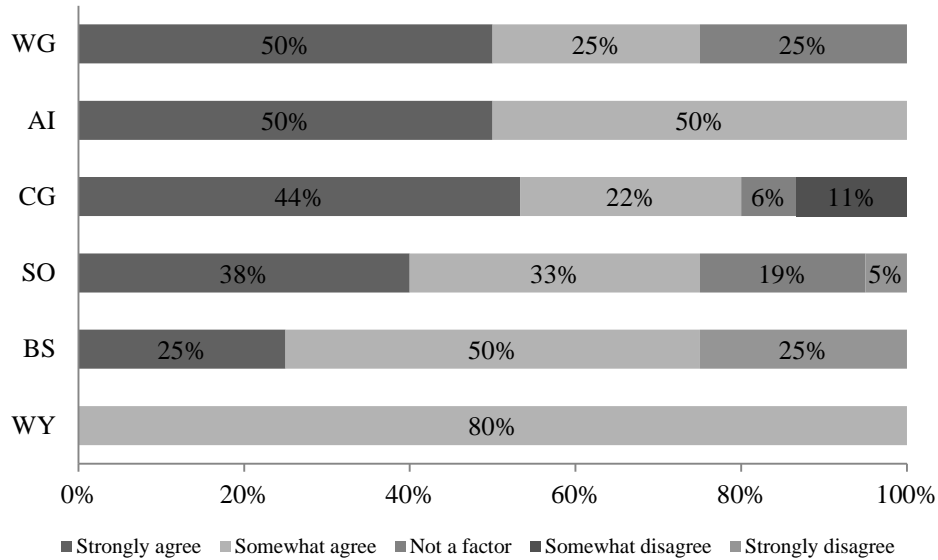


Figure 1.49. Degree of agreement with the statement that fuel prices concerns led sablefish fishermen to run their engine less.

In general, these questions show that a number of factors are involved in how fishermen deal with high fuel costs. Running the engine at a lower RPM seems to be the strongest approach for both halibut and sablefish quota share holders. Making fewer trips was most selected for halibut QS holders and fishing closer to home port was selected as second highest by sablefish QS holders.

Question 19

This question asked “Do you plan on purchasing more halibut quota share in the future?” Respondents for halibut were mostly unsure about their interest in purchasing additional QS. Almost fifty percent responded that they did not know if they were going to buy more quota.

Response was similar across all areas with the exception of area 4 (Aleutian Islands and Bering Sea), where respondents indicated they were planning to purchase more quota.

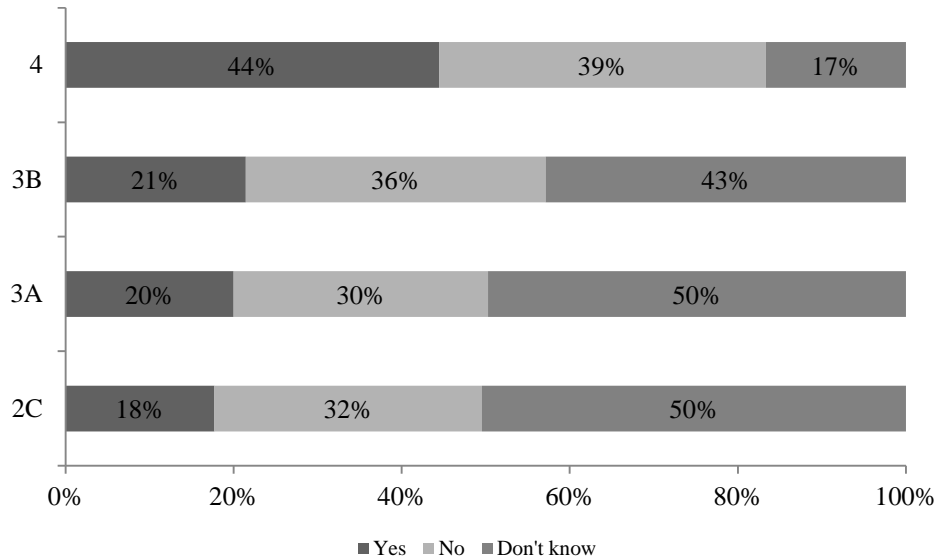


Figure 1.50. Purchase more halibut quota shares in the future.

Question 20

Based on answers to Question 19, this question asked “If you answered “No” or “Don’t know” in question 19, please rate your level of agreement with the following statements.” The survey included the following options: Cannot afford more QS at this time; not enough time (to fish more QS); Plan to retire in the near future; concerned about annual limits; concerned about charter catches; concerned about charter catches; find it too difficult to obtain financing; plan to buy QS in a different fishery.

Table 1.16 Plans for not purchasing more halibut QS.

	No opinion	Strongly disagree	Somewhat disagree	Not a factor	Somewhat agree	Strongly agree	Total responses
Cannot afford more QS at this time	0.04	0.05	0.05	0.22	0.3	0.33	276
Not enough time	0.04	0.35	0.06	0.43	0.09	0.03	275
Planning to Retire in the near future	0.06	0.26	0.03	0.38	0.19	0.08	279
Concerned about annual limits	0.03	0.01	0.02	0.09	0.35	0.5	282
Concerned about charter catches	0.02	0.03	0	0.08	0.19	0.68	281
Too difficult to obtain financing	0.05	0.08	0.05	0.43	0.25	0.12	276
Plan to buy QS in a different fishery	0.19	0.19	0.04	0.43	0.11	0.03	272

Responses for asking if there is a plan to purchase more halibut in the future varied. Area 4 was higher in this category, showing the highest willingness to purchase more QS at this time. The other areas 3A and 3B are similar to the averages for this answer. Area 2C had a lower level of agreement in purchasing more QS, possibly related to the lower annual limits and concerns about charter fishing.

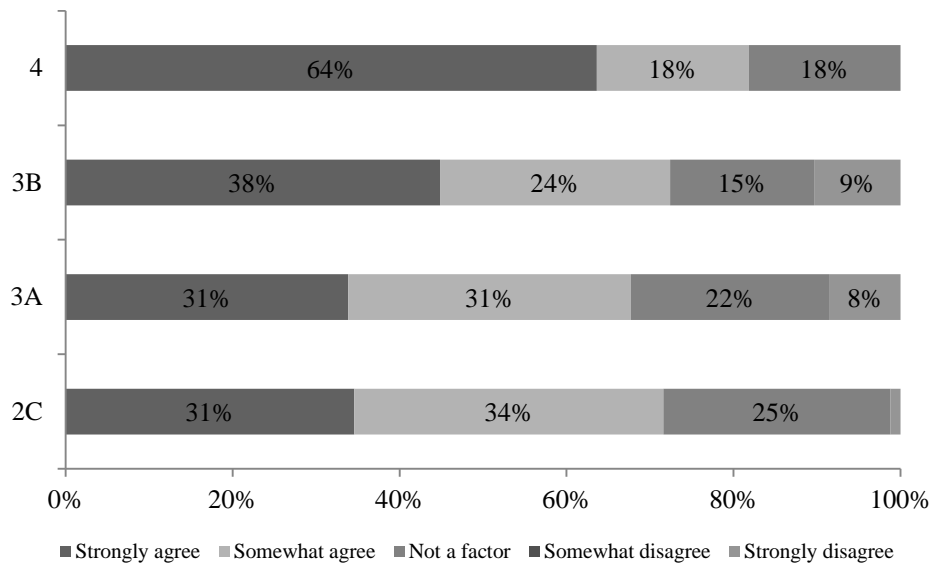


Figure 1.51. Cannot afford more halibut QS at this time.

For the second statement “I do not have enough time to fish more QS than I currently own,” most respondents believed this was not a factor. QS owners only have a certain number of days to fish each season so this question was targeting if this was a factor in their decision to purchase more QS. Most of the response in 2C, 3A, 3B, and 4 selected not a factor, averaging around 40 percent. The highest percent of responses to disagree with this question was in area 4.

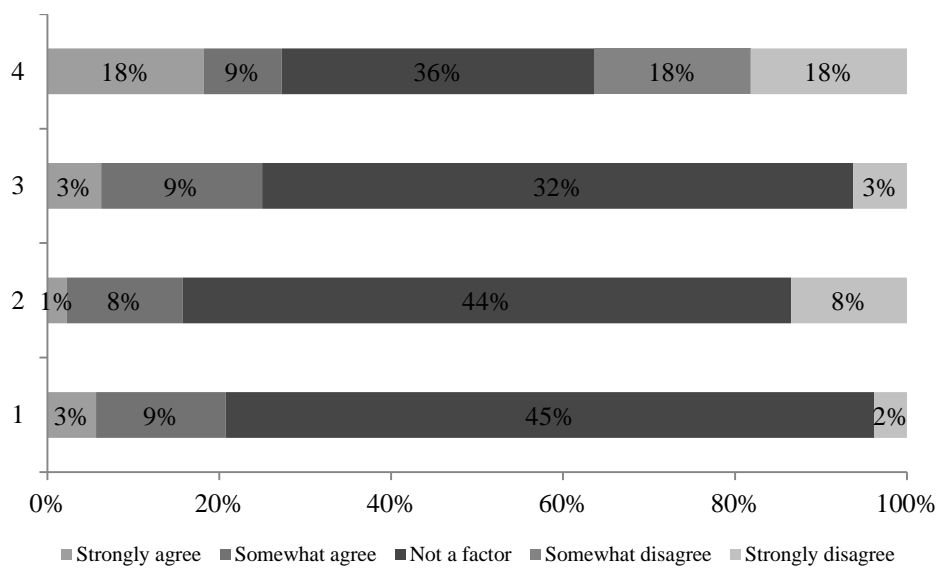


Figure 1.52. Did not have enough time to fish the halibut QS.

The third part of the question “I am planning to retire in the near future” from the halibut fishery,” most respondents believed this was not a factor. A number of halibut QS holders agreed to this with a response percentage between 25 and 32 percent. The largest percentage agreeing to this question was 3B which was just over 32 percent.

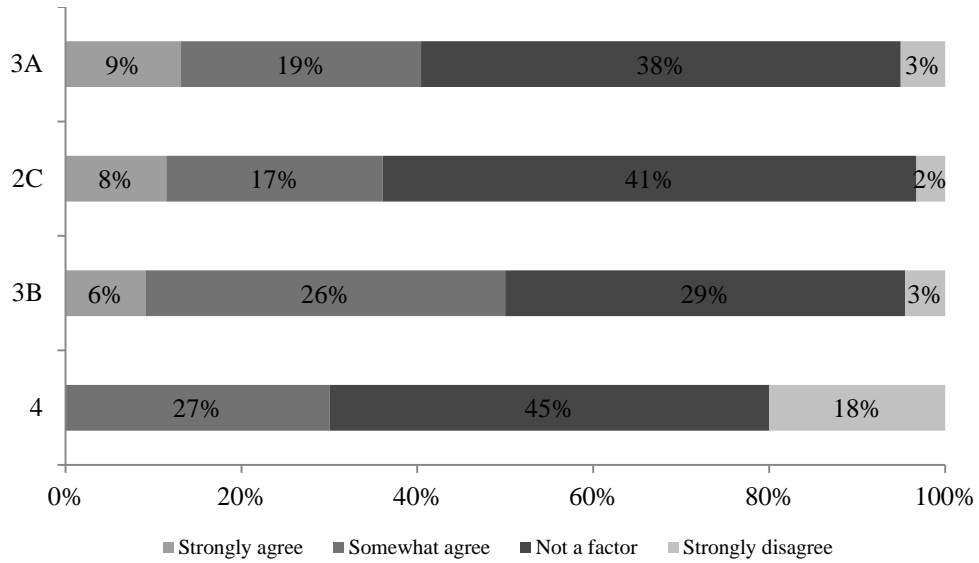


Figure 1.53. Planning to retire in the near future from halibut fishing.

In the fourth statement “I am concerned about declining annual limits,” respondents were in strong agreement across all areas. There has been a drop in Total Allowable Catch (TAC) in the past several years for the halibut fishery, and this has led to widespread concern for annual limits.

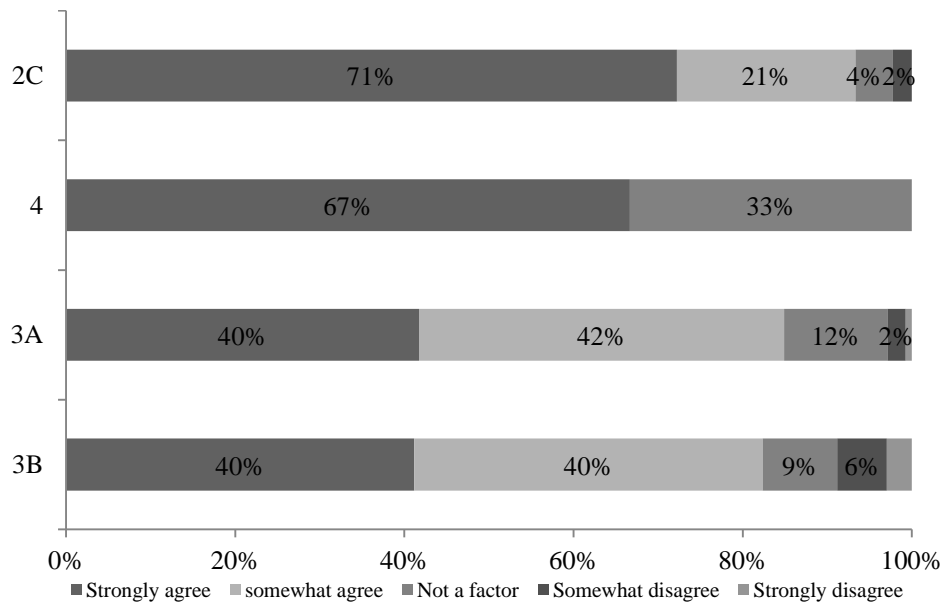


Figure 1.54. Concerned about declining annual limits for halibut.

The response was highest in area 2C with 71 percent strongly agreeing and 21 percent somewhat agreeing. The lowest agreement was area 4, and it was still relatively high at 67 percent, showing some concern about the declining limits in all areas.

The fifth statement “I’m concerned about increased sport fishing charter catches” captured strong agreement. Sport fishing has become more of an issue in recent years with the continued growth of charter fishing. In recent years, limits have been imposed on the halibut charter fishery in area 2C and 3A. The highest level of agreement for this question for the halibut areas was 2C with 85 percent strongly agreeing and 9 percent agreeing. Area 4 was 30 percent lower than 2C, with 18 percent strongly agreeing and 36 percent agreeing.

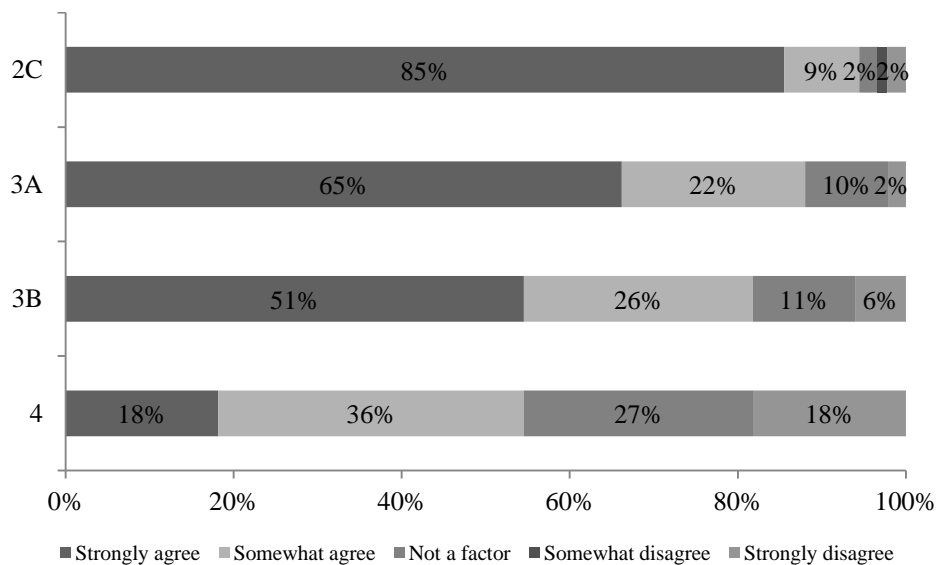


Figure 1.55. Concerned about increased sport fishing charter catches for the halibut fishery.

The sixth statement “It is too difficult to obtain financing” showed markedly different response by area. One of the difficulties in obtaining additional QS holdings for halibut is to obtain financing. The most remote area 4 had the highest percentage agreeing with this question

with 27 percent strongly agreeing and 36 percent agreeing for a total of 63 percent, the highest in this category. Area 2C was the lowest showing the highest level of “not a factor” (53 percent).

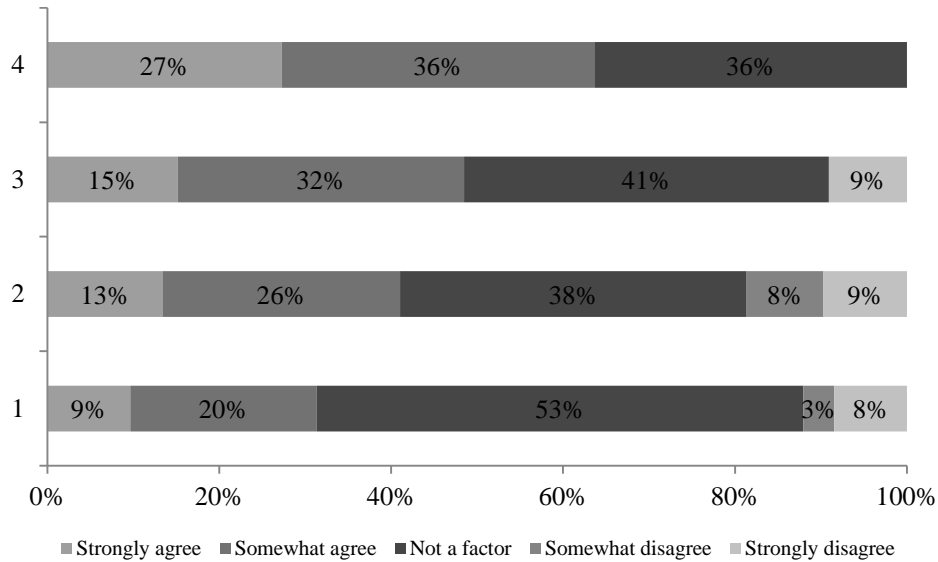


Figure 1.56. It is too difficult to obtain financing to purchase halibut.

The final statement for this set for halibut was “I plan to buy QS in a different fishery”. This statement indicated a QS holder is interested in exiting the halibut fishery. Most of the responses for this part of the survey for all areas was not a factor. For all of the responses, disagreement was higher than the agreement.

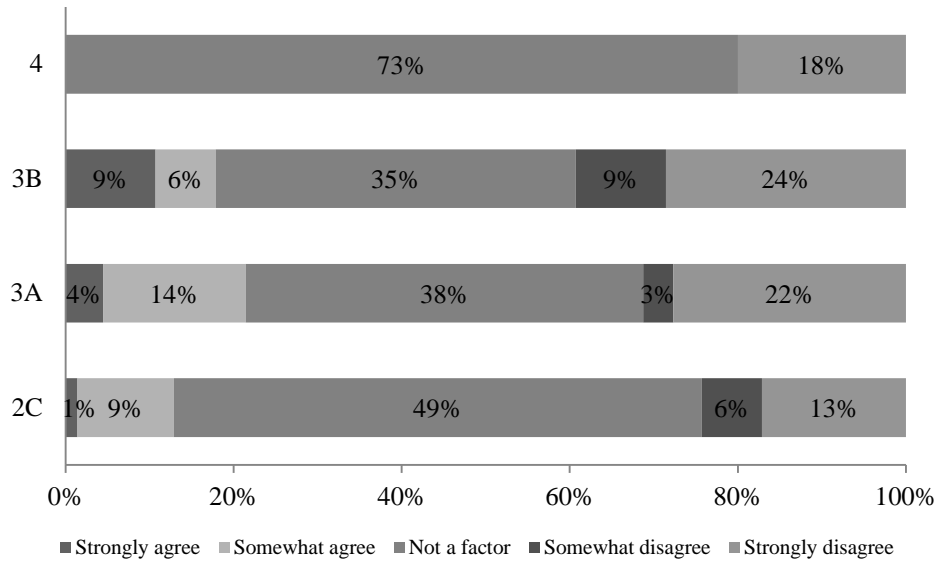


Figure 1.57. Plan to buy QS in a different fishery.

Question 21

Question twenty one asked the respondents about plans for future acquisition of sablefish quota shares. The response for question 21 included an average 40.3 percent of respondents that did not know if they were going to buy more quota, 28.4 percent stating that they would buy more, and 31.3 percent said they would not. The response for purchasing more quota was highest in Western Gulf followed by Bering Sea and Aleutian Islands, with the lowest in Southeast Outside.

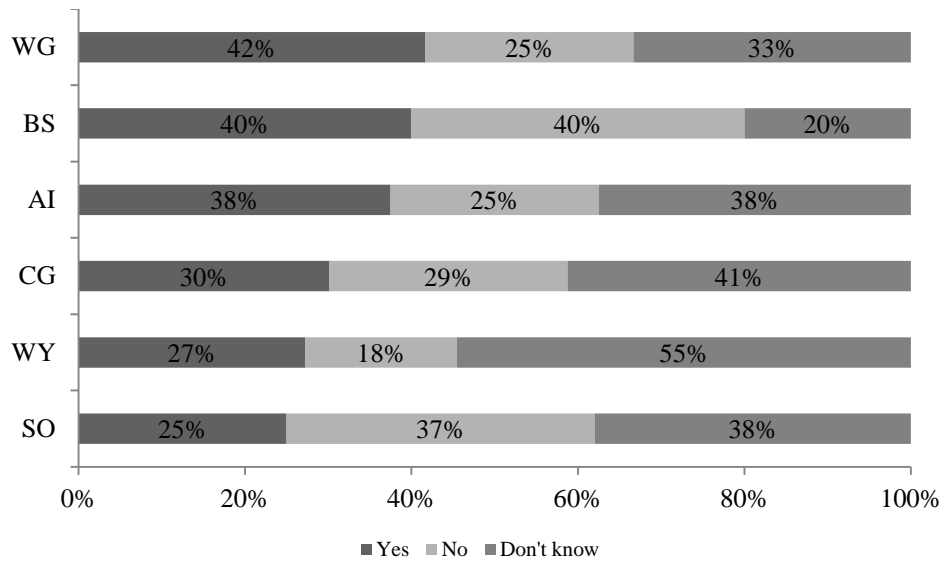


Figure 1.58. Purchase more sablefish quota shares in the future.

Question 22

This next question asks to define the reason the respondent is not interested in purchasing more quota . If you answered “No” or “Don’t know” in question 21, please rate your level of agreement with the following statements.

Table 1.17 Plans for not purchasing more sablefish quota shares.

	No opinion	Strongly disagree	Somewhat disagree	Not a factor	Somewhat agree	Strongly agree	Total responses
Cannot afford more QS at this time	0.02	0.07	0.07	0.21	0.34	0.29	150
Not enough time	0.04	0.31	0.06	0.5	0.05	0.04	150
Planning to Retire in the near future	0.05	0.25	0.03	0.36	0.21	0.1	153
Concerned about annual limits	0.02	0.02	0.03	0.15	0.38	0.4	154
Concerned about charter catches	0.03	0.04	0	0.36	0.18	0.38	151
Too difficult to obtain financing	0.05	0.09	0	0.38	0.25	0.13	150
Plan to buy QS in a different fishery	0.17	0.17	0.05	0.53	0.05	0.02	149

The first table category “Cannot afford more QS at this time” was high in all areas. The most remote area of the Aleutian Islands agreed to this question with the highest response of almost 83 percent and with Western Gulf disagreeing with the highest percentage with close to 38 percent.

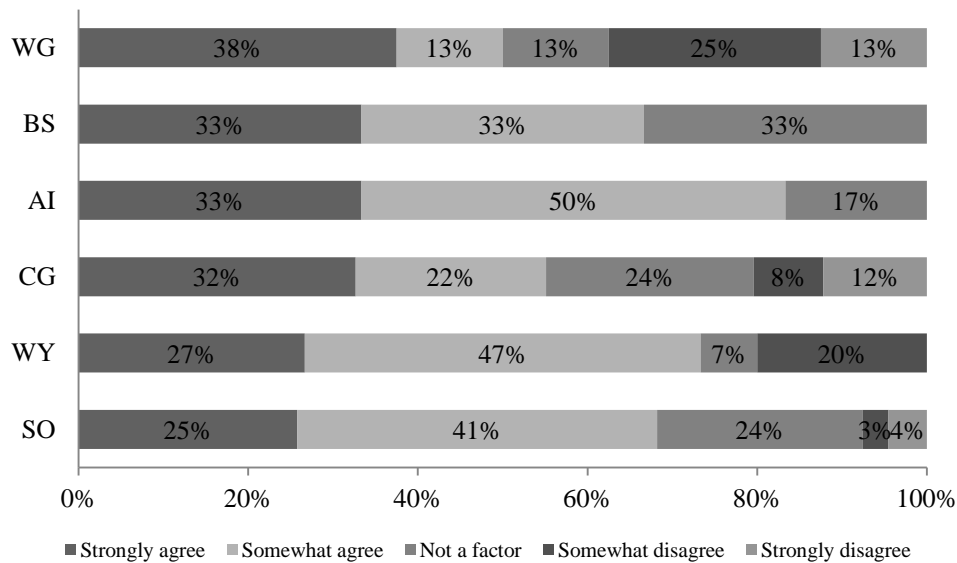


Figure 1.59. Cannot afford more sablefish QS at this time.

The second category “I do not have enough time to fish more QS than I currently own” generally shows strong disagreement. Sablefish QS owners are limited on the number of days to fish their quota and this question targeted if this was a factor in their decision to purchase more QS. Bering Sea agreed to this question with the highest response of 67 percent and Western Gulf disagreed with the highest percentage with close to 50 percent. Fishing in the Bering Sea may be a much more time consuming fishery because of area remoteness and expenses, compared to other areas. Foul weather limits the number of fishing days.

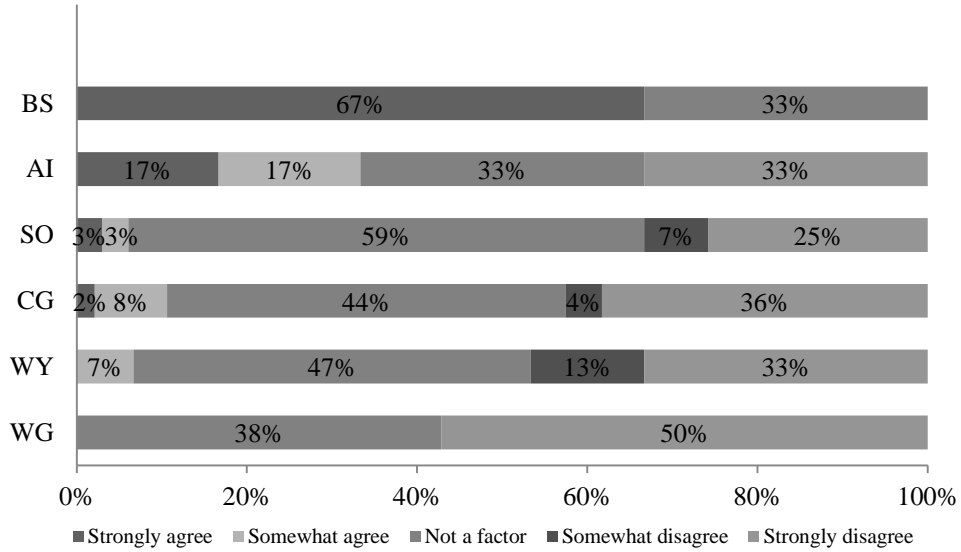


Figure 1.60. Not enough time to fish the sablefish QS.

The third part of the question “I am planning to retire in the near future” showed the number of sablefish QS holders interested in retiring after the 2009 season.

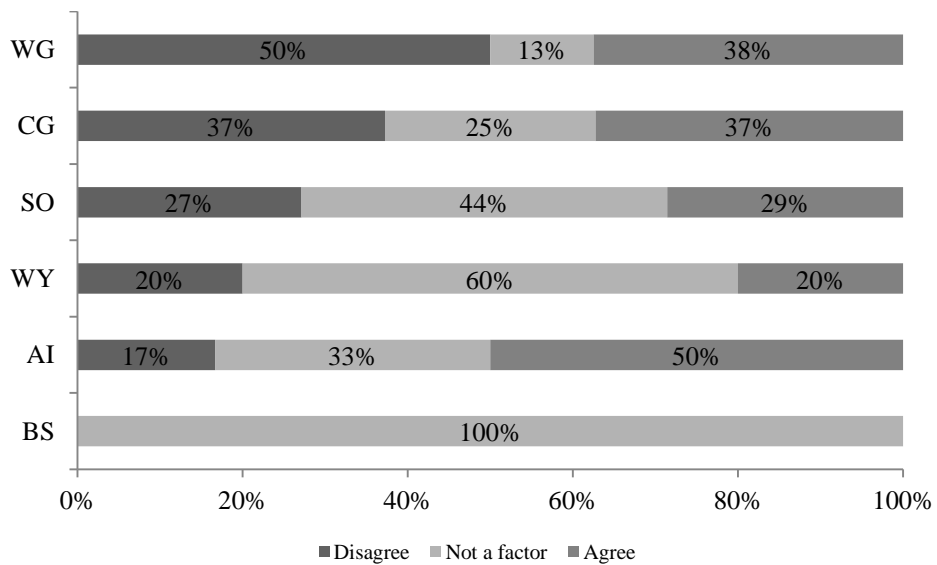


Figure 1.61. Planning to retire in the near future from sablefish fishery.

The fourth statement “I am concerned about declining annual limits” shows a drop in TAC in the past several years for the sablefish fishery due to the increase in the QS/IFQ ratio. This has led to all areas showing a decline in fishable pounds for the sablefish fishery. The response was highest in areas Western Gulf, CG, and Southeast Outside with an average 79 percent of respondents agreeing. The lowest area was in Aleutian Islands and Bering Sea with only 33 percent agreeing. These responses show some concern about the declining limits in certain areas.

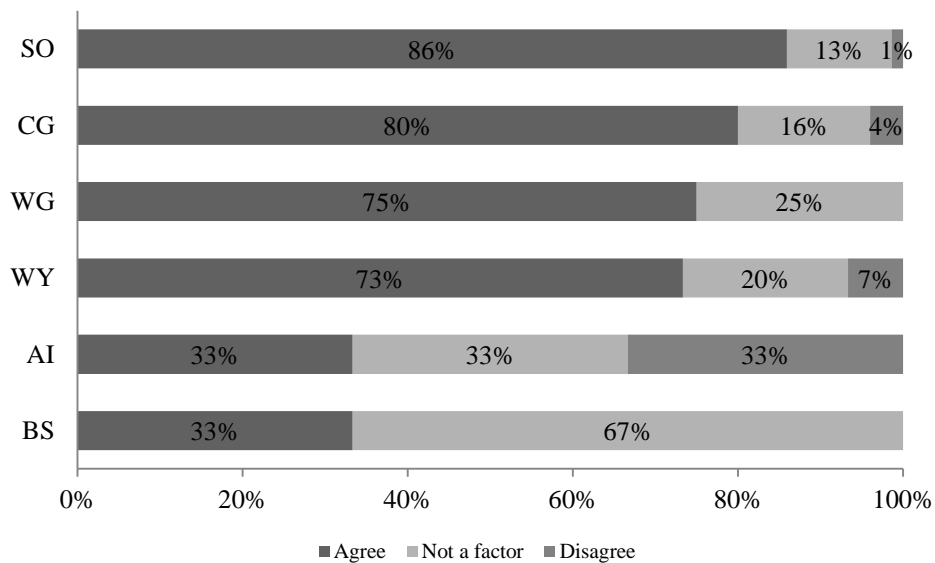


Figure 1.62. Concerns about declining annual limits for sablefish.

The fifth category was “I’m concerned about increased sport fishing charter catches.” Sport fishing has become more of an issue in recent years with the continued growth of charter fishing for halibut and some charter outfits are targeting sablefish.

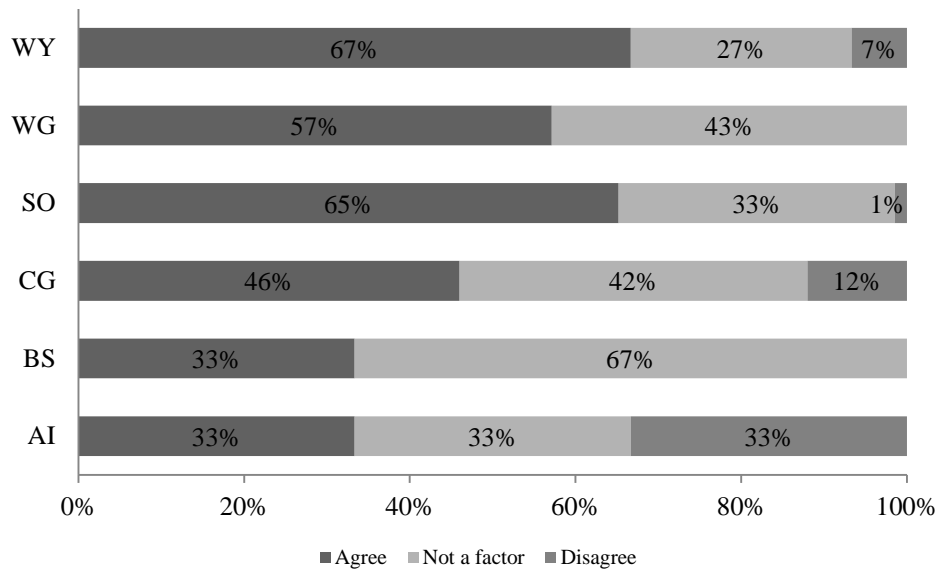


Figure 1.63. Concerned about increased sport fishing charter catches for the sablefish fishery.

There are a few charter outfits that target sablefish and have exclusive Japanese and Hawaiian clientele. The response from the survey shows that areas West Yakutat, Western Gulf and Southeast Outside agreed with this statement and Aleutian Islands and the Bering Sea agreed slightly less. Currently, the ADF&G has a four fish daily bag limit for sablefish for both residents and non-residents in Southeast Alaska. No other area in Alaska has a daily or annual bag limit as of 2010. (ADFG)

The sixth part “It is too difficult to obtain financing,” again indicates that the most remote areas have the most difficulties in obtaining additional financing for sablefish QS. The most remote area, the Aleutian Islands, had the highest agreement in this category and West Yakutat the lowest, with 40 percent disagreement.

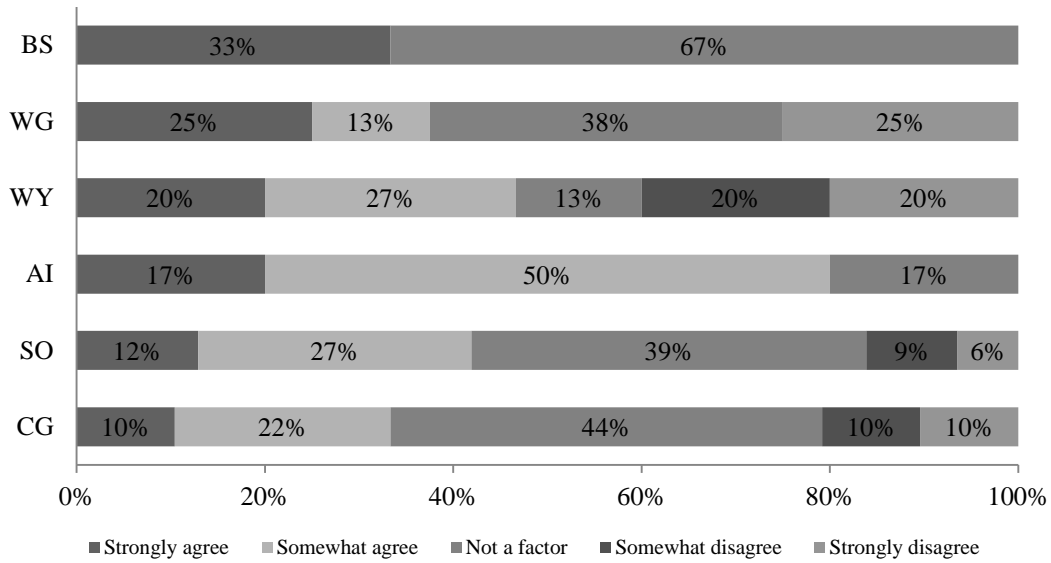


Figure 1.64. It is too difficult to obtain financing to purchase sablefish QS.

The final category for sablefish “I plan to buy QS in a different fishery,” showed that most respondents disagreed. If a QS holder was interested in exiting this fishery, agreement ranged from 8 to 9 percent, while disagreement ranged between 17 to 38 percent.

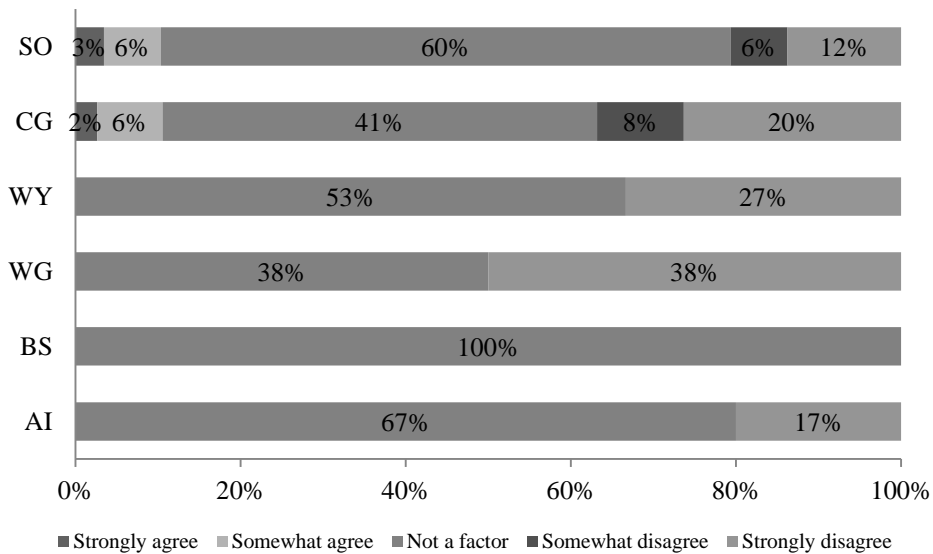


Figure 1.65. Plan to buy QS in a different fishery other than sablefish.

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The author thanks the Alaska halibut and sablefish QS holders for their cooperation in this study. We would also like to thank Glenn Haight, Fisheries Business Specialist, Alaska Sea Grant Marine Advisory Program. They provided many suggestions in the design of the survey. This project was funded by a cooperative agreement between Sea Grant and the University of Alaska Fairbanks.

Appendix: Survey of Halibut and Sablefish QS-Holders

The Alaska IFQ halibut and sablefish fisheries IFQ program is an important fisheries management program not just for Alaska, but the entire world. Lessons from this fishery have shaped and will continue to shape the design of quota programs around the globe.

We greatly appreciate your assistance in answering this short survey on crew makeup in the current halibut and sablefish fisheries. Comparatively little data are available regarding crew and their connection to regional economies. With your help this survey will fill in some of those missing pieces. Results from this survey allow us to measure the economic impact of the quota shareholders and crew on different communities throughout the North Pacific.

The survey is funded by the Alaska Sea Grant Rapid Response Program, and led by Glenn Haight, Fisheries Development Specialist with Alaska Sea Grant Marine Advisory Program. The survey was designed and will be analyzed by Alexander Kotlarov, a PhD student with the University of Alaska, Fairbanks, working under the guidance of Dr. Keith Criddle.

The survey includes 22 questions.. We understand that your crew levels may fluctuate with fishing season and year; we are looking for answers that best reflect conditions during the 2009 fishing year.

The survey has been sent to a stratified random sample of halibut and sablefish quota share (QS) holders. You will be surveyed as a QS holder in an area with a particular size vessel, thus your response is important to ensure that our survey results are representative of each component of the fleet.

All responses will be treated confidentially. All **confidential** data will be destroyed upon completion of the survey. Only aggregate responses organized by IFQ category, vessel size, and size of QS holdings will be retained and reported. Aggregate responses will not be published for any grouping if there are fewer than 3 responses.

Upon completing the survey, if you enter contact information, you will be entered into a prize drawing. You may complete the survey on paper or online, but you will only be awarded one entry into the drawing for the survey whether you enter by mail, online, or both. The survey may be taken on-line through Survey Monkey. The link for this site is found on the Marine Advisory Program web site here → <http://seagrant.uaf.edu/map/>.

With sufficient response, **the survey will complete by March 31, 2010**. Prize drawings will occur on March 31, 2010.

If you have any questions about the handling of data, please contact Glenn Haight, 907-796-6046 or glenn.haight@alaska.edu.

Thank you

Prize Drawing Information

Thank you for taking the time to assist in this important survey. All survey respondents have the option to provide their names for a prize drawing to take place on March 31, 2010. Please enter your contact information on the prize drawing entry slip enclosed with the survey and included the slip with the survey

Each name will be entered only once. Only one prize per person.

The Grand Prize Winner will select \$100 worth of fishing gear of his/her choice.

Other prizes include –

- Petro Star clothing and gear.
- Xtra Tuff boots from Harri's Commercial Fishing & Plumbing Supply in Juneau Alaska
- Your choice of select Alaska Sea Grant fisheries publications.
- Alaskan Brewing Company hat
- Fishing coat from LFSI in Seattle

Good luck!!

- 1) Do you typically fish your QS on a vessel you own or on a vessel owned by someone else? (please circle)

Fish on own vessel

Fish on someone else's vessel

- 2) Please circle all of the areas you fished for halibut and for sablefish during 2009.

Halibut	2C	3A	3B	4A	4B	4C	4D
Sablefish	Southeast Outside	West Yakutat	Western Gulf	Aleutian Islands	Bering Sea		

- 3) How many licensed harvesting crewmembers (not counting yourself) were onboard your vessel (or onboard a vessel you used) on a typical trip in 2009. Please record one number for each target species you fish.

Halibut trips	Sablefish trips	Fishing trips for other species

- 4) Please record the approximate percentage of your total IFQ trips, by target species, taken by a typical crew member in 2009. (For example, if you took 10 halibut trips in 2009 and a typical crew member accompanied you on half those trips, you would record a value of 50 %.)

Halibut trips	Sablefish trips	Fishing trips for other species

- 5) How many quota share holders (not counting yourself) fished (or had a hired master fish) their quota shares on your vessel in 2009? Please record one number for each target IFQ species you fish.

Halibut trips	Sablefish trips

- 6) Question 6 relates to your answers in Question 7. These two questions seek to determine where your crew lives in relation to where the majority of your fishing activity took place? (For instance, if a majority of your halibut harvest occurs in Area 2C, does a particular crew member reside in Southeast Alaska or do they reside in another area?) Circle the halibut harvest area where a majority of your fishing activity occurs.

Halibut Area						
2C	3A	3B	4A	4B	4C	4D

- 7) Identify each crew member's residency in relation to the halibut area identified in #6. For instance, if in Question #6 you identified most of your halibut harvest in Area 2C, and Crew Member 1 resides in a Southeast Alaska community, you would check "Live is same area".

Crew Member	Live in same area	Live elsewhere in Alaska	Live outside Alaska
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Additional comments: _____

- 8) Question 8 relates to your answers in Question 9. These two questions seek to determine where your crew lives in relation to where the majority of your fishing activity took place? (For instance, if a majority of your sablefish harvest occurs in Southeast Outside, does a particular crew member reside in Southeast Alaska or do they reside in another area?) Circle the sablefish harvest area where a majority of your fishing activity occurs.

Sablefish Area				
Southeast Outside	West Yakutat	Western Gulf	Aleutian Islands	Bering Sea

- 9) Identify each crew member's residency in relation to the sablefish area identified in #8. For instance, if in Question #8 you identified most of your sablefish harvest in Southeast Outside, and Crew Member 1 resides in a Southeast Alaska community, you would check "Live is same area".

Crew Member	Live in same area	Live elsewhere in Alaska	Live outside Alaska
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Additional comments: _____

- 10) Over the past 10 years, has it gotten easier or harder to hire qualified crew? Please circle one response for each target species you fish.

Halibut	Much easier	Somewhat easier	No change	Somewhat harder	Much harder
Sablefish	Much easier	Somewhat easier	No change	Somewhat harder	Much harder

Additional comments: _____

- 11) In 2009, please list the port you operated out of most often while targeting.

Halibut: _____

Sablefish: _____

- 12) In 2009, in which community did you purchase most of your crew and vessel supplies for each target fishery.

Halibut: _____

Sablefish: _____

- 13) Roughly what percentage of your 2009 gross revenues from IFQ fisheries was spent on the following operational costs? Please use (X) to indicate your answer.

Cost	0-3%	4-6%	7-10%	11-15%	16-20%	21% or greater
Fuel and lube						
Crew and liability insurance						
Bait						
Fishing gear						
Vessel maintenance						

- 14) Roughly what percentage of your 2009 gross revenues from IFQ fisheries was spent on the following operational costs? Please use (X) to indicate your answer.

Cost	0-9%	10-19 %	20-29 %	30-39 %	40-49 %	50% +
Crew share						
Captain share						
Vessel share						

- 15) Did fuel prices disrupt your fishing for halibut during 2009?

Yes

No

- 16) If you answered "Yes" in Question 15, please rate your level of agreement with the following statements.

	No opinion	Strongly disagree	Somewhat disagree	Not a factor	Somewhat agree	Strongly agree
I fished closer to my delivery port						
I made fewer trips						
I made longer trips						
I fished my quota shares with other quota share holders						
I ran the engines less						

- 17) Did fuel prices disrupt your fishing for sablefish during 2009?

Yes

No

- 18) If you answered "Yes" in Question 17, please rate your level of agreement with the following statements.

	No opinion	Strongly disagree	Somewhat disagree	Not a factor	Somewhat at agree	Strongly agree
I fished closer to my delivery port						
I made fewer trips						
I made longer trips						
I fished my quota shares with other quota share holders						
I ran the engines less						

Additional comments: _____

- 19) Do you plan on purchasing more halibut quota share in the future?

Yes

No

Don't know

- 20) If you answered "No" or "Don't know" in Question 19, please rate your level of agreement with the following statements.

	Strongly disagree	Somewhat disagree	Not a factor	Somewhat agree	Strongly agree
I cannot afford more QS at this time					
I do not have enough time to fish more QS than I currently own					
I am planning to retire in the near future					
I am concerned about declining annual limits					
I am concerned about increased sport fishing charter catches					
It is too difficult to obtain financing					
I plan to buy QS in a different fishery					

Additional comments: _____

- 21) Do you plan on purchasing more sablefish quota share in the future?

Yes

No

Don't know

22) If you answered "No" or "Don't know" in Question 21, please rate your level of agreement with the following statements.

	Strongly disagree	Somewhat disagree	Not a factor	Somewhat agree	Strongly agree
I cannot afford more QS at this time					
I do not have enough time to fish more QS than I currently own					
I am planning to retire in the near future					
I am concerned about declining annual limits					
I am concerned about increased sport fishing charter catches					
It is too difficult to obtain financing					
I plan to buy QS in a different fishery					

Additional comments: _____

Thank you for your time. Your information is a valuable contribution for assessing the impact of quota programs

Please submit your survey to:

Glenn Haight, Fisheries Business Specialist
 Alaska Sea Grant Marine Advisory Program
 1108 F Street, Room 215
 Juneau, Alaska 99801

Please enter the following contact information for entry into the prize drawing.

Name: _____
 Mailing address: _____
 Telephone number: _____
 Email address: _____