

APPENDIX 1. GOA Groundfish FMP criteria for setting halibut PSC limits

3.6.2 Prohibited Species Catch Limits

Prohibited species catch is non-retainable catch. It can take the form of a prohibited or non-groundfish species and/or a groundfish species for which TAC has been achieved that is captured incidentally in groundfish fisheries. A PSC limit is an apportioned, non-retainable amount of fish provided to a fishery for bycatch purposes. The attainment of a PSC limit for a species will result in the closure of the appropriate fishery.

Pacific Halibut

The Council believes that discarding incidental catches of fish is wasteful and should be minimized. However, recognizing that in the groundfish fisheries halibut incidentally caught are MANAGED outside this FMP, the treatment of halibut as a prohibited species is appropriate in the short term. Except as provided under the prohibited species donation program, retention of prohibited species captured while harvesting groundfish is prohibited to prevent covert targeting on these species. The prohibition removes the incentive that groundfish fishers might otherwise have to target on the relatively high valued prohibited species, and thereby, results in a lower incidental catch. It also eliminates the market competition that might otherwise exist between halibut fishers and groundfish fishers who might land halibut in the absence of the prohibition.

Halibut that are taken as bycatch in the trawl and fixed gear fisheries result in fishing mortality even though the FMP requires that these species be discarded. Bycatch survival rates of halibut are typically less than 100 percent and may approach zero for some fisheries and some gear.

When a PSC limit is reached, further fishing with specific types of gear or modes of operation during the year is prohibited in an area by those who take their PSC limit in that area. All other users and gear would remain unaffected.

However, when the fishery to which a PSC limit applies has caught an amount of prohibited species equal to that PSC limit, the Secretary may, by notice, permit some or all of those vessels to continue to engage in fishing for groundfish in the applicable regulatory area, under specified conditions. These conditions may include the avoidance of certain areas of prohibited species concentrations and will be determined on a case-by-case basis.

Apportionment and Seasonal Allocation of Pacific Halibut

Apportionments of PSC limits, and seasonal allocations thereof, will be determined annually by the Secretary of Commerce in consultation with the Council. Separate PSC limits may be established for specific gear.

PSC limits, apportionments, and seasonal allocations will be determined using the following procedure:

1. Prior to the October Council meeting. The GOA Groundfish Plan Team will provide the Council the best available information on estimated halibut bycatch and mortality rates in the target groundfish fisheries.
2. October Council meeting. While developing proposed groundfish harvest levels under Section 3.2.3, the Council will also review the need to control the bycatch of halibut and will, if necessary, recommend proposed halibut PSC mortality limits and apportionments thereof. The Council will also review the need for seasonal allocations of the halibut PSC.

The Council will make proposed recommendations to the Secretary about some or all of the following:

- a. the regulatory areas and districts for which PSC mortality limits might be established;

- b. PSC for particular target fisheries and gear types;
- c. seasonal allocations by target fisheries, gear types, and/or regulatory areas and district;
- d. PSC allocations to individual operations; and
- e. types of gear or modes of fishing operations that might be prohibited once a PSC is reached.

The Council will consider the best available information in doing so. Types of information that the Council will consider relevant to recommending proposed PSCs include:

- a. estimated change in biomass and stock condition of halibut;
- b. potential impact on halibut stocks;
- c. potential impacts on the halibut fisheries;
- d. estimated bycatch in years prior to that for which the halibut PSC mortality limit is being established;
- e. expected change in target groundfish catch;
- f. estimated change in target groundfish biomass;
- g. methods available to reduce halibut bycatch;
- h. the cost of reducing halibut bycatch; and
- i. other biological and socioeconomic factors that affect the appropriateness of specific bycatch measures in terms of objectives.

Types of information that the Council will consider in recommending seasonal allocations of halibut include:

- a. seasonal distribution of halibut;
 - b. seasonal distribution of target groundfish species relative to halibut distribution;
 - c. expected halibut bycatch needs on a seasonal basis relevant to changes in halibut biomass and expected catches of target groundfish species;
 - d. expected bycatch rates on a seasonal basis;
 - e. expected changes in directed groundfish fishing seasons;
 - f. expected start of fishing effort; and
 - g. economic effects of establishing seasonal halibut allocations on segments of the target groundfish industry.
3. As soon as practicable after the Council's October meeting, the Secretary will publish the Council's recommendations as a notice in the *Federal Register*. Information on which the recommendations are based will also be published in the *Federal Register* or otherwise made available by the Council. Public comments will be invited by means specified in regulations implementing the FMP for a minimum of 15 days.
 4. Prior to the December Council meeting, The Plan Team will prepare for the Council a final Stock Assessment and Fishery Evaluation (SAFE) report under Section 3.2.3 which provides the best available information on estimated halibut bycatch rates in the target groundfish fisheries and recommendations for halibut PSCs. If the Council requests, the Plan Team also may provide PSC apportionments and allocations thereof among target fisheries and gear types, and an economic analysis of the effects of the apportionments.

5. December Council meeting. While recommending final groundfish harvest levels, the Council reviews public comments, takes public testimony, and makes final decisions on annual halibut PSC limits and seasonal apportionments, using the factors set forth under (2) above relevant to proposed PSC limits, and concerning seasonal allocations of PSC limits. The Council will provide recommendations, including no change for the new fishing year, to the Secretary of Commerce for review and implementation.
6. As soon as practicable after the Council's December meeting, the Secretary will publish the Council's final recommendations as a notice of final harvest specifications in the *Federal Register*. Information on which the final harvest specifications are based will also be published in the *Federal Register* or otherwise made available by the Council.

APPENDIX 2. GOA Pacific Halibut PSC limits¹

Table 10—Final 2012 and 2013 Pacific Halibut PSC Limits, Allowances, and Apportionments

(Values are in metric tons)

Trawl gear			HAL gear ¹				
			Other than DSR			DSR	
Season	Percent	Amount	Season	Percent	Amount	Season	Amount
January 20 - April 1	27.5 percent	550	January 1 - June 10	86 percent	250	January 1 - December 31	10
April 1 - July 1	20 percent	400	June 10 - September 1	2 percent	5		
July 1 - September 1	30 percent	600	September 1 - December 31	12 percent	35		
September 1 - October 1	7.5 percent	150					
October 1 - December 31	15 percent	300					
Total		2,000			290		10

¹The Pacific halibut PSC limit for HAL gear is apportioned to the DSR fishery and fisheries other than DSR. The HAL sablefish fishery is exempt from halibut PSC limits.

Table 11—Final 2012 and 2013 Apportionment of Pacific Halibut PSC Trawl Limits Between the Trawl Gear Deep-Water Species Complex and the Shallow-Water Species Complex (Values are in metric tons)

Season	Shallow-water	Deep-water ¹	Total
January 20 - April 1	450	100	550
April 1 - July 1	100	300	400
July 1 - September 1	200	400	600
September 1 - October 1	150	Any remainder	150
Subtotal January 20 - October 1	900	800	1,700
October 1 - December 31 ²			300
Total			2,000

¹Vessels participating in cooperatives in the Central GOA Rockfish Program will receive a portion of the third season (July 1 - September 1) deep-water category halibut PSC apportionment. This amount is not currently known but will be posted later on the Alaska Region web site (<http://alaskafisheries.noaa.gov>) when it becomes available.

²There is no apportionment between shallow-water and deep-water trawl fishery categories during the fifth season (October 1 - December 31).

¹ <http://www.alaskafisheries.noaa.gov/frules/76fr11111.pdf>

APPENDIX 3. Council actions to reduce or limit halibut removals

Following the enactment of the MFCMA in 1977, the Council included many of the time/area closures in its groundfish FMPs as bycatch control measures for the foreign fisheries. The Council has since developed other measures, such as bycatch limits and gear limitations, which are discussed in the following section.

Control of domestic bycatch of halibut. Regulations to control halibut bycatch in domestic groundfish fisheries were implemented initially as part of the GOA groundfish fishery management plan (FMP). These regulations reflected some of the time-area closures in effect for foreign trawl operations. The GOA fisheries were also monitored under halibut bycatch limits. Restrictions on domestic operations were relaxed and revised as the domestic groundfish fishery developed, consistent with the desire to enhance development of this fishery. Beginning in 1985, annual halibut bycatch limits were implemented for the GOA groundfish trawl fisheries, attainment of which triggered closure of the GOA to bottom trawl gear. In 1990, regulatory authority was also implemented to limit GOA halibut bycatch in fixed-gear fisheries. Seasonal allocations of halibut PSC limits also are authorized. Their attainment will close the GOA to further fishing with the applicable gear type for the remainder of the season.

Industry funded domestic observer program. Regulations require operators of catcher vessels and catcher/processor vessels to obtain either 100, 30, or 0 percent observer coverage during each calendar quarter, depending on size of vessel. Shoreside and mothership processors are required to have either 100, 30, or 0 percent observer coverage during a month, depending on the weight of groundfish received during that month. The small catcher vessel fleet and the entire halibut longline fleet is unobserved. While the amount of halibut bycatch can be estimated, the variances surrounding those estimates cannot be estimated under current levels of observer coverage, which according to the Council staff analysis is not likely to improve until the program is restructured in 2013 at the earliest. More information on halibut bycatch in the observed (and unobserved) groundfish fisheries can be found at http://www.alaskafisheries.noaa.gov/npfmc/current_issues/observer/ObserverRest510.pdf and is the subject of Council consideration under June 2010 agenda Item C-4.

Vessels less than 60 ft length over all (LOA) and mothership and shoreside processors that receive less than 500 mt groundfish during a month are not required to obtain an observer unless specifically requested to do so by NMFS. Observer data on halibut bycatch rates are applied against industry reported groundfish catch to derive estimates of halibut bycatch amounts each week. Actual procedures used by NMFS to calculate halibut bycatch amounts may be obtained from the Sustainable Fisheries Division, Alaska Region.

As noted in the observer program restructuring analysis,² there is no observer coverage in the halibut fisheries. Halibut fisheries are only minimally observed incidental to groundfish operations. In 2008, 3,141 permit holders fished halibut and sablefish IFQ using 1,157 vessels.³ There are a number of potential bycatch issues pertaining to the halibut fleet. Most of the information gathered for management of halibut vessels (and groundfish vessels <60') currently takes place at shoreside processors, which may provide adequate catch accounting for target species and retained incidental catch species. However, discards are self-reported for all vessels in these sectors. NMFS does not currently have a verifiable measure to account for these discards, nor does it have a method for assessing the accuracy of its management decisions. Additionally, current self-reporting requirements do not include information about vessel fishing behavior. The IPHC port sampling program collects data needed for halibut stock assessment, including fishing effort and age/size composition of the landed catch.

² http://www.alaskafisheries.noaa.gov/npfmc/current_issues/observer/ObserverRest510.pdf

³ NMFS and the IPHC are funded under an NPRB grant to evaluate the potential for EM systems on these vessels.

PSC limits. Halibut PSC limits (round weight) for trawl, hook-and-line, and pot gear may be specified annually. Mortality limits specified are 2,000 mt (3.3 million pounds, net wgt.) for trawl gear (first implemented in 1985) and 750 mt (1.2 million pounds, net wgt.) for fixed gear (first implemented in 1990; and reduced to 300 mt (0.5 million pounds, net wgt.) in 1995 through the FMP’s framework process). Groundfish pot gear is exempted from halibut bycatch restrictions because (1) halibut discard mortality rate and total mortality associated with this gear type is relatively low; and (2) existing pot gear restrictions are intended to further reduce halibut mortality.

Seasonal allowances of halibut PSC limits

Final 2009 and 2010 GOA Pacific halibut PSC limits, allowances, and apportionments (all values are in metric tons)

Trawl gear		Hook-and-line gear ¹			
Season	Amount	Other than DSR		DSR	
		Season	Amount	Season	Amount
January 20–April 1	550 (27.5%)	January 1–June 10	250 (86%)	January 1–December 31	10 (100%)
April 1–July 1	400 (20%)	June 10–September 1	5 (2%)	.....	.....
July 1–September 1	600 (30%)	September 1–December 31	35 (12%)	.....	.....
September 1–October 1 ..	150 (7.5%)	n/a	n/a	.....	.....
October 1–December 31	300 (15%)	n/a	n/a	.....	.....
Total	2,000 (100%)	n/a	290 (100%)	.....	10 (100%)

¹ The Pacific halibut PSC limit for hook-and-line gear is allocated to the demersal shelf rockfish (DSR) fishery and fisheries other than DSR. The hook-and-line sablefish fishery is exempt from halibut PSC limits.

Final 2009 and 2010 apportionment of GOA Pacific halibut PSC trawl limits between the trawl gear deep-water species complex and the shallow-water species complex (values are in metric tons)

Season	Shallow-water species complex	Deep-water species complex ¹	Total
January 20–April 1	450	100	550
April 1–July 1	100	300	400
July 1–September 1	200	400	600
September 1–October 1	150	Any remainder	150
Subtotal January 20–October 1	900	800	1,700
October 1–December 31 ²	n/a	n/a	300
Total	n/a	n/a	2,000

¹ Vessels participating in cooperatives in the Central Gulf of Alaska Rockfish Pilot Program will receive a portion of the third season (July 1–September 1) deep-water category halibut PSC apportionment. At this time, this amount is unknown but will be posted later on the Alaska Region Web site at <http://www.alaskafisheries.noaa.gov> when it becomes available.

² There is no apportionment between shallow-water and deep-water fishery complexes during the 5th season (October 1–December 31).

Season delays. While the FMP allows the Council to set the season start dates to accommodate fishery interests, it has relied on the seasonal apportionment to take advantage of seasonal differences in halibut and some groundfish fishery species distributions.

Gear restrictions. Gear restrictions are specified to reduce bycatch or PSC limits of halibut. Restrictions include (a) requiring biodegradable panels on groundfish pots, (b) requiring halibut exclusion devices on groundfish pots, and (c) revised specifications for pelagic trawl gear that constrain the pelagic trawl fisheries for groundfish to a trawl gear configuration designed to enhance escapement of halibut.

Vessel Incentive Program A vessel incentive program (VIP) designed to reduce the rate at which halibut are incidentally in specified groundfish trawl fisheries became effective May 6, 1991. Individual trawl vessels became accountable for their observed halibut bycatch rates when they participated in GOA Pacific cod fishery and bottom rockfish fishery (as well as the BSAI Pacific cod fishery and BSAI flatfish fishery). If a vessel's bycatch rate at the end of a month exceeded a specified bycatch rate standard, the vessel owner/operator will be subject to prosecution. Halibut bycatch rate standards are specified annually, based on criteria set forth in regulations. The bycatch rate standards specified were based on average bycatch rates exhibited by vessels. However the program did not perform as intended because the

costs associated with enforcement and the relatively small number of vessels impacted by the regulation resulted in withdrawal of the VIP from federal regulations in 2008.

Fishery Management Plans and Amendments

One of the tasks required of each regional fishery council by the MFCMA was the preparation of FMPs for all fisheries within a council's jurisdiction which require management. Preparation of the GOA groundfish FMP was quickly initiated following MFCMA implementation and drafting of the BSAI groundfish FMP followed soon thereafter. The GOA FMP became effective on December 11, 1978 and the BSAI FMP was effective on January 1, 1982. The initial GOA FMP contained halibut bycatch limits for the fully domestic fishery, whereas the BSAI FMP did not. Each FMP has been amended several times since implementation, with several of the amendments containing provisions regarding halibut bycatch limits. This section provides an overview of these bycatch limit measures.

GOA Groundfish Fishery Management Plan

The Council identified the GOA groundfish fishery as one requiring immediate attention so it was the first of two groundfish FMPs it implemented (Larkins 1980). The urgency to implement a FMP in the GOA may have been due to (1) the large number of foreign nations participating in the GOA fishery and resultant lack of control by the U.S., (2) the lack of information on the condition of the groundfish resources, (3) the low abundance of halibut, and (4) the relatively low catch limits imposed on the halibut fishery. Two management objectives for the groundfish fishery were adopted, the first of which sought to rebuild the halibut resource, while the second sought to maximize the opportunity for the development of a domestic groundfish fishery (Larkins *ibid*). The Council chose to give highest priority to rebuilding the halibut stock.

In order to provide opportunity for development of a fully domestic fishery and protection for the halibut resource, the FMP specified halibut PSC (bycatch) limits for a domestic fishery. The limits applied to fishing conducted between December 1 and May 31, and were specified at 29 mt (48,000 pounds) for the Western area and 52 mt (86,000 pounds) for the Central area. The limits were based on the assumption of a one percent bycatch rate, or roughly equal to one percent of the domestic harvest of Pacific cod expected in 1979 or soon thereafter (NPFMC 1985). When the limits were reached, further domestic trawling during the December-May period in that area was prohibited. Fishing conducted outside this period was unencumbered by limits.

The domestic groundfish fishery grew more quickly than anticipated and by the mid-1980s, the bycatch limits began to seriously restrict the fishery. For the 1984 and 1985 fisheries, the Council requested NMFS to enact Emergency Rules increasing the bycatch limits to 270 mt (0.45 million pounds) in the Western area and 768 mt (1.27 million pounds) in the Central area to prevent domestic on-bottom trawling from being excessively restricted (NPFMC *ibid*.). Also, additional Emergency Rules were implemented for the 1984 and 1985 fisheries to exempt midwater trawls from any fishery closure because of the inherently low halibut bycatches. This was done in recognition of the valuable pollock fishery in Shelikof Strait, which was conducted with midwater trawls.

Amendment 3

The original FMP subdivided the Chirikof statistical area into two segments at 157° W. The total allowable level for foreign fishing (TALFF) for Pacific cod in the entire Chirikof area was established at 1,500 mt, which was further split to 600 mt and 900 mt for the western and eastern subdivisions, respectively. Amendment 3 was intended to allow an increase in the amount of Pacific cod taken by foreign longliners, within the confines of the overall quota for Chirikof. Since longline gear is more selective than trawl gear, allowing an increase in longline harvest was expected to reduce the amount taken by trawlers, and thus reduce the incidental catch of halibut and shellfish.

Amendment 14

The growth of the domestic, including joint venture, groundfish fishery and the expected continued use of Emergency Rules to overcome the halibut bycatch limits specified in the GOA FMP led to Amendment 14 in 1985. It provided a framework for the Council to annually set a halibut PSC limit based on consideration of a set of factors (outlined above) separately for domestic and joint venture fisheries in each area. The framework process, which became effective in 1986, allows the NMFS Alaska Regional Administrator flexibility to permit those fisheries with low bycatch potential to continue after fisheries and areas have been closed by attainment of the limit.

The halibut bycatch framework process worked to limit the bycatch from bottom trawling of both domestic and joint venture (foreign) fisheries. For instance, all bottom trawling was closed for the remainder of the year when the halibut bycatch limit for the GOA was reached, however, other gears could continue to fish, such as the longline fisheries for sablefish and Pacific cod.

Regulations implementing the FMP contained restrictions on foreign and domestic fishermen in the western and central GOA that were designed to minimize the taking of halibut. Foreign fishermen were restricted to the use of off-bottom gear when trawling in the western and central GOA regulatory areas from December 1 through May 31, a period when juvenile halibut are subject to high rates of incidental capture. Domestic fishermen were allowed to use on-bottom trawl gear during this period, but all trawling by domestic fishermen was prohibited until June 1 if the incidental harvest of halibut by domestic trawlers in those areas reached 29 or 52 mt in the western or central GOA, respectively. These PSCs were implemented in 1978 and approximated one percent of the weight of Pacific cod expected to be taken by domestic fishermen in 1979 or soon thereafter. Domestic groundfish catches were increasing as market opportunities developed. Most of the increase was attributed to large amounts of pollock taken in joint venture fisheries operating in the Shelikof Strait region of the central GOA. Relatively few halibut were taken in this fishery because only off-bottom gear was used. For example, only about 4 mt of halibut was taken incidental to a pollock catch of 132,000 mt in 1983. At the same time, domestic catches of other groundfish species (primarily cod and flounder) that have significant halibut bycatch were also increasing.

Regulations at 50 CFR 672.20(d) still? Require that all trawl caught halibut be released. While some halibut survive, that survival varies with the type of operation. Observer data in the 1980s suggested very low survival of halibut in operations that involve the transfer of codends at sea and where halibut cannot be released immediately – these were typically JV or large freezer/processor operations. Halibut survival was relatively high (~50 percent) on smaller shore-based trawl operations where the trawl catch is sorted on deck and the halibut can be immediately released.

Halibut bycatch fluctuates with abundance of both halibut and groundfish target species. In 1984, the Council requested an emergency rule to raise the halibut PSC limit to 270 mt in the western GOA and 768 mt in the central GOA during the December through May fisheries. The Council also requested that users of off-bottom gear be exempted from PSC limits in recognition that few halibut were caught by that gear. A second ER for the same halibut PSC limits was implemented again in 1985.

The Council became aware that halibut were vulnerable to trawls during periods other than the December-May period specified in the FMP, which led to an annual PSC limit that would provide protection for halibut all year. The Council determined that imposing limits on the amounts of halibut that could be taken incidentally by domestic and foreign fishermen will convey a benefit to halibut fishermen, as well as for groundfish fishermen who would benefit from the best available information each year regarding the abundance of halibut and the distribution of the expected groundfish harvest. Therefore the groundfish fisheries would run less risk of being terminated as a result of outdated PSC limits.

The Council identified the following five problems in the fishery in the 1985 plan amendment.

- 1) The Shelikof Strait joint venture pollock fishery is jeopardized by the 52 mt PSC in the Central area even though the halibut bycatch is very low in this highly productive fishery.

- 2) The PSC limits for the Western and Central Area jeopardize the maintenance and further development of domestic trawl fisheries for cod, flounders, and other groundfish species that are targeted with bottom gear.
- 3) The bycatch of halibut by domestic trawlers during the six months for which there are no restrictions on the use of bottom gear has increased significantly.
- 4) Although the PSC limits are for all domestic trawlers, only the bycatch of the joint ventures is monitored because bycatch cannot be extensively monitored without extensive onboard observer coverage of wholly domestic operations.
- 5) With respect to regulating the bycatch of halibut in groundfish trawl fisheries, the FMP has not been flexible enough to remain effective as conditions in the fisheries change.

Amendment 18

In June 1989, the Council approved Amendment 18 to the GOA Groundfish FMP, which sought to correct the perceived inequity of closing one fishery when bycatch limits were reached but allowing others to continue. Amendment 18 specified interim fixed halibut PSC limits of 2,000 mt (3.3 million pounds) for the GOA trawl fishery and 750 mt (1.2 million pounds) for all GOA longline fisheries for one year (1990). The purpose of the action was that there was to allocate specific amounts of PSC limits to the two gear types for the 1990 fishing year so that PSC amounts and closures for the two gear types would be independent of each other. The intent was for a regulatory amendment to follow this action in 1990 that would further prohibit further fishing by hook-and-line gear fishermen as well as trawl fishermen if they were to reach a PSC limit. The FMP would retain the framework procedure then used to establish PSC limits.

The combined trawl/longline PSC limits represented an increase in the PSC limits from earlier years. The trawl bycatch limit increased from the limit applied in previous years, because only trawl PSC would be tallied against the trawl PSC limit. The longline fishery, however, had never operated under a PSC limit. The sablefish fishery, the largest non-halibut longline fishery in the GOA, had also never been observed, so the magnitude of halibut incidental catch and corresponding rates in this fishery was relatively unknown. The data required to monitor halibut PSC was to be collected by a comprehensive observer program, also required under Amendment 18.

Industry representatives requested the Council divide the PSC limits for each fishery into quarterly allotments, or apportionments, in an effort to avoid taking the entire limit early in the year, thus prohibiting fisheries which might occur late in the year.

The limits specified by Amendment 18 had a significant effect on the 1990 GOA groundfish fisheries. The trawl fishery was closed from May 29 through June 30 because the portion of the limit allocated to the second quarter of 1990 had been taken. The fishery continued uninterrupted from the July 1 reopening until November 21, when observer data indicated the annual limit of 2,000 mt (3.32 million pounds) had been reached. NMFS estimated that halibut mortality in all trawl fisheries totaled 2,139 mt (3.55 million pounds) for the year.

The bycatch limit, however, had a much greater impact on the longline fishery. Longline effort in the first quarter was low, which resulted in only a small amount of halibut bycatch. High bycatch rates in the sablefish fishery, which opened on April 1, caused bycatch to accrue quicker than could be monitored by NMFS. Consequently, the limit was exceeded by the time longlining was closed on May 29. NMFS estimated the longline fishery PSC reached 1,004 mt (1.66 million pounds) in 1990. The trend was similar in 1991, although total mortality had reached 826 mt (1.37 million pounds) by the date NMFS closed the fishery.

Amendment 20

An Individual Fishing Quota Program was implemented for the Pacific halibut (via regulatory amendment) and sablefish fixed gear fisheries in the federal waters of the BSAI and GOA in 1995.

Bycatch reduction was inherent in the program, due to the close interaction between sablefish and halibut fisheries. Much of the longline bycatch of halibut occurred in the sablefish fisheries, and many fishermen fish for both (and received IFQ for both). To the extent sablefish fishermen have halibut IFQ, this halibut is now retained and counted against the target quotas, as opposed to being caught as bycatch and discarded (by regulation it previously had to be discarded). This resulted in an immediate reduction of the GOA halibut Prohibited Species Catch limit from 750 mt annually to around 150 mt annually (Oliver and Pautzke 1997). In the annual specifications process for 1995, the halibut PSC apportionment to the longline sector was reduced from 750 to 300 mt.

Amendment 21

The Council expanded and revised the provisions of earlier bycatch-related amendments with Amendment 21. Approved in June, 1990, the amendment included the following:

- (1) Allowed the PSC limits to be divided by time period;
- (2) Divided the "fixed gear" limit into separate limits for longline and groundfish pot fisheries;
- (3) Implemented a vessel incentive program which allowed NMFS to penalize vessels with bycatch rates exceeding predetermined standards; and
- (4) Required that groundfish pots have biodegradable panels and halibut excluder devices.

The vessel incentive program as originally designed could not be implemented for 1991 by NMFS. Substantial revision of the program occurred in late 1990, replacing an in-season program with one that entailed a post-season examination of bycatch rates and comparison with established standards. The Council approved the new incentive program during a conference call in November, 1990. Actual implementation of the program did not occur until May, 1991, although it was retroactively applied to fishing beginning on April 1, 1991. Halibut bycatch rate standards used for 1991 were based on rates observed in previous years.

Amendment 24

The purpose of this amendment in 1992 was to further address bycatch issues that were raised under Amendment 21. This amendment was aimed to control and reduce halibut PSC in the Alaska groundfish fisheries in response to the international, social, and economic conflicts between U.S. and Canadian halibut fishermen and U.S. groundfish fishermen that take halibut as bycatch. It implemented three management measures. Since the amendment was approved, bycatch of crab and halibut has been controlled to stay within the PSC limits.

- (1) Delay the season opening date of the GOA groundfish trawl fisheries to January 20 of each fishing year to reduce salmon and halibut bycatch rates;
- (2) Further delay the season opening date of the GOA trawl rockfish fishery to the Monday closest to July 1 to reduce halibut and chinook salmon bycatch rates;
- (3) Change directed fishing standards to further limit halibut bycatch associated with bottom trawl fisheries;
- (4) Expand the vessel incentive program to address halibut bycatch rates in all trawl fisheries.

APPENDIX 4. 2010 Summary of the Status of the GOA Groundfish Stocks

Walleye pollock

Biology: Walleye Pollock *Theragra chalcogramma* is an abundant fish species in the GOA, found throughout the shelf regions at depths less than 300 m. Seasonal migrations occur from overwintering areas along the outer shelf to shallower waters (30-140 m) to spawn. Pollock feed on copepods, euphausiids and fish and are prey for other fish, marine mammals and seabirds. Pollock begin to recruit to the fishery at age 3 and longevity extends to 12 years or more (oldest GOA Pollock observed is 22 years). Females reach 50 percent maturity at approximately 43 cm (ages 4-6), and adults produce 60,000 to 400,000 pelagic eggs. Annual natural mortality is estimated to be $M=0.30$. Peak spawning in the GOA occurs from February to March in the Shumagin Islands and late March in the Shelikof Strait.

Total catches, pre-season catch specifications, and exploitable biomass of age 3+ Walleye Pollock in the GOA, 1976-2011 (mt).

Year	Catch ¹	TAC ²	ABC	OFL	Biomass ³
1976	86,527	-	-	-	-
1977	118,356	-	-	-	-
1978	96,935	-	-	-	-
1979	105,748	-	-	-	-
1980	114,622	-	-	-	-
1981	147,744	-	-	-	-
1982	168,740	-	-	-	-
1983	215,608	-	-	-	-
1984	307,401	-	-	-	-
1985	284,826	293,250	-	-	-
1986	87,809	116,600	116,600	-	496,300
1987	69,751	108,000	112,000	-	687,100
1988	65,739	93,000	93,000	-	687,000
1989	78,392	60,200	63,400	-	593,000
1990	90,744	93,000	93,000	-	891,000
1991	100,488	133,400	133,400	-	1,303,000
1992	90,857	87,400	99,400	227,900	838,000
1993	108,908	114,400	160,400	295,020	1,062,000
1994	107,335	109,300	109,300	246,600	726,000
1995	72,618	65,360	65,360	280,400	573,000
1996	51,263	54,810	54,810	86,400	574,000
1997	90,130	79,980	79,980	112,270	1,105,420
1998	125,098	124,730	130,000	186,100	1,156,000
1999	95,590	100,920	100,920	146,000	737,670
2000	73,080	100,000	100,000	139,370	616,710
2001	72,076	95,875	105,810	126,360	727,710
2002	51,937	58,250	58,250	84,090	755,310
2003	50,666	54,350	54,350	78,020	699,120
2004	63,934	71,260	71,260	99,750	769,420
2005	80,846	91,710	91,710	153,030	765,180
2006	71,976	86,807	86,807	118,309	635,732
2007	53,062	68,307	68,307	95,429	861,072
2008	52,500	51,940	51,940	83,150	741,819
2009	44,003	49,900	49,900	69,630	675,749
2010	75,500	84,745	84,745	115,536	797,638
2011	-	86,970	86,970	118,030	893,700

¹Catch data from SAFE report through November 2010.

²1988-2010 TAC, ABC and OFL data from annual *Federal Register* Harvest Specifications. Does not include EYAK and SEO.

³Biomass from annual SAFE report projections.

Catch History: Foreign fisheries for GOA pollock developed in the early 1970s and peak foreign catches occurred in 1981 at 130,324 mt. A late spawning aggregation was discovered in Shelikof Strait in 1981, and a valuable pollock roe fishery was established in the region. US vessels entered the pollock fishery in 1977 and the fishery was fully harvested by the domestic fleet by 1988.

Fishery Management: The GOA pollock fishery is regulated under the GOA groundfish FMP through permits and limited entry, catch quotas (TACs), seasons, in-season adjustments, gear restrictions, closed waters, bycatch limits and rates, allocations, regulatory areas, record keeping, reporting requirements and observer monitoring. In 1993, 100 percent of GOA pollock was apportioned to the inshore sector (vessels that catch fish to deliver to shore based processing plants). In 1998, trawl gear was prohibited east of 140°W, and 100 percent retention was required for pollock.

Since 1992, GOA pollock catch has been apportioned spatially and temporally to reduce fishery impacts on Steller sea lions (SSLs). Additional SSL protection measures implemented in 2001 established 4 seasons in the Central and Western GOA beginning in January, March, August and October (25 percent TAC to each season). Additionally, a harvest control rule was implemented that requires suspension of

directed pollock fishing if and when spawning biomass declines below 20 percent.

Stock Assessment: The GOA pollock assessment is based on an age-structured model. This model incorporates fishery data and fishery independent data from annual bottom trawl surveys and acoustic trawl surveys. GOA Pollock fall under Tier 3b of the ABC/OFL control rules. The 2011 age 3+ biomass is estimated at 893,700 mt. GOA wide catch specifications for 2011 are as follows; OFL=118,030 mt, ABC=86,970 mt, TAC=86,970 mt. The catch limits are further spatially apportioned into Western, Central area 62, Central area 63, West Yakutat, and Eastern GOA.

Age 3+ GOA pollock model-estimated biomass was high during the early 1980s. Biomass declined through the late 1980s and has remained below target as a result of below average recruitment.

Fishery: The directed fishery is prosecuted by vessels using trawl gear, primarily with pelagic trawls. Small amounts of pollock are also taken as bycatch in other fisheries. A total of 63 catcher vessels participated in the 2009 GOA directed pollock trawl fishery. About 65 percent of the catch is landed in Kodiak. Approximately 95 percent of the catch is pollock in the directed fishery, with incidental catches mainly consisting of arrowtooth flounder, Pacific cod, flathead sole and squid.

Economics: In 2009, ex-vessel value of the catch was \$15.3 million for GOA pollock. Average ex-vessel price paid for GOA Pollock in 2009 was \$0.17/lb. round weight. Primary products were surimi, roe, fillets, H&G, and other products.

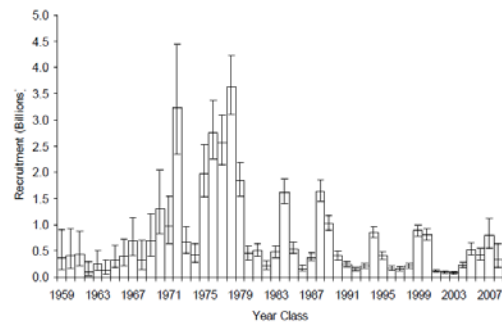
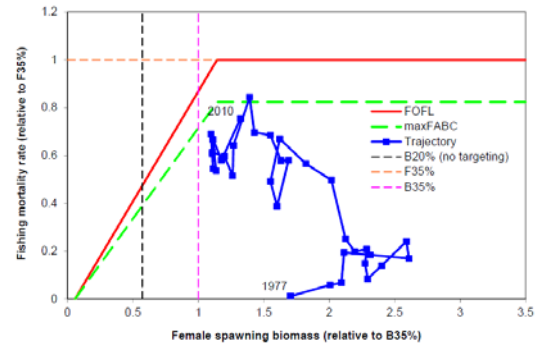
Ecosystem Components: In the GOA, the main predators of pollock are arrowtooth flounder, Pacific halibut, Pacific cod, Steller sea lions and the directed pollock fishery. For pollock less than 20 cm, arrowtooth flounder represents close to 50 percent of total mortality, and the abundance of arrowtooth flounder has increased dramatically in the GOA since the 1980s.

Pacific cod

Biology: Pacific cod *Gadus macrocephalus* is a demersal species found in the eastern BS, the AI, and GOA down to central California. Juveniles are typically distributed over the inner continental shelf at depths from 60-150 m. Adults are found at depths from shoreline to 500 m. Mature fish tend to concentrate on the outer continental shelf and prefer muddy or sandy soft sediment substrate. Juveniles feed primarily on small invertebrates and euphausiids. Adult Pacific cod feed on fish such as juvenile pollock, and invertebrates such as polychaetes, amphipods and crangonid shrimp. Predators of Pacific cod include adult Pacific cod, Pacific halibut, salmon sharks and Steller sea lions.

Pacific cod are a relatively fast growing and short-lived fish. Longevity can extend to 19 years. Pacific cod begin to recruit to the fishery around 3 and are 50 percent recruited by age 7. Natural mortality is estimated at $M=0.38$. Females reach 50 percent maturity at 50 cm (4-5 years) and larger fish can produce more than 1 million eggs. Adults form spawning aggregations from January to May in the GOA.

Catch History: Pacific cod were harvested by foreign fleets targeting higher-value species during the 1970s. By 1976, catches increased to 6,800 mt, and the foreign fishery peaked in 1981 at 35,000 mt. A



small joint venture fishery existed through 1988, averaging about 1,400 mt annually. The domestic fishery increased through 1986 and tripled its catch in 1987 to a catch of nearly 31,000 mt. The GOA Pacific cod fishery was fully harvested by domestic vessels in 1987.

Fishery Management: Pacific cod is regulated under the GOA groundfish FMP through permits, limited entry, catch quotas (TACs), seasons, in-season adjustments, gear restrictions, closed waters, bycatch limits and rates, allocations, regulatory areas, record keeping, reporting requirements and observer monitoring. In 1992, Amendment 23 allocated 90 percent of GOA Pacific cod to the inshore sector and 10 percent to the offshore sector. In 1998, trawl gear was prohibited in the East Yakutat/Southeast subareas, and 100 percent retention of Pacific cod was required. In 2009, the Council passed Amendment 83, which will allocate Western and Central GOA Pacific cod TAC among gear and operation type, based on historic dependency and use by sector, and creates additional entry-level opportunities for jig vessels. If approved, this allocation could be in effect in 2012.

Separate TACs are currently identified for Pacific cod in the Western, Central and Eastern GOA regulatory areas. Within the Central and Western Regulatory Areas, 60 percent of each component's portion of the TAC is allocated to the A season (January 1 through June 10) and the remainder is allocated to the B season (June 11 through December 31). Longline and trawl fisheries are also associated with a Pacific halibut mortality limit, which can constrain the magnitude and timing of harvests taken by these two gear types.

Stock Assessment: The Pacific cod assessment is based on a Stock Synthesis model that uses both length-structured and age-structured data. This model incorporates fishery data and fishery independent data from the NMFS trawl surveys. Pacific cod catch limits are set by a Tier 3a ABC/OFL control rule. The 2011 age 3+ biomass is estimated at 428,000 mt for GOA Pacific cod.

Catch specifications for 2011 are as follows; OFL=102,600 mt, ABC=86,800 mt, TAC=65,100 mt. Separate ABCs and TACs are established for Western, Central, and Eastern GOA. Since 1997, the

Total catches, pre-season catch specifications, and exploitable biomass of age 3+ Pacific Cod in the GOA, 1976-2011 (mt).

Year	Catch ¹	TAC ²	ABC	OFL	Biomass ³
1976	6,764	-	-	-	-
1977	2,267	-	-	-	-
1978	12,190	-	-	-	-
1979	14,904	-	-	-	-
1980	35,345	60,000	-	-	-
1981	36,131	70,000	-	-	-
1982	29,465	60,000	-	-	-
1983	36,540	60,000	-	-	-
1984	23,896	60,000	-	-	-
1985	14,428	60,000	136,000	-	-
1986	25,012	75,000	125,000	-	-
1987	32,939	50,000	125,000	-	-
1988	33,802	80,000	99,000	-	481,700
1989	43,293	71,200	71,200	-	558,700
1990	72,517	90,000	90,000	-	498,044
1991	76,997	77,900	77,900	-	424,100
1992	80,100	63,500	63,500	87,600	363,000
1993	56,488	56,700	56,700	78,100	324,000
1994	47,485	50,400	50,400	71,100	296,000
1995	68,985	69,200	69,200	126,000	573,000
1996	68,280	65,000	65,000	88,000	557,000
1997	77,018	69,115	81,500	180,000	650,000
1998	72,525	66,060	77,900	141,000	785,000
1999	81,785	67,835	84,400	134,000	648,000
2000	66,560	59,800	76,400	102,000	567,000
2001	51,542	52,110	67,800	91,200	526,000
2002	54,483	44,230	57,600	77,100	428,000
2003	52,579	40,540	52,800	70,100	428,000
2004	56,625	48,033	62,810	102,000	484,000
2005	47,585	44,433	58,100	86,200	472,000
2006	47,854	52,264	68,859	95,500	453,000
2007	51,462	52,264	68,859	97,600	375,000
2008	58,963	50,269	64,493	88,660	233,310
2009	52,922	41,807	55,300	66,000	520,000
2010	76,171	59,563	79,100	94,100	701,200
2011	-	65,100	86,800	102,600	428,000

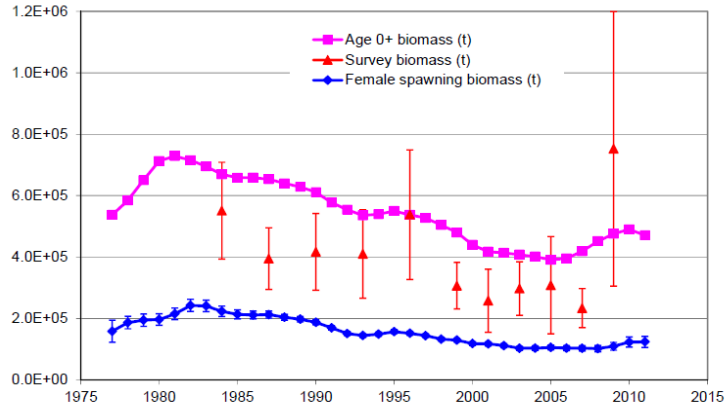
¹Catch includes state waters fishery catch.

²TAC, ABC and OFL data from *Federal Register*.

³Biomass from annual SAFE report projections issued the preceding year.

Council has reduced the TAC in each area by up to 25 percent to account for removals in the State waters Pacific cod fishery.

Estimated biomass of Pacific cod peaked in the early 1980s, and then slowly declined as the exceptional 1977 year class gradually exited the population. Estimated biomass appears to be increasing in the short term due to above average recruitment in recent years.



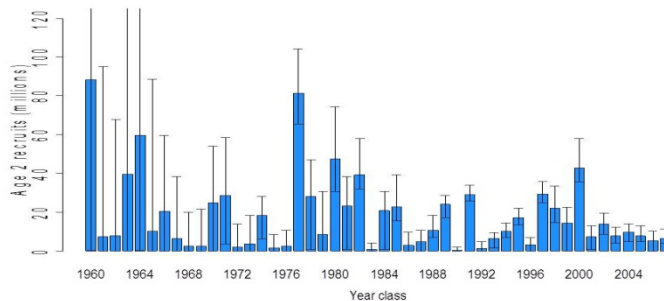
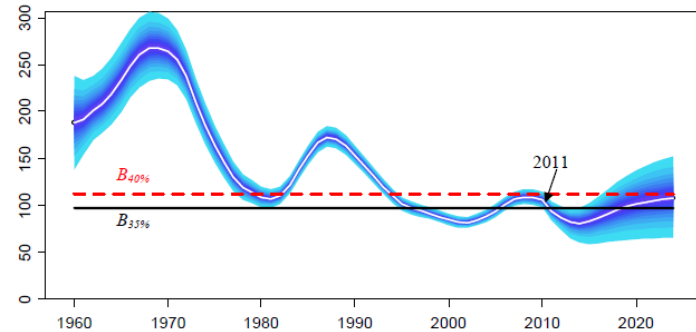
Fishery: The Pacific cod fishery is the second major species (after pollock) targeted in the commercial groundfish catch in the GOA. Pacific cod are taken with trawl, longline, pot and jig gear. Participants in the 2009 GOA directed fishery included 240 vessels using longlines or jig gear, 125 vessels using pot gear, and 64 vessels using trawl gear. Primary bycatch species in the Pacific cod fishery include arrowtooth flounder, and skates and pollock.

Economics: In 2009, ex-vessel value of Pacific cod catch in the GOA was \$23 million, and exvessel price averaged \$0.28/lb round weight. Primary products include whole fish, H&G and fillets.

Ecosystem components: Pacific cod are a prey item for Steller sea lions in the GOA and BSAI.

Sablefish

Biology: Sablefish *Anoplopoma fimbria* distribution extends from the northern Mexico through the GOA, the AI and into the BS. Adult sablefish are generally found at depths greater than 200 m along the continental slope, shelf gullies and deep fjords. Juvenile sablefish (less than 40 cm) spend the first 2-3 years farther inshore along the continental shelf and begin to move out to the continental slope around age 4. Young-of-the-year sablefish feed primarily on euphausiids and copepods while adults are more opportunistic feeders, relying more heavily on pollock, Pacific herring, Pacific cod, squid and jellyfish. Coho and Chinook salmon are the main predators of young-of-the-year sablefish.



Sablefish are relatively long lived. They begin to recruit to the fishery at age 4 or 5 and longevity often reaches 40 years (the oldest recorded sablefish in Alaska was 94 years old). Female size at 50 percent maturity is around 65 cm (approximately age 6.5). Females are slightly larger than males, and natural mortality is estimated at $M=0.10$. Alaskan sablefish spawn at pelagic depths near the edges of the continental slope (300-500m) between January and April.

Catch History: US fishermen have harvested sablefish (black cod) since the end of the 19th century as a byproduct of halibut fisheries. Harvests were relatively small, averaging 1,666 mt from 1930-1957. Japanese longlining began in the EBS around 1958 and expanded into the AI and GOA through the 1970s. Japanese fleet catches increased throughout the 1960s, and peak sablefish catch reached 36,776 mt in 1972. High fishing pressure in the early 1970s by Japanese and USSR vessels may have resulted in a population decline of sablefish in the mid-1970s. By 1988, US fishermen took the majority of the sablefish harvested in the GOA and BSAI. Sablefish was increasingly harvested as a derby-style fishery in the late 1980s and early 1990s until Individual Fishing Quotas were implemented for the hook and line fishery in 1995.

Fishery Management: BSAI and GOA sablefish are managed as one population in federal waters due to their highly migratory behavior during certain life history stages. There are four management areas in the GOA; Western, Central West Yakutat and East Yakutat/Southeast Outside.

In 1985, Amendment 14 to the GOA FMP allocated sablefish TAC by gear type; 80 percent to fixed gear (including pots) and 20 percent to trawl in the Western and Central GOA, 95 percent to fixed gear and 5 percent to trawl gear in the Eastern GOA. Amendment 20 to the GOA FMP established IFQ management for the GOA sablefish fishery, which began in 1995.

Stock Assessment: The sablefish assessment is based on a statistical sex-specific age-structured model. This model incorporates fishery data and fishery independent data from domestic and Japan-US cooperative longline surveys and the NMFS GOA trawl survey. Sablefish fall under Tier 3b of the ABC/OFL control rule. The 2011 age 4+ biomass estimated at 149,000 mt for the GOA. Catch specifications for 2011 in the GOA are as follows; OFL=13,340, ABC=11,290 mt, TAC=11,290 mt. Separate ABCs and TACs are established for each GOA subregion Western, Central, West Yakutat, and Southeast Outside.

Fishery: The sablefish IFQ fishery season opening date is concurrent with the halibut fishery for the purposes of reducing bycatch and regulatory discards between the two fisheries. In the GOA, the directed fishery for sablefish is prosecuted with longline gear (pot gear is prohibited for directed sablefish fishing in the GOA). Sablefish are also taken by trawl gear in directed fisheries for rockfish and deepwater

Total catches, pre-season catch specifications and exploitable biomass of Sablefish in the GOA, 1976-2011 (mt).					
Year	Catch ¹	TAC ²	ABC	OFL	Biomass ³
1976	27,733	-	-	-	-
1977	17,140	-	-	-	-
1978	8,866	-	-	-	-
1979	10,350	13,000	13,000	-	-
1980	8,543	13,000	13,000	-	-
1981	9,917	14,350	14,350	-	-
1982	8,556	12,300	12,300	-	-
1983	9,002	9,480	9,480	-	-
1984	10,230	8,980	8,980	-	-
1985	12,479	8,980	8,980	-	-
1986	21,614	15,000	18,800	-	-
1987	26,325	20,000	25,000	-	383,000
1988	29,903	28,000	35,000	-	520,000
1989	29,842	26,000	30,900	-	426,000
1990	25,701	26,000	26,200	-	312,000
1991	19,580	22,500	22,500	-	194,000
1992	20,451	20,800	20,800	28,200	179,000
1993	22,671	20,900	20,900	27,750	190,400
1994	21,338	25,500	25,500	31,700	218,000
1995	18,631	21,500	21,500	25,730	194,900
1996	15,826	17,080	17,080	22,800	169,500
1997	14,129	14,520	14,520	39,950	199,920
1998	12,758	14,120	14,120	23,450	166,000
1999	13,918	12,700	12,700	19,720	150,000
2000	13,779	13,330	13,330	16,660	169,000
2001	12,127	12,840	12,840	15,720	188,000
2002	12,246	12,820	12,820	19,350	188,000
2003	14,345	14,890	14,890	20,020	182,000
2004	15,630	16,550	16,550	22,160	179,000
2005	13,997	15,940	15,940	19,280	185,000
2006	13,367	14,840	14,840	17,880	152,000
2007	12,265	14,310	14,310	16,906	158,000
2008	12,326	12,730	12,730	15,040	167,000
2009	10,910	11,160	11,160	13,190	149,000
2010	9,998	10,370	10,370	12,270	140,000
2011	-	11,290	11,290	13,340	149,000

¹Catch data through November 2010.
²TAC, ABC and OFL from annual *Federal Register*.
³Biomass from SAFE report projections for following year.

flatfish. Primary incidental catch species in the directed sablefish fishery include shortraker, rougheye and thornyhead rockfishes.

Economics: In 2009, the ex-vessel value of sablefish catch from the GOA was \$76.5 million. Exvessel prices for GOA sablefish in 2009 averaged \$3.42/lb for fish caught on longline gear and \$2.78/lb for fish taken with trawl gear. For both gear types, the primary product is frozen, head and gutted fish.

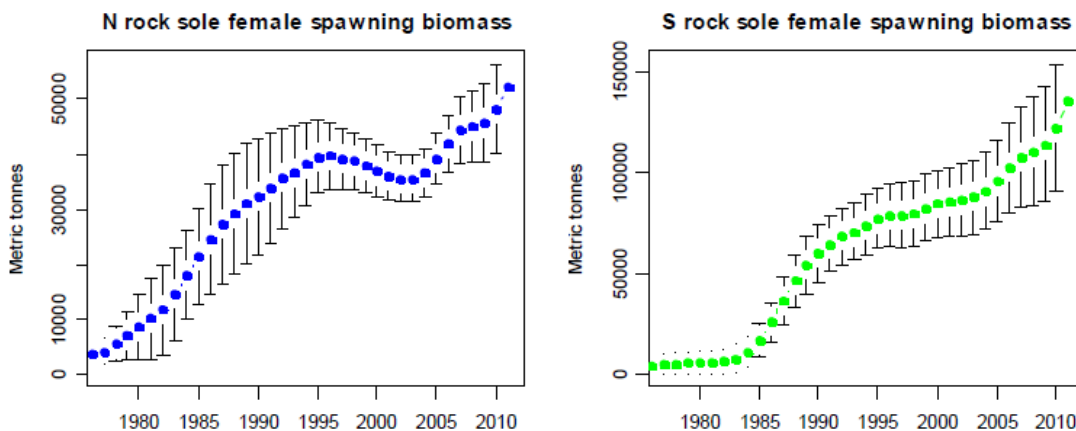
Current Issues: Sperm whale and killer whale depredation is problematic for sablefish fisheries in the GOA and BSAI. Depredation occurs when whales remove sablefish from longline gear, damage the fish and/or fishing gear. Killer whale depredation predominates in the BSAI and sperm whale depredation is more common the GOA. Depredation can lead to economic losses in the form of reduced catch, extended travel distances, extended wait times and damaged gear. Depredation may also reduce the accuracy of sablefish stock assessment models. Additionally, depredating whales may be at greater risk of mortality or injury through vessel strikes or risk of entanglement in gear.

Shallow-water flatfish

Biology: The Shallow-water flatfish complex is comprised of 8 flatfish species. Northern rock sole, southern rock sole, butter sole and yellowfin sole account for the majority of the current biomass of shallow-water flatfish. All flatfish are demersal but have varying depth ranges. Shallow-water flatfish predate on euphausiids, bivalves, polychaetes, amphipods, mollusks and fish. They are prey for Pacific cod, Pacific halibut and skates.

Northern rock sole	<i>Lepidopsetta polyxystra</i>
Southern rock sole	<i>Lepidopsetta bilineata</i>
Butter sole	<i>Pleuronectes isolepis</i>
Yellowfin sole	<i>Pleuronectes asper</i>
Starry flounder	<i>Platichthys stellatus</i>
English sole	<i>Pleuronectes vetulus</i>
	<i>Pleuronectes</i>
Alaska plaice	<i>quadrituberculatus</i>
Sand sole	<i>Psettichthys melanostictus</i>

Yellowfin sole distribution extends from Sea of Japan, through the Chuckchi Sea and south to British Columbia. Adult yellowfin sole and rock sole occupy separate winter spawning and summertime feeding distributions on the continental shelf margins. Yellowfin sole are the second most abundant species (after pollock) in Cook Inlet and are also found in Prince William Sound. Yellowfin sole spawning period is protracted and likely extends from May to August, occurring primarily in shallow water. Females are relatively fecund, ranging from 1.3-3.3 million eggs depending on size. Yellowfin sole begin to recruit to the fishery at age 6 and are fully selected by age 13. The estimated age of 50 percent maturity is 10.5 years for females. Natural mortality is estimated at $M=0.12-0.16$, and longevity extends to 31 years.



The rock sole stock in the GOA consists of both northern and southern rock sole. The two species are similar in appearance but have different life history characteristics. Northern rock sole stock spawns beginning in midwinter and peaking during the spring, and the southern rock sole stock spawns during the summer. The estimated age of 50 percent maturity is 9 years for southern rock sole and 7 years for

northern rock sole. Natural mortality is estimated to be $M=0.18-0.20$, and longevity extends to 21 years. Rock sole are most abundant in the Kodiak and Shumagin areas. Adults occupy separate winter spawning and summertime feeding distributions on the continental shelf margins.

Catch History: The flatfish fishery was predominantly a foreign fishery targeting non-flatfish species until 1981. With the cessation of foreign fishing in 1986, joint venture fishing began to account for the majority of flatfish catch, and the fishery was fully domestic by 1988. Shallow-water flatfish catch was 5,455 mt in 1978. Catch declined to a low of 957 mt in 1986 then increased to 9,715 mt in 1993. Shallow-water flatfish catch is often constrained by Pacific halibut PSC limits.

Fishery Management: The Council divided the “Flatfish” complex into 3 categories (Deep-water flatfish, Shallow-water flatfish, and arrowtooth flounder) in 1990 due to significant differences in halibut PSC rates, biomass and commercial value in directed fisheries for shallow and Deep-water flatfish. Flathead sole was separated out from the Deep-water flatfish complex in 1991 due to its distributional overlap between both shallow and deep-water groups. In 1993, rex sole was separated from the Deep-water flatfish complex due to concerns regarding POP bycatch.

Total catches, pre-season catch specifications and exploitable biomass of Shallow Water Flatfish* in the GOA, 1991-2011 (mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass
1991	5,298	12,000	74,000	-	333,900
1992	8,783	11,740	50,480	70,900	257,338
1993	9,715	16,240	50,480	70,860	261,724
1994	9,343	18,630	34,420	44,670	261,720
1995	5,430	18,630	52,270	60,262	355,590
1996	9,350	18,630	52,270	60,262	355,590
1997	7,775	18,630	43,150	59,540	314,960
1998	3,565	18,630	43,150	59,540	315,590
1999	2,577	18,770	43,150	59,540	314,960
2000	6,928	19,400	37,860	45,330	299,100
2001	6,162	19,400	37,860	45,330	299,100
2002	6,195	20,420	49,550	61,810	349,992
2003	4,465	21,620	49,340	61,810	349,990
2004	3,094	20,740	52,070	63,840	375,950
2005	4,769	20,740	52,070	63,840	375,950
2006	7,641	19,972	51,450	62,418	365,766
2007	8,793	19,972	51,450	62,418	103,300
2008	9,708	22,256	60,989	74,364	436,590
2009	8,483	22,256	60,989	74,364	436,590
2010	5,410	20,062	56,242	67,768	398,961
2011	-	20,062	56,242	67,768	398,961

*Separated from Flounders category 1990.

²Biomass from annual SAFE report projections.

All flatfish species under the GOA groundfish FMP are regulated through permits, limited entry, catch quotas (TACs), seasons, in-season adjustments, gear restrictions, closed waters, bycatch limits and rates, allocations, regulatory areas, record keeping, reporting requirements and observer monitoring. GOA flatfish species or complexes are managed with area-specific ABC and TAC apportionments to avoid the potential for localized depletions.

Stock Assessment: The Shallow-water flatfish complex assessment is based on survey biomass estimates. The assessment incorporates fishery data and fishery independent data from annual trawl surveys. Northern rock sole and southern rock sole fall under a Tier 4 of ABC/OFL control rule, and catch limits for the remaining flatfish in the complex are set by a Tier 5

control rule due to limited maturity data. The 2011 projected biomass is 398,961 mt. Catch specifications for 2011 are as follows; OFL=67,768 mt, ABC= 56,242 mt, TAC= 20,062 mt.

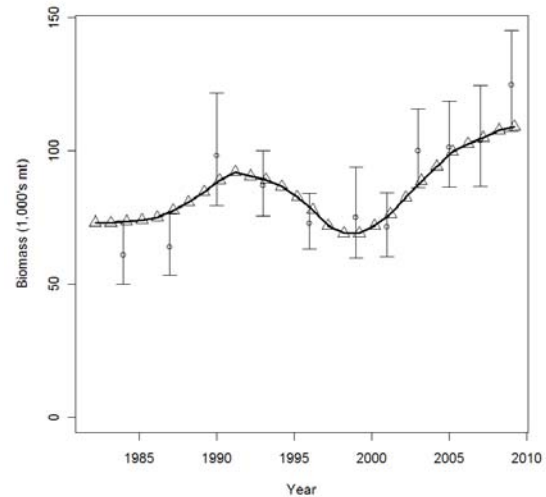
Yellowfin sole biomass showed a declining trend from 54,738 t in 2003 to 33,414 t in 2009, and butter sole abundance declined by about 50 percent from 2007-2009. Northern rock sole, starry flounder and Alaska plaice have been increasing, along with southern rock sole and English sole. Sand sole survey biomass has been variable over time.

Fishery: Since 1988 the majority of Shallow-water flatfish harvest has occurred on the continental shelf and slope east of Kodiak Island in the Central regulatory area. Shallow-water flatfish are generally harvested with trawl gear. Rock sole is the predominant target species in the complex.

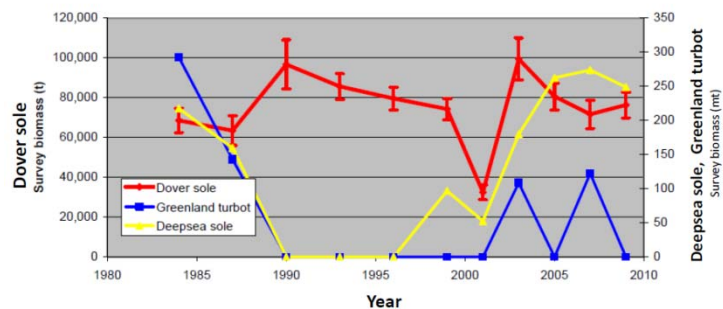
Economics: The bottom trawl fishery in the GOA primarily targets rock sole, rex sole and Dover sole. Primary products include whole fish, H&G and fillets. Ex-vessel value of all Flatfish caught in the GOA in 2008 was \$9.2 million. Production in 2008 was 139,150 mt for all flatfish products for a total gross value of \$202.9 million. A total of 33 catcher vessels and 6 catcher processors prosecuted the GOA flatfish fishery.

Deep-water flatfish

Biology: The GOA Deep-water flatfish complex is comprised of three flatfish species; Greenland turbot *Reinhardtius hippoglossoides*, Dover sole *Microstomus pacificus*, and deep-sea sole *Embassichthys bathybius*. GOA Dover sole constitutes the majority of the survey biomass and deep-water flatfish catch (generally over 98 percent). Dover sole are generally found in water deeper than 300 m in the winter but occur at the highest biomass in the 100-200 m depth range during the summer. Dover sole are especially adapted to feeding on small-detrital consuming invertebrates such as polychaetes, amphipods, mollusks, and brittlestars. Dover sole are batch spawners, releasing around 83,000 advanced oocytes in about 9 batches. The peak spawning period occurs from January through May off the Oregon coast. Female Dover sole reach 50 percent maturity at about 34 cm (6-9 years old). Dover sole recruit to the fishery at 7-10 years, and longevity extends to 55 years. Greenland turbot has a circumpolar distribution in the Atlantic and Pacific. Greenland turbot are typically found from 200-1600 m. Greenland turbot predate on euphausiids, polychaetes and small fish (e.g. pollock) as they mature. Greenland turbot size at 50 percent maturity is around 60 cm (age 5-10). Greenland turbot begin to recruit to longline fisheries at around 60 cm and are fully recruited at 90 cm. Natural mortality is estimated at $M=0.18$. Biological data is limited for deep-sea sole.



Catch History: Deep-water flatfish catches peaked in 1992 at 11,379 mt, and then declined in 1993, remaining fairly stable from 1993-1999 (average 2,800 mt). After 1999, catches declined, averaging 602 mt annually from 2000-2009.



Stock Assessment: The Deep-water flatfish complex assessment uses a split-sex, age-structured model for Dover sole and mean historical catch data from 1978-1995 for Greenland turbot and deep-sea sole. Dover sole catch limits are set by a Tier 3a control rule, and Greenland turbot and deep-sea sole fall under Tier 6 due to highly variable survey biomass estimates. The 2011 projected biomass (for Dover sole only) is 89,691 mt. Catch specifications for 2011 are as follows; OFL=7,823 mt, ABC= 6,305 mt, TAC= 6,305 mt.

Abundance estimates for Greenland turbot and deep-sea sole are highly uncertain. For Dover sole, survey biomass increased throughout the late 1980s, followed by declining estimates through the 1990s. Survey biomass increased again to 99,000 t in 2003.

Fishery: Deep-water flatfish are harvested with trawl gear. Dover sole is the predominant target species in the complex.

Rex sole

Biology: Rex sole *Glyptocephalus zachirus* are distributed from Baja California to the BS, with concentrations in the GOA. Rex sole are closely associated with soft bottom benthic communities and are generally found at depths greater than 300 m. Adult rex sole overwinter near the shelf margins and migrate onto the mid and outer continental shelf each year in April/May. Rex sole exhibit latitudinal changes in growth rates and size at sexual maturity. Size at sexual maturity was greater for rex sole in the GOA than Oregon. Rex sole feed on polychaetes, euphausiids, amphipods and shrimp and are prey for skates, Pacific cod and arrowtooth flounder.

Recruitment to the fishery begins around age 8. Age at 50 percent maturity for females was estimated at 5.6 years (35.2 cm) in Alaska. Maturity studies from Oregon show males are 50 percent mature at 16 cm and females at 24 cm. Natural mortality is estimated $M=0.17$, and longevity extends to 27 years. Rex sole are batch spawners with a protracted spawning period in the GOA (peak spawning period occurs April/May).

Stock Assessment: Rex sole limits are set by a Tier 5 control rule. The 2011 projected biomass is 86,729 mt. and the natural mortality rate (M) = 0.17. Catch specifications for 2011 are as follows; OFL=12,499 mt, ABC= 9,565 mt, TAC=9,565 mt. The ABC and TAC specifications are further subdivided among GOA subareas.

Fishery: Rex sole are caught using trawl gear in a directed fishery and those targeting other bottom-dwelling species such as POP, Pacific cod and pollock. Fishing seasons are dictated by seasonal halibut PSC apportionments, with approximately 7 months of fishing occurring between January and November in the Western and Central areas.

Total catches, pre-season catch specifications, and exploitable biomass of Deep Water Flatfish* in the GOA, 1990-2011 (mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass ²
1990	2,380	22,000	108,400	-	-
1991	10,189	15,000	50,500	-	201,500
1992	11,379	19,740	39,280	51,500	169,132
1993	3,823	19,740	45,530	59,650	227,656
1994	3,129	11,080	16,510	19,280	132,030
1995	2,213	11,080	14,590	17,040	116,710
1996	2,193	11,080	14,590	17,040	116,570
1997	3,664	7,170	7,170	9,440	101,430
1998	2,286	7,170	7,170	9,440	101,430
1999	2,285	6,050	6,050	8,070	78,300
2000	985	5,300	5,300	6,980	74,370
2001	804	5,300	5,300	6,980	74,460
2002	559	4,880	4,880	6,430	68,623
2003	946	4,880	4,880	6,430	68,260
2004	680	6,070	6,070	8,010	99,620
2005	412	6,820	6,820	8,490	102,395
2006	405	8,665	8,665	11,008	132,297
2007	287	8,707	8,707	10,431	103,300
2008	563	8,903	8,903	11,343	132,625
2009	466	9,168	9,168	11,578	133,025
2010	502	6,190	6,190	7,680	89,682
2011	-	6,305	6,305	7,823	89,691

*Separated from Flounders category 1990.

¹Catch data through November 2010.

²Biomass from annual SAFE report projections.

Total catches, pre-season catch specifications, and exploitable biomass of Rex Sole* in the GOA, 1994-2011 (mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass ²
1994	3,673	10,140	11,950	13,960	95,630
1995	4,021	9,690	11,210	13,091	89,660
1996	5,874	9,690	11,210	13,091	89,660
1997	3,294	9,150	9,150	11,920	72,330
1998	2,669	9,150	9,150	11,920	72,330
1999	3,060	9,150	9,150	11,920	72,330
2000	3,591	9,440	9,440	12,300	74,600
2001	2,940	9,440	9,440	12,300	81,020
2002	2,941	9,470	9,470	12,320	71,326
2003	3,485	9,470	9,470	12,320	71,330
2004	1,464	12,650	12,650	16,480	99,950
2005	2,176	12,650	12,650	16,480	99,950
2006	3,294	9,200	9,200	12,000	83,600
2007	2,852	9,100	9,100	12,000	82,403
2008	2,703	9,132	9,132	11,933	82,801
2009	4,753	8,996	8,996	11,756	81,572
2010	3,387	9,729	9,729	12,714	88,221
2011	-	9,565	9,565	12,499	86,729

*Separated from Deep Water Flatfish category 1994

¹ Catch through November.

²Biomass data corresponds to the annual SAFE report projections issued the preceding year.

Arrowtooth flounder

Biology: Arrowtooth flounder (*Atheresthes stomias*) are distributed from the Kamchatka Peninsula, through the BSAI down to central California. Arrowtooth flounder are most abundant at depths from 100-500 m. Adults migrate seasonally from shelf margins in the winter to the inner and middle shelf in April/May with the onset of warmer waters temperatures. Smaller GOA arrowtooth flounder predate on euphausiids, capelin and herring while fish over 40 cm rely primarily on pollock. Predators of arrowtooth flounder include Pacific cod, pollock and skates

Arrowtooth flounder recruitment to the fishery begins at about 3 years, and females are fully recruited by age 10. The estimated length at 50 percent maturity is 28 cm for males (4 years) and 37 cm for females (5 years) based on samples collected from Washington, and longevity extends to 21 years. Female natural mortality is estimated at $M=0.2$. Male natural mortality has a range estimate ($M=0.27-0.36$). Adult males range in size from 30-50 cm, and females range in size from 30-70 cm. The spawning period for arrowtooth flounder occurs from December to February at depths of 100-360 m. Spawning in the GOA occurs from Kodiak to Yakutat Bay.

Catch History: Prior to 1981, arrowtooth flounder was caught incidentally in foreign fisheries targeting higher value species. From 1991-2000, arrowtooth flounder catches ranged from 10,034 mt-22,583 mt. Catches of arrowtooth flounder were on average greater from 2000-November 2009, peaking in 2008 at 29,293 mt.

Stock Assessment: The arrowtooth flounder assessment uses an automatic differentiation software developed as a set of libraries under C++ (AD Model Builder). This model incorporates fishery data and fishery independent data from NMFS and IPHC trawl surveys. Arrowtooth flounder catch limits are set by a Tier 3a control rule. The 2011 projected biomass is 2,121,440 mt. Catch specifications for 2011 are as follows; OFL=251,068 mt, ABC= 213,150 mt, TAC= 43,000 mt.

Arrowtooth flounder biomass has increased steadily since the early 1990s. Estimated biomass averaged 1.7 million mt annually from 2000-2004 and 2 million mt during 2004-2009.

Fishery: There is currently no directed fishery for arrowtooth flounder in the GOA. However, arrowtooth flounder are an important byproduct of more valuable target trawl and longline fisheries, such as Pacific cod and pollock.

Flathead sole

Biology: Flathead sole *Hippoglossoides elassodon* are distributed in the Kuril Islands, BS, GOA and south to California. Adult flathead sole exhibit a benthic lifestyle and overwinter near the shelf margins before migrating to the mid and outer continental shelf in April or May each year for feeding. They occur

Total catches, pre-season catch specifications, and exploitable biomass of Arrowtooth Flounder* in the GOA, 1990-2011 (mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass ²
1990	7,705	32,000	194,600	-	-
1991	10,035	20,000	340,100	-	2,000,800
1992	15,970	25,000	303,800	427,000	1,787,583
1993	15,560	30,000	321,290	451,690	1,889,922
1994	23,560	30,000	236,240	275,930	1,889,920
1995	18,430	35,000	198,130	231,416	1,585,040
1996	22,183	35,000	198,130	231,416	1,640,000
1997	16,319	35,000	197,840	280,800	1,971,170
1998	12,974	35,000	208,340	295,570	2,062,740
1999	16,209	35,000	217,110	308,880	2,126,714
2000	24,252	35,000	145,360	173,910	1,571,670
2001	19,964	38,000	148,150	173,550	1,586,830
2002	21,230	38,000	146,260	171,060	1,760,000
2003	23,320	38,000	155,140	181,390	1,302,000
2004	15,304	38,000	194,930	228,130	2,453,390
2005	19,770	38,000	216,900	253,900	2,453,390
2006	27,653	38,000	177,844	207,678	2,140,170
2007	25,364	43,000	184,008	214,828	2,146,360
2008	29,293	43,000	226,470	266,914	2,244,870
2009	24,937	43,000	221,512	261,022	1,295,050
2010	23,015	43,000	215,882	254,271	2,139,000
2011	-	43,000	213,150	251,068	2,139,000

*Separated from Flounders category 1990.

¹Catch data through November 2010.

²Biomass from SAFE report projections.

primarily on mixed mud and sand bottoms in depths less than 300 m. Pandalid shrimp and brittle stars are the most important prey for adult flathead sole in the GOA, while euphausiids and mysids constitute the most important prey items for juvenile flathead sole. Pacific cod and Pacific halibut are the major predators on adults, while arrowtooth flounder, sculpins, walleye pollock and Pacific cod are the major predators on juveniles.

Flathead sole recruitment to the fishery begins at age 4, and longevity extends to 32 years. Estimated length at 50 percent maturity is 33 cm (8.7 years). Natural mortality is estimated at $M=0.20$. Flathead sole spawn in March and April, primarily in deeper waters near the margins of the continental shelf. Females release from 70,000-600,000 eggs depending on size.

Total catches, pre-season catch specifications, and exploitable biomass of Flathead Sole* in the GOA, 1991-2011 (mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass ²
1991	1,717	10,000	50,300	-	251,800
1992	2,034	10,000	48,280	63,100	240,615
1993	2,366	10,000	49,450	64,780	247,250
1994	2,580	10,000	35,850	39,310	199,000
1995	2,181	10,000	28,790	31,557	198,470
1996	3,107	9,740	28,790	31,557	198,470
1997	2,446	9,040	26,110	34,010	206,340
1998	1,742	9,040	26,110	34,010	206,340
1999	900	9,040	26,110	34,010	206,340
2000	1,547	9,060	26,270	34,210	207,520
2001	1,911	9,060	26,270	34,210	207,520
2002	2,145	9,280	22,690	29,530	170,915
2003	2,425	11,150	41,390	51,560	132,260
2004	2,390	10,880	51,270	64,750	292,670
2005	2,530	10,390	45,100	56,500	292,670
2006	3,134	9,077	37,820	47,003	291,441
2007	3,163	9,148	39,110	48,658	297,353
2008	3,419	11,054	44,735	55,787	103,300
2009	3,658	11,181	46,464	57,911	323,937
2010	3,458	10,411	47,422	59,295	328,862
2011	-	10,587	49,133	61,412	325,367

¹Catch data from SAFE.

²Biomass from annual SAFE report projections.

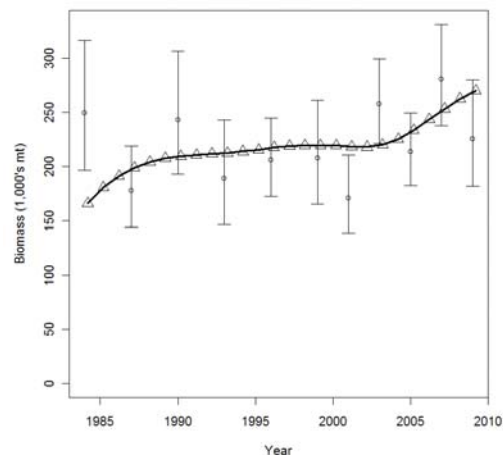
Fishery: GOA flathead sole are caught using trawl gear in a directed fishery and fisheries targeting other bottom-dwelling species such as POP, Pacific cod and bottom pollock. Fishing seasons are dictated by seasonal halibut PSC apportionments. The majority of flathead sole in the GOA is taken in the Shelikof Strait and on the Albatross Bank near Kodiak Island and Unimak Island. About 90 percent of the catch is retained.

Pacific Ocean Perch

Biology: Pacific Ocean Perch (POP) *Sebastes alutus* distribution extends from Japan around the Pacific Rim, the BS and south to California. POP are most abundant in AI, GOA and British Columbia and are found primarily offshore along the continental slope at depths from 150-420 m. POP are generally considered a demersal species and are found over cobble substrate. Seasonal changes in depth distribution

Catch History: From a high of approximately 2000 t in 1980, annual flathead sole catches declined steadily to a low of around 150 mt in 1986. After 1986, catches increased and reached a peak catch of 3,658 mt in 2009.

Stock Assessment: The flathead sole assessment uses a split-sex, age-based model with age length formulations for fishery and survey selectivity. This model incorporates fishery data and fishery independent data from triennial (1984-1999) and biennial (2001-2009) surveys. Flathead sole catch limits are set by a Tier 3a control rule. The 2011 projected biomass is 325,367 mt. Catch specifications for 2011 are as follows; OFL=61,412 mt, ABC=49,133 mt, TAC= 10,587 mt. Estimated flathead sole biomass steadily increased from 207,520 mt in 2000 to 328,862 mt in 2010.



occur, and adults migrate farther offshore to deeper waters during winter. During late spring and summer, POP migrate to shallower waters inshore for summer feeding. Adults perform diel migrations off the sea floor to feed. POP populations occur in patchy aggregations, and POP are generally planktivorous. Smaller POP feed on calanoid copepods, whereas larger POP rely on euphausiids, shrimp and squids. POP are prey for Pacific halibut, sablefish, Pacific cod and arrowtooth flounder.

POP is a slow-growing, long lived species. Recruitment to trawl fisheries begins at age 5, and full recruitment to the fishery occurs around age 8. Females reach 50 percent maturity at 10.5 years in the GOA, and longevity extends to 80 plus years (oldest recorded 84 years in the GOA). Natural mortality is estimated to be $M=0.06$. Females are viviparous, retaining fertilized eggs within the ovary until larval extrusion. Mating takes place in late fall, and larval extrusion occurs in early spring. Females release from 10,000-300,000 eggs each year, depending on size.

Catch History: POP was harvested in the GOA by the USSR and Japan beginning in the early 1960s. The fishery developed rapidly, and catches peaked in 1965 at 350,000 mt. High fishing effort by the

foreign fleet caused a major decline in POP abundance/catches through the late 1960s. Catches continued to decline, and in 1985 foreign trawling in the GOA was prohibited.

Total catches, pre-season catch specifications, and exploitable biomass of Pacific Ocean Perch* in the GOA, 1990-2011 (mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass ²
1991	6,632	5,800	5,800	-	-
1992	6,158	5,200	5,730	5,730	229,100
1993	2,119	2,560	3,378	3,378	156,300
1994	1,853	2,550	3,030	3,940	101,800
1995	5,742	5,630	6,530	8,232	142,465
1996	8,459	6,960	8,060	10,165	163,220
1997	9,531	9,190	12,990	19,760	301,084
1998	9,266	10,780	12,820	18,090	242,300
1999	10,802	12,590	13,120	18,490	228,190
2000	10,157	13,020	13,020	15,390	200,310
2001	10,860	13,510	13,510	15,390	211,160
2002	11,729	13,190	13,190	15,670	293,240
2003	10,911	13,660	13,660	16,240	298,820
2004	11,528	13,340	13,340	15,840	266,960
2005	11,440	13,575	13,575	16,266	286,367
2006	13,590	14,261	14,261	16,927	312,968
2007	13,046	14,635	14,636	17,158	315,507
2008	12,400	14,999	14,999	17,807	317,511
2009	12,985	15,111	15,111	17,940	318,336
2010	15,520	17,584	17,584	20,243	334,797
2011	-	16,997	16,997	19,566	330,480

The domestic fishery for POP in the GOA began in the early 1980s and expanded each year until 1991. POP catches remained relatively low through the 1990s, averaging 7,072 mt annually from 1991-2000. Catches have increased moderately since 2000, averaging 12,027 mt annually from 2001-November 2009.

Fishery Management: In 1991, POP and the Shortraker/Rougheye complex were separated from the "Slope Rockfish" complex to prevent overfishing. A reduction in TACs after 1991 to promote POP stock rebuilding was also implemented. In 2004, Shortraker and Rougheye rockfish were separated into their own management units due to disproportionately high harvests of shortraker rockfish. GOA rockfish stocks and complexes are managed with area-specific ABC and TAC apportionments to avoid the potential for localized depletions. Amendment 41, effective in 2000, prohibited trawling in the Eastern area east of 140° W longitude, an area that was previously fished for POP.

* Separated from Slope Rockfish in 1991.

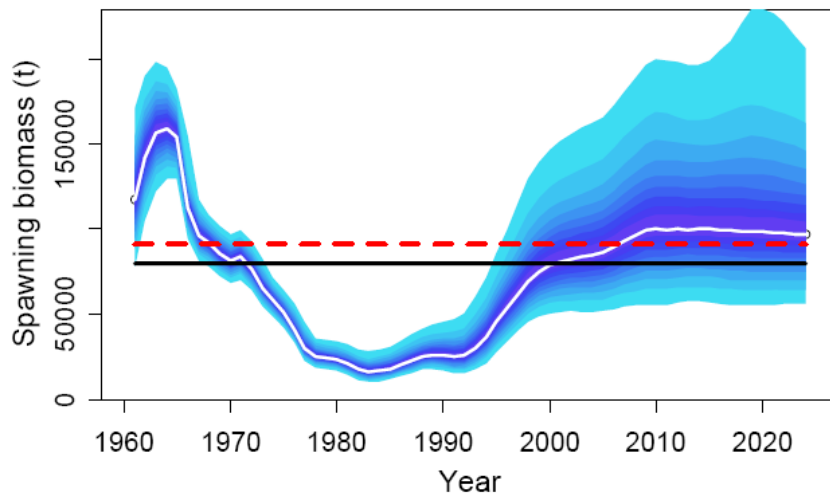
¹Catch data from SAFE.

²Biomass from annual SAFE report projections.

The Central GOA Rockfish Pilot Program, effective for 2007 through 2011, rationalized the rockfish and related trawl fisheries. The program provides cooperatives with exclusive catch shares (95 percent of the CGOA TAC) for target species of POP, Northern rockfish, and Pelagic Shelf rockfish, as well as a allocated a portion of the TAC for suite of secondary species (sablefish, cod, and thornyhead, shortraker and rougheye rockfish), and a halibut prohibited species catch limit allocation. Cooperatives receive allocations based on catch history of cooperative member vessels. Sideboard limits for the target rockfish

species are established in the Western GOA. A slightly revised program was adopted by the Council in 2010 for implementation in 2012 to 2021.

Stock Assessment: The POP assessment uses an age-structured model using AD Model Builder software. POP catch limits are set under Tier 3a OFL and ABC control rules. This model incorporates fishery data and fishery independent data from biennial trawl surveys. The 2011 projected biomass is 330,480 mt. Catch specifications for 2011 are as follows; OFL=19,566 mt, ABC= 16,997 mt, TAC= 16,997 mt.



Estimated biomass of POP was relatively low during the early 1990s, averaging 158,577 mt from 1991-1995. Since 2000, POP estimated biomass has steadily increased from 211,160 mt in 2000 to 334,797 mt in 2009, averaging 295,567 mt annually from 2000-November 2009.

Fishery: POP are caught primarily in directed bottom trawl fisheries. The percentage of POP in the GOA taken in pelagic trawls increased from 2 percent in 1990 to 31 percent in 2008. The majority of POP is caught in the Central regulatory area, and TACs allocated for each area are generally met (except Southeastern area due to prohibited trawling).

Economics: In 2008, production was 20,570 mt for all Alaska rockfish products for a total gross value of \$41.9 million. Ex-vessel value of rockfish catch in the GOA was \$9.5 million.

Northern rockfish

Biology: Northern rockfish *Sebastes polyspinus* distribution extends from the Kamchatka Peninsula, through the BSAI, GOA and British Columbia. The species is most abundant in the central GOA to the western end of the AI. Adults concentrate at discrete sites along the outer continental shelf from 75-150 m. Northern rockfish are demersal and are generally found in aggregations with patchy distributions. Northern rockfish are prey on calanoid copepods, euphausiids and chaetognaths. Based on stomach content data for POP, Pacific halibut and sablefish likely prey on northern rockfish.

Northern rockfish is a slow-growing, long-lived species. Age at 50 percent maturity is 12.8 years in the GOA, and longevity extends to 50 years (oldest recorded 67 in the GOA). GOA northern rockfish grow faster and reach a larger maximum length than the AI northern rockfish. Natural mortality is estimated to be $M=0.06$. Females are viviparous, retaining their fertilized eggs within the ovary until larval extrusion.

Catch History: Northern rockfish were initially harvested by Soviet and Japanese trawlers in the early 1960s. Foreign fishing effort increased quickly in the 1960s, and catches of rockfish in the GOA peaked in 1965 at 350,000 mt. It is likely that GOA northern rockfish comprised some portion of the early foreign catch (exact northern rockfish catch unknown for this period). Northern rockfish was separated from the slope rockfish assemblage in 1993, and catches have remained fairly stable since 1994, ranging from a low of 2,947 mt in 1997 to a high of 5,968 in 1994 (average annual catch equals 4,262 mt from 1994-2009).

Stock Assessment: The northern rockfish assessment uses a separable, age-structured model using AD Model Builder software. This model incorporates fishery data and fishery independent data from biennial trawl surveys. Northern rockfish catch limits are set under Tier 3a of the ABC/OFL control rules. The 2011 projected biomass is 100,463 mt. Catch specifications for 2011 are as follows; OFL=5,784 mt, ABC= 4,854 mt, TAC= 4,854 mt.

Fishery: Northern rockfish are fully allocated as a target species in the CGOA trawl rockfish program, with 95-98 percent of the CGOA TAC and side boarded at 74.3 percent of the WGOA TAC. Important fishing grounds include Portlock Bank, Albatross Bank, Shumagin Bank and Davidson Bank.

Shortraker rockfish

Biology: Shortraker rockfish *Sebastes borealis* are distributed from Japan around the Pacific Rim to Southern California, including the BSAI and the GOA. In Alaska, adults are especially concentrated along the continental slope in the 300-500 m depth interval. Shortraker rockfish predate on shrimps, squids, and myctophids. Shortrakers attain the

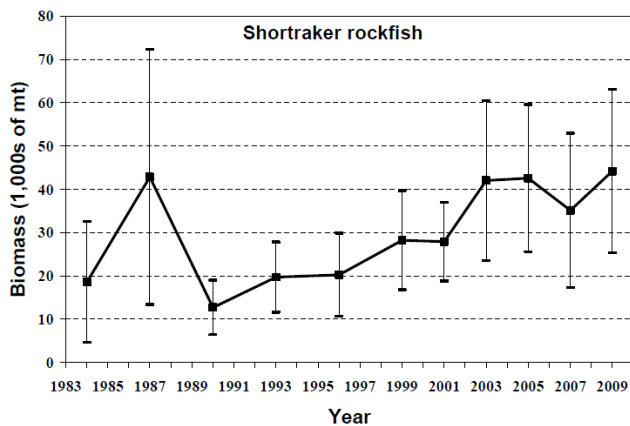
Total catches, pre-season catch specifications, and exploitable biomass of Northern Rockfish* in the GOA, 1993-2011 (in mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass ²
1993	4,846	5,760	5,760	10,360	76,800
1994	5,968	5,760	5,760	10,360	76,800
1995	5,634	5,270	5,270	9,926	87,845
1996	3,356	5,270	5,270	9,926	87,850
1997	2,947	5,000	5,000	9,420	83,890
1998	3,058	5,000	5,000	9,420	83,870
1999	5,412	4,990	4,990	9,420	83,870
2000	3,325	5,120	5,120	7,510	85,360
2001	3,150	4,880	4,880	5,780	93,850
2002	3,337	4,980	4,980	5,910	94,350
2003	5,349	5,530	5,530	6,560	108,830
2004	4,806	4,870	4,870	5,790	95,150
2005	4,806	5,091	5,091	6,050	108,274
2006	4,956	5,091	5,091	7,673	136,311
2007	4,187	4,938	4,938	5,890	94,271
2008	4,052	4,549	4,549	5,430	93,391
2009	3,925	4,362	4,362	5,204	90,557
2010	3,871	5,098	5,098	6,070	103,300
2011	-	4,854	4,854	5,784	100,463

Separated from Other Slope Rockfish category 1993.

¹Catch data from the SAFE.

²Biomass from annual SAFE report projections.



largest size of all *Sebastes*, with a maximum reported length of 120 cm. Shortraker rockfish is one of the most long-lived species in the northeast Pacific, and longevity may exceed 120 years. Natural mortality is estimated to be M=0.03. Information on early life history stages of shortraker rockfish is limited.

Catch History: From 1991 to 2004, the NPFMC managed shortraker rockfish in the GOA together with rougheye rockfish as an assemblage. Combined catches for the two species ranged from 702 to 2,250 mt, averaging 1,617 mt annually. Shortraker was separated into a single species management unit in 2005,

Total catches, pre-season catch specifications, and exploitable biomass of Shortraker Rockfish* in the GOA, 2005-2011 (in mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass ²
2005	498	753	753	982	32,723
2006	664	843	843	1,124	37,461
2007	608	843	843	1,124	37,461
2008	598	898	898	1,197	39,905
2009	550	898	898	1,197	39,905
2010	457	914	914	1,219	40,626
2011	-	914	914	1,219	40,626

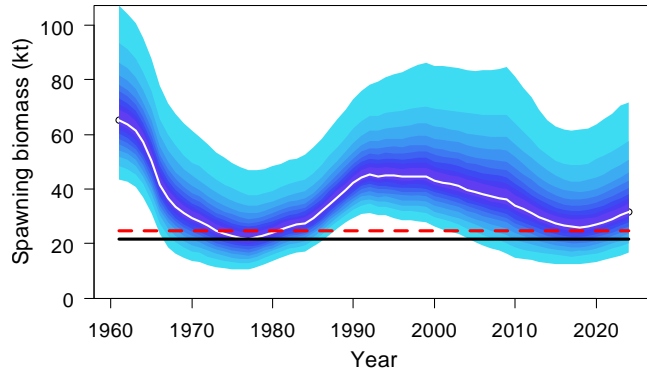
*Separated from Slope Rockfish in 1991 and Shortraker/Rougheye in 2004.

¹Catch data from 2009 SAFE

²Biomass from annual SAFE report projections.

and catches of shortraker rockfish averaged 584 mt annually from 2005-2009.

Stock Assessment: Due to limited biological data, the shortraker rockfish assessment uses a biomass-based approach to calculating ABCs, incorporating fishery independent data from trawl surveys. Shortraker rockfish catch limits are set under Tier 5 ABC/OFL control rules. The 2011 projected biomass is 40,626 mt. Catch specifications for 2011 are as follows; OFL=1,219 mt, ABC= 914 mt, TAC= 914 mt.



Fishery: Shortraker rockfish in the GOA are taken in both longline and trawl fisheries; each gear comprises about 50 percent of the annual catch. Shortrakers in the CGOA are allocated as a secondary species in the CGOA rockfish program. A total of 40 percent of the CGOA Shortraker TAC is allocated to the catcher processor sector.

Other Slope Rockfish

Biology: The Other Slope Rockfish (OSR) complex consists of 15 rockfish species, although sharpchin, harlequin, silvergray, redstripe, and redbanded rockfish comprise the majority of the biomass. The center of abundance for most species is farther south off British Columbia or the US west coast. However, harlequin rockfish are most common in Alaskan waters, and silvergray rockfish appear to be most abundant in southeast Alaska and British Columbia. Within the GOA, OSR are most abundant in the eastern GOA and become increasingly scarce farther west.

Blackgill rockfish	<i>Sebastes melanostomus</i>
Bocaccio rockfish	<i>Sebastes paucispinis</i>
Chilipepper rockfish	<i>Sebastes goodei</i>
Darkblotched rockfish	<i>Sebastes crameri</i>
Greenstriped rockfish	<i>Sebastes elongatus</i>
Harlequin rockfish	<i>Sebastes variegatus</i>
Pygmy rockfish	<i>Sebastes wilsoni</i>
Redbanded rockfish	<i>Sebastes babcocki</i>
Redstripe rockfish	<i>Sebastes proriger</i>
Sharpchin rockfish	<i>Sebastes zacentrus</i>
Silvergray rockfish	<i>Sebastes brevispinis</i>
Splitnose rockfish	<i>Sebastes diploproa</i>
Stripetail rockfish	<i>Sebastes saxicola</i>
Vermilion rockfish	<i>Sebastes miniatus</i>
Yellowmouth rockfish	<i>Sebastes reedi</i>

Total catches, pre-season catch specifications, and exploitable biomass of Other Slope Rockfish* in the GOA, 1993-2010 (in mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass ²
1993	2,810	5,383	8,300	9,850	134,400
1994	1,613	2,235	8,300	9,850	76,500
1995	1,397	2,235	7,110	8,395	112,812
1996	881	2,020	7,110	8,395	112,810
1997	1,217	2,170	5,260	7,560	103,710
1998	861	2,170	5,260	7,560	103,710
1999	788	5,270	5,270	7,560	103,710
2000	577	4,900	4,900	6,390	102,510
2001	559	1,010	4,900	6,390	102,510
2002	774	990	5,040	6,610	107,960
2003	1,078	990	5,050	6,610	107,960
2004	885	670	3,900	5,150	89,460
2005	715	670	3,900	5,150	103,300
2006	931	1,480	4,152	5,394	93,552
2007	690	1,482	4,154	5,394	93,552
2008	809	1,730	4,297	5,624	90,283
2009	881	1,730	4,297	5,624	90,283
2010	798	1,192	3,749	4,881	76,867
2011	-	1,195	3,752	4,881	76,867

*Separated from Slope Rockfish in 1991. Northern Rockfish split from Other rockfish category in 1993.

¹Catch data from SAFE.

²Biomass from annual SAFE report projections.

Life history data is limited for most OSR species. For sharpchin rockfish, size at 50 percent maturity is 26.5 cm (10 years). Natural mortality is estimated to be M=0.05 for sharpchin and silvergray rockfish,

M=0.10 for redstripe rockfish, and M=0.06 for harlequin and redbanded rockfish and all the minor species in the group.

Catch History: Catch data for OSR are only available for the years since 1991, when these 15 species became their own management group in the GOA. Since the mid-1990s, catches for OSR in the GOA have generally been less than 1,000 mt. In particular, the EGOA trawl closure that has been in effect since 1998 has limited the catch of OSR in the GOA.

Stock Assessment: Other Slope Rockfish are managed under Tier 5 of the ABC/OFL control rules (sharpchin rockfish managed under Tier 4). The 2011 projected biomass is 76,867 mt. Catch specifications for 2011 are as follows; OFL=4,881 mt, ABC= 3,752 mt, TAC= 1,195 mt.

Fishery: There is no directed fishery for OSR in the GOA. Other Slope Rockfish in the GOA are primarily taken in trawl fisheries targeting higher value species. Harlequin and sharpchin rockfish are the predominant OSR species caught. Prior to 1996, more than 90 percent of the slope rockfish trawl catch was taken by large at-sea factory trawlers. Since then, smaller shore-based trawlers have taken sizeable catches for delivery to processing plants in Kodiak.

Pelagic Shelf Rockfish

Biology: The Pelagic Shelf Rockfish (PSR) complex consists of 3 rockfish species; dusky rockfish *Sebastes variabilis*, yellowtail rockfish *Sebastes flavidus*, and widow rockfish *Sebastes entomelas*. Yellowtail and widow rockfish are less common than dusky rockfish, and life history data is limited for these 2 species. Yellowtail and widow rockfish tend to be concentrated in nearshore areas and offshore banks on the continental shelf. Natural mortality is estimated M=0.07 for both yellowtail and widow rockfish.

Dusky rockfish are the most abundant species in the PSR assemblage in the GOA. Adult dusky rockfish are concentrated around offshore banks and near gullies on the outer continental shelf at depths of 100 to 200 m. It is likely that dusky rockfish benthic distribution is associated with hard, rocky bottoms and epibenthic habitats. Dusky rockfish prey on Pacific sandlance and euphausiids. Dusky rockfish age at 50 percent maturity is approximately 11.3 years. Mortality is estimated to be M=0.07, and longevity extends to 60 years. Dusky rockfish are ovoviviparous with fertilization, embryonic development, and larval hatching occurring inside the mother. Parturition is believed to occur in the spring in the GOA.

Catch History: PSR catch in the GOA generally increased after the management groups were separated in 1988. From 1998-1995, over 95 percent of the catch of dusky rockfish was taken by large factory trawler processing fish at sea. In

Total catches, pre-season catch specifications, and exploitable biomass of Pelagic Shelf Rockfish in the GOA, 1988-2011 (mt).					
Year	Catch¹	TAC	ABC	OFL	Biomass²
1988	1,086	3,300	3,300	-	169,700
1989	1,739	3,300	6,600	-	164,300
1990	1,647	8,200	8,200	-	164,000
1991	2,342	4,800	4,800	-	96,300
1992	3,440	6,890	6,890	11,360	75,110
1993	3,193	6,740	6,740	11,300	74,900
1994	2,990	6,890	6,890	11,550	76,500
1995	2,891	5,190	5,190	8,704	57,644
1996	2,302	5,190	5,190	8,704	56,502
1997	2,629	5,140	5,140	8,400	54,220
1998	3,111	5,260	5,260	8,040	55,580
1999	4,826	4,880	4,880	8,190	54,220
2000	3,730	5,980	5,980	9,040	66,440
2001	3,008	5,980	5,980	9,040	66,440
2002	3,318	5,490	5,490	8,220	62,489
2003	2,975	5,490	5,490	8,220	62,500
2004	2,674	4,470	4,470	5,570	57,400
2005	2,235	4,553	4,553	5,680	103,300
2006	2,446	5,436	5,436	6,662	97,368
2007	3,318	5,542	5,542	6,458	99,829
2008	3,634	5,227	5,227	6,400	70,823
2009	3,057	4,781	4,781	5,803	66,603
2010	3,097	5,059	5,059	6,142	66,603
2011	-	4,754	4,754	5,770	66,498

*Separated from Other Rockfish category 1988.
¹Catch data through November 2010.
²Biomass from annual SAFE report projections.

1996, smaller shore-based trawlers also began taking a portion of the catch in the Central GOA area for delivery to processing plants in Kodiak. These shore-based trawlers have accounted for 18-74 percent of the trawl catch in the Central area from 1996-2006. Catches have remained fairly stable since 1994 and peaked in 1999 at 4,826 mt.

Stock Assessment: Black and blue rockfish were removed from the GOA FMP in 1998, and dark rockfish in 2009. PSR are managed under Tier 3 (dusky) and Tier 5 (widow and yellowtail) ABC/OFL control rules. The 2011 projected biomass is 66,498 mt. Catch specifications for 2011 are as follows; OFL=5,770 mt, ABC=4,754 mt, TAC= 4,754 mt.

Fishery: In the CGOA, 95 percent of the PSR TAC is allocated to the CGOA Rockfish program. The trawl fishery for dusky rockfish begins in May and closes in November. Catches of dusky rockfish are concentrated at a number of offshore banks of the outer continental shelf, west of Yakutat and around Kodiak in areas such as Portlock Bank and Albatross Bank.

Rougheye and Blackspotted Rockfishes

Biology: The rougheye and blackspotted (RE/BS) complex consists of 2 species; rougheye rockfish *Sebastes aleutianus* and a species recently identified by genetic research as blackspotted rockfish *Sebastes melanostictus*. These two species are often difficult to differentiate from each other at sea. RE/BS distribution extends from Japan, through the BSAI, GOA to southern California. Adults primarily inhabit a narrow band along the upper continental slope at depths from 300-500 m. Although the two species distributions overlap, blackspotted rockfish are predominant in the AI, while rougheye rockfish are more common in the GOA and southeastern BS.

Rougheye rockfish length at 50 percent maturity is 44 cm, and longevity may extend to 200 years. Natural mortality for RE/BS is estimated to be $M=0.04$. As with other rockfish, RE/BS are presumed to be viviparous. RE/BS rockfish prey on pandalid shrimps, euphausiids, lanternfish, and crabs. Predators of RE/BS include Pacific halibut, Pacific cod and sablefish.

Catch History: Gulf- wide catches of the rougheye rockfish and blackspotted rockfish ranged from 130-2,418 mt. from 1977-1990. RE/BS rockfish are generally caught with either bottom trawls or longline gear. RE/BS rockfish have been managed as a “bycatch” only species since the creation of the shortraker/rougheye rockfish management subgroup in the GOA in 1991. Catches of rougheye and shortraker rockfish from 1992-2004 ranged from 702 - 2,250 mt, averaged 1,617 mt annually. RE/BS rockfish were separated into their own management unit in 2004, and catches of RE/BS rockfish averaged 345 mt annually from 2005- 2009.

Total catches, pre-season catch specifications, and exploitable biomass of Rougheye and Blackspotted Rockfish* in the GOA, 2005-2011 (in mt)					
Year	Catch¹	TAC	ABC	OFL	Biomass²
2005	294	1,007	1,007	1,531	40,281
2006	358	983	983	1,180	37,449
2007	417	988	988	1,148	39,506
2008	389	1,286	1,286	1,548	46,121
2009	280	1,284	1,284	1,545	46,385
2010	447	1,302	1,302	1,568	45,751
2011	-	1,312	1,312	1,579	45,907

*Separated from Slope Rockfish in 1991 and Shortraker/Rougheye in 2004
¹Catch data from SAFE.
²Biomass from annual SAFE report projections.

Stock Assessment: The RE/BS rockfish assessment uses a separable age-structured model, which incorporates fishery data and fishery independent data from biennial trawl and annual longline surveys. RE/BS rockfish limits are set by a Tier 3a control rule. The 2011 projected biomass is 45,907 mt. Catch specifications for 2011 are as follows; OFL=1,579 mt, ABC= 1,312 mt, TAC= 1,312 mt.

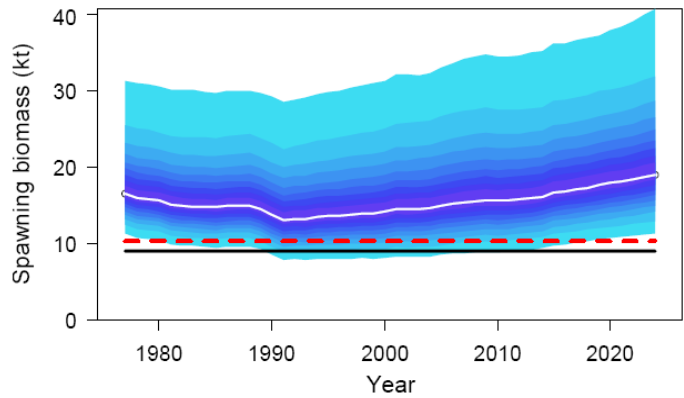
Fishery: RE/BS rockfish in the GOA are primarily taken in rockfish bottom trawl fisheries and longline fisheries targeting sablefish and Pacific halibut.

Thornyhead Rockfish

Biology: The Thornyhead Rockfish complex consists of 3 species; shortspine *Sebastobus alascanus*, longspine *Sebastobus altivelis*, and broadfin *Sebastobus macrochir* thornyheads. Thornyheads are distinguished from “true” rockfish (*Sebastes*) due to their reproductive biology. Whereas *Sebastes spp.* rockfish are viviparous, thornyheads are oviparous, releasing fertilized eggs in floating gelatinous masses. Thornyheads are also differentiated from *Sebastes spp.* in lacking a swim bladder.

Shortspine thornyheads are distributed in deep-water habitats throughout the North Pacific, and are concentrated between 150-450 m in the cooler, northern part of their range and are generally found in deeper habitats up to 1000 m in the warmer waters of their southern range. Females reach 50 percent maturity at about 22 cm, and longevity extends to 100 years or more. Natural mortality is estimated to be $M=0.03$. Shortspine thornyheads feed on shrimps, crabs, zooplankton and amphipods and are in turn prey for arrowtooth flounder, sablefish, sperm whales and sharks. Longspine thornyheads are found only in the eastern north Pacific, around the Shumagin Islands, GOA and south to California. Longspines are generally found in deeper habitats from 200-1,750 m.

Catch History: Foreign rockfish harvests peaked in 1965. The greatest reported harvest of thornyheads in the GOA occurred from 1979-1983. Catches declined in 1984 and 1985 due to



Total catches, pre-season catch specifications, and exploitable biomass of age 5+ Thornyhead Rockfish* in GOA, 1992-2011 (mt).

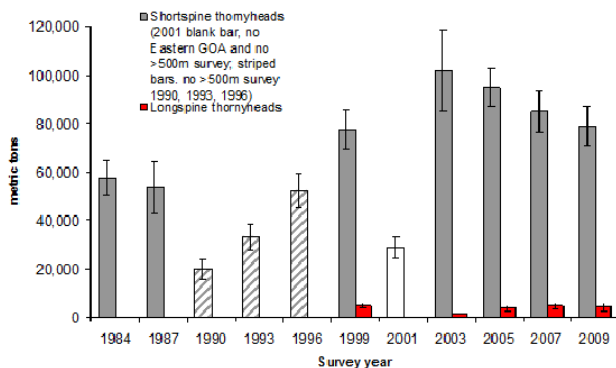
Year	Catch ¹	TAC ²	ABC	OFL	Biomass
1992	2,020	1,800	1,800	2,440	25,700
1993	1,369	1,062	1,180	1,441	26,207
1994	1,320	1,180	1,180	1,440	103,300
1995	1,113	1,900	1,900	2,660	30,341
1996	1,100	1,248	1,560	2,200	26,244
1997	1,240	1,700	1,700	2,400	46,108
1998	1,136	2,000	2,000	2,840	52,271
1999	1,282	1,990	1,990	2,800	53,216
2000	1,307	2,360	2,360	2,820	52,950
2001	1,339	2,310	2,310	2,770	52,100
2002	1,125	1,990	1,990	2,330	77,840
2003	1,159	2,000	2,000	3,050	85,760
2004	818	1,940	1,940	2,590	86,200
2005	719	1,940	1,940	2,590	86,200
2006	779	2,209	2,209	2,945	98,158
2007	701	2,209	2,209	2,945	98,158
2008	741	1,910	1,910	2,540	84,774
2009	666	1,910	1,910	2,540	84,775
2010	553	1,770	1,770	2,360	78,795
2011	-	1,770	1,770	2,360	78,795

* includes longspine and shortspine thornyheads.

¹Catch data through November 2010.

²TAC, ABC and OFL from annual *Federal Register*.

GOA Trawls survey biomass estimates, 1984-2009



US management restrictions and a transition to domestic fisheries. US catches continued to increase through 1989, peaking at 3,055 mt. Since then, catches have remained well below the TAC.

Stock Assessment: Thornyhead rockfish catch limits are set using a Tier 5 control rule. The 2011 projected biomass is 78,795 mt. Catch specifications for 2011 are as follows; OFL=2,360 mt, ABC= 1,770 mt, TAC= 1,770 mt.

Fishery: Thornyheads are caught by bottom trawl as a secondary target species in the CGOA Rockfish program and are also taken incidentally in the sablefish longline fishery. Thornyheads are a valuable rockfish species, and most of the domestic harvest is exported to Japan.

Demersal Shelf Rockfish

Biology: The Demersal Shelf Rockfish (DSR) complex consists of 7 species. DSR are generally nearshore, bottom-dwelling species, located on the continental shelf and associated with rugged, rocky habitat. DSR species exhibit K-selected life history traits including slow growth and extreme longevity. DSR are viviparous, and parturition occurs from February through September with the majority of the species extruding larvae in spring.

Canary rockfish	<i>Sebastes pinniger</i>
China rockfish	<i>Sebastes nebulosus</i>
Copper rockfish	<i>Sebastes caurimus</i>
Quillback rockfish	<i>Sebastes maliger</i>
Rosethorn rockfish	<i>Sebastes helvomaculatus</i>
Tiger rockfish	<i>Sebastes nigrocinctus</i>
Yelloweye rockfish	<i>Sebastes ruberrimus</i>

Exploitable biomass, pre-season catch specifications, and total catches (including discards) of Demersal Shelf Rockfish* in the GOA, 1992-2010 (mt).

Year	Catch ¹	TAC	ABC	OFL	Biomass ²
1992	511	550	550	732	-
1993	558	800	800	1,600	48,366
1994	540	960	960	1,680	49,280
1995	219	580	580	1,044	26,093
1996	401	950	950	1,702	42,552
1997	406	950	950	1,450	42,552
1998	552	560	560	950	25,031
1999	297	560	560	950	25,031
2000	406	340	340	420	15,100
2001	301	330	330	410	14,695
2002	292	350	350	480	15,615
2003	229	390	390	540	17,510
2004	260	450	450	690	20,168
2005	187	410	410	640	18,508
2006	166	410	410	650	19,558
2007	250	410	410	650	19,558
2008	149	382	382	611	18,329
2009	138	362	362	580	17,390
2010	127	295	295	472	14,321
2011	-	300	300	479	14,395

*Separated from Rockfish in 1991.
¹Catch data through November 2010.

The primary species of the fishery is yelloweye rockfish. The oldest recorded yelloweye rockfish is 118 years, and natural mortality is estimated at M=0.02. Yelloweye reach a maximum length of about 91 cm with the length at 50 percent maturity at 45 cm (22 years). Yelloweye feed on shrimp, small crabs and a variety of fishes including small rockfish, herring and sandlance. Yelloweye are in turn prey for larger rockfish, lingcod, salmon and Pacific halibut.

Catch History: The directed fishery for DSR began in 1979 as a small, shore-based, hook and line in Southeast Alaska, which targeted the entire DSR complex. The directed DSR catch increased from 120 mt in 1982 to a peak of 778 mt in 1987.

Fishery Management: DSR are managed jointly by ADF&G and NMFS. The directed DSR season is closed during the halibut IFQ season to prevent over-harvest of DSR, and 33 percent of DSR quota is allocated pre-halibut season and 67 percent of DSR quota is allocated post-halibut season. Directed fishery quotas are set by management area and are based on the remaining ABC after subtracting the estimated DSR incidental catch (landed and at sea discard) in other fisheries.

Stock Assessment: Yelloweye rockfish biomass is estimated from submersible transect density and area estimates of DSR habitat. DSR catch limits are set by a Tier 4 control rule. The 2011 projected biomass is 14,395 mt. Catch specifications for 2011 are as follows; OFL=479 mt, ABC=300 mt, TAC= 300 mt.

Fishery: The directed fishery for DSR is almost entirely prosecuted by longline gear. Yelloweye accounted for 97 percent (by weight) and quillback accounted for 1.9 percent (by weight) of the catch from 2003-2008.

Atka mackerel

Biology: Atka mackerel *Pleurogrammus monopterygius* are distributed along the continental shelf. Atka mackerel is a schooling, semi-demersal species most commonly found in the AI, but also in the Western and Central GOA. Adult Atka mackerel occur in large localized aggregations at depths less than 200 m over rough, uneven bottom areas with high tidal currents. Atka mackerel feed on euphausiids and copepods and is prey for Pacific cod, arrowtooth flounder and Steller sea lions.

Atka mackerel begin to recruit to the fishery at age 3 and longevity can extend to 14 years. Females reach 50 percent maturity at 31 cm (3.5 years). Natural mortality is estimated at $M=0.30$. Atka mackerel are a substrate-spawning fish with male parental care. Behavioral studies have shown that the Atka mackerel mating system is very complex. A significant characteristic is the bright and distinct coloration developed by territorial males during the spawning season. Spawning occurs from July to October, peaking in early September. Atka mackerel have relative low fecundity, with females releasing around 30,000 eggs each year. Eggs are adhesive and deposited in rock crevices in nests guarded by males until hatching, which occurs about 40-45 days later.

Catch History: Atka mackerel supported a targeted foreign fishery (primarily Soviet vessels) in the Central GOA during the 1970s and 1980s. Catches peaked in 1975 at about 27,000 mt then declined dramatically to less than 5 mt in 1986. Joint venture operations participated in the Atka mackerel fishery from 1983-1985, and the fishery was fully domestic by 1986.

Fishery Management: In 1988, Atka mackerel were combined with the Other Species category due to low abundance. In 1994, Atka mackerel were removed from the Other Species category and treated once again as a single species target stock. There has not been a directed Atka mackerel fishery in the GOA since 1996.

Stock Assessment: The existing GOA bottom trawl survey data has limited utility for either absolute abundance estimates or indices for Atka mackerel. Atka mackerel fall under Tier 6 control rule. The 2011 catch specifications for Atka mackerel are as follows; OFL=6,200 mt, ABC=4,700 mt, TAC=2,000 mt.

Fishery: Atka mackerel has been a “bycatch” only fishery since 1996.

Ecosystem Components: Because Atka mackerel is thought to be a common prey item for Steller sea lions, all directed fishing for Atka mackerel is prohibited in the GOA

Year	Catch ¹	TAC	ABC	OFL
1994	3,538	3,500	4,800	19,040
1995	701	3,240	3,240	11,700
1996	1,580	3,240	3,240	9,800
1997	331	1,000	1,000	6,200
1998	317	600	600	6,200
1999	262	600	600	6,200
2000	170	600	600	6,200
2001	76	600	600	6,200
2002	85	600	600	6,200
2003	578	600	600	6,200
2004	819	600	600	6,200
2005	799	600	600	6,200
2006	876	1,500	4,700	6,200
2007	1,453	1,500	4,700	6,200
2008	2,109	1,500	4,700	6,200
2009	2,222	3,328	3,328	6,200
2010	2,409	2,000	4,700	6,200
2011	-	2,000	4,700	6,200

*Added to Other Species category in 1988 and separated from Other Species in 1994.
¹Catch data through November 2010.

Skates

Biology: The GOA Skate complex is comprised of at least 15 skate species. Big skates and longnose skates dominate the skate biomass in the GOA.

Bathyrāja sp. compose about a third of total GOA skate biomass, with the majority of these being the Aleutian skate and Bering skate. Skate biomass is concentrated in the Central GOA. Skates feed on bottom invertebrates, such as crustaceans, mollusks and polychaetes and fish. Skates are prey for sharks, Steller sea lions and sperm whales.

The highest biomass of skates in the GOA is found in continental shelf waters less than 100 m deep, and is dominated by the big skate. In continental shelf waters from 100-200 m depth, longnose skates dominate skate biomass, and *Bathyrāja*

skate species are dominant in the deeper waters extending from 200 to 1000 m or more in depth. Big and longnose skate are generally found in shallower waters in the GOA, and their distribution extends from the BS to southern Baja California. The Aleutian skate ranges throughout the north Pacific from northern Japan to northern California and has been found at depths between 16-1602 m. The Alaska skate is restricted to higher latitudes from the Sea of Okhotsk to the eastern GOA at depths from 17-392 m. The range of the Bering skate is undetermined.

Skates are generally K-selected, with slow-growth, low fecundity and relatively large body size. Skates are oviparous; fertilization is internal, and eggs are deposited in horny cases for incubation. There are 1-7 embryos per egg case in locally occurring *Raja* sp., but little is known about the frequency of breeding or egg deposition for any of the local species. It is estimated that annual fecundity per females may be less than 50 eggs per year. The big skate is the largest skate in the GOA, with maximum sizes observed over 200 cm in the directed fishery in 2003. Observed sizes for the longnose skate range from 165-170 cm. The maximum observed lengths for *Bathyrāja* species from bottom trawl surveys of the GOA range from 86-154 cm. Life history parameter data are limited for GOA skates. The AFSC Age and Growth Program has recently reported a maximum observed age of 25 years for the longnose skate in the GOA and a maximum observed age for GOA big skates of 15 years.

Catch History: Skates were caught as a bycatch only species in the GOA at about 1,000-2,000 mt per year from 1992-1995, principally by the longline Pacific cod and bottom trawl pollock and flatfish fisheries. Most skates during this time period were not retained. A directed skate fishery developed in the GOA in 2003 due to an increase in the ex-vessel value of skates. The skate fishery was prosecuted generally by longline vessels less than 60 feet around Kodiak Island. Lower ex-vessel prices and a possible reduction in skate catch-per-unit effort resulted in a sharp decline in skate catches in 2004-2005.

Directed fishing for skates in the GOA has been prohibited since 2005. Annual average catches of big skates, longnose skates and other skates from 2005-November 2009 have averaged 996 mt, 638 mt, and 557 mt respectively. Catches are highest in the central GOA regulatory area.

Fishery Management: Since the beginning of domestic fishing in the late 1980s through 2003, all species of skates in the GOA were managed under the Other Species FMP category (skates, sharks, squids, sculpins, and octopuses). Catch limits were determined for all Other Species as 5 percent of the sum of the TACs for GOA target species. Under Amendment 63 in 2003, GOA skates were removed from the Other Species category in 2004 for separate management in response to a developing fishery. Big and longnose skates were managed together under a single TAC in the Central GOA. The remaining skates were managed as an Other Skates species complex in the Central GOA, and all skates were

Big skate	<i>Raja binoculata</i>
Longnose skate	<i>Raja rhina</i>
Other skates	
Aleutian skate	<i>Bathyrāja aleutica</i>
Bering skate	<i>Bathyrāja interrrupta</i>
Alaska skate	<i>Bathyrāja parmifera</i>
Deepsea skate	<i>Bathyrāja abyssicola</i>
Commander skate	<i>Bathyrāja lindbergi</i>
Whiteblotched skate	<i>Bathyrāja maculata</i>
Butterfly skate	<i>Bathyrāja mariposa</i>
Whitebrow skate	<i>Bathyrāja minispinosa</i>
Leopard skate	<i>Bathyrāja pamifera</i> sp.
Mud skate	<i>Bathyrāja taranetzi</i>
Roughtail skate	<i>Bathyrāja trachura</i>
Okhotsk skate	<i>Bathyrāja violacea</i>
Roughsholder skate	<i>Bathyrāja badia</i>

managed as an Other Skates species complex in the Western and Eastern GOA.

In 2005, big skates and longnose skates were separated into single species management groups due to concerns about disproportionate harvests. The remaining skates (genus *Bathyraja*) continue to be managed as a gulf wide species complex because they were not the targets of the fishery and are more difficult to identify. There has been no directed fishing for skates in the GOA since 2005.

Stock Assessment: The Skates stock assessment used estimated biomass data from NMFS summer bottom trawl surveys from 2003-2009. Skates are managed under Tier 5 of the ABC/OFL control rule, based on an overall natural mortality rate of 0.10 applied to survey biomass estimates for each species group. GOA wide catch specifications (mt) for 2011 are as follows.¹

	Biomass	OFL	ABC	TAC	2010 Catch
Big Skates	44,381	4,438	3,328	3,328	2,437
Longnose skates	38,031	3,803	2,852	2,852	1,043
Other skates	28,908	2,791	2,093	2,093	1,464

Note that the ABC and TAC are further broken out into Western, Central, and Eastern GOA for big skate and longnose skates.

Fishery: GOA Skates have been a bycatch only fishery since 2005. Skates are generally caught as bycatch in Pacific halibut and Pacific cod longline fisheries and flatfish trawl fisheries, especially in the GOA Central regulatory area. The incidental catch of big skates in the Central area has the potential to constrain fisheries.

Ecosystem Components: Skates have few natural predators. In the GOA, skate predators include marine mammals such as Steller sea lions and sperm whales (which may consume adult or juvenile skates), and spiny dogfish (which likely consume juvenile skates).

Sharks

Biology: The GOA Shark complex is composed of 8 shark species. The most abundant species in the GOA are the spiny dogfish, the salmon shark and the Pacific sleeper shark. GOA sharks exhibit K-selected life history traits including slow growth to maturity, low fecundity and large size. Spiny dogfish, Pacific sleeper shark and salmon sharks reproduce through aplacental viviparity. Shark diets vary with species and in general sharks are opportunistic feeders, but forage fish, crustaceans, squid and salmon are among the most common prey items.

Spiny dogfish	<i>Squalus acanthias</i>
Salmon shark	<i>Lamna ditropis</i>
Pacific sleeper shark	<i>Somniosus pacificus</i>
Brown cat shark	<i>Apristurus brunneus</i>
White shark	<i>Carcharodon carcharias</i>
Basking shark	<i>Cetorhinus maximus</i>
Sixgill shark	<i>Hexanchus griseus</i>
Blue shark	<i>Prionace glauca</i>

Spiny dogfish are distributed from California to Alaska, through the Aleutian chain to the Asian coast and south to Japan. Spiny dogfish are found at depths ranging from the intertidal to 900 m. Spiny dogfish growth rates are among the slowest of all shark species. Estimates of spiny dogfish age-at-50 percent-maturity are 20 years for males to 34 years for females. Longevity is estimated to reach between 80 and 100 years. Natural mortality is estimated at $M=0.097$. Spiny dogfish have one of the longest known gestation periods, approximately 18-24 months.

Pacific sleeper sharks are found along the North Pacific continental shelf and slope, ranging from Japan to the BS. Distribution extends as far north as the Chukchi Sea and as far south as Baja California. At higher latitudes, Pacific sleeper sharks are found shallower from littoral zones to surface waters. At lower latitudes, they reside much deeper and down to 2000 m. Pacific sleeper sharks make extensive, nearly continuous vertical movements. The maximum lengths of captured Pacific sleeper sharks are 440 cm for females and 400 cm for males. Pacific sleeper sharks 150-250 cm in length are most common in Alaska.

Pacific sleeper shark age and reproduction data are limited.

Salmon shark distribution in the northern Pacific extends from Japan into the Sea of Okhotsk to the BS and possibly south as far as Baja California Mexico. Salmon sharks live in areas with sea-surface temperatures between 5°C and 18°C and in depths up to 150 m. However, salmon sharks spend about 72 percent in waters less than 50 m deep. While some salmon sharks migrate south during the winter months, others remain in the GOA throughout the year. Longevity estimates for salmon sharks are between 20-30 years with maturity occurring at 3-5 years for males and 6-9 years for females. Natural mortality is estimated at $M=0.18$.

Catch History: There are currently no directed commercial fisheries for shark species in federal or state managed waters of the GOA, and most incidentally caught sharks are not retained. A small number of spiny dogfish landings in Kodiak were reported in 2004, 2005 and 2007 (approximately 1 mt each year). Spiny dogfish and salmon sharks are also caught in recreational fisheries in the GOA. Estimates of

historic shark catches ranged from 308 mt in 1995 to 2,390 mt in 1998. Catches annually averaged 895 mt during 1992-1999 and 962 mt during 2000-2009.

Total catches, and pre-season catch specifications of Sharks* in the GOA, 1994-2010 (mt).

Year	Catch ¹	TAC	ABC	OFL
1994	360	-	-	-
1995	308	-	-	-
1996	484	-	-	-
1997	1,041	-	-	-
1998	2,390	-	-	-
1999	1,036	-	-	-
2000	1,117	-	-	-
2001	853	-	-	-
2002	427	-	-	-
2003	751	-	-	-
2004	573	-	-	-
2005	1,101	-	-	-
2006	1,603	-	-	-
2007	1,406	-	-	-
2008	619	-	-	-
2009	1,167	-	-	-
2010	603	-	-	-
2011		6,197	6,197	8,262

*Split from Other Species in 2011.

¹Catch data through November 2010.

Fishery Management: Until 2011 sharks were managed under an Other Species category (sharks, squids, sculpins, and octopuses). Beginning in 2011 sharks are managed as a single complex.

Stock Assessment: Catch specifications for sharks are based on a split Tier system. Tier 5 is used for dogfish sharks, with natural mortality ($M=0.097$) applied to biomass estimate (79,257 mt). Tier 6 is used for other sharks based on average historical catch from 1997-2007. Catch specifications for sharks in 2011 are as follows; OFL=8,262 mt, ABC=6,197 mt.

Fishery: GOA sharks are managed as a bycatch only fishery. In 2010, the catch was 329 mt of spiny dogfish, 159 mt of sleeper sharks, and 107 mt of salmon sharks. On average, over 90 percent of the sharks are discarded. Spiny dogfish were caught primarily in the longline Pacific cod and bottom trawl flatfish fisheries. Over 90 percent of Pacific sleeper sharks and salmon sharks were caught in the pollock fishery.

Squids

Biology: There are at least 14 species of squid in the GOA and managed as a squid complex. The most common squid near the continental shelf are the minimal armhook squid and the magistrate armhook squid. On the slope, the most common squid species are the boreopacific armhook squid and other *Gonotus* armhook squid. Very little is known about the species of squid in the GOA.

Chiroteuthid sp.	<i>Chiroteuthis calyx</i>
Glass squid sp.	<i>Belonella borealis</i>
Glass squid sp.	<i>Galiteuthis phyllura</i>
Minimal armhook squid	<i>Berryteuthis anonychus</i>
Magistrate armhook squid	<i>Berryteuthis magister</i>
Armhook squid	<i>Eogonatus tinro</i>
Boreopacific armhook squid	<i>Gonatopsis borealis</i>
Berry armhook squid	<i>Gonatus berryi</i>
Armhook squid sp.	<i>Gonatus madokai</i>
Armhook squid sp.	<i>Gonatus middendorffi</i>
Clawed armhook squid	<i>Gonatus onyx</i>
Robust clubhook squid	<i>Moroteuthis robusta</i>
Boreal clubhook squid	<i>Onychoteuthis borealijaponicus</i>
North Pacific bobtail squid	<i>Rossia pacifica</i>

Squids are short-lived (<4 years), maturing just prior to spawning and dying afterwards. Squid populations consist of multiple cohorts that school with similar sized individuals, and may occupy different areas of the shelf and slope.

Fishery Management: Squid were defined as an “other species” in the GOA until 2011 when the “other species” complex was separated out into distinct species groupings.

Stock Assessment: Catch specifications for Squid are set using a modified Tier 6 control rule, with catch specifications are based on the highest catch during 1997-2008. Squid estimated biomass in undefined. Catch specifications for squid in 2011 are as follows; OFL=1,530 mt, ABC=1,148 mt, TAC=1,148 mt.

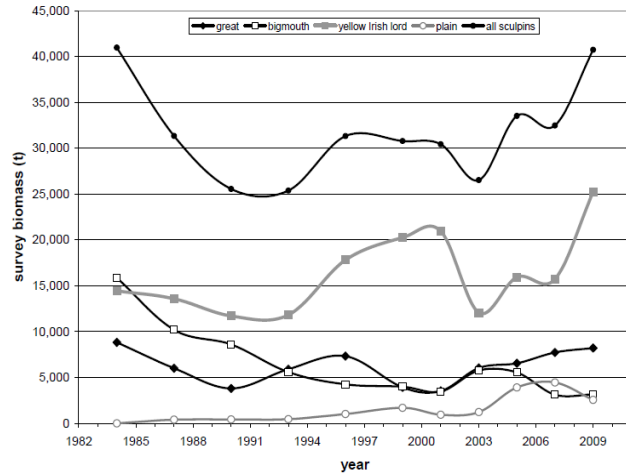
Fishery: There is currently no target fishery for squid in the GOA. GOA squid are primarily (> 90 percent) taken as incidental catch in the pelagic trawl pollock fishery. They are also taken in smaller numbers in bottom trawl fisheries. About 90 percent of the squid catch has been retained in recent years.

Ecosystem Components: Squid are not currently a commercially valuable species in the North Pacific, however they play a critical prey role in ecosystems. They are important components in the diets of many seabirds, fish and marine mammals. Overall fishing removals of squid are low (especially relative to natural predation).

Octopuses

Biology: There are at least 7 species of octopus present in federal waters of the GOA, and the species composition both of natural communities and commercial harvest is unknown. At depths less than 200 meters, the giant Pacific octopus *E. dofleini* appears to be the most abundant species. Octopus life spans are either 1-2 years or 3-5 years depending on the species.

E. dofleini are estimated to mature at 1.5 – 3 years. male *E. dofleini* were found to mature at around 12.5 kg with females thought to mature at larger sizes. *E. dofleini* is a terminal spawner, females die after the eggs hatch while males die shortly after mating. The fecundity of this species in Japanese waters has been estimated at 30,000 to 100,000 eggs per female. There are two other common species of octopus in the GOA: the smoothskin octopus and the flapjack devilfish. The smoothskin octopus occurs from 250-1400 m. and produces few eggs that remain benthic after hatching. The flapjack devilfish is found from 300-1000m deep and spawn up to 2,400 eggs in multiple batches.



Total catches, and pre-season catch specifications of Squid* in the GOA, 1997-2010 (mt).

Year	Catch ¹	TAC	ABC	OFL
1997	98	-	-	-
1998	59	-	-	-
1999	41	-	-	-
2000	19	-	-	-
2001	91	-	-	-
2002	42	-	-	-
2003	92	-	-	-
2004	162	-	-	-
2005	635	-	-	-
2006	1,530	-	-	-
2007	412	-	-	-
2008	84	-	-	-
2009	337	-	-	-
2010	130	-	-	-
2011		1,148	1,148	1,530

*Split from Other Species in 2011.

¹Catch data through November 2010.

Giant Pacific octopus	<i>Enteroctopus dofleini</i>
Smoothskin octopus	<i>Benthoctopus leioderma</i>
Flapjack devilfish	<i>Opisthoteuthis californiana</i>
Pelagic octopus	<i>Japatella diaphana</i>
Red octopus	<i>Octopus californicus</i>
Black octopus	<i>Vampyrotheuthis infernalis</i>
a small octopus	<i>Octopus sp. A</i>

Fishery Management: Until 2011, octopus was managed as part of the “Other species” management category within the GOA FMP. Beginning in 2011, octopuses will be managed as a single complex with its own ABC and OFL.

Stock Assessment: Octopus catch limits are specified using a modified Tier 6 control rule, with an estimate of natural mortality (M=0.53) applied to the biomass of the 3 most recent NMFS bottom trawl surveys. While the biomass is deemed unreliable for purposes of Tier 5, it does provide a minimum estimate of biomass. Catch specifications for octopus in 2011 are as follows; OFL=1,272 mt, ABC=954 mt, TAC=954 mt.

Fishery: There is currently no target fishery for octopus in federal waters of the GOA. About 90 percent of the octopus catch is taken as incidental catch in the Pacific cod pot fisheries in the western and central GOA. In 2010, 271 mt of octopus were retained for human consumption or for bait for the halibut fishery. The species composition of the octopus catch is unknown, but based on research trawl data, the giant Pacific octopus is most abundant in shelf waters and predominates in commercial catch. Preliminary research suggests high survival for octopus released from pot gear.

Total catches, and pre-season catch specifications of Octopus* in the GOA, 1997-2010 (mt).

Year	Catch ¹	TAC	ABC	OFL
1997	232	-	-	-
1998	112	-	-	-
1999	166	-	-	-
2000	156	--	-	-
2001	88	-	-	-
2002	298	-	-	-
2003	210	-	-	-
2004	286	-	-	-
2005	151	-	-	-
2006	159	-	-	-
2007	262	-	-	-
2008	339	-	-	-
2009	310	-	-	-
2010	324	-	-	-
2011	-	954	954	1,272

*Split from Other Species in 2011.

¹Catch data through November 2010.

Sculpins

Biology: There are 39 species of sculpins identified in the GOA and managed as a sculpin complex. The most common sculpin species taken incidentally in GOA fisheries are the yellow Irish lord *Hemilepidotus jordani* making up over 60 percent of the catch, followed by great sculpin *Myoxocephalus polyacanthocephalus*, bigmouth sculpin *Hemitripterus bolini* and plain sculpin *M. joak*. Sculpins lay adhesive eggs in nests, and many exhibit parental care for eggs. Irish lords and great sculpins have an age at 50 percent maturity of about 7 years.

Catch history: There is no directed fishing for any sculpin species in the GOA at this time. Catch of sculpins in the last 15 years has been averaged about 900 mt per year, reaching a peak in 2008 of 1,943 mt.

Fishery Management: Prior to 2011, sculpins were managed as part of the GOA Other Species complex that included sculpins, skates, sharks, squid and octopus, with an aggregate OFL, ABC, and TAC. Beginning in 2011 sculpins were removed from Other Species and managed as a separate group, as were the remaining species groups. Sculpins are currently taken only as incidental catch in fisheries directed at other target species, and it is likely that catch of sculpins in the near future will continue to be dependent on the distribution and limitations placed on

Catches, pre-season catch specifications and estimated biomass (mt) of Sculpins in the GOA, 1997-2011.

Year	Catch	ABC	OFL	Biomass ²
1997	898	-	-	-
1998	526	-	-	-
1999	544	-	-	30,783
2000	940	-	-	-
2001	587	-	-	30,418
2002	919	-	-	-
2003	629	-	-	26,514
2004	816	-	-	-
2005	626	-	-	33,519
2006	583	-	-	-
2007	960	-	-	32,468
2008	1,943	-	-	-
2009	1,146	-	-	40,726
2010	735	-	-	-
2011	-	5,496	7,328	33,307

*Sculpins removed from Other Species in 2011

¹ Estimated catch data from the SAFE.

² Biomass estimate (t) from trawl surveys.

target fisheries, rather than on any harvest level established for this category.

Stock Assessment: Sculpins are managed under Tier 5 of the OFL/ABC guidelines, and catch specifications are based on natural mortality for the complex ($M=0.22$) applied to average survey biomass. Catch specifications for sculpins in 2011 are as follows; OFL=7,328 mt, ABC=5,496 mt, TAC=5,496 mt.

Fishery: There is currently no target fishery for sculpins in the GOA, and virtually all are either discarded or made into meal. Incidental catches of sculpins are taken in the Pacific cod, shallow water flatfish, and rockfish fisheries, as well as the halibut longline fishery.

APPENDIX 5. Potential yield and female spawning biomass gains from proposed Pacific halibut prohibited species catch limit reductions in GOA groundfish fisheries

Steven R. Hare, Gregg H. Williams, Juan L. Valero, and Bruce M. Leaman

Abstract

Estimated gains in directed halibut yield and female spawning biomass from reductions in groundfish prohibited species catch (PSC) limits are derived and tabulated. Summing both immediate and delayed increases in CEY, the benefit to the directed halibut fishery is slightly greater than the amount of PSC limit reduction. Increases in total female spawning biomass would be on the order of twice any trawl PSC reduction, and approximately equal to any hook-and-line PSC reduction.

Introduction

The North Pacific Fishery Management Council (NPFMC) is considering reducing the Pacific halibut (*Hippoglossus stenolepis*) prohibited species catch (PSC) limits for GOA (GOA) groundfish fisheries. To assist in its deliberations, NPFMC staff have requested information on the potential benefits/impacts on halibut constant exploitation yield (CEY) and female spawning biomass (FSBio) for various levels of PSC limit reductions. This document provides the details and characterizes the nature of the information we are able to provide. To familiarize all parties with the IPHC catch limit determination process, the Appendix contains a flowchart illustrating how annual CEY and directed fishery catch limits are set, including accounting for PSC under the proposed Area 2C/3A halibut catch sharing plan (CSP).

NPFMC information request

The NPFMC is contemplating reducing the halibut PSC limits for trawl and/or hook-and-line groundfish vessels in the GOA by 5, 10, or 15 percent. Presently, the GOA PSC limits are 2000 mt and 300 mt for the trawl and hook-and-line fisheries, respectively. The potential PSC limit reductions would lower the trawl limit to 1900, 1800, or 1700 mt while the hook-and-line limit would be reduced to 285, 270, or 255 mt. Including the potential for no PSC limit reduction, this results in a matrix of 16 possible PSC limit reduction combinations. As the GOA spans three IPHC regulatory areas (2C, 3A and 3B), the Council request is for three 16-cell matrices to be populated, and further that IPHC staff estimate how values in the matrices would change over a 15-year projection time horizon. Two sets of information are requested for the sets of matrices: changes in directed halibut fishery CEY and changes in halibut FSBio.

What is actually feasible

Recent history has illustrated that even short-term projections of halibut biomass and yield are problematic and can be unreliable. Reasons for unreliable projections are numerous (Hare 2011a, Valero 2011), but include the following: retrospective behavior of the halibut stock assessment (i.e., subsequent downward revisions of earlier biomass estimates with each new annual assessment), ongoing changes in size-at-age, variable recruitment, changes in accounting for under-32 (U32) inch halibut, changes in target harvest rate, poor harvest control of sport

fisheries, and uncertainty over PSC estimates. Given these myriad difficulties, attempting to project actual levels of catch or spawning biomass are, at best, of questionable value, and likely to be counter-productive. This is not to imply that no useful information can be provided about the benefits that would accrue from reduced halibut PSC limits. Thus, IPHC staff suggests rephrasing the data request and framing it in a manner that allows a more straightforward depiction of how CEY and FSBio would be impacted at differing levels of PSC limit reductions.

We first begin with a clarification of terms. Throughout this analysis, reference is made to PSC reductions. Technically, this term would more accurately be termed “Prohibited Species Mortality (PSM)” as the quantity references estimated halibut mortality, not halibut catch. Halibut mortality (PSC, in NPFMC terms) is computed by multiplying estimated halibut bycatch times an estimated Discard Mortality Rate (DMR) that is computed annually on the basis of groundfish observer data. A potential reduction in PSC of, say 100 mt, is assumed in this work to be an actual reduction in halibut mortality of 100 mt; the catch of halibut is generally substantially larger than the mortality due to release survival (more so for hook-and-line fisheries than trawl fisheries, which tend to have much higher DMRs).

Quantification of the impact on CEY and FSBio will be broken into two parts, corresponding to two size categories of halibut PSC: that above 26 inches (O26) in length, and that smaller than (or equal to) 26 inches (U26). The directed halibut IFQ fishery has a 32-inch size limit, however all mortality (as well as directed fishery wastage) 26 inches and above is deducted from total CEY in the determination of fishery CEY (Hare 2011b). For CEY, reductions in O26 PSC will have immediate benefits as the catch is simply transferred to the directed halibut fishery. Assuming the transferred O26 catch is taken, there is little anticipated impact on FSBio. There are quantifiable benefits to both CEY and FSBio from the U26 component of PSC limit reductions. The benefits are distributed “downstream” both in time and space, and potentially more complicated to quantify as well as to explain.

Immediate effect of O26 PSC limit reductions on halibut CEY

The approach we take to quantify the benefits to halibut CEY is to consider how reductions in halibut PSC limits would have affected the 2011 CEY. Mortality that is larger than 26 inches is deducted from total CEY in the area where the mortality occurred. Until 2010, only that portion of the mortality larger than 32 inches (O32) was counted as part of “other removals” but that was expanded to include halibut between 26 and 32 inches (O26U32) beginning in 2010 and will likely remain as such for the foreseeable future. The change in how the IPHC accounted for O26U32 mortality had the effect of changing the target harvest rate in Areas 2C and 3A from 0.20 to 0.215, and in 3B from 0.15 to 0.161. In essence, a higher harvest rate led to a higher total CEY to offset the direct deduction (accounting) of O26U32 which previously had only been factored into determination of the target harvest rate. The end result was little change in directed fishery CEY, but served the purpose of providing a more consistent treatment of different removal types (sport, mortality, wastage, and subsistence). Details of the analysis supporting the change in target harvest rate are given in Hare (2011b). In that analysis, a number of assumptions regarding the current, and anticipated future, distribution of halibut removals among fisheries (commercial, sport/subsistence, and mortality) as well as each fishery’s average catch size distribution were made. It was emphasized in the analysis that the revised harvest rate might need to be revisited if substantial changes occur in the relative distribution of removals among the fisheries. Because the level of PSC reduction being considered by the NPFMC is relatively modest (i.e., no greater than 15%), we do not feel that revisitation of the target harvest rate is

warranted. As such, any reduction in O26 PSC simply translates as a 1:1 increase in fishery CEY since the level of “other removals” would be reduced. It is important to note here that this analysis assumes that any reduction in halibut PSC limits translates exactly as a reduction in actual halibut mortality.

To estimate the increase in fishery CEY from a decrease in the halibut PSC limits, we first require an estimate of the relative O26 and U26 fractions of the trawl and hook-and-line mortality. For this analysis, we examined the most recent (fishing year 2008) raw GOA halibut trawl and hook-and-line length frequencies we had on hand, obtained from the North Pacific Groundfish Observer Program. A more detailed analysis might attempt to refine the raw length frequencies by accounting for a number of factors including size-dependent release condition and weighting by estimated target fishery halibut PSC. While such corrections to the raw length frequencies would be more precise, they still would not account for other factors, including the absence of both lengths and release condition data for the under 60' fleet and the nominal 30% coverage level of the 60-125' fleet. As such, we feel that use of the raw length frequencies is satisfactory for the current exercise and that the more time-consuming work entailed in deriving more precise “mortality length frequencies” would likely not produce results markedly different than when using raw length frequency distributions.

Observers collected length measurements on 7,188 trawl caught and 1,171 hook-and-line caught halibut in 2008 (Williams 2010). The 2008 observer-collected halibut length frequencies for both trawl and hook-and-line groundfish fisheries are plotted in Figure 1. As evidenced by the length frequency modes, trawl caught halibut tend to be smaller than hook-and-line caught halibut. However, the largest hook-and-line caught halibut was 113 cm while a number of trawl caught halibut exceeded 150 cm. By weight, 62.5% of trawl caught and 75.2% of hook-and-line caught halibut are over 26 inches (66 cm). In terms of numbers of halibut caught, 26.5% of trawl caught and 53.3% of hook-and-line caught halibut are over 26 inches. These data are summarized in Table 1.

The second piece of information we require, in order to estimate IPHC regulatory area CEY gains from reduced PSC limits, is an estimate of the relative distribution of both trawl and hook-and-line halibut mortality in the groundfish fisheries. These values represent the most uncertain component of estimating total mortality impact because of the low observer coverage, hence lack of data reliability, for the GOA groundfish fisheries. These data are assembled annually for the Bycatch section of the Report of Assessment and Research Activities (the “RARA”). For 2010, the relevant data are listed on page 287 (Williams 2011) and are reproduced as Table 2 in this report. The RARA values are in the IPHC metric of “thousands of net pounds” and have been converted to the NPFMC metric of “mt” in Table 2. Note that the values for 2010 are preliminary estimates based on mortality reported through November 15, 2010 and projected through year end. In-season reports of mortality are obtained from the NMFS Alaska Region web site. NMFS reporting areas are converted to IPHC regulatory area as follows: NMFS areas 610+620 = IPHC Area 3B; NMFS areas 630+640 = Area 3A; and NMFS area 650 = IPHC Area 2C. Reported mortality is aggregated up to area and gear strata.

With the above information, and noting the strong caveats on its reliability, the PSC reduction tables can be completed with the expected amount of CEY gains for the directed halibut fisheries. The cells within each table are computed by multiplying the level of gear-specific PSC limit reduction times the fraction of gear-specific O26 mortality times the regulatory area percentage of GOA-wide PSC limit. Computationally, this is done most simply by computing the marginal values for trawl-only and hook-and-line-only PSC limit reduction,

and then completing the combination cells as a simple addition of the marginal values. The resultant CEY gains from a reduction of O26 halibut PSC are listed in Table 3, and lists values in both mt round weight and thousands of net pounds. These are current-year or immediate impacts to O26 halibut CEY by changes in the PSC limit.

To quickly estimate the direct effect of a reduced PSC limit, the following guide can be used. As the NPFMC PSC reduction options proceed in 100 mt (trawl) and 15 mt (hook-and-line) increments we need only know the increases to the halibut CEY per gear increment.

Each 100 mt reduction in trawl PSC limit (of which 62.5 mt is O26) results in the following CEY gains:

Area	2C	3A	3B	Total
CEY gain (mt)	0	46.376	16.138	62.514
CEY gain (net lb)	0	76,681	26,684	103,365

Each 15 mt reduction in hook-and-line PSC limit (of which 11.3 mt is O26) results in the following CEY gains:

Area	2C	3A	3B	Total
CEY gain (mt)	0.090	4.163	7.022	11.275
CEY gain (net lb)	150	6,883	11,611	18,644

There is no expected effect on FSBio from a reduction in the O26 component of the PSC because spawning females not killed as mortality would instead be taken by the directed halibut fishery. While there are size differences between the O26 bycatch and the directed catch, they are small enough that it can be assumed they are essentially equal. This is not the case for the U26 component of the mortality, which is covered next.

Delayed effect of U26 PSC limit reduction on CEY and FSBio

Quantifying the effect of reducing the PSC limit on the U26 component requires simulating the life history of the small halibut and tabulating future gains to both CEY and FSBio. This is necessary because halibut do not begin to contribute to the exploitable biomass until they reach 32 inches and female halibut do not begin contributing to the spawning biomass until around 10 years of age (when they are on average around 30 inches in length). The level of eventual contribution to future CEY and FSBio is determined both by the actual size distribution of the U26 halibut taken as mortality as well as which area the mortality reduction occurs; this last factor is due to the fact that growth rates differ by regulatory area. The full details of the simulation model used to estimate future CEY and FSBio gains are given in Hare (2010) and are not reproduced here. However, a summary of the key features and assumptions are provided next.

Halibut bycatch in the groundfish fisheries is sampled for length data but not for age or sex. As life history simulation modeling requires both age and sex data (to accurately estimate harvest impacts on CEY and FSBio), a methodology was developed in Hare (2010) to decompose a length sample to age and sex components. In essence, halibut mean size and standard deviation at age data, from both trawl and setline survey samples, for halibut aged 2-30 were used to estimate sex and age proportions at length. Ages 2-10, for which trawl data are used, have the same mean size and standard deviation at age for all three GOA regulatory areas. Ages 11-30

differ for each area and are based on IPHC setline survey data. We note here that U26 mortality is almost entirely less than 10 years in age, thus the decompositions are essentially identical for Areas 2C, 3A, and 3B. The age and sex proportions, scaled to the level of PSC, are then projected forward using a standard population dynamics model. Growth is governed by regulatory area mean size at age and “yield” is determined using the commercial fishery selectivity-at-age curve estimated in the halibut stock assessment model, and regulatory area-specific harvest rates applied to the exploitable biomass. We make two important notes here. First, while selectivity-at-length is fixed (though estimated), selectivity-at-age varies among regulatory areas due to areal differences in sizes at age. Second, the harvest simulations use the most recent target harvest rate: 0.215 in Areas 2C and 3A and 0.161 in Area 3B and a fixed natural mortality rate of 0.15 yr⁻¹. Annual gains that would accrue to the FSBio are estimated using the age-specific maturity curve also used in the halibut stock assessment. The forward simulations are run for 30 years, which is long enough for even the youngest bycaught halibut to essentially complete their CEY and FSBio contributions.

In the previous section (and in Tables 1 and 2), the distribution of mortality by size category (U26 and O26) and regulatory area was specified. The length to age/sex decompositions, expanded to the numbers that would be killed per 100 mt of trawl, or 15 mt of hook-and-line, PSC are illustrated in Figures 2a (Area 2C), 2b (Area 3A), and 2c (Area 3B). To summarize the figures, and provide a simple reference, the following tables are provided:

100 mt of trawl PSC (of which 37.5 mt is U26) results in the following amounts of U26 mortality:

Area	2C	3A	3B	Total
No. of U26 halibut	0	17,999	6,263	24,262
Wt. of U26 halibut (mt)	0	27.809	9.677	37.486
Wt. of U26 halibut (lb)	0	45,981	16,001	61,982

15 mt of hook-and-line PSC (of which 3.7 mt is U26) results in the following amounts of U26 mortality:

Area	2C	3A	3B	Total
No. of U26 halibut	13	620	1,046	1,679
Wt. of U26 halibut (mt)	0.030	1.375	2.320	3.725
Wt. of U26 halibut (lb)	49	2,274	3,835	6,185

The results of running the life history simulations are illustrated in Figures 3a (Area 2C), 3b (Area 3A) and 3c (Area 3B). The results are again plotted as reductions in PSC limits per 100 mt of trawl PSC and 15 mt of hook-and-line PSC. The bulk of both CEY and FSBio gains from PSC reductions in Year 0 occur between 5 and 12 years in the future with peaks at about 8 years. Total CEY gain is computed by simply adding the gains across the 30 years. The cumulative, delayed CEY gain is approximately 14% more than the weight of trawl U26 mortality, and is approximately 10% less than the weight of hook-and-line U26 mortality. The FSBio gains are bit different than the CEY gain in that females can contribute to the FSBio for multiple years whereas a fish contributes to the CEY just once. Nonetheless, summing the FSBio contributions across all years does accurately portray the benefit to the FSBio. The total FSBio contribution

summed across all years amounts to approximately 475% more than the weight of the U26 trawl mortality, and 386% more than the weight of the U26 hook-and-line mortality. Note that when computed relative to the entire (i.e., U26 plus O26) mortality, the FSBio contribution is 115% and 21% more than the weight of the trawl and hook-and-line mortality, respectively. The following table summarizes the accumulated gains to CEY and FSBio.

Each 100 mt of trawl PSC reduction (of which 37.5 mt is U26) results in the following delayed (cumulative over 30 years) CEY and FSBio gains:

Area	2C	3A	3B	Total
CEY gain (mt)	0	32.479	10.175	42.654
CEY gain (lb)	0	53,703	16,824	70,527
FSBio gain (mt)	0	156.752	58.776	215.528
FSBio gain (lb)	0	259,184	97,183	356,367

Each 15 mt of hook-and-line PSC reduction (of which 3.7 mt is U26) results in the following delayed (cumulative over 30 years) CEY and FSBio gains:

Area	2C	3A	3B	Total
CEY gain (mt)	0.048	1.324	2.011	3.383
CEY gain (lb)	80	2,189	3,325	5,594
FSBio gain (mt)	0.146	6.378	11.595	18.119
FSBio gain (lb)	241	10,545	19,172	29,958

These numbers can be used to complete a table for CEY gains from reduced mortality of U26 halibut as was done for the O26 component (which was given in Table 3). Table 4 has the U26 CEY gains and Table 5 is a summation of Table 3 and 4, thus providing a complete accounting of CEY gains. Finally, Table 6 lists expected gains in FSBio across the range of PSC reductions. Note that Table 6 for FSBio contains only contributions from the U26 component as there is no gain to the FSBio from the O26 component – those fish are assumed taken directly by the directed fishery instead of by the groundfish fisheries.

We stress that the assignment of impacts by area as presented in Tables 4-6 does not account for lifetime movement potential of the bycaught halibut. There is considerable uncertainty about the precise timing and destination of movements **and the impacts are presented here as if the impacts are localized to the areas of occurrence of the U26 mortality (i.e., migration is assumed not to occur)**. The impact of the PSC reductions on the cumulative coastwide lost CEY and FSBio are correct to the extent that our understanding of growth, maturity, and mortalities are correct. However, results of this analysis will tend to overestimate the impacts in Areas 3a and 3B and underestimate the impacts in Area 2C (some gains would accrue outside of the GOA such as 2B and 2A when taking migration into account), because of movement by U26 fish. The “downstream” distribution of impacts from the mortality of U32 halibut (both O26 and U26) is an active area of research with the most recent analyses contained in Valero and Hare (2010, 2011). The uncertainty about the precise cumulative impacts of PSC reduction by area, while important, does not change the understanding of the cumulative coastwide impacts on total CEY or FSBio.

Conclusions

We have estimated both the immediate (O26) and delayed (U26) increases to halibut CEY and FSBio from reductions in the groundfish halibut PSC limits. Summed across the GOA (i.e., the three IPHC regulatory areas combined, and assuming all gains occur on the GOA), there would be an immediate increase in CEY equal to 62.5% of any reduction in trawl PSC limits and 75.2% of any reduction in hook-and-line PSC limits. This immediate benefit derives from the O26 portion of the mortality. Additionally, there would be a delayed cumulative benefit to future CEY from the U26 component of the mortality, equal to approximately 114% and 90% of the weight of the trawl and hook-and-line U26 inch components, respectively. Added together, the total benefit to directed halibut CEY is slightly greater than 1:1 for any trawl PSC limit reduction and is essentially 1:1 for any hook-and-line PSC limit reduction. Since the effects of migration are not considered in this report, the CEY increases are assumed to occur in the areas where the current PSC occurs. Thus, Area 3A would obtain 74.2% of the direct trawl PSC limit reduction increases while Area 3B would obtain 25.8%, based on the distribution of 2010 mortality. For hook-and-line PSC limit reductions, the gains would accrue 0.8% to Area 2C, 36.9% to Area 3A, and 62.3% to Area 3B. The delayed gains would have a slightly different distribution due to differential growth rates among the three IPHC regulatory areas.

Increases to the FSBio would accrue entirely from the U26 component of the mortality and would be cumulative over 30 years. Because the total PSC limit also includes O26 halibut, the cumulative increases in FSBio resulting from any PSC limit reductions amount to just greater than 215% of any trawl PSC reductions and a bit over 125% of any hook-and-line PSC limit reduction. These gains would similarly accrue approximately in proportion to current FSBio distribution, with slight variations due to differential growth rates between Areas 2C, 3A, and 3B.

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Table 1. Sample sizes and proportions of halibut smaller, and greater than, 26 inches (66 cm) in length. All data collected by NMFS observers aboard vessels in the 2008 groundfish fisheries in the GOA. U26 are halibut 26 inches and under and O26 halibut over 26 inches.

	Number collected		Percent (by number)		Percent (by weight)	
	026	O26	U26	O26	U26	O26
Trawl	5285	1903	73.5%	26.5%	37.5%	62.5%
Hook-and-line	547	624	46.7%	53.3%	24.8%	75.2%

Table 2. Distribution of halibut mortality (mt) in IPHC regulatory Areas 2C, 3A and 3B in the trawl and hook-and-line groundfish fisheries. The percentages represent distribution within gear types across regulatory areas.

Area	Trawl	Hook-and-Line
2C	0 (0%)	3.0 (0.8%)
3A	1307.0 (74.2%)	139.1 (36.9%)
3B	454.8 (25.8%)	234.7 (62.3%)

Table 3. Estimated additional Constant Exploitation Yield (CEY) that would have been immediately available to the 2011 directed halibut fisheries at various levels of PSC limits and if total PSC estimates are accepted as valid. This table is only for the over 26-inch (O26) component.

A) Values in metric tons (mt)

GOA		Trawl PSC (mt)			
		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	62.5	125.0	187.5
	285	11.3	73.8	136.3	198.8
	270	22.6	85.1	147.6	210.1
	255	33.8	96.3	158.9	221.4

2C		Trawl PSC (mt)			
		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	0.0	0.0	0.0
	285	0.1	0.1	0.1	0.1
	270	0.2	0.2	0.2	0.2
	255	0.3	0.3	0.3	0.3

3A		Trawl PSC (mt)			
		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	46.4	92.8	139.1
	285	4.2	50.5	96.9	143.3
	270	8.3	54.7	101.1	147.5
	255	12.5	58.9	105.2	151.6

3B		Trawl PSC (mt)			
		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	16.1	32.3	48.4
	285	7.0	23.2	39.3	55.4
	270	14.0	30.2	46.3	62.5
	255	21.1	37.2	53.3	69.5

B) Values in 1000s of net pounds

GOA		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	103.4	206.7	310.1
	471	18.6	122.0	225.4	328.7
	446	37.3	140.7	244.0	347.4
	422	55.9	159.3	262.7	366.0

2C		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	0.0	0.0	0.0
	471	0.1	0.1	0.1	0.1
	446	0.3	0.3	0.3	0.3
	422	0.4	0.4	0.4	0.4

3A		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	76.7	153.4	230.0
	471	6.9	83.6	160.2	236.9
	446	13.8	90.4	167.1	243.8
	422	20.6	97.3	174.0	250.7

3B		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	26.7	53.4	80.1
	471	11.6	38.3	65.0	91.7
	446	23.2	49.9	76.6	103.3
	422	34.8	61.5	88.2	114.9

Table 4. Estimated additional Constant Exploitation Yield (CEY) that would be available cumulatively over 30 years to the directed halibut fisheries at various levels of PSC limits. This table is only for the under 26-inch (U26) component.

A) Values in metric tons (mt)

B) Values in 1000s of net pounds

GOA		Trawl PSC (mt)			
		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	42.7	85.3	128.0
	285	3.4	46.0	88.7	131.3
	270	6.8	49.4	92.1	134.7
	255	10.1	52.8	95.5	138.1

GOA		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	70.5	141.1	211.6
	471	5.6	76.1	146.6	217.2
	446	11.2	81.7	152.2	222.8
	422	16.8	87.3	157.8	228.4

2C		Trawl PSC (mt)			
		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	0.0	0.0	0.0
	285	0.0	0.0	0.0	0.0
	270	0.1	0.1	0.1	0.1
	255	0.1	0.1	0.1	0.1

2C		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	0.0	0.0	0.0
	471	0.1	0.1	0.1	0.1
	446	0.2	0.2	0.2	0.2
	422	0.2	0.2	0.2	0.2

3A		Trawl PSC (mt)			
		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	32.5	65.0	97.4
	285	1.3	33.8	66.3	98.8
	270	2.6	35.1	67.6	100.1
	255	4.0	36.5	68.9	101.4

3A		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	53.7	107.4	161.1
	471	2.2	55.9	109.6	163.3
	446	4.4	58.1	111.8	165.5
	422	6.6	60.3	114.0	167.7

3B		Trawl PSC (mt)			
		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	10.2	20.4	30.5
	285	2.0	12.2	22.4	32.5
	270	4.0	14.2	24.4	34.5
	255	6.0	16.2	26.4	36.6

3B		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	16.8	33.6	50.5
	471	3.3	20.1	37.0	53.8
	446	6.7	23.5	40.3	57.1
	422	10.0	26.8	43.6	60.4

Table 5. Estimated total additional Constant Exploitation Yield (CEY) that be available both immediately and cumulatively over 30 years to the directed halibut fisheries at various levels of PSC limits. This table is a summation of Tables 3 and 4.

A) Values in metric tons (mt)

B) Values in 1000s of net pounds

		Trawl PSC (mt)			
		2000	1900	1800	1700
GOA					
HAL PSC (mt)	300	0.0	105.2	210.3	315.5
	285	14.7	119.8	225.0	330.2
	270	29.3	134.5	239.7	344.8
	255	44.0	149.1	254.3	359.5

		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
GOA					
HAL PSC (1000 lb)	496	0.0	173.9	347.8	521.7
	471	24.2	198.1	372.0	545.9
	446	48.5	222.4	396.3	570.2
	422	72.7	246.6	420.5	594.4

		Trawl PSC (mt)			
		2000	1900	1800	1700
2C					
HAL PSC (mt)	300	0.0	0.0	0.0	0.0
	285	0.1	0.1	0.1	0.1
	270	0.3	0.3	0.3	0.3
	255	0.4	0.4	0.4	0.4

		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
2C					
HAL PSC (1000 lb)	496	0.0	0.0	0.0	0.0
	471	0.2	0.2	0.2	0.2
	446	0.5	0.5	0.5	0.5
	422	0.7	0.7	0.7	0.7

		Trawl PSC (mt)			
		2000	1900	1800	1700
3A					
HAL PSC (mt)	300	0.0	78.9	157.7	236.6
	285	5.5	84.3	163.2	242.1
	270	11.0	89.8	168.7	247.5
	255	16.5	95.3	174.2	253.0

		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
3A					
HAL PSC (1000 lb)	496	0.0	130.4	260.8	391.2
	471	9.1	139.5	269.8	400.2
	446	18.1	148.5	278.9	409.3
	422	27.2	157.6	288.0	418.4

		Trawl PSC (mt)			
		2000	1900	1800	1700
3B					
HAL PSC (mt)	300	0.0	26.3	52.6	78.9
	285	9.0	35.3	61.7	88.0
	270	18.1	44.4	70.7	97.0
	255	27.1	53.4	79.7	106.0

		Trawl PSC (1000 lb)			
		3307	3142	2976	2811
3B					
HAL PSC (1000 lb)	496	0.0	43.5	87.0	130.5
	471	14.9	58.4	102.0	145.5
	446	29.9	73.4	116.9	160.4
	422	44.8	88.3	131.8	175.3

Table 6. Estimated additional female spawning biomass (FSBio) that would have been available cumulatively over 30 years to the halibut population had various levels of PSC limit reduction occurred. This table is for all size components (U26 and O26) of mortality.

A) Values in metric tons (mt)

B) Values in 1000s of net pounds

		Trawl PSC (mt)			
GOA		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	215.5	431.1	646.6
	285	18.1	233.6	449.2	664.7
	270	36.2	251.8	467.3	682.8
	255	54.4	269.9	485.4	700.9

		Trawl PSC (1000 lb)			
GOA		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	356.4	712.7	1069.1
	471	30.0	386.3	742.7	1099.1
	446	59.9	416.3	772.7	1129.0
	422	89.9	446.2	802.6	1159.0

		Trawl PSC (mt)			
2C		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	0.0	0.0	0.0
	285	0.1	0.1	0.1	0.1
	270	0.3	0.3	0.3	0.3
	255	0.4	0.4	0.4	0.4

		Trawl PSC (1000 lb)			
2C		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	0.0	0.0	0.0
	471	0.2	0.2	0.2	0.2
	446	0.5	0.5	0.5	0.5
	422	0.7	0.7	0.7	0.7

		Trawl PSC (mt)			
3A		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	156.8	313.5	470.3
	285	6.4	163.1	319.9	476.6
	270	12.8	169.5	326.3	483.0
	255	19.1	175.9	332.6	489.4

		Trawl PSC (1000 lb)			
3A		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	259.2	518.4	777.6
	471	10.5	269.7	528.9	788.1
	446	21.1	280.3	539.5	798.6
	422	31.6	290.8	550.0	809.2

		Trawl PSC (mt)			
3B		2000	1900	1800	1700
HAL PSC (mt)	300	0.0	58.8	117.6	176.3
	285	11.6	70.4	129.1	187.9
	270	23.2	82.0	140.7	199.5
	255	34.8	93.6	152.3	211.1

		Trawl PSC (1000 lb)			
3B		3307	3142	2976	2811
HAL PSC (1000 lb)	496	0.0	97.2	194.4	291.6
	471	19.2	116.4	213.5	310.7
	446	38.3	135.5	232.7	329.9
	422	57.5	154.7	251.9	349.1

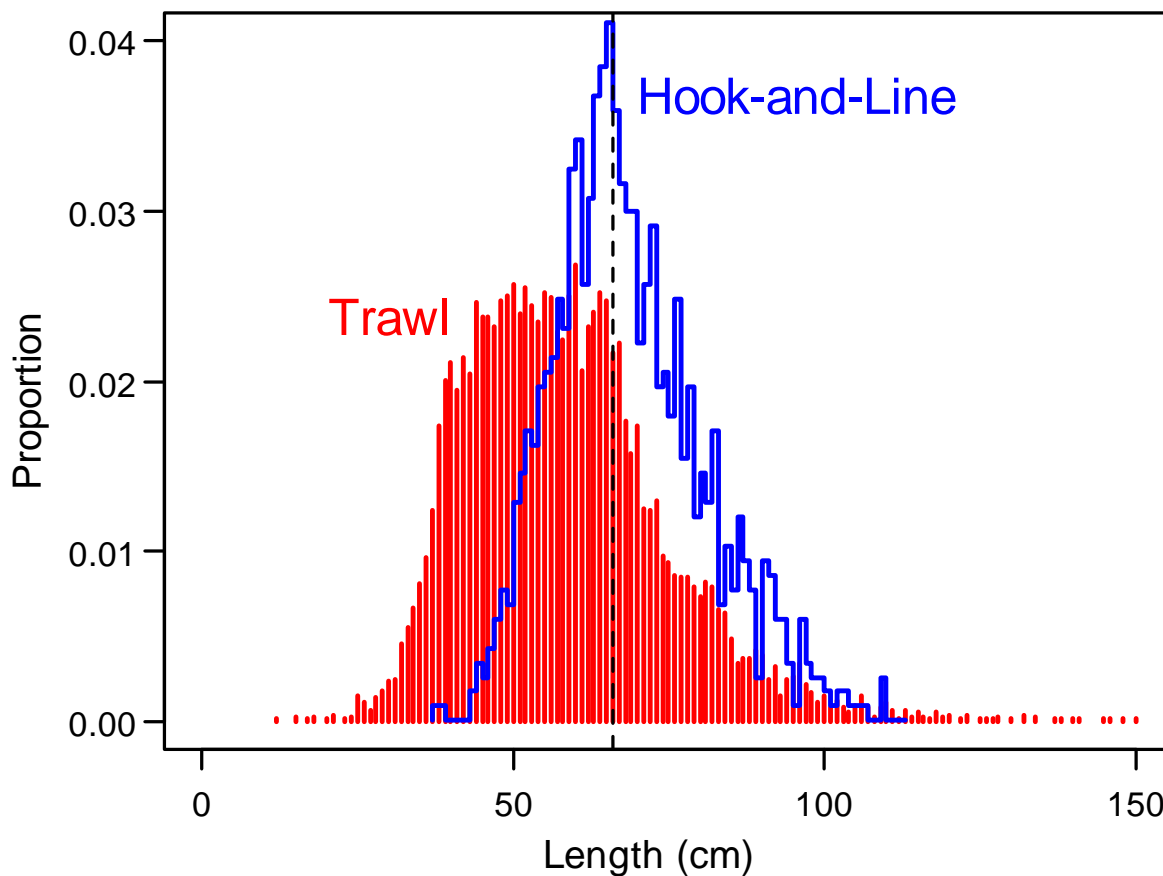


Figure 1. Halibut length-frequencies collected by observers during 2008 trawl (red vertical bars) and hook-and-line (blue histogram) groundfish fisheries. A dashed vertical black line is shown at 66 cm (26 inches).

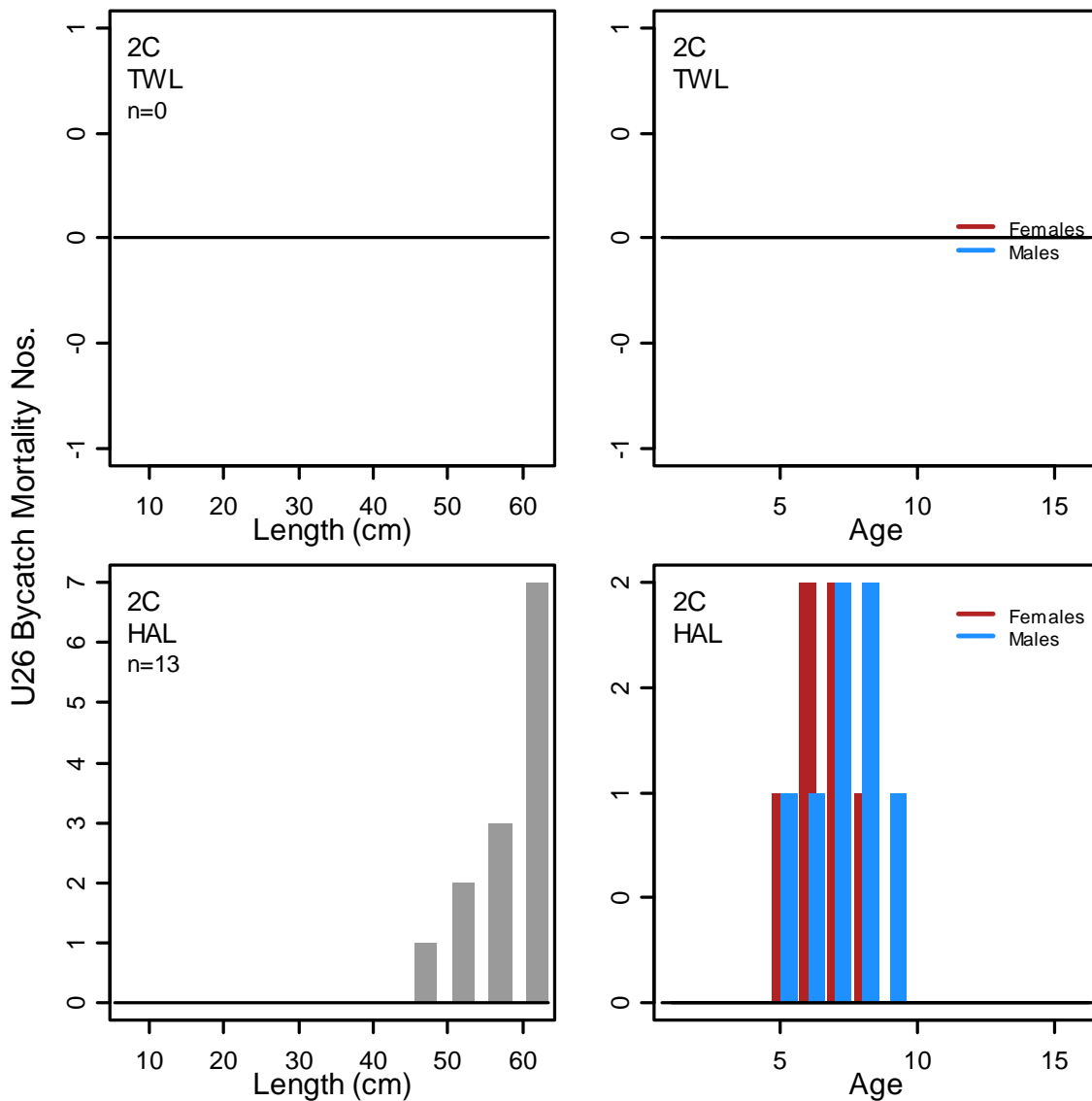


Figure 2a. Estimated under-26 inch (U26) halibut bycatch distributions from the trawl (TWL) and hook-and-line (HAL) groundfish fisheries for IPHC regulatory Area 2C. The left hand panels show the estimated numbers at length (5 cm groupings) and the right hand panels illustrate the sex and age decompositions (see text for details). The sample size is the estimated number of U26 halibut taken per 100 mt of trawl mortality or 15 mt of hook-and-line mortality in the Gulf of Alaska.

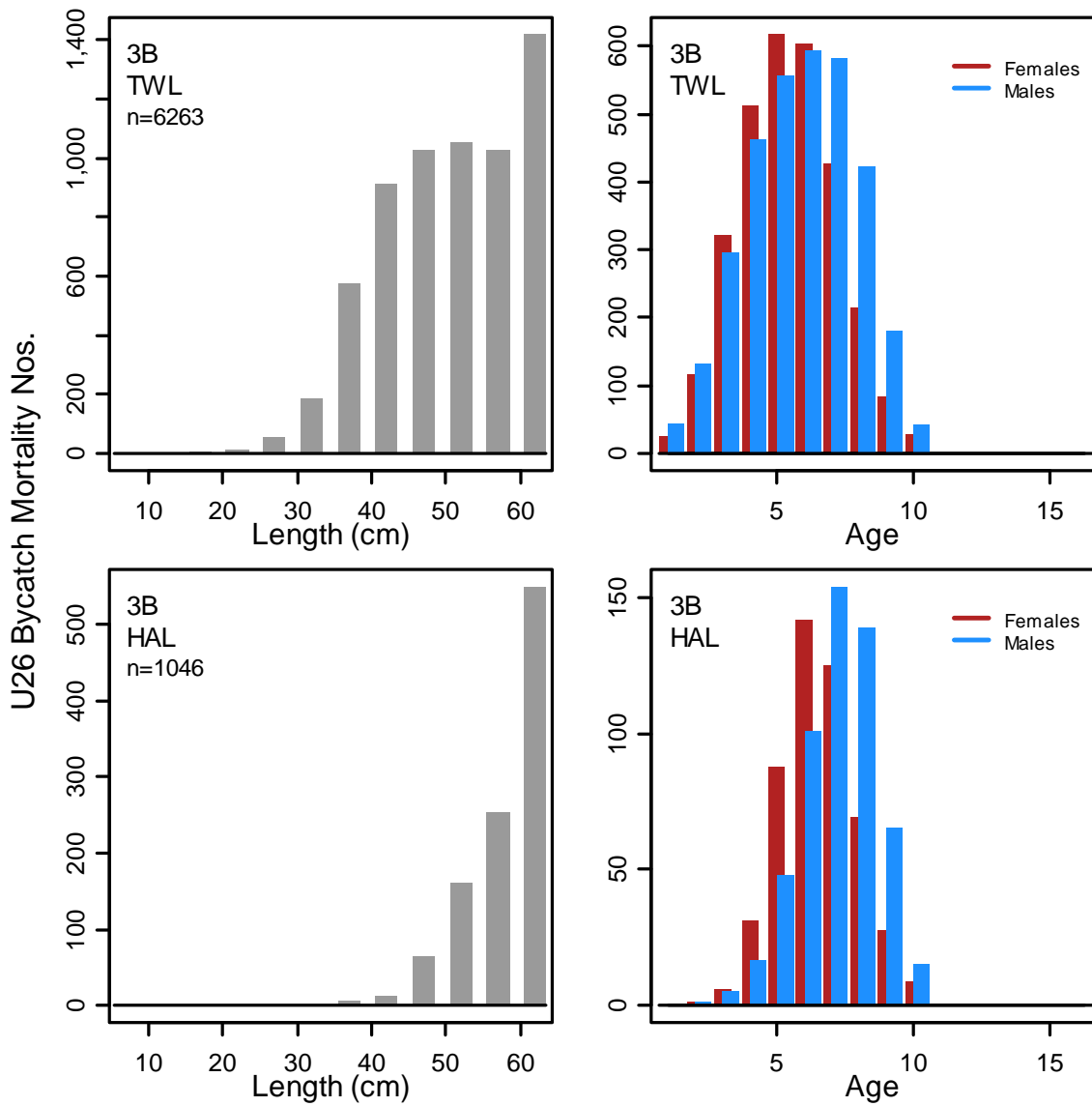


Figure 2c. Same as Fig. 2a, but for IPHC regulatory Area 3B.

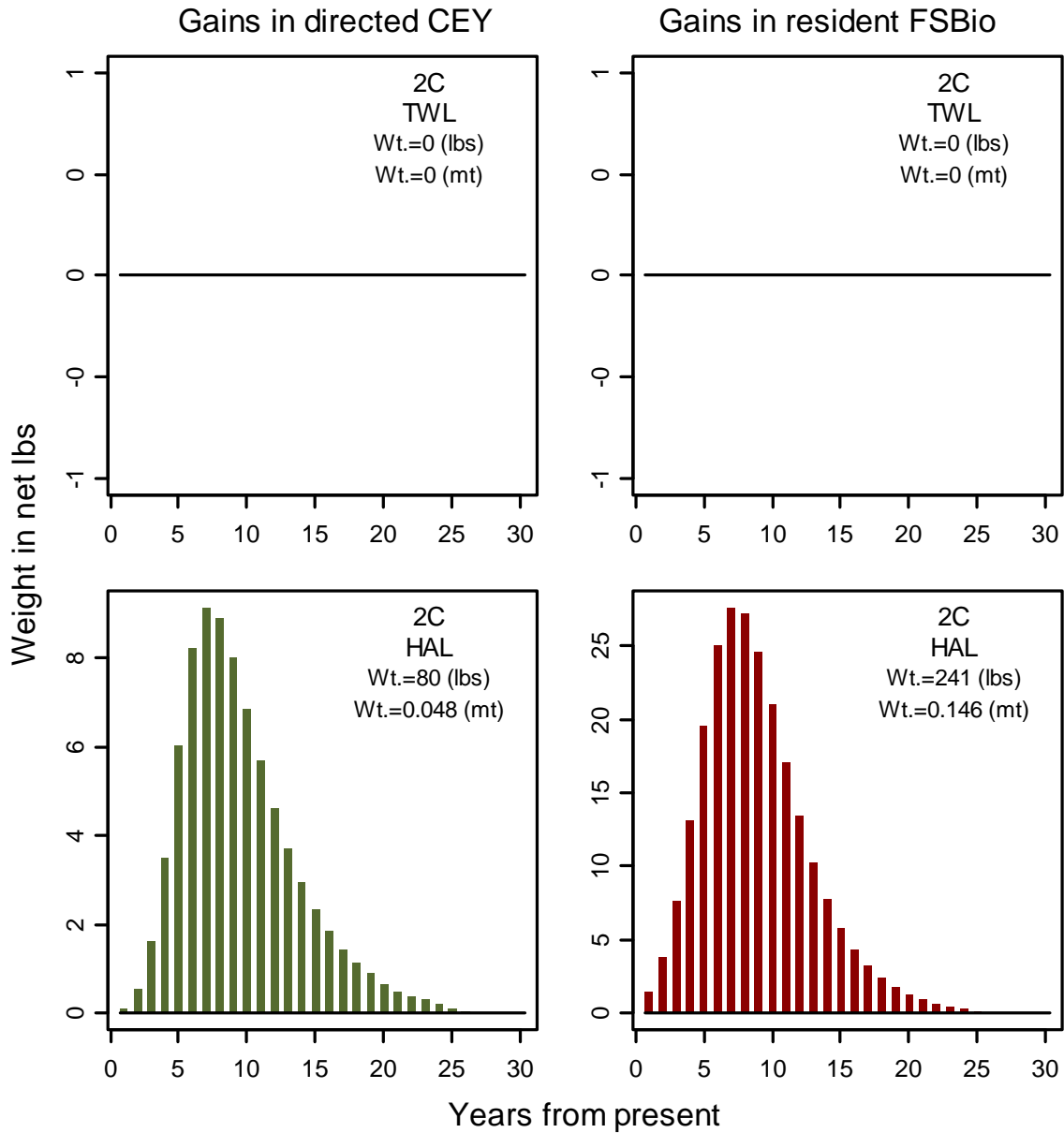


Figure 3a. Illustration of the expected gains in directed Constant Exploitation Yield (CEY) and female spawning biomass (FSBio) from a 100 mt reduction in trawl (TWL) mortality (top panes) and 15 mt reduction in hook-and-line (HAL) mortality (bottom panes) for IPHC regulatory Area 2C.

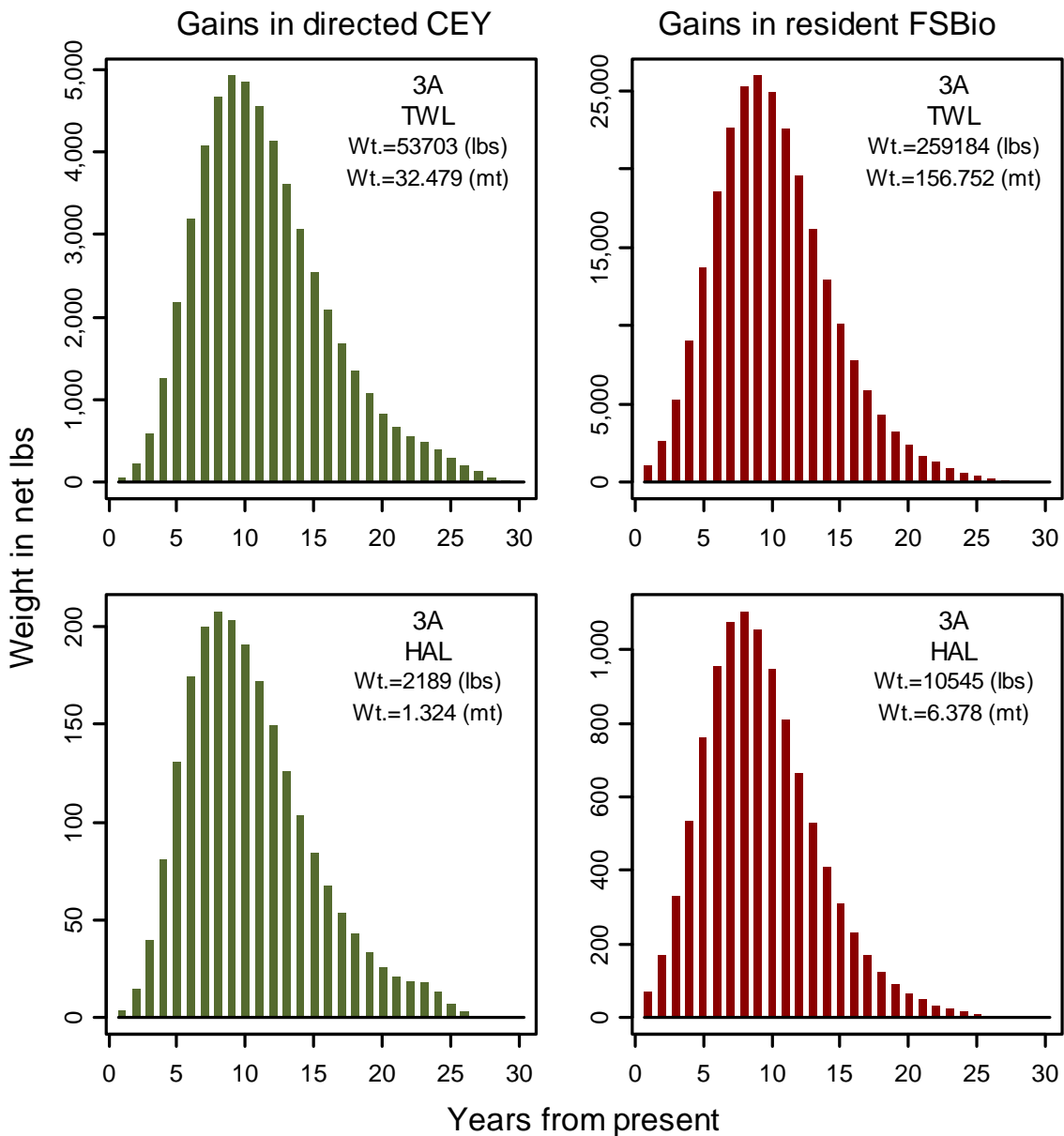
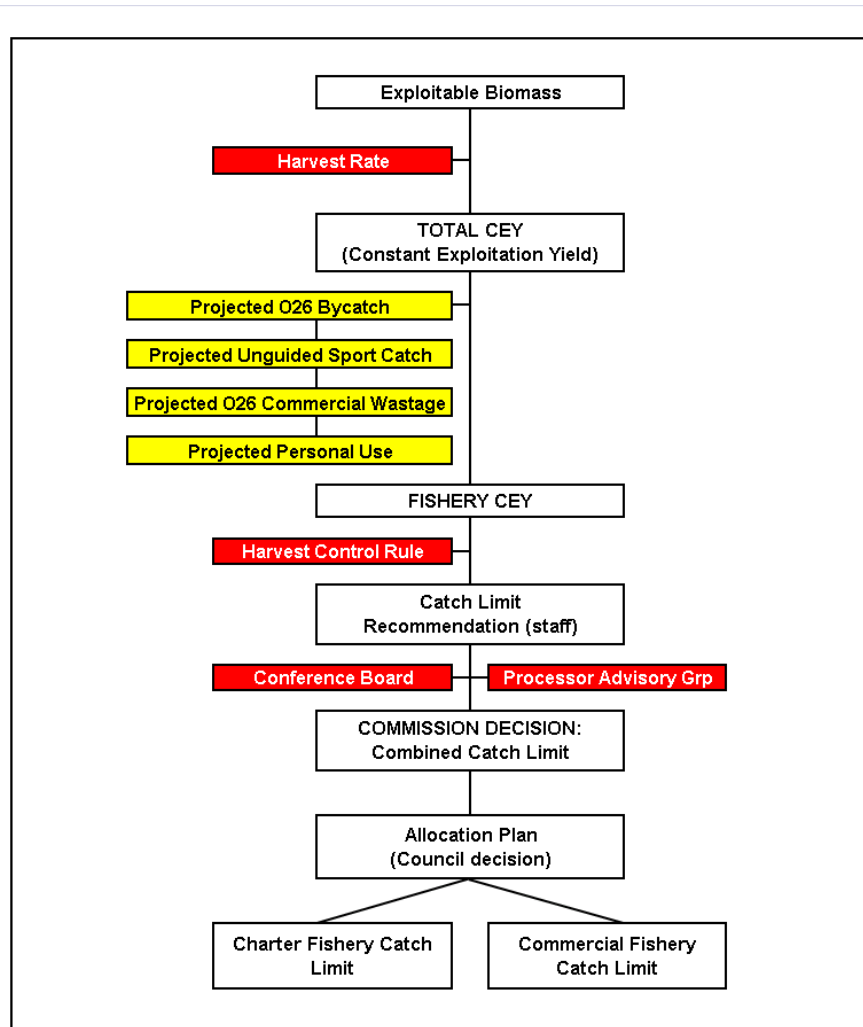


Figure 3b. Same as Figure 3a, but for IPHC regulatory Area 3A.

Appendix - The IPHC process for determining CEY and directed fishery catch limits

Under a combined charter/commercial catch limit system, the IPHC would:

1. Compute Total Constant Exploitation Yield, or TCEY (Exploitable Biomass times target Harvest Rate)
2. Subtract from TCEY, the Other Removals to determine Fishery CEY. Other Removals would include only unguided sport harvest, subsistence, over-26 inch (O26) wastage, and O26 mortality.
3. The Fishery CEY is the basis of the combined commercial + charter fishery catch limit. A Slow Up Full Down (SUFULLD) harvest control rule is applied to determine the staff's Catch Limit Recommendation (CLR): if the Fishery CEY is greater than the previous year's Catch Limit, the staff's CLR for the subsequent year would be the previous year's Catch Limit PLUS one third of the difference between the two. If the Fishery CEY is less than the previous year's Catch Limit, then the CLR is equal to the Fishery CEY.



Appendix 6. Recommendations for Final OFLs, ABCs, and TACs (mt) for 2012 and 2013 for Gulf of Alaska Groundfish (December 9, 2011).

Species	Area	2012			2013		
		OFL	ABC	TAC	OFL	ABC	TAC
Pollock	W(610)		30,270	30,270		32,816	32,816
	C(620)		45,808	45,808		49,662	49,662
	C(630)		26,348	26,348		28,565	28,565
	WYAK (640)		3,244	3,244		3,517	3,517
	Subtotal	143,716	105,670	105,670	155,402	114,560	114,560
	SEO	14,366	10,774	10,774	14,366	10,774	10,774
	Total	158,082	116,444	116,444	169,768	125,334	125,334
Pacific cod	W		28,032	21,024		29,120	21,840
	C		56,940	42,705		59,150	44,363
	E		2,628	1,971		2,730	2,047
	Total	104,000	87,600	65,700	108,000	91,000	68,250
Sablefish	W		1,780	1,780		1,757	1,757
	C		5,760	5,760		5,686	5,686
	WYK		2,247	2,247		2,219	2,219
	SEO		3,173	3,173		3,132	3,132
	E subtotal		5,420	5,420		5,350	5,350
	Total	15,330	12,960	12,960	15,129	12,794	12,794
Shallow water flatfish	W		21,994	13,250		20,171	13,250
	C		22,910	18,000		21,012	18,000
	WYAK		4,307	4,307		3,950	3,950
	SEO		1,472	1,472		1,350	1,350
	Total	61,681	50,683	37,029	56,781	46,483	36,550
Deep water flatfish	W		176	176		176	176
	C		2,308	2,308		2,308	2,308
	WYAK		1,581	1,581		1,581	1,581
	SEO		1,061	1,061		1,061	1,061
	Total	6,834	5,126	5,126	6,834	5,126	5,126
Rex sole	W		1,307	1,307		1,283	1,283
	C		6,412	6,412		6,291	6,291
	WYAK		836	836		821	821
	SEO		1,057	1,057		1,037	1,037
	Total	12,561	9,612	9,612	12,326	9,432	9,432
Arrowtooth flounder	W		27,495	14,500		27,386	14,500
	C		143,162	75,000		142,591	75,000
	WYAK		21,159	6,900		21,074	6,900
	SEO		21,066	6,900		20,982	6,900
	Total	250,100	212,882	103,300	249,066	212,033	103,300
Flathead sole	W		15,300	8,650		15,518	8,650
	C		25,838	15,400		26,205	15,400
	WYAK		4,558	4,558		4,623	4,623
	SEO		1,711	1,711		1,735	1,735
	Total	59,380	47,407	30,319	60,219	48,081	30,408

Species	Area	2012			2013		
		OFL	ABC	TAC	OFL	ABC	TAC
Pacific ocean perch	W	2,423	2,102	2,102	2,364	2,050	2,050
	C	12,980	11,263	11,263	12,662	10,985	10,985
	WYAK		1,692	1,692		1,650	1,650
	SEO		1,861	1,861		1,815	1,815
	E (subtotal)	4,095	3,553	3,553	3,995	3,465	3,465
	Total	19,498	16,918	16,918	19,021	16,500	16,500
Northern rockfish	W		2,156	2,156		2,017	2,017
	C		3,351	3,351		3,136	3,136
	E		0	0		0	0
	Total	6,574	5,507	5,507	6,152	5,153	5,153
Shorthead	W		104	104		104	104
	C		452	452		452	452
	E		525	525		525	525
	Total	1,441	1,081	1,081	1,441	1,081	1,081
Other slope rockfish	W		44	44		44	44
	C		606	606		606	606
	WYAK		230	230		230	230
	SEO		3,165	200		3,165	200
	Total	5,305	4,045	1,080	5,305	4,045	1,080
	Pelagic shelf rockfish (Dusky)	W		409	409		381	381
C			3,849	3,849		3,581	3,581
WYAK			542	542		504	504
SEO			318	318		296	296
Total		6,257	5,118	5,118	5,822	4,762	4,762
Rougheye	W		80	80		82	82
	C		850	850		861	861
	E		293	293		297	297
	Total	1,472	1,223	1,223	1,492	1,240	1,240
Demersal shelf rockfish	SEO	467	293	293	467	293	293
Thornyhead rockfish	W		150	150		150	150
	C		766	766		766	766
	E		749	749		749	749
	Total	2,220	1,665	1,665	2,220	1,665	1,665
Atka mackerel	GW	6,200	4,700	2,000	6,200	4,700	2,000
Big skate	W		469	469		469	469
	C		1,793	1,793		1,793	1,793
	E		1,505	1,505		1,505	1,505
	Total	5,023	3,767	3,767	5,023	3,767	3,767
Longnose skate	W		70	70		70	70
	C		1,879	1,879		1,879	1,879
	E		676	676		676	676
	Total	3,500	2,625	2,625	3,500	2,625	2,625
Other skates	GW	2,706	2,030	2,030	2,706	2,030	2,030
Squids	GW	1,530	1,148	1,148	1,530	1,148	1,148
Sharks	GW	8,037	6,028	6,028	8,037	6,028	6,028
Octopuses	GW	1,941	1,455	1,455	1,941	1,455	1,455
Sculpins	GW	7,641	5,731	5,731	7,641	5,731	5,731
Total	GOA	747,780	606,048	438,159	756,621	612,506	447,752

APPENDIX 7

PROPOSED GULF OF ALASKA HALIBUT PROHIBITED SPECIES CATCH LIMIT REVISIONS: DRAFT COMMUNITY ANALYSIS

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NOTE TO REVIEWERS

During the final production process for this revised version of the document, it was discovered that the hook-and-line groundfish vessel data reported in this community analysis inadvertently contain pot and jig data as well as hook-and-line data. This error has the effect of overstating community fleet engagement in, and relative dependency on, the groundfish hook-and-line sector. This error does not change any of the conclusions reached in this analysis, as no substantial community impacts associated with the hook-and-line sector were identified (even with a reported level of revenue at potential risk that included pot and jig gear catch, which is not limited by halibut PSC). This error was uncovered too late in the process to correct in this version of the document; the error will be corrected in the Secretarial Review draft of the document, if final action is taken at this meeting.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACOC	Anchorage Chamber of Commerce
ADOLWD	Alaska Department of Labor and Workforce Development
AFA	American Fisheries Act
AKFIN	Alaska Fisheries Information Network
CDQ	Community Development Quota
CFEC	Commercial Fisheries Entry Commission
DCED	Alaska Division of Community and Regional Economic Development
DSR	Demersal Shelf Rockfish
FMP	fishery management plan
GOA	Gulf of Alaska
IFQ	Individual Fishing Quota
JEDC	Juneau Economic Development Council
NMFS	National Marine Fisheries Service
NOAA	National Oceanic Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
PCOC	Petersburg Chamber of Commerce
PSC	prohibited species catch
QS	quota share
RIR	Regulatory Impact Review
TAC	total allowable catch

SECTION 1.0 INTRODUCTION AND METHODOLOGY

For the purposes of this community assessment, a two-pronged approach to analyzing the community or regional components of changes associated with the implementation of Gulf of Alaska (GOA) halibut prohibited species catch (PSC) revisions was utilized. First, tables based on existing quantitative fishery information were developed to identify patterns of participation in the various components of the relevant fisheries. Summary tables, presenting data on an annual basis from 2003 through 2009, 2010, or 2011, depending on the dataset, are presented in Section 2.0, along with accompanying narrative. This analysis focuses on fishery sectors (primarily catcher vessels or permit holders and/or processors for relevant commercial fisheries, and permit holders or fishermen for sport charter and/or subsistence halibut fisheries) and follows annual and average participation indicators. Some more detailed GOA groundfish fishery participant count tables by sector are presented in a series of tables (Tables A-1 through A-9) included within a separate attachment at the end of this community analysis document.¹

Within this quantitative characterization of fishery participation, a number of simplifying assumptions were made. For the purposes of this analysis, assignment of catcher vessels (and catcher processors) to a region or community has been made based upon ownership address information as listed in the Alaska Commercial Fisheries Entry Commission (CFEC) vessel registration files or the National Oceanic Atmospheric Administration (NOAA) Fisheries federal permit data. As a result, some caution in the interpretation of this information is warranted. It is not unusual for vessels to have complex ownership structures involving more than one entity in more than one region. Further, ownership location does not directly indicate where a vessel spends most of its time, purchases services, or hires its crew as, for example, some of the vessels owned by residents of the Pacific Northwest spend a great deal of time in Alaska ports and hire at least a few crew members from these ports. The region or community of ownership, however, does provide a rough indicator of the direction or nature of ownership ties (and a proxy for associated economic activity, as no existing datasets provide information on where GOA groundfish vessel earnings are spent), especially when patterns are viewed at the sector or vessel class level. Ownership location has further been chosen for this analysis as the link of vessels to communities rather than other indicators, such as vessel homeport information, based on previous North Pacific Fishery Management Council (NPFMC) fishery management plan (FMP) social impact assessment experience that indicated the problematic nature of existing homeport data.²

For shore-based processors, regional or community designation was based on the location of the plant itself (rather than ownership address) to provide a relative indicator of the local volume of fishery-related

¹ The economic analysis in the main body of the document to which this community analysis is an appendix has recently (May 2012) been amended to incorporate more data from 2011 than were available to include in this community analysis. As a result, some annual averages reported in the two different analyses vary slightly. These differences are not large enough to change any of the conclusions in this community analysis.

² At the October 2011 NPFMC meetings, input was received during Council discussions and elsewhere that the analysis would benefit from an additional residency screening of vessel ownership data using, for example, Alaska Permanent Fund Dividend residency information. However, Alaska Senate Bill 284 became law in 2005, ensuring the confidentiality of Alaska Permanent Fund Dividend applicants' addresses, making a comparison of datasets impossible.

economic activity, which can also serve as a rough proxy for the relative level of associated employment and local government revenues. This is also consistent with other recent NPFMC FMP social impact assessment practice.

There are, however, substantial limitations on the data that can be utilized for these purposes, based on confidentiality restrictions. A prime example of this is where a community is the site of a single processor, or even two or three processors.³ No information can be disclosed about the volume and/or value of landings in those communities. This, obviously, severely limits quantitative discussions of the potential impacts of the GOA halibut PSC reduction alternatives. In short, the frame of reference or unit of analysis for the discussion in this section is the individual sector,⁴ and the analysis looks at how participation in fisheries most likely to be affected by the proposed management actions has been differentially distributed across communities and regions within this framework. The practicalities of data limitations, however, serve to restrict this discussion.

The second approach to producing this community analysis involved selecting a subset of Alaska communities engaged in the relevant GOA groundfish fisheries for characterization to describe the range, direction, and order of magnitude of social- and community-level engagement and dependency on those fisheries. The approach of using a subset of communities rather than attempting characterization of all of the communities in the region(s) involved was chosen due to the practicalities of time and resource constraints. Further, this characterization was initially undertaken with existing information only and did not involve fieldwork in any of the communities, which served to limit a detailed understanding of the current and oft-changing dynamic interaction of the specific public and private subsectors or groups of resource users likely to be directly or indirectly affected by the proposed action or alternatives in any given community. While this no-fieldwork limitation is still largely true, based on input at the October 2011 NPFMC meetings, a limited amount of fieldwork has been undertaken for Kodiak (only) and the results of that fieldwork are incorporated into this revised version of the analysis.⁵

³ The number of data points that need to be lumped to comply with data confidentiality restrictions varies by data source. The CFEC requires aggregation of four data points to permit reporting of what would otherwise be confidential data, while virtually all other data sources require the aggregation of three data points to permit disclosure. In this section, because several data sources draw at least in part on CFEC data, volume and value data are presented only when four or more data points are aggregated.

⁴ In this community analysis, the term “trawl vessels” is often used as shorthand for “vessels utilizing trawl gear” and “hook-and-line vessels” is often used as shorthand for “vessels utilizing hook-and-line gear.” In reality, some individual vessels fish both types of gear over the course of a year, although these multi-gear vessels are relatively few. Among Alaska communities, only King Cove, Kodiak, and Sand Point had more than one vessel fish both gear types in the relevant GOA groundfish fisheries in any individual year 2003-2010, inclusive, and only five other Alaska communities had at least one such vessel for at least one year over the same period. The specific number of these vessels per individual Alaska community per year is included in the community profile discussions.

⁵ The first version of this analysis, presented at the October 2011 NPFMC meetings, suggested that adverse community-level impacts associated with GOA halibut PSC limit reductions would most likely be concentrated in the communities of King Cove, Kodiak, and Sand Point. The Scientific and Statistical Committee provided input that the analysis could be improved through short-term research in each community to assess community-level engagement and dependency on groundfish and halibut fisheries and potential effects on individual operations and support services. Similar input was obtained during public testimony and in discussions at the Advisory Panel and NPFMC sessions. Based on subsequent analysis of the relative magnitude of impacts likely in these three communities under the various alternatives being considered (summarized in Section 4.3) and the limited resources available for fieldwork, direction was provided by the NPFMC to undertake limited fieldwork in Kodiak alone.

In terms of Kodiak field methodology, field efforts were relatively focused, as a good deal of analysis had been done prior to fieldwork, including identification of potential issues for the community that was informed by input from the Scientific and Statistical Committee, the Advisory Panel, the Council, and public testimony at earlier NPFMC meetings. The focused nature of the fieldwork was also consistent with practical constraints imposed by schedule and resource considerations. In-person interviews took place in Kodiak January 3 through January 6, 2012. Phone contacts and an exchange of electronic correspondence with entities from the community occurred before and after, as well as during, fieldwork. A total of 33 persons were interviewed, with individuals representing fishing sector interest groups, processing company management, shipping company management, and local members of the NPFMC family of entities. City and civic organization leadership were specifically targeted, along with leadership of relevant other interest/stakeholder groups identified through previous fieldwork in the community or during public testimony. A few interviews were opportunistic, such as individual fishermen identified through snowball sampling once work in the community had begun, but the majority of interviews took place with knowledgeable individuals previously interviewed for other NPFMC analyses to optimize the efficiencies gained through use of a time series sample. Most interviews were conducted one-on-one, but a limited number of the interviews with organizational representatives involved multiple interviewees.

The total set of communities engaged in the fisheries is numerous and far-flung. Communities (and types of potential impacts) vary based upon the type of engagement of the individual community in the fishery, whether it is through being homeport of a portion of the catcher vessel fleet, being the location of shore-based processing, being the base of catcher processor or floating processor ownership or activity, or being the location of fishery support sector businesses. In short, this second approach uses the community or region as the frame of reference or unit of analysis (as opposed to the fishery sector as in the first approach). This approach examines, within the community or region, the local nature of engagement or dependence on the fishery in terms of the various sectors present in the community and the relationship of those sectors (in terms of size and composition, among other factors) to the rest of the local social and economic context. This approach then qualitatively provides a context for potential community impacts that may occur as a result of fishery management-associated changes to the locally present sectors in combination with other community-specific attributes and socioeconomic characteristics.

Simplifying assumptions also needed to be made as to which communities to include in the profiles, given the large number of communities participating in the fisheries, the desire to focus on the communities most engaged in/dependent on the relevant fisheries (and therefore most likely to be directly affected by proposed management actions), and a recognition that communities with multi-sector activity would likely be most vulnerable to adverse impacts related to the potential fishery management changes. As a result, the communities selected for inclusion in the set of community profiles were those Alaska communities that had at least some GOA groundfish trawl vessel activity and more substantial GOA groundfish hook-and-line vessel activity in the years covered by the primary dataset used for analysis (2003-2010). Specifically, they were those communities that had:

- At least one resident-owned trawl vessel that made at least one GOA groundfish delivery in any of the years 2003-2010;⁶ and
- At least 10 resident-owned hook-and-line vessels⁷ that made at least one GOA groundfish delivery in any two of the years 2003-2010, excluding vessels that delivered only halibut and/or sablefish.

Using these criteria, seven communities were initially selected for profiling as the communities most engaged in, and potentially the most dependent on, the GOA groundfish fisheries potentially affected by the various GOA halibut PSC reduction alternatives. These communities are:

⁶ As a simplifying assumption, trawl vessels that engaged in pelagic trawl and non-pelagic trawl in both shallow-water and deep-water complexes were combined due to the limited number of vessels in any complex, pelagic or non-pelagic, in any community, for any year, in order to present more complete data than would otherwise be possible due to confidentiality restrictions. Additionally, trawl catcher processors were grouped with trawl catcher vessels for the same reason. The number of GOA trawl groundfish catcher processors owned by Alaska residents is small. During the period 2003-2010, only two of these vessels operated, both of which had Kodiak resident ownership, and then only for two years (2003 and 2004). (One other GOA groundfish trawl vessel owned in Juneau in 2003 shows up in the data without a catcher vessel or catcher processor designation, so it does not appear in catcher vessel or catcher processor specific discussions in the community profiles, but it is included in the aggregated data.) All other GOA trawl catcher processors present in the dataset were owned by individuals who resided outside Alaska. For more information on the number of vessels within each of these more specific categories, please see the attachments to this community analysis document. In terms of combining the gross revenues of catcher vessels and catcher processor vessels for community-based gross revenue reporting, it is understood that catcher vessel data are exvessel gross revenues while catcher processor data are first wholesale gross revenues. For the purposes of this community-based (rather than sector-based) analysis, however, the decision to combine these two types of gross revenues was driven by the desire to provide more complete community-associated gross revenue data than would otherwise be possible due to data confidentiality restrictions.

⁷ As a simplifying assumption, hook-and-line vessels that engaged in the Southeast Outside Demersal Shelf Rockfish or other federally managed groundfish species fisheries (exclusive of sablefish) were combined due to the limited number of vessels in any species complex in any community, for any year, in order to present more complete data than would otherwise be possible due to confidentiality restrictions. Similarly, hook-and-line catcher processors were grouped with hook-and-line catcher vessels in quantitative information in this community analysis in order to present more complete data than would otherwise be possible due to confidentiality restrictions. The number of GOA hook-and-line groundfish catcher processors owned by Alaska residents is small; not enough vessels were present in the fishery over the period 2003-2010 to allow reporting of catcher processor data separately for any Alaska community except for Petersburg, and then only for one year. GOA groundfish hook-and-line catcher processors owned by Alaska residents during this period were limited to Homer (one vessel in 2004, 2007, and 2008), Kodiak (one vessel in 2003-2005 and 2007), Sand Point (one vessel in 2010), and Petersburg (three vessels in 2003, two vessels in 2006 and 2008-2009, one vessel in 2005 and 2007, and four vessels in 2010). In addition to the communities profiled, one catcher processor was owned by a resident of Seward in 2003, 2008, and 2010 and one was owned by an Unalaska resident in 2003. (One other GOA hook-and-line vessel each with ownership in Chignik Lagoon [2003], Craig [2009], Egegik [2005], Kasilof [2003], Ketchikan [2004], King Cove [2005], and Sitka [2004] shows up in the data without a catcher vessel or catcher processor designation, so these vessels do not appear in catcher vessel- or catcher processor-specific discussions in the community profiles, but they are included in the aggregated data.) All other GOA hook-and-line catcher processors present in the dataset were owned by individuals who resided outside Alaska. For more information on the number of vessels within each of these more specific categories, please see the attachments to this community analysis document. As was the case for the trawl sector, in terms of combining the gross revenues of hook-and-line catcher vessels and hook-and-line catcher processors for community-based gross revenue reporting, it is understood that catcher vessel data are exvessel gross revenues while catcher processor data are first wholesale gross revenues. For the purposes of this community-based (rather than sector-based) analysis, however, the decision to combine these two types of gross revenues was driven by the desire to provide more complete community-associated gross revenue data than would otherwise be possible due to data confidentiality restrictions. Combined totals for Sand Point and Petersburg are underreported for 2010 as first wholesale gross revenue data for hook-and-line catcher processors are not yet available. While separate catcher processor values for any year for any community are confidential, some averaged information can be used to provide a sense of scale. For 2003-2009, there are data for a total of 21 vessel years (with a vessel year defined as one vessel operating for one year) for Alaska-owned GOA hook-and-line catcher processors; annual first wholesale gross revenues ranged from below \$750 to over \$750,000 for individual catcher processors, with an average first wholesale gross revenue of approximately \$242,000 per catcher processor per operating year during this time.

- Anchorage
- Homer
- Juneau
- King Cove
- Kodiak
- Petersburg
- Sand Point

Based on subsequent analysis and input received at the October 2011 NPFMC meetings, two other communities have been added to the list of profiled communities:

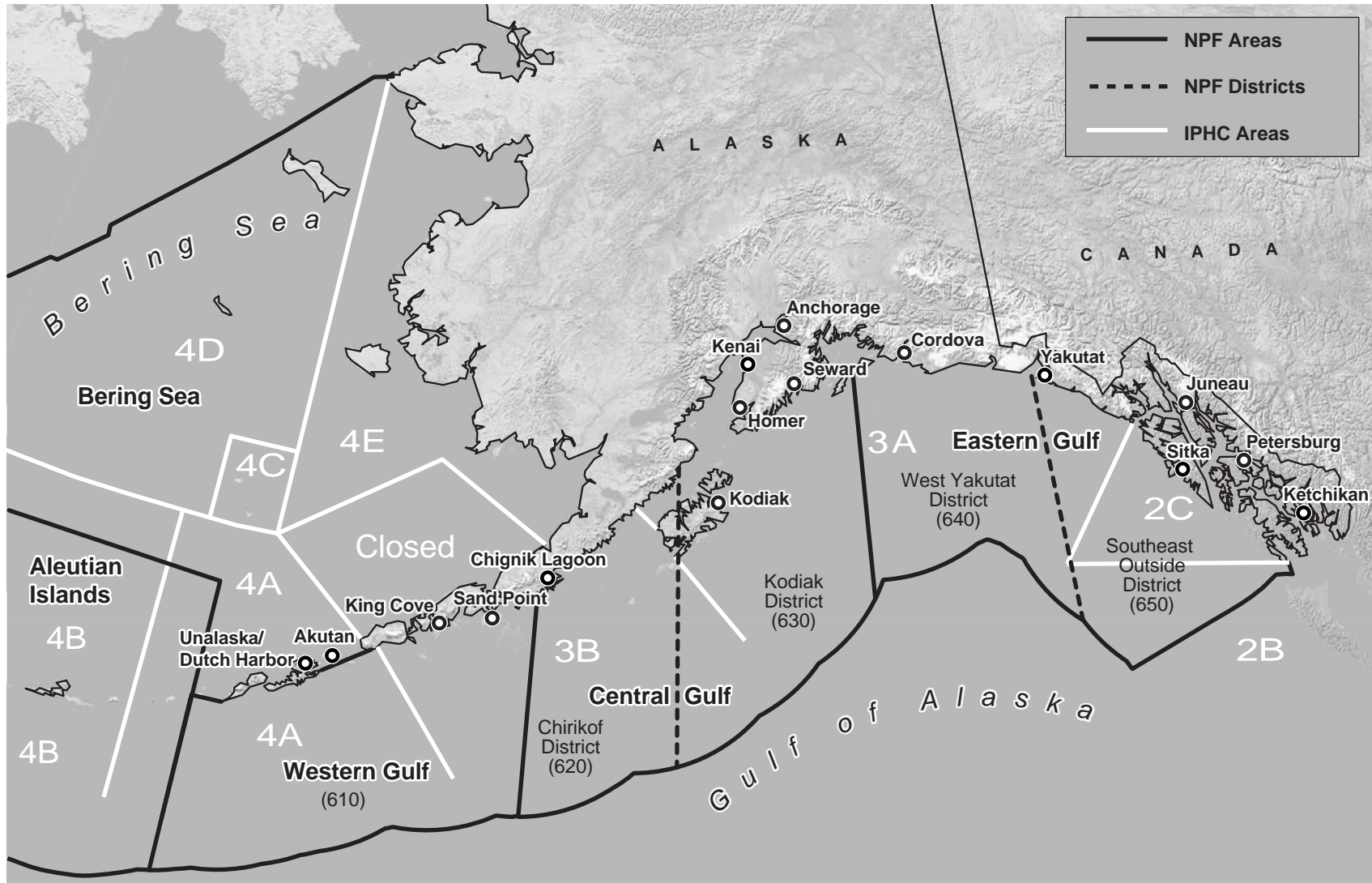
- Chignik Lagoon
- Sitka

Chignik Lagoon has been added due to analysis that indicated the high level of engagement of the local fleet in the GOA groundfish hook-and-line fishery relative to the overall size of that fleet. Sitka has been added based on public input regarding the relative engagement in the halibut commercial, sport charter, and subsistence fisheries including halibut processing; losses that have already occurred in the halibut fishery; engagement in the GOA groundfish fishery; and the perspective that Sitka provides a more representative example of a Southeast Alaska fishing community than does Juneau.

The location of these Alaska communities and their proximity to the GOA groundfish management areas and the halibut regulatory areas in the GOA may be seen in Figure 1. Summary profiles of each of these communities are presented in Section 3.0. These summaries are derived from detailed community-profiling efforts, the results of which are in part included in this analysis and in part included in other documents incorporated by reference.

It is also understood that not only the groundfish fisheries that would be subject to potential reductions in GOA halibut PSC would be affected by management action changes. It is assumed that direct halibut fisheries would potentially benefit from these management actions relative to the degree that the GOA halibut stock itself would benefit from these proposed actions (and the effective redistribution of overall halibut allocations between sectors that may occur with the various alternatives). As a result, in both the quantitative indicators and community profile summaries, information is presented on community engagement in the commercial halibut, sport halibut, and subsistence halibut fisheries. In these cases, the communities profiled may or may not be the communities most centrally engaged in or dependent upon those fisheries.⁸ That is, those communities that have the potential to experience the greatest adverse impacts that could result from the proposed management actions may not be the same communities that have the potential to experience the greatest beneficial impacts that could result from the proposed

⁸ In federally managed waters within and offshore of Alaska, residents of Alaska communities defined as rural have preferential subsistence-use access to a range of resources, including halibut, over residents of other Alaska communities. Among the communities profiled in this document, Chignik Lagoon, King Cove, Kodiak, Petersburg, Sand Point, and Sitka meet the regulatory definition of rural communities; Anchorage, Homer, and Juneau do not.



Source: ESRI 2010; NOAA 2011

Figure 1
North Pacific Fishery Regulatory Areas and Districts, International Pacific Halibut Commission Management Areas, and Selected Alaska Fishing Communities

management actions. This potential differential distribution of adverse and beneficial impacts among communities is primarily addressed in the quantitative indicators discussion, but engagement in the three different types of halibut fisheries (commercial, sport, and subsistence) is also discussed in each of the community profiles, where negatively affected and positively affected populations have the greatest potential for overlap.

Section 4.0 provides a summary of potential community-level impacts. Discussions in this section include community engagement, dependence, and vulnerability; GOA groundfish fishery engagement in the Alaska communities profiled; GOA groundfish fishery dependency and vulnerability to community-level impacts of the proposed action among Alaska communities; risks to fishing community sustained participation in the GOA groundfish fisheries; and potential community beneficial impacts resulting from positive impacts to GOA halibut fisheries.

SECTION 2.0 QUANTITATIVE INDICATORS

The following series of tables provides quantitative information, within the bounds of confidentiality restrictions, for Anchorage, Chignik Lagoon, Homer, Juneau, King Cove, Kodiak, Petersburg, Sand Point, and Sitka. This information is summarized, on a community-by-community basis, in the community profiles in a later section of this document.⁹

2.1 GOA GROUND FISH TRAWL VESSELS

- **Table 1a** provides a count, by community and year (2003-2010), of GOA groundfish trawl vessels for each of the profiled Alaska communities; all other Alaska communities combined; and state totals for Alaska, Oregon, Washington, and all other states combined. As shown, the largest component of fleet ownership during any given year is in Washington, followed by Alaska, Oregon, and all other states combined. **Table 1b** provides parallel information expressed as percentages of the total fleet rather than as counts. Clearly shown in these two tables is the concentration of ownership of GOA groundfish trawl vessels within Alaska in the communities of Kodiak and Sand Point and, to a lesser extent, in King Cove. These two tables provide a relatively complete picture of the distribution of GOA groundfish trawl vessels among Alaska communities; the only other Alaska communities with any GOA groundfish trawl activity during 2003-2010 were:
 - Girdwood (located within the municipality of Anchorage, on Turnagain Arm approximately 35 miles southeast of downtown Anchorage), with one GOA groundfish trawl vessel in 2003 and annually 2005-2010 (and this vessel also fished GOA groundfish hook-and-line gear in 2007 and 2008 [only]);
 - Anchor Point (an unincorporated community within the Kenai Peninsula Borough, at the junction of the Anchor River and its north fork approximately 14 miles northwest of Homer), with one GOA groundfish trawl vessel in 2003 only (and this vessel also fished GOA groundfish hook-and-line gear that year); and
 - Nikolaevsk (an unincorporated community within the Kenai Peninsula Borough, approximately 8 miles inland from Anchor Point), with one GOA groundfish trawl vessel in 2003 only (and this vessel also fished GOA groundfish hook-and-line gear that same year).

⁹ More detailed participation counts for catcher vessels, catcher processors, and shore-based processors, for all communities, both within and outside of Alaska, are provided in a series of tables contained in an attachment to this community analysis document [Tables A-1 through A-9].

Table 1a. Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, 2003-2010 (number of vessels)

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	1	1	1	0	0	0	0	0	0.4
Chignik Lagoon	0	0	0	0	0	0	0	0	0.0
Homer	2	0	1	1	0	0	0	0	0.5
Juneau	1	0	0	0	0	0	0	0	0.1
King Cove	2	2	4	4	4	4	5	3	3.5
Kodiak	20	17	14	13	12	15	14	15	15.0
Petersburg	1	1	1	1	1	1	1	1	1.0
Sand Point	13	11	11	11	10	8	12	9	10.6
Sitka	0	0	0	0	0	0	0	0	0.0
All Other Alaska	3	0	1	1	1	1	1	1	1.1
Alaska Total	43	32	33	31	28	29	33	29	32.3
Oregon Total	20	21	19	18	16	15	14	14	17.1
Washington Total	46	38	39	37	40	41	40	39	40.0
All Other States Total	4	2	3	3	3	2	2	2	2.6
Total	113	93	94	89	87	87	89	84	92.0

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 1b. Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, 2003-2010 (percentage of vessels)

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	0.9%	1.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
Chignik Lagoon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Homer	1.8%	0.0%	1.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.5%
Juneau	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
King Cove	1.8%	2.2%	4.3%	4.5%	4.6%	4.6%	5.6%	3.6%	3.8%
Kodiak	17.7%	18.3%	14.9%	14.6%	13.8%	17.2%	15.7%	17.9%	16.3%
Petersburg	0.9%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.2%	1.1%
Sand Point	11.5%	11.8%	11.7%	12.4%	11.5%	9.2%	13.5%	10.7%	11.5%
Sitka	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All Other Alaska	2.7%	0.0%	1.1%	1.1%	1.1%	1.1%	1.1%	1.2%	1.2%
Alaska Total	38.1%	34.4%	35.1%	34.8%	32.2%	33.3%	37.1%	34.5%	35.1%
Oregon Total	17.7%	22.6%	20.2%	20.2%	18.4%	17.2%	15.7%	16.7%	18.6%
Washington Total	40.7%	40.9%	41.5%	41.6%	46.0%	47.1%	44.9%	46.4%	43.5%
All Other States Total	3.5%	2.2%	3.2%	3.4%	3.4%	2.3%	2.2%	2.4%	2.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

- Table 2a** provides GOA groundfish trawl vessel exvessel gross revenue information by community and year (2003-2010) to the extent possible within data confidentiality restrictions. As shown, only information for Kodiak and Sand Point can be disclosed on an individual community basis, but clearly apparent is the economic dominance of these two communities for this fleet within the state of Alaska. **Table 2b** provides parallel information expressed as percentages of total exvessel gross revenues rather than as absolute dollars. Particularly apparent in the table is the economic dominance of Washington-owned vessels, followed in all years by Alaska and then all other states combined, except in 2007, when the all other states total was somewhat greater than the Alaska total. For these tables, Oregon-owned vessel data were combined with data of all other states to allow for a grand total calculation that would have otherwise been precluded by confidentiality restrictions.

**Table 2a. GOA Groundfish Trawl Vessels Exvessel Gross Revenues
by Community of Vessel Owner, 2003-2010 (dollars)**

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	\$9,181,005	\$8,986,735	\$8,705,668	\$9,999,417	\$9,565,982	\$13,807,121	\$8,991,149	\$13,852,259	\$10,386,167
Sand Point	\$1,801,445	\$2,589,678	\$3,703,388	\$3,933,251	\$2,997,273	\$3,916,430	\$2,889,267	\$2,908,600	\$3,092,417
All Other Alaska	\$1,027,525	\$849,297	\$1,364,276	\$1,177,912	\$1,220,724	\$1,241,924	\$466,315	\$1,047,451	\$1,049,428
Alaska Total	\$12,009,975	\$12,425,710	\$13,773,332	\$15,110,580	\$13,783,979	\$18,965,475	\$12,346,731	\$17,808,310	\$14,528,012
Washington Total	\$28,030,164	\$22,394,637	\$35,939,232	\$38,467,214	\$35,968,942	\$39,391,075	\$32,134,453	\$10,708,707	\$30,379,303
All Other States Total	\$9,593,069	\$9,291,374	\$12,710,406	\$13,927,752	\$14,451,515	\$18,425,256	\$10,682,828	\$15,068,590	\$13,018,849
Total	\$49,633,208	\$44,111,722	\$62,422,971	\$67,505,545	\$64,204,437	\$76,781,806	\$55,164,012	\$43,585,607	\$57,926,163

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

**Table 2b. GOA Groundfish Trawl Vessels Exvessel Gross Revenues
by Community of Vessel Owner, 2003-2010 (percentage)**

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	18.5%	20.4%	13.9%	14.8%	14.9%	18.0%	16.3%	31.8%	17.9%
Sand Point	3.6%	5.9%	5.9%	5.8%	4.7%	5.1%	5.2%	6.7%	5.3%
All Other Alaska	2.1%	1.9%	2.2%	1.7%	1.9%	1.6%	0.8%	2.4%	1.8%
Alaska Total	24.2%	28.2%	22.1%	22.4%	21.5%	24.7%	22.4%	40.9%	25.1%
Washington Total	56.5%	50.8%	57.6%	57.0%	56.0%	51.3%	58.3%	24.6%	52.4%
All Other States Total	19.3%	21.1%	20.4%	20.6%	22.5%	24.0%	19.4%	34.6%	22.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

2.2 GOA GROUND FISH HOOK-AND-LINE VESSELS

- Table 3a** provides a count, by community and year (2003-2010), of GOA groundfish hook-and-line vessels for each of the profiled Alaska communities; all other Alaska communities combined; and state totals for Alaska, Oregon, Washington, and all other states combined. **Table 3b** provides parallel information expressed as percentages of the total fleet rather than as counts. As shown, the largest component of fleet ownership any given year, by far, is Alaska (up to 86 percent of the fleet), with Washington a distant second (less than 15 percent each year) and Oregon and all other states combined accounting for less than 5 percent of the total fleet each year except 2004, a very different pattern than was seen for GOA groundfish trawl vessels. Clearly shown in these two tables is the concentration of ownership of GOA groundfish hook-and-line vessels among the profiled Alaska communities in Kodiak, followed by Homer and Sand Point. However, GOA groundfish hook-and-line vessels are much more numerous and much more widely distributed in Alaska¹⁰ than are GOA groundfish trawl vessels, with “all other” Alaska communities accounting for an average of 16.6 percent of the total GOA groundfish hook-and-line fleet over the 2003-2010 time period (which is less than Kodiak alone, but larger than any of the other individually profiled communities). These two tables provide a

¹⁰ A total of 64 different Alaska communities are shown in the dataset as having at least one local resident-owned vessel participating in hook-and-line GOA groundfish fisheries in at least one year over the period 2003-2010 (although a few communities reported separately in the dataset are actually part of the same municipality [e.g., Unalaska and Dutch Harbor, while having separate post offices/ mailing addresses/zip codes, are both part of the City of Unalaska; Girdwood and Eagle River are a part of the Municipality of Anchorage; Douglas and Auke Bay are a part of the City & Borough of Juneau]).

relatively complete picture of the distribution of substantial and steady concentrations of GOA groundfish hook-and-line vessels among Alaska communities; the only other Alaska communities with at least 10 GOA groundfish hook-and-line vessels in any one year during 2003-2010 was Ketchikan (a Home Rule City within the Ketchikan Gateway Borough [which also includes Saxman] on Revillagigedo Island in Southeast Alaska), with 10 or more GOA groundfish vessels two or more years during the period 2003-2010, but none in any year 2007 through 2010 inclusive, the most recent years for which data are available (and no GOA groundfish trawl vessels 2003-2010).

Table 3a. Individual GOA Groundfish Hook-and-Line Vessels by Community of Vessel Owner, 2003-2010 (number of vessels)*

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	13	16	10	10	8	10	12	9	11.0
Chignik Lagoon	4	12	8	6	7	9	7	5	7.3
Homer	44	54	48	41	48	45	52	52	48.0
Juneau	17	16	17	7	1	3	3	3	8.4
King Cove	17	15	14	15	14	18	13	16	15.3
Kodiak	139	149	148	123	110	116	111	107	125.4
Petersburg	16	15	13	10	4	4	5	6	9.1
Sand Point	50	45	40	18	18	38	32	36	34.6
Sitka	129	73	49	17	2	2	3	3	34.8
All Other Alaska	114	103	89	52	50	69	52	53	72.8
Alaska Total	543	498	436	299	262	314	290	290	366.5
Oregon Total	12	17	10	11	8	11	5	7	10.1
Washington Total	79	80	58	53	35	51	39	36	53.9
All Other States Total	15	16	12	6	6	7	5	4	8.9
Total	649	611	516	369	311	383	339	337	439.4

* Excludes vessels that exclusively fished halibut and/or sablefish
Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 3b. Individual GOA Groundfish Hook-and-Line Vessels by Community of Vessel Owner, 2003-2010 (percentage of vessels)*

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	2.0%	2.6%	1.9%	2.7%	2.6%	2.6%	3.5%	2.7%	2.5%
Chignik Lagoon	0.6%	2.0%	1.6%	1.6%	2.3%	2.3%	2.1%	1.5%	1.7%
Homer	6.8%	8.8%	9.3%	11.1%	15.4%	11.7%	15.3%	15.4%	10.9%
Juneau	2.6%	2.6%	3.3%	1.9%	0.3%	0.8%	0.9%	0.9%	1.9%
King Cove	2.6%	2.5%	2.7%	4.1%	4.5%	4.7%	3.8%	4.7%	3.5%
Kodiak	21.4%	24.4%	28.7%	33.3%	35.4%	30.3%	32.7%	31.8%	28.5%
Petersburg	2.5%	2.5%	2.5%	2.7%	1.3%	1.0%	1.5%	1.8%	2.1%
Sand Point	7.7%	7.4%	7.8%	4.9%	5.8%	9.9%	9.4%	10.7%	7.9%
Sitka	19.9%	11.9%	9.5%	4.6%	0.6%	0.5%	0.9%	0.9%	7.9%
All Other Alaska	17.6%	16.9%	17.2%	14.1%	16.1%	18.0%	15.3%	15.7%	16.6%
Alaska Total	83.7%	81.5%	84.5%	81.0%	84.2%	82.0%	85.5%	86.1%	83.4%
Oregon Total	1.8%	2.8%	1.9%	3.0%	2.6%	2.9%	1.5%	2.1%	2.3%
Washington Total	12.2%	13.1%	11.2%	14.4%	11.3%	13.3%	11.5%	10.7%	12.3%
All Other States Total	2.3%	2.6%	2.3%	1.6%	1.9%	1.8%	1.5%	1.2%	2.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

* Excludes vessels that exclusively fished halibut and/or sablefish
Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

- **Table 4a** provides GOA groundfish hook-and-line vessel exvessel gross revenue information by community and year (2003-2010) to the extent possible within data confidentiality restrictions.¹¹ As shown, information can be displayed for each year for all of the individually profiled communities, except for Juneau, which has been aggregated with Petersburg because of too few vessels in 2007-2010, and Sitka, because of too few vessels in 2007-2010.¹² Clearly apparent is the economic dominance of the Kodiak component of the Alaska gross revenues of the GOA groundfish hook-and-line fleet, followed by Homer, and then the group of King Cove, Sand Point, Chignik Lagoon, and Juneau/Petersburg.¹³ **Table 4b** provides parallel information expressed as percentages of total exvessel gross revenues rather than as absolute dollars. Particularly apparent in the table is the economic dominance of Alaska-owned GOA groundfish hook-and-line vessels, with Kodiak and the state of Washington having roughly similar exvessel gross revenues on an annual average basis over 2003-2010.

Table 4a. GOA Groundfish Hook-and-Line Vessels Exvessel Gross Revenues by Community of Vessel Owner, 2003-2010 (dollars)*

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	\$361,128	\$473,752	\$487,402	\$356,601	\$448,857	\$1,181,021	\$380,243	\$767,412	\$557,052
Chignik Lagoon	\$629,796	\$747,886	\$742,131	\$875,374	\$1,740,300	\$2,244,200	\$885,943	\$1,186,450	\$1,131,510
Homer	\$1,870,262	\$2,148,119	\$1,697,509	\$2,938,228	\$4,727,498	\$4,183,544	\$3,050,763	\$3,060,755	\$2,959,585
Juneau and Petersburg**	\$783,436	\$171,343	\$214,819	\$829,805	\$1,691,787	\$2,282,262	\$1,550,592	\$543,397	\$1,008,430
King Cove	\$1,628,404	\$1,836,228	\$1,579,762	\$2,347,351	\$3,016,267	\$2,672,847	\$1,048,009	\$2,297,563	\$2,053,304
Kodiak	\$5,731,575	\$7,247,863	\$8,300,350	\$10,248,684	\$12,957,842	\$13,937,288	\$6,932,354	\$9,133,938	\$9,311,237
Sand Point	\$3,250,225	\$2,119,262	\$1,455,572	\$1,452,544	\$1,698,231	\$2,338,213	\$1,457,289	\$2,867,659	\$2,079,874
All Other Alaska	\$2,992,821	\$2,679,397	\$2,362,552	\$3,102,011	\$3,573,848	\$5,512,248	\$3,380,899	\$4,079,272	\$3,460,381
Alaska Total	\$17,247,648	\$17,423,849	\$16,840,096	\$22,150,599	\$29,854,631	\$34,351,624	\$18,686,092	\$23,936,447	\$22,561,373
Oregon Total	\$511,665	\$1,066,410	\$1,278,671	\$1,883,230	\$2,028,355	\$2,567,164	\$822,019	\$1,282,852	\$1,430,046
Washington Total	\$7,747,489	\$7,662,373	\$3,665,683	\$9,048,681	\$11,036,681	\$15,080,505	\$9,273,480	\$2,721,637	\$8,279,566
All Other States Total	\$315,667	\$366,000	\$382,746	\$381,319	\$732,093	\$755,490	\$136,421	\$334,883	\$425,577
Total	\$25,822,469	\$26,518,631	\$22,167,196	\$33,463,829	\$43,651,759	\$52,754,784	\$28,918,012	\$28,275,819	\$32,696,562

* Excludes vessels that exclusively fished halibut and/or sablefish

** Communities combined due to data confidentiality restrictions for at least some years during this time series; see individual community profiles for yearly totals that can be disclosed separately (2003-2006 inclusive); see Sitka profile for data that can be disclosed for that community (2003-2006 inclusive)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

¹¹ The table shows every Alaska community that had reportable data in every year 2003-2010.

¹² See individual Juneau and Petersburg community profiles for yearly totals that can be disclosed separately (2003-2006 inclusive). Data for Sitka have not been aggregated with data for Juneau and Petersburg as they were not aggregated in the first version of this document (Sitka was not separately profiled in that document) and to do so now would allow Sitka confidential information to be easily deduced. In the tables in this section, Sitka data are aggregated with those for "All Other Alaska"; see the Sitka community profile for yearly totals that can be disclosed separately (2003-2006 inclusive).

¹³ During SSC discussions at the February 2012 NPFMC meetings, a request was made to review the vessel data for King Cove and Sand Point as represented in Tables 3a and 4a as (1) the annual average number of hook-and-line groundfish vessels in Sand Point was over twice as great as the analogous number for King Cove (as shown in Table 3a), while (2) the annual average exvessel gross revenues were nearly the same for the hook-and-line groundfish vessels in those communities (as shown in Table 4a). The data have been reviewed, and vessel counts and exvessel gross revenue numbers displayed in these tables do accurately represent the contents of the dataset.

Table 4b. GOA Groundfish Hook-and-Line Vessels Exvessel Gross Revenues by Community of Vessel Owner, 2003-2010 (percentage)*

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	1.4%	1.8%	2.2%	1.1%	1.0%	2.2%	1.3%	2.7%	1.7%
Chignik Lagoon	2.4%	2.8%	3.3%	2.6%	4.0%	4.3%	3.1%	4.2%	3.5%
Homer	7.2%	8.1%	7.7%	8.8%	10.8%	7.9%	10.5%	10.8%	9.1%
Juneau and Petersburg**	3.0%	0.6%	1.0%	2.5%	3.9%	4.3%	5.4%	1.9%	3.1%
King Cove	6.3%	6.9%	7.1%	7.0%	6.9%	5.1%	3.6%	8.1%	6.3%
Kodiak	22.2%	27.3%	37.4%	30.6%	29.7%	26.4%	24.0%	32.3%	28.5%
Sand Point	12.6%	8.0%	6.6%	4.3%	3.9%	4.4%	5.0%	10.1%	6.4%
All Other Alaska	11.6%	10.1%	10.7%	9.3%	8.2%	10.4%	11.7%	14.4%	10.6%
Alaska Total	66.8%	65.7%	76.0%	66.2%	68.4%	65.1%	64.6%	84.7%	69.0%
Oregon Total	2.0%	4.0%	5.8%	5.6%	4.6%	4.9%	2.8%	4.5%	4.4%
Washington Total	30.0%	28.9%	16.5%	27.0%	25.3%	28.6%	32.1%	9.6%	25.3%
All Other States Total	1.2%	1.4%	1.7%	1.1%	1.7%	1.4%	0.5%	1.2%	1.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

* Excludes vessels that exclusively fished halibut and/or sablefish

** Communities combined due to data confidentiality restrictions (see note on previous table)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

2.3 GOA GROUND FISH TRAWL AND HOOK-AND-LINE VESSEL HALIBUT MORTALITY

- Table 5a** provides GOA trawl vessel halibut mortality information by community and year (2003-2010) to the extent possible within data confidentiality restrictions. As shown, only information for Kodiak and Sand Point can be disclosed on an individual community basis, but apparent is the role of the Kodiak fleet within the state of Alaska, accounting for about 93 percent of halibut mortality aboard Alaska-owned GOA groundfish trawl vessels on an annual average basis over the period 2003-2010. **Table 5b** provides parallel information expressed as percentages of halibut mortality rather than as absolute tons. Particularly apparent in the table is the dominance of Washington-owned vessels, followed by Alaska and then all other states combined, which are typically relatively similar in any given year. For these tables, Oregon-owned vessel data were combined with those of all other states to allow for a grand total calculation that would have otherwise been precluded by confidentiality restrictions.

Table 5a. GOA Groundfish Trawl Vessel Halibut Mortality by Community of Vessel Owner, 2003-2010 (tons)

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	501.1	624.3	512.5	473.9	503.4	552.7	616.4	481.5	533.2
Sand Point	9.6	15.4	6.1	16.8	11.5	25.6	14.2	2.2	12.7
All Other Alaska	61.9	69.0	22.6	18.2	11.8	19.1	10.4	2.1	26.9
Alaska Total	572.7	708.8	541.2	508.9	526.7	597.4	640.9	485.7	572.8
Washington Total	956.9	1,081.2	872.9	792.7	759.8	828.2	682.4	698.9	834.1
All Other States Total	554.9	654.4	692.0	682.5	658.4	534.4	505.6	452.1	591.8
Total	2,084.5	2,444.4	2,106.1	1,984.1	1,944.9	1,960.0	1,828.9	1,636.8	1,998.7

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

**Table 5b. GOA Groundfish Trawl Vessel Halibut Mortality
by Community of Vessel Owner, 2003-2010 (percentage)**

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	24.0%	25.5%	24.3%	23.9%	25.9%	28.2%	33.7%	29.4%	26.7%
Sand Point	0.5%	0.6%	0.3%	0.8%	0.6%	1.3%	0.8%	0.1%	0.6%
All Other Alaska	3.0%	2.8%	1.1%	0.9%	0.6%	1.0%	0.6%	0.1%	1.3%
Alaska Total	27.5%	29.0%	25.7%	25.7%	27.1%	30.5%	35.0%	29.7%	28.7%
Washington Total	45.9%	44.2%	41.4%	40.0%	39.1%	42.3%	37.3%	42.7%	41.7%
All Other States Total	26.6%	26.8%	32.9%	34.4%	33.9%	27.3%	27.6%	27.6%	29.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

- Table 6a** provides GOA groundfish hook-and-line vessel halibut mortality information by community and year (2003-2010) to the extent possible within data confidentiality restrictions. As shown, information can be displayed for all of the individually profiled communities, except for Juneau, which has been aggregated with Petersburg because of too few vessels in 2007-2010, and Sitka, because of too few vessels in 2007-2010.¹⁴ Clearly apparent is the contribution of Homer resident-owned vessels, followed by Kodiak resident-owned vessels to the overall halibut mortality within the Alaska component of the GOA groundfish hook-and-line fleet. (Also apparent, when compared to previous tables, is that the GOA groundfish hook-and-line fleet accounts for about one-sixth of the halibut mortality associated with the GOA groundfish trawl fleet on an annual average basis over the years 2003-2010.) **Table 6b** provides parallel information expressed as percentages of total halibut mortality rather than as absolute tons. Particularly apparent in the table is the relative contribution of Alaska-owned GOA groundfish hook-and-line vessels to overall halibut mortality, followed by Washington-owned vessels, with vessels from Oregon and all other states accounting for a very small percentage of overall halibut mortality in the period 2003-2010.

¹⁴ See individual Juneau and Petersburg community profiles for yearly totals that can be disclosed separately (2003-2006 inclusive). Data for Sitka have not been aggregated with data for Juneau and Petersburg as they were not aggregated with those communities in the first version of this document (Sitka was not separately profiled in that version of the document) and to do so now would allow Sitka confidential information to be easily deduced. In the tables in this section, Sitka data are aggregated with those for "All Other Alaska"; see the Sitka community profile for yearly totals that can be disclosed separately (2003-2006 inclusive).

**Table 6a. GOA Groundfish Hook-and-Line Vessel Halibut Mortality
by Community of Vessel Owner, 2003-2010 (tons)***

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	0.2	1.0	0.3	0.1	0.3	2.1	0.5	2.1	0.8
Chignik Lagoon	0.4	0.9	0.9	0.4	0.9	0.8	0.2	0.8	0.7
Homer	62.4	75.7	66.4	70.3	69.7	152.0	79.7	37.9	76.8
Juneau and Petersburg**	15.9	0.6	4.1	15.2	9.1	9.8	16.6	34.1	13.2
King Cove	0.8	1.0	0.9	1.5	1.1	1.8	0.3	4.6	1.5
Kodiak	34.0	46.1	61.3	65.8	53.4	114.7	26.1	25.3	53.3
Sand Point	1.8	1.2	0.7	1.2	1.0	0.9	1.1	3.3	1.4
All Other Alaska	69.9	35.3	43.8	32.6	32.9	81.2	31.6	27.4	44.4
Alaska Total	185.4	161.8	178.3	187.3	168.3	363.3	156.0	135.5	192.0
Oregon Total	0.7	5.2	4.5	7.8	5.1	10.2	0.7	1.3	4.5
Washington Total	100.8	137.4	52.2	148.1	127.4	137.8	127.9	118.2	118.7
All Other States Total	5.1	5.7	4.9	7.4	8.4	15.3	0.3	0.1	5.9
Total	291.9	310.1	239.9	350.7	309.2	526.6	284.9	255.2	321.0

* Excludes vessels that exclusively fished halibut and/or sablefish

** Communities combined due to data confidentiality restrictions for at least some years during this time series; see individual community profiles for yearly totals that can be disclosed separately (2003-2006 inclusive); see Sitka profile for data that can be disclosed for that community (2003-2006 inclusive)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

**Table 6b. GOA Groundfish Hook-and-Line Vessel Halibut Mortality
by Community of Vessel Owner, 2003-2010 (percentage)***

Geography	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	0.1%	0.3%	0.1%	0.0%	0.1%	0.4%	0.2%	0.8%	0.3%
Chignik Lagoon	0.1%	0.3%	0.4%	0.1%	0.3%	0.2%	0.1%	0.3%	0.2%
Homer	21.4%	24.4%	27.7%	20.1%	22.5%	28.9%	28.0%	14.8%	23.9%
Juneau and Petersburg**	5.4%	0.2%	1.7%	4.3%	2.9%	1.9%	5.8%	13.4%	4.1%
King Cove	0.3%	0.3%	0.4%	0.4%	0.4%	0.3%	0.1%	1.8%	0.5%
Kodiak	11.6%	14.9%	25.5%	18.8%	17.3%	21.8%	9.2%	9.9%	16.6%
Sand Point	0.6%	0.4%	0.3%	0.3%	0.3%	0.2%	0.4%	1.3%	0.4%
All Other Alaska	23.9%	11.4%	18.3%	9.3%	10.6%	15.4%	11.1%	10.7%	13.8%
Alaska Total	63.5%	52.2%	74.3%	53.4%	54.4%	69.0%	54.8%	53.1%	59.8%
Oregon Total	0.2%	1.7%	1.9%	2.2%	1.7%	1.9%	0.3%	0.5%	1.4%
Washington Total	34.5%	44.3%	21.8%	42.2%	41.2%	26.2%	44.9%	46.3%	37.0%
All Other States Total	1.8%	1.9%	2.1%	2.1%	2.7%	2.9%	0.1%	0.0%	1.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

* Excludes vessels that exclusively fished halibut and/or sablefish

** Communities combined due to data confidentiality restrictions (see note on previous table)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

2.4 GOA GROUND FISH VESSELS AND AMENDMENT 80, AFA, AND ROCKFISH PROGRAM STATUS DESIGNATIONS

- **Table 7a** provides information on the Amendment 80, American Fisheries Act (AFA), and rockfish program status of GOA groundfish vessels for 2010 as well as by annual average 2003-2010 by community in Alaska and for the states of Alaska, Washington, and Oregon, as well as all other states combined. Inclusion of vessels in one or more of these classes would likely reduce the vulnerability of individual vessels to adverse impacts to halibut PSC reductions as through co-op or other internal vessel class compensation mechanisms and/or separate accounting of PSC thresholds unique to that vessel class (thereby insulating these vessels somewhat from adverse consequences of actions of vessels outside of their restricted class over which they have very little influence or control). **Table 7b** provides parallel information by percentage of fleet as opposed to vessel count. As shown in the tables, Alaska ownership of the vessels qualified for one or more of these classes is virtually restricted to Kodiak:
 - No Amendment 80 class vessels were owned by residents of any Alaska community in 2010, and the minimal Alaska ownership of Amendment 80 class vessels was restricted exclusively to Kodiak in the period 2003-2010 (annual average of 0.5 vessels).
 - No AFA class vessels were owned by residents of any Alaska community outside of Kodiak in 2010; outside of Kodiak there was no Alaska resident ownership of any AFA class vessels in the period 2003-2010 except for minimal Anchorage resident ownership (annual average of 0.4 vessels).
 - No rockfish program class vessels were owned by residents of any Alaska community outside of Kodiak in 2010, except for one vessel with Sand Point ownership; outside of Kodiak and Sand Point there was no Alaska resident ownership of any rockfish program class vessels in the period 2003-2010 except for minimal Anchorage resident ownership (annual average of 0.4 vessels).

Table 7a. Total GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Status Designations, by Community of Vessel Owner, 2010 and Annual Average 2003-2010 (number of vessels)*

Geography	2010							Annual Average 2003-2010						
	Total Vessels	Amendment 80		AFA		Rockfish Program		Total Vessels	Amendment 80		AFA		Rockfish Program	
		No	Yes	No	Yes	No	Yes		No	Yes	No	Yes	No	Yes
Anchorage	9	9	0	9	0	9	0	11.4	11.4	0.0	11.0	0.4	11.0	0.4
Chignik Lagoon	5	5	0	5	0	5	0	7.3	7.3	0.0	7.3	0.0	7.3	0.0
Homer	52	52	0	52	0	52	0	48.4	48.4	0.0	48.4	0.0	48.4	0.0
Juneau	3	3	0	3	0	3	0	8.5	8.5	0.0	8.5	0.0	8.5	0.0
King Cove	16	16	0	16	0	16	0	15.3	15.3	0.0	15.3	0.0	15.3	0.0
Kodiak	121	121	0	116	5	109	12	137.6	137.1	0.5	132.6	5.0	125.3	12.4
Petersburg	6	6	0	6	0	6	0	9.4	9.4	0.0	9.4	0.0	9.4	0.0
Sand Point	38	38	0	38	0	37	1	36.4	36.4	0.0	36.4	0.0	35.5	0.9
Sitka	3	3	0	3	0	3	0	34.8	34.8	0.0	34.8	0.0	34.8	0.0
All Other Alaska	54	54	0	54	0	54	0	73.3	73.3	0.0	73.3	0.0	73.3	0.0
Alaska Total	307	307	0	302	5	294	13	382.3	381.8	0.5	376.9	5.4	368.6	13.6
Oregon Total	21	21	0	12	9	10	11	27.1	27.1	0.0	17.0	10.1	14.4	12.8
Washington Total	71	55	16	61	10	53	18	89.5	74.0	15.5	79.4	10.1	70.5	19.0
All Other States Total	6	5	1	6	0	6	0	10.6	10.0	0.6	10.6	0.0	10.0	0.6
Total	405	388	17	381	24	363	42	509.5	492.9	16.6	483.9	25.6	463.5	46.0

* Excludes vessels that exclusively fished halibut and/or sablefish

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 7b. Total GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Status Designations, by Community of Vessel Owner, 2010 and Annual Average 2003-2010 (percentage of vessels)*

Geography	2010							Annual Average 2003-2010						
	Total Vessels	Amendment 80		AFA		Rockfish Program		Total Vessels	Amendment 80		AFA		Rockfish Program	
		No	Yes	No	Yes	No	Yes		No	Yes	No	Yes	No	Yes
Anchorage	2.2%	2.3%	0.0%	2.4%	0.0%	2.5%	0.0%	2.2%	2.3%	0.0%	2.3%	1.5%	2.4%	0.8%
Chignik Lagoon	1.2%	1.3%	0.0%	1.3%	0.0%	1.4%	0.0%	1.4%	1.5%	0.0%	1.5%	0.0%	1.6%	0.0%
Homer	12.8%	13.4%	0.0%	13.6%	0.0%	14.3%	0.0%	9.5%	9.8%	0.0%	10.0%	0.0%	10.4%	0.0%
Juneau	0.7%	0.8%	0.0%	0.8%	0.0%	0.8%	0.0%	1.7%	1.7%	0.0%	1.8%	0.0%	1.8%	0.0%
King Cove	4.0%	4.1%	0.0%	4.2%	0.0%	4.4%	0.0%	3.0%	3.1%	0.0%	3.2%	0.0%	3.3%	0.0%
Kodiak	29.9%	31.2%	0.0%	30.4%	20.8%	30.0%	28.6%	27.0%	27.8%	3.0%	27.4%	19.5%	27.0%	26.9%
Petersburg	1.5%	1.5%	0.0%	1.6%	0.0%	1.7%	0.0%	1.8%	1.9%	0.0%	1.9%	0.0%	2.0%	0.0%
Sand Point	9.4%	9.8%	0.0%	10.0%	0.0%	10.2%	2.4%	7.1%	7.4%	0.0%	7.5%	0.0%	7.7%	1.9%
Sitka	0.7%	0.8%	0.0%	0.8%	0.0%	0.8%	0.0%	6.8%	7.1%	0.0%	7.2%	0.0%	7.5%	0.0%
All Other Alaska	13.3%	13.9%	0.0%	14.2%	0.0%	14.9%	0.0%	14.4%	14.9%	0.0%	15.1%	0.0%	15.8%	0.0%
Alaska Total	75.8%	79.1%	0.0%	79.3%	20.8%	81.0%	31.0%	75.0%	77.5%	3.0%	77.9%	21.0%	79.5%	29.6%
Oregon Total	5.2%	5.4%	0.0%	3.1%	37.5%	2.8%	26.2%	5.3%	5.5%	0.0%	3.5%	39.5%	3.1%	27.7%
Washington Total	17.5%	14.2%	94.1%	16.0%	41.7%	14.6%	42.9%	17.6%	15.0%	93.2%	16.4%	39.5%	15.2%	41.3%
All Other States Total	1.5%	1.3%	5.9%	1.6%	0.0%	1.7%	0.0%	2.1%	2.0%	3.8%	2.2%	0.0%	2.2%	1.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

* Excludes vessels that exclusively fished halibut and/or sablefish

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

2.5 GOA COMMERCIAL HALIBUT FISHERY PARTICIPATION, AREAS 2C, 3A, 3B, AND 4A

- **Table 8a** provides information on the distribution of commercial halibut quota share (QS) holders under the halibut Individual Fishing Quota (IFQ) program in areas 2C, 3A, 3B, and 4A¹⁵ combined in each of the profiled Alaska communities as well as all other Alaska communities combined, along with the total number of QS holders from the states of Alaska, Oregon, and Washington, as well as all other states combined. **Table 8b** provides parallel information, but expressed in terms of percentages rather than as absolute numbers of QS holders. As shown, halibut QS holders are largely concentrated in Alaska, but these holders are widely distributed among many communities, with approximately 36.5 percent of Alaska holders of halibut QS in these areas residing outside of the nine communities included in the set of community profiles.
- **Table 9a** provides information on the distribution of commercial halibut QS units in areas 2C, 3A, 3B, and 4A combined held by residents in each of the profiled Alaska communities as well as all other Alaska communities combined, along with the total number of QS units held by residents of the states of Alaska, Oregon, and Washington, as well as all other states combined. **Table 9b** provides parallel information, but expressed in terms of percentages rather than as absolute numbers of QS units held. As shown, halibut QS units ownership is largely concentrated in Alaska (but not as concentrated as the count of quota holders), but these QS units are widely distributed among many communities, with approximately 20 percent of halibut QS units held by Alaska residents being held by residents of communities other than those nine communities profiled.

¹⁵ For this analysis, for the sake of completeness, Area 4A, typically considered outside of the GOA for fishery management purposes, was added to this communities analysis due to geographic overlap with the Western Gulf groundfish management area, the potential spillover of beneficial impacts into the only immediately adjacent region in U.S. federal waters, and an overlap of permits held by residents of at least some communities relevant to this analysis. See Section 4.5.2 for more detail by individual halibut management area.

**Table 8a. Commercial Halibut QS Holders for Areas 2C, 3A, 3B, and 4A
(combined), by Community, 2003-2011 (number of holders)**

Geography	2003	2004	2005	2006	2007	2008	2009	2010	2011	Average 2003-2011
Anchorage	162	147	136	134	121	112	109	103	105	125.4
Chignik Lagoon	6	6	6	6	6	6	6	5	5	5.7
Homer	236	229	217	220	207	195	192	195	195	209.6
Juneau	155	153	150	148	137	128	124	120	116	136.8
King Cove	14	14	14	13	14	15	14	15	15	14.2
Kodiak	250	236	233	233	234	229	218	215	217	229.4
Petersburg	221	219	216	221	218	211	206	205	205	213.6
Sand Point	43	42	40	36	32	36	35	35	34	37.0
Sitka	289	272	265	269	252	247	245	239	238	257.3
All Other Alaska	1,241	1,192	1,160	1,137	1,052	976	955	912	894	1,057.7
Alaska Total	2,617	2,510	2,437	2,417	2,273	2,155	2,104	2,044	2,024	2,286.8
Oregon Total	113	105	98	100	96	98	94	90	89	98.1
Washington Total	403	395	387	382	373	345	335	328	327	363.9
All Other States Total	159	165	174	159	147	129	138	134	131	148.4
Total	3,292	3,175	3,096	3,058	2,889	2,727	2,671	2,596	2,571	2,897.2

Source: NMFS 2011a

**Table 8b. Commercial Halibut QS Holders for Areas 2C, 3A, 3B, and 4A
(combined), by Community, 2003-2011 (percentage of holders)**

Geography	2003	2004	2005	2006	2007	2008	2009	2010	2011	Average 2003-2011
Anchorage	4.9%	4.6%	4.4%	4.4%	4.2%	4.1%	4.1%	4.0%	4.1%	4.3%
Chignik Lagoon	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Homer	7.2%	7.2%	7.0%	7.2%	7.2%	7.2%	7.2%	7.5%	7.6%	7.2%
Juneau	4.7%	4.8%	4.8%	4.8%	4.7%	4.7%	4.6%	4.6%	4.5%	4.7%
King Cove	0.4%	0.4%	0.5%	0.4%	0.5%	0.6%	0.5%	0.6%	0.6%	0.5%
Kodiak	7.6%	7.4%	7.5%	7.6%	8.1%	8.4%	8.2%	8.3%	8.4%	7.9%
Petersburg	6.7%	6.9%	7.0%	7.2%	7.5%	7.7%	7.7%	7.9%	8.0%	7.4%
Sand Point	1.3%	1.3%	1.3%	1.2%	1.1%	1.3%	1.3%	1.3%	1.3%	1.3%
Sitka	8.8%	8.6%	8.6%	8.8%	8.7%	9.1%	9.2%	9.2%	9.3%	8.9%
All Other Alaska	37.7%	37.5%	37.5%	37.2%	36.4%	35.8%	35.8%	35.1%	34.8%	36.5%
Alaska Total	79.5%	79.1%	78.7%	79.0%	78.7%	79.0%	78.8%	78.7%	78.7%	78.9%
Oregon Total	3.4%	3.3%	3.2%	3.3%	3.3%	3.6%	3.5%	3.5%	3.5%	3.4%
Washington Total	12.2%	12.4%	12.5%	12.5%	12.9%	12.7%	12.5%	12.6%	12.7%	12.6%
All Other States Total	4.8%	5.2%	5.6%	5.2%	5.1%	4.7%	5.2%	5.2%	5.1%	5.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: NMFS 2011a

**Table 9a. Commercial Halibut QS Units for Areas 2C, 3A, 3B, and 4A
(combined) Held by Community Residents, 2003-2011 (number of units)**

Geography	2003	2004	2005	2006	2007	2008	2009	2010	2011	Average 2003-2011
Anchorage	8,684,849	8,447,984	7,999,720	7,918,436	8,329,226	7,357,127	7,572,940	8,423,324	8,652,785	8,154,043
Chignik Lagoon	428,943	392,851	392,851	392,851	392,851	392,851	392,851	387,433	387,433	395,657
Homer	21,772,761	21,403,372	20,698,378	22,281,409	20,716,057	20,672,105	21,023,767	21,954,425	22,346,839	21,429,901
Juneau	9,375,059	9,244,723	8,890,389	8,094,560	7,913,661	7,908,122	7,649,686	7,791,549	8,117,609	8,331,706
King Cove	852,368	845,245	869,253	866,747	857,192	938,698	857,192	952,665	952,665	888,003
Kodiak	42,986,119	42,676,706	44,804,214	46,624,100	46,147,519	47,863,610	45,787,086	44,648,349	45,299,706	45,204,157
Petersburg	27,457,426	28,553,882	28,881,417	28,578,119	28,315,131	29,595,674	29,383,793	29,408,656	28,094,106	28,696,467
Sand Point	2,791,611	2,783,956	2,612,005	2,105,001	1,849,800	2,343,555	2,460,922	2,465,946	2,439,468	2,428,029
Sitka	18,371,437	17,637,444	17,648,647	17,980,536	17,012,947	17,608,895	18,741,246	18,348,526	18,157,357	17,945,226
All Other Alaska	61,278,690	61,044,726	61,104,768	61,523,362	61,943,767	61,711,638	62,831,647	62,626,605	62,634,429	61,855,515
Alaska Total	193,999,263	193,030,889	193,901,642	196,365,121	193,478,151	196,392,275	196,701,130	197,007,478	197,082,397	195,328,705
Oregon Total	24,362,461	23,552,738	21,669,730	20,777,350	20,856,434	18,127,629	16,896,844	19,061,497	18,462,034	20,418,524
Washington Total	79,169,550	80,674,959	80,030,851	78,420,900	80,627,557	79,602,757	78,753,333	76,851,525	77,459,736	79,065,685
All Other States Total	15,746,558	16,034,189	17,710,563	17,690,258	18,291,487	19,130,968	20,902,322	20,047,224	20,249,462	18,422,559
Total	313,277,832	313,292,775	313,312,786	313,253,629	313,253,629	313,253,629	313,253,629	312,967,724	313,253,629	313,235,474

Source: NMFS 2011a

**Table 9b. Commercial Halibut QS Units for Areas 2C, 3A, 3B, and 4A
(combined) Held by Community Residents, 2003-2011 (percentage of units)**

Geography	2003	2004	2005	2006	2007	2008	2009	2010	2011	Average 2003-2011
Anchorage	2.8%	2.7%	2.6%	2.5%	2.7%	2.3%	2.4%	2.7%	2.8%	2.6%
Chignik Lagoon	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Homer	6.9%	6.8%	6.6%	7.1%	6.6%	6.6%	6.7%	7.0%	7.1%	6.8%
Juneau	3.0%	3.0%	2.8%	2.6%	2.5%	2.5%	2.4%	2.5%	2.6%	2.7%
King Cove	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Kodiak	13.7%	13.6%	14.3%	14.9%	14.7%	15.3%	14.6%	14.3%	14.5%	14.4%
Petersburg	8.8%	9.1%	9.2%	9.1%	9.0%	9.4%	9.4%	9.4%	9.0%	9.2%
Sand Point	0.9%	0.9%	0.8%	0.7%	0.6%	0.7%	0.8%	0.8%	0.8%	0.8%
Sitka	5.9%	5.6%	5.6%	5.7%	5.4%	5.6%	6.0%	5.9%	5.8%	5.7%
All Other Alaska	19.6%	19.5%	19.5%	19.6%	19.8%	19.7%	20.1%	20.0%	20.0%	19.7%
Alaska Total	61.9%	61.6%	61.9%	62.7%	61.8%	62.7%	62.8%	62.9%	62.9%	62.4%
Oregon Total	7.8%	7.5%	6.9%	6.6%	6.7%	5.8%	5.4%	6.1%	5.9%	6.5%
Washington Total	25.3%	25.8%	25.5%	25.0%	25.7%	25.4%	25.1%	24.6%	24.7%	25.2%
All Other States Total	5.0%	5.1%	5.7%	5.6%	5.8%	6.1%	6.7%	6.4%	6.5%	5.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: NMFS 2011a

2.6 SHORE-BASED PROCESSORS IN ALASKA ACCEPTING GOA GROUND FISH DELIVERIES

- **Table 10a** provides information on the distribution of shore-based processors in Alaska communities that accepted trawl caught GOA groundfish deliveries in the period 2003-2010 (with the list of communities specifically called out limited to the communities otherwise selected for community profile characterization, plus Akutan, Cordova, Seward, and Unalaska/Dutch Harbor as these five communities had at least one shore-based processor accepting deliveries of GOA groundfish caught by any gear type in each year during the period 2003-2010). For the purposes of this analysis, shore-based GOA groundfish processors are defined as those shore-based entities (as identified by F_ID [intent to operate] and SBPR [shore-based processor] codes in AKFIN [Alaska Fisheries Information Network] data) accepting catcher (or catcher processor) class vessel GOA groundfish deliveries, excluding halibut and/or sablefish. **Table 10b** provides information on the first wholesale gross revenues from trawl caught GOA groundfish deliveries by community and year (2003-2010) to the extent possible within data confidentiality restrictions. As shown, only information for Kodiak can be disclosed on an individual community basis. **Table 10c** provides parallel information expressed as percentages of total first wholesale gross revenues rather than as absolute dollars. As shown, Kodiak accounts for about 75 percent of the total first wholesale gross revenues from deliveries of trawl caught GOA groundfish to shore-based plants in all of Alaska.
- **Table 11a** provides information on the distribution of shore-based processors in Alaska communities that accepted hook-and-line caught GOA groundfish deliveries in the period 2003-2010 (with the list of communities specifically called out being the same as specified under the trawl delivery description). **Table 11b** provides information on the first wholesale gross revenues from hook-and-line caught GOA groundfish deliveries by community and year (2003-2010) to the extent possible within data confidentiality restrictions. As shown, only information for Kodiak can be disclosed on an individual community basis. **Table 11c** provides parallel information expressed as percentages of total first wholesale gross revenues rather than as absolute dollars. Kodiak accounts for about 84 percent of the total first wholesale gross revenues from deliveries of hook-and-line caught GOA groundfish to shore-based plants in all of Alaska.
- **Table 12a** provides information on the distribution of shore-based processors in Alaska communities that accepted trawl caught and/or hook-and-line caught GOA groundfish deliveries in the period 2003-2010 (with the list of communities specifically called out being the same as specified under the trawl delivery description). **Table 12b** provides information on the first wholesale gross revenues from trawl caught and/or hook-and-line caught GOA groundfish deliveries by community and year (2003-2010) to the extent possible within data confidentiality restrictions. As shown, only information for Kodiak can be disclosed on an individual community basis. **Table 12c** provides parallel information expressed as percentages of total first wholesale gross revenues rather than as absolute dollars. As shown, Kodiak accounts for about 76 percent of the total first wholesale gross revenues from deliveries of trawl caught and/or hook-and-line caught GOA groundfish to shore-based plants in all of Alaska.

- These three sets of shore-based GOA groundfish processor tables provide a relatively complete picture of the distribution of GOA groundfish processing among Alaska communities. Of the four communities not profiled but listed in these tables, Akutan, located on Akutan Island on the Aleutian Chain, is incorporated as a Second Class City within the Aleutians East Borough; Cordova, located at the southeastern end of Prince William Sound, is incorporated as a Home Rule City and is outside of any organized borough; Seward, located on Resurrection Bay on the eastern coast of the Kenai Peninsula, is incorporated as a Home Rule City within the Kenai Peninsula Borough; and Unalaska/Dutch Harbor, located on Unalaska and Amaknak Islands in the Aleutian Chain, is incorporated as a First Class City and is outside of any organized borough. Both Akutan and Unalaska/Dutch Harbor are major processing ports on the Bering Sea but do not receive landings from at least some GOA fisheries as well. Only one other community, not listed in the tables, had any deliveries of GOA groundfish at all in 2010 (Yakutat, incorporated as the City and Borough of Yakutat, a Home Rule Borough, is located on the GOA mainland coast approximately 225 miles northwest of Juneau in Southeast Alaska). In all, the only Alaska communities with any level of GOA groundfish processing activity associated with trawl caught and/or hook-and-line caught deliveries during 2003-2010 and not listed on the tables were:
 - Chignik – located on the south shore of the Alaska Peninsula; incorporated as a Second Class City within the Lake and Peninsula Borough (one processor in 2003 [only])
 - Haines – located on the mainland in Southeast Alaska; an unincorporated community within the Haines Borough (one processor 2003-2005 [only])
 - Hoonah – located on Chichagof Island in Southeast Alaska; incorporated as a First Class City outside of any organized borough (one processor 2003-2007 [only])
 - Kenai – located on the western shore of the Kenai Peninsula; incorporated as a Home Rule City within the Kenai Peninsula Borough (two processors 2003-2004; one processor 2005-2007; no processors in 2008-2010)
 - Ketchikan – (two processors 2003-2005 [only])
 - Ninilchik – located on the western shore of the Kenai Peninsula; unincorporated community within the Kenai Peninsula Borough (one processor 2003-2006 [only])
 - Pelican – located on Chichagof Island in Southeast Alaska; incorporated as a First Class City outside of any organized borough (one processor in 2003 [only])
 - Valdez – located on Prince William Sound; incorporated as a Home Rule City outside of any organized borough (one processor 2004-2006 [only])
 - Wrangell – located on Wrangell Island in Southeast Alaska; incorporated as the City and Borough of Wrangell, a Unified Home Rule Borough (two processors in 2003; one processor 2004-2006; no processors 2007-2010)
 - Yakutat – one processor in 2003, 2006, 2008, and 2010; no processors 2004-2005, 2007, and 2009

Table 10a. Shore-based Processors in Alaska Accepting GOA Groundfish Trawl Caught Deliveries by Community, 2003-2010*

Community	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Akutan	1	1	1	1	1	1	1	1	1.0
Anchorage	0	0	0	0	0	0	0	0	0.0
Chignik Lagoon	0	0	0	0	0	0	0	0	0.0
Cordova	0	0	0	0	0	0	0	0	0.0
Homer	0	0	0	0	0	0	0	0	0.0
Juneau	0	0	0	0	0	0	0	0	0.0
King Cove	1	1	1	1	1	1	1	1	1.0
Kodiak	6	8	7	8	9	9	9	9	8.1
Petersburg	0	0	0	0	0	0	0	0	0.0
Sand Point	1	1	1	1	1	1	1	1	1.0
Seward	0	1	1	0	0	0	0	1	0.4
Sitka	0	0	0	0	0	0	0	0	0.0
Unalaska/Dutch Harbor	1	2	1	1	1	1	1	1	1.1
All Other	2	0	0	1	0	0	0	0	0.4
Total	12	14	12	13	13	13	13	14	13.0

*Catcher vessel (or catcher-processor) class vessel deliveries, excluding halibut and sablefish, to shore-based processors (as identified by F ID and SBPR codes in AKFIN data)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 10b. First Wholesale Gross Revenues from GOA Groundfish Trawl Caught Deliveries to Shore-based Processors in Alaska by Community, 2003–2010 (dollars)*

Community	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	\$57,807,680	\$60,181,541	\$72,723,970	\$85,632,828	\$85,391,073	\$100,205,026	\$57,207,154	\$85,520,235	\$75,583,688
All Other	\$15,000,272	\$19,367,007	\$32,320,138	\$35,403,434	\$29,113,909	\$30,758,269	\$14,759,684	\$27,624,492	\$25,543,401
Total	\$72,807,952	\$79,548,547	\$105,044,108	\$121,036,262	\$114,504,982	\$130,963,295	\$71,966,838	\$113,144,728	\$101,127,089

*Catcher vessel (or catcher-processor) class vessel deliveries, excluding halibut and sablefish, to shore-based processors (as identified by F ID and SBPR codes in AKFIN data)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 10c. First Wholesale Gross Revenues from GOA Groundfish Trawl Caught Deliveries to Shore-based Processors in Alaska by Community, 2003–2010 (percentage)*

Community	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	79.4%	75.7%	69.2%	70.7%	74.6%	76.5%	79.5%	75.6%	74.7%
All Other	20.6%	24.3%	30.8%	29.3%	25.4%	23.5%	20.5%	24.4%	25.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Catcher vessel (or catcher-processor) class vessel deliveries, excluding halibut and sablefish, to shore-based processors (as identified by F ID and SBPR codes in AKFIN data)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 11a. Shore-based Processors in Alaska Accepting GOA Groundfish Hook-and-Line Caught Deliveries by Community, 2003-2010*

Community	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Akutan	1	0	1	0	1	1	1	1	0.8
Anchorage	1	1	0	2	0	0	1	1	0.8
Chignik Lagoon	0	0	0	0	0	0	0	0	0.0
Cordova	2	2	1	2	3	2	2	2	2.0
Homer	1	1	1	2	1	2	1	1	1.3
Juneau	2	1	1	2	0	0	0	0	0.8
King Cove	0	0	1	1	0	1	1	1	0.6
Kodiak	8	8	8	8	8	7	8	9	8.0
Petersburg	2	2	1	2	1	0	0	0	1.0
Sand Point	1	1	1	1	1	1	1	1	1.0
Seward	1	2	1	1	2	3	3	1	1.8
Sitka	3	4	3	2	2	2	1	1	2.3
Unalaska/Dutch Harbor	3	1	3	3	3	2	1	0	2.0
All Other	12	9	8	6	2	1	0	1	4.9
Total	37	32	30	32	24	22	20	19	27.0

*Catcher vessel (or catcher-processor) class vessel deliveries, excluding halibut and sablefish, to shore-based processors (as identified by F ID and SBPR codes in AKFIN data)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 11b. First Wholesale Gross Revenues from GOA Groundfish Hook-and-Line Caught Deliveries to Shore-based Processors in Alaska by Community, 2003-2010 (dollars)*

Community	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	\$5,137,919	\$6,925,228	\$5,911,224	\$12,705,559	\$12,324,342	\$11,994,995	\$6,515,894	\$6,691,552	\$8,525,839
All Other	\$258,409	\$394,950	\$612,717	\$346,190	\$1,081,707	\$2,042,379	\$4,248,010	\$3,781,709	\$1,595,759
Total	\$5,396,328	\$7,320,178	\$6,523,942	\$13,051,749	\$13,406,049	\$14,037,374	\$10,763,904	\$10,473,261	\$10,121,598

*Catcher vessel (or catcher-processor) class vessel deliveries, excluding halibut and sablefish, to shore-based processors (as identified by F ID and SBPR codes in AKFIN data)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 11c. First Wholesale Gross Revenues from GOA Groundfish Hook-and-Line Caught Deliveries to Shore-based Processors in Alaska by Community, 2003-2010 (percentage)*

Community	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	95.2%	94.6%	90.6%	97.3%	91.9%	85.5%	60.5%	63.9%	84.2%
All Other	4.8%	5.4%	9.4%	2.7%	8.1%	14.5%	39.5%	36.1%	15.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Catcher vessel (or catcher-processor) class vessel deliveries, excluding halibut and sablefish, to shore-based processors (as identified by F ID and SBPR codes in AKFIN data)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 12a. Shore-based Processors in Alaska Accepting GOA Groundfish Trawl and/or Hook-and-Line Caught Deliveries by Community, 2003-2010*

Community	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Akutan	1	1	1	1	1	1	1	1	1.0
Anchorage	1	1	0	2	0	0	1	1	0.8
Chignik Lagoon	0	0	0	0	0	0	0	0	0.0
Cordova	2	2	1	2	3	2	2	2	2.0
Homer	1	1	1	2	1	2	1	1	1.3
Juneau	2	1	1	2	0	0	0	0	0.8
King Cove	1	1	1	1	1	1	1	1	1.0
Kodiak	8	8	9	8	9	9	9	9	8.6
Petersburg	2	2	1	2	1	0	0	0	1.0
Sand Point	1	1	1	1	1	1	1	1	1.0
Seward	1	2	2	1	2	3	3	1	1.9
Sitka	3	4	3	2	2	2	1	1	2.3
Unalaska/Dutch Harbor	4	2	4	4	4	3	2	1	3.0
All Other	12	9	8	6	2	1	0	1	5.0
Total	39	35	33	34	27	25	22	20	29.5

*Catcher vessel (or catcher-processor) class vessel deliveries, excluding halibut and sablefish, to shore-based processors (as identified by F ID and SBPR codes in AKFIN data)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 12b. First Wholesale Gross Revenues from GOA Groundfish Trawl and Hook-and-Line Caught Deliveries to Shore-based Processors in Alaska by Community, 2003-2010 (dollars)*

Community	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	\$62,945,599	\$67,106,768	\$78,635,194	\$98,338,387	\$97,715,415	\$112,200,021	\$63,723,048	\$92,211,787	\$84,109,527
All Other	\$15,258,682	\$19,761,957	\$32,932,856	\$35,749,624	\$30,195,616	\$32,800,647	\$19,007,694	\$31,406,202	\$27,139,160
Total	\$78,204,281	\$86,868,725	\$111,568,050	\$134,088,011	\$127,911,031	\$145,000,668	\$82,730,742	\$123,617,989	\$111,248,687

*Catcher vessel (or catcher-processor) class vessel deliveries, excluding halibut and sablefish, to shore-based processors (as identified by F ID and SBPR codes in AKFIN data)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 12c. First Wholesale Gross Revenues from GOA Groundfish Trawl and Hook-and-Line Caught Deliveries to Shore-based Processors in Alaska by Community, 2003-2010 (percentage)*

Community	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	80.5%	77.3%	70.5%	73.3%	76.4%	77.4%	77.0%	74.6%	75.6%
All Other	19.5%	22.7%	29.5%	26.7%	23.6%	22.6%	23.0%	25.4%	24.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Catcher vessel (or catcher-processor) class vessel deliveries, excluding halibut and sablefish, to shore-based processors (as identified by F ID and SBPR codes in AKFIN data)

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

2.7 GOA HALIBUT SPORT HARVEST

- Table 13a** provides information on the number of sport charter halibut permit holders, permits by area (2C and 3A¹⁶), and total permits held by community for 2012 for each of the Alaska communities chosen for community profile characterization and all other Alaska communities combined, as well as totals for the states of Alaska, Oregon, and Washington, and a total for all other states combined. As suggested by the large number of permit holders who are residents of “all other” Alaska communities (and the large number of permits held by those holders), halibut sport charter permits are widely held across a number of Alaska communities (61 total in 2012), although there is not an insignificant number of permit holders in any of the listed communities except for Chignik Lagoon, King Cove, and Sand Point (none of which had any residents who were permit holders).
- Table 13b** provides information on sport halibut harvest for areas 2C and 3A, by charter and non-charter vessels, in terms of the number of fish harvested, the average weight per fish, and the total yield (millions of pounds of halibut), for each year 2003-2010 and the annual averages 2003-2010 for each of those variables. Figure 2 provides a graphic representation of sport charter and non-charter harvest by subarea within areas 2C and 3A for 2007-2010 as well as an annual average for those years for an easy comparison of the size of the yield for charter and non-charter catch within any particular subarea as well as between subareas.

Table 13a. Sport Charter Halibut Fishing Permits, Areas 2C and 3A, 2012

Geography	Individual Permit Holders	Permits by Area		Total Permits Held
		2C	3A	
Anchorage	38	0	56	56
Chignik Lagoon	0	0	0	0
Homer	56	0	66	66
Juneau	19	22	1	23
Kodiak	42	0	70	70
King Cove	0	0	0	0
Petersburg	13	17	0	17
Sand Point	0	0	0	0
Sitka	65	140	2	142
All Other Alaska	295	307	269	576
Alaska Total	528	486	464	950
Oregon	7	8	2	10
Washington	24	36	10	46
All Other States	37	44	21	65
Total	596	574	497	1,071

Source: NMFS 2012b

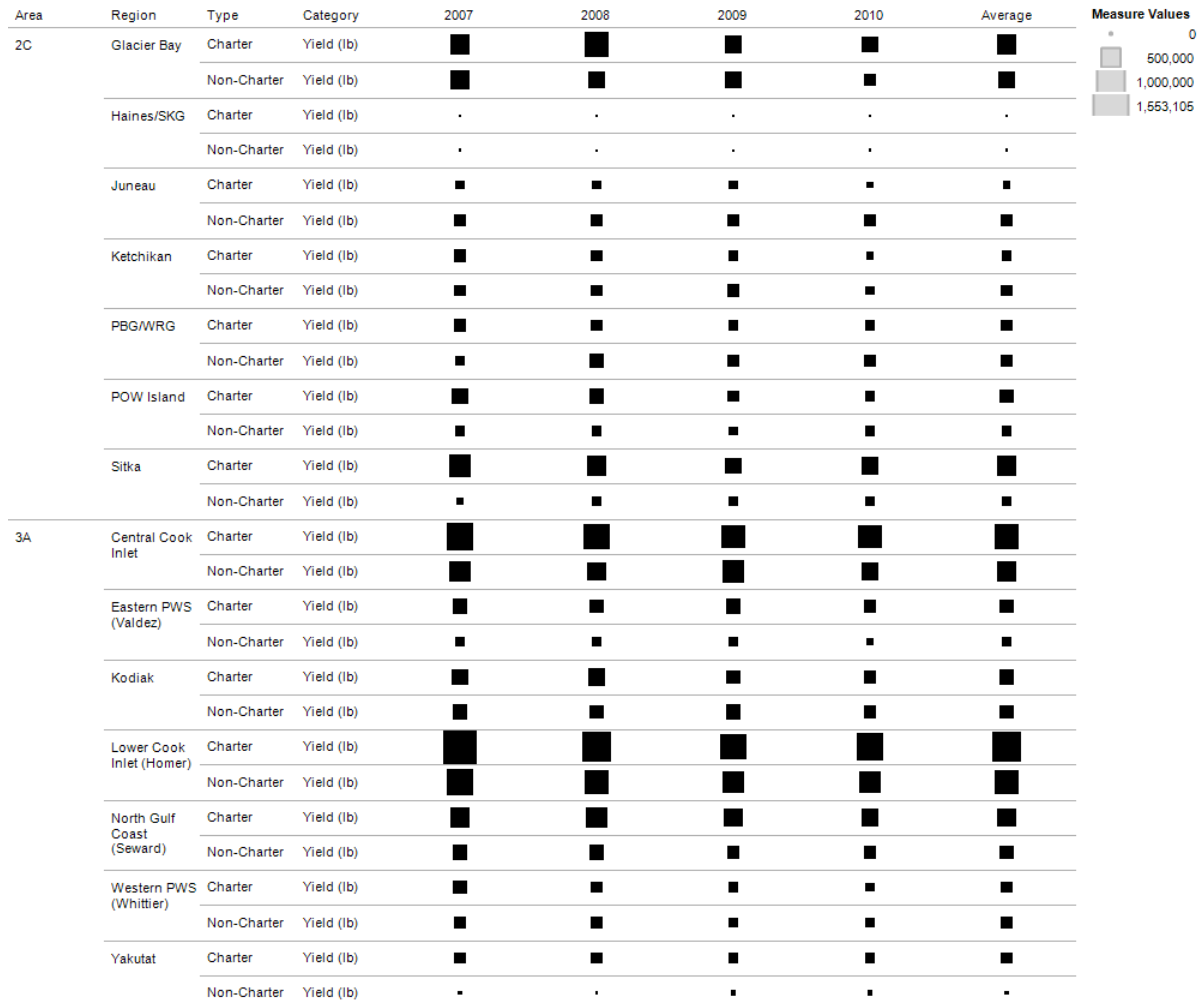
¹⁶ Area 3B does not have a developed sport charter halibut sector, at least in part due to the relative remoteness of the communities in the area as tourism destinations; all sport charter halibut discussions in this community analysis therefore focus exclusively on areas 2C and 3A.

Table 13b. Sport Harvest by Region: Number of Halibut Caught, Average Weight, and Total Poundage (millions of lbs), Charter and Non-Charter Vessels, 2003-2010

Area	Type of Vessel		2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
2C	Charter	Number of Fish	73,784	84,327	102,206	90,471	109,835	102,965	53,602	41,202	82,299
		Avg Weight per Fish (lbs)	19.1	20.7	19.1	19.9	17.5	19.4	23.3	26.4	20.7
		Yield (millions of lbs)	1.412	1.75	1.952	1.804	1.918	1.999	1.249	1.086	1.646
	Non-Charter	Number of Fish	45,697	62,986	60,364	50,520	68,498	66,296	65,549	52,896	59,101
		Avg Weight per Fish (lbs)	18.5	18.8	14	14.3	16.5	19.1	17.3	16.7	16.9
		Yield (millions of lbs)	0.846	1.187	0.845	0.723	1.131	1.265	1.133	0.885	1.002
3A	Charter	Number of Fish	163,629	197,208	206,902	204,115	236,133	198,108	167,599	177,460	193,894
		Avg Weight per Fish (lbs)	20.7	18.6	17.8	17.9	16.9	17	16.3	15.2	17.6
		Yield (millions of lbs)	3.382	3.668	3.689	3.664	4.002	3.378	2.734	2.698	3.402
	Non-Charter	Number of Fish	118,004	134,960	127,086	114,887	166,338	145,286	150,205	124,088	135,107
		Avg Weight per Fish (lbs)	17.3	14.4	15.6	14.6	13.7	13.4	13.5	12.8	14.4
		Yield (millions of lbs)	2.046	1.937	1.984	1.674	2.281	1.942	2.023	1.587	1.934
Total	Charter	Number of Fish	237,413	281,535	309,108	294,586	345,968	301,073	221,201	218,662	276,193
		Avg Weight per Fish (lbs)	20.2	19.2	18.2	18.6	17.1	17.9	18.0	17.3	18.3
		Yield (millions of lbs)	4.794	5.418	5.641	5.468	5.920	5.377	3.983	3.784	5.048
	Non-Charter	Number of Fish	163,701	197,946	187,450	165,407	234,836	211,582	215,754	176,984	194,208
		Avg Weight per Fish (lbs)	17.7	15.8	15.1	14.5	14.5	15.2	14.6	14.0	15.2
		Yield (millions of lbs)	2.892	3.124	2.829	2.397	3.412	3.207	3.156	2.472	2.936

Source: Alaska Department of Fish and Game 2011

Figure 2. Sport Halibut Charter and Non-Charter Harvest by Area and Community: Total Yield (lbs), 2007-2010



Source: NMFS. 2012a. Sport Halibut Management; Guided Sport Halibut: ADF&G Charter Halibut Harvest Data 2007-2010. <http://www.fakr.noaa.gov/sustainablefisheries/halibut/sport.htm>

2.8 SUBSISTENCE HALIBUT HARVEST

- Table 14a** provides information on subsistence halibut harvest by community, in terms of the number of subsistence fishermen, the number of fish harvested, and the total pounds of halibut caught for each year 2003-2010 and the annual averages 2003-2010 for each of those variables. **Table 14b** provides parallel information, but on a percentage rather than an absolute count basis. As suggested by the large number of subsistence fishermen who are residents of “all other” Alaska communities and the large number of fish and pounds of halibut harvested by these fishermen (typically between two-thirds and three-quarters of the state totals for each of the three variables in any given year), halibut subsistence activity is widespread among numerous Alaska communities, although there is neither an insignificant number of subsistence fishermen nor an insignificant volume of subsistence halibut caught in at least some of the individually listed communities.

Table 14a. Estimated Number of Halibut Subsistence Fishermen, Number of Halibut Caught, and Poundage Caught, by Alaska Community, 2003-2010 (numbers, pounds)

Community		2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	Number of subsistence fishermen	37	46	39	49	62	48	52	47	47.5
	Number of halibut caught	465	967	666	696	695	324	618	524	619.4
	Pounds of halibut caught	11,206	25,239	15,474	16,854	13,619	7,692	12,991	13,545	14,577.5
Chignik Lagoon	Number of subsistence fishermen	28	34	30	28	22	12	9	6	21.1
	Number of halibut caught	176	160	226	329	219	81	75	61	165.9
	Pounds of halibut caught	2,921	3,326	4,971	6,694	4,269	1,859	2,233	1,138	3,426.4
Homer	Number of subsistence fishermen	7	10	11	15	7	20	19	11	12.5
	Number of halibut caught	74	132	108	80	36	163	479	183	156.9
	Pounds of halibut caught	1,455	1,134	1,770	820	462	1,948	7,561	1,984	2,141.8
Juneau	Number of subsistence fishermen	88	97	102	89	106	80	82	92	92.0
	Number of halibut caught	726	761	1,179	863	1,090	870	842	988	914.9
	Pounds of halibut caught	14,884	14,328	26,475	15,954	17,657	15,388	12,689	15,054	16,553.6
King Cove	Number of subsistence fishermen	23	26	31	38	27	43	50	49	35.9
	Number of halibut caught	399	355	330	458	310	382	328	510	384.0
	Pounds of halibut caught	7,857	9,022	8,432	8,017	5,978	7,319	5,995	7,871	7,561.4
Kodiak	Number of subsistence fishermen	646	802	871	961	945	963	923	900	876.4
	Number of halibut caught	6,526	8,359	10,694	8,750	9,381	9,366	9,346	8,445	8,858.4
	Pounds of halibut caught	153,254	187,214	210,828	205,822	193,633	177,334	177,769	164,092	183,743.3
Petersburg	Number of subsistence fishermen	415	482	436	426	386	393	418	409	420.6
	Number of halibut caught	2,975	3,727	3,305	3,084	2,902	2,841	2,816	2,817	3,058.4
	Pounds of halibut caught	55,718	71,784	61,372	53,682	47,517	46,600	46,766	47,266	53,838.1
Sand Point	Number of subsistence fishermen	21	109	100	133	136	130	70	61	95.0
	Number of halibut caught	225	561	1,356	914	1,364	1,510	654	559	892.9
	Pounds of halibut caught	4,819	11,355	21,901	20,214	24,615	25,013	11,759	7,306	15,872.8
Sitka	Number of subsistence fishermen	821	904	814	915	921	845	844	755	852.4
	Number of halibut caught	6,621	6,588	6,062	6,691	6,304	5,513	4,834	3,951	5,820.5
	Pounds of halibut caught	174,880	166,474	146,319	163,372	142,049	109,581	97,424	82,728	135,353.4
All Other	Number of subsistence fishermen	2,846	3,474	3,187	3,255	3,321	2,769	2,823	2,652	3,040.9
	Number of halibut caught	25,737	30,802	31,949	32,224	31,396	27,554	25,421	25,274	28,794.6
	Pounds of halibut caught	614,328	703,286	680,680	633,883	582,494	494,254	485,647	455,973	581,318.1
Alaska Total	Number of subsistence fishermen	4,932	5,984	5,621	5,909	5,933	5,303	5,290	4,982	5,494.3
	Number of halibut caught	43,924	52,412	55,875	54,089	53,697	48,604	45,413	43,312	49,665.8
	Pounds of halibut caught	1,041,322	1,193,162	1,178,222	1,125,312	1,032,293	886,988	860,834	796,957	1,014,386.3

Source: NMFS 2011b,c

Table 14b. Estimated Number of Halibut Subsistence Fishers, Number of Halibut Caught, and Poundage Caught, by Alaska Community, 2003-2010 (percentages)

Community		2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	Number of subsistence fishermen	0.8%	0.8%	0.7%	0.8%	1.0%	0.9%	1.0%	0.9%	0.9%
	Number of halibut caught	1.1%	1.8%	1.2%	1.3%	1.3%	0.7%	1.4%	1.2%	1.2%
	Pounds of halibut caught	1.1%	2.1%	1.3%	1.5%	1.3%	0.9%	1.5%	1.7%	1.4%
Chignik Lagoon	Number of subsistence fishermen	0.6%	0.6%	0.5%	0.5%	0.4%	0.2%	0.2%	0.1%	0.4%
	Number of halibut caught	0.4%	0.3%	0.4%	0.6%	0.4%	0.2%	0.2%	0.1%	0.3%
	Pounds of halibut caught	0.3%	0.3%	0.4%	0.6%	0.4%	0.2%	0.3%	0.1%	0.3%
Homer	Number of subsistence fishermen	0.1%	0.2%	0.2%	0.3%	0.1%	0.4%	0.4%	0.2%	0.2%
	Number of halibut caught	0.2%	0.3%	0.2%	0.1%	0.1%	0.3%	1.1%	0.4%	0.3%
	Pounds of halibut caught	0.1%	0.1%	0.2%	0.1%	0.0%	0.2%	0.9%	0.2%	0.2%
Juneau	Number of subsistence fishermen	1.8%	1.6%	1.8%	1.5%	1.8%	1.5%	1.6%	1.8%	1.7%
	Number of halibut caught	1.7%	1.5%	2.1%	1.6%	2.0%	1.8%	1.9%	2.3%	1.8%
	Pounds of halibut caught	1.4%	1.2%	2.2%	1.4%	1.7%	1.7%	1.5%	1.9%	1.6%
King Cove	Number of subsistence fishermen	0.5%	0.4%	0.6%	0.6%	0.5%	0.8%	0.9%	1.0%	0.7%
	Number of halibut caught	0.9%	0.7%	0.6%	0.8%	0.6%	0.8%	0.7%	1.2%	0.8%
	Pounds of halibut caught	0.8%	0.8%	0.7%	0.7%	0.6%	0.8%	0.7%	1.0%	0.7%
Kodiak	Number of subsistence fishermen	13.1%	13.4%	15.5%	16.3%	15.9%	18.2%	17.4%	18.1%	16.0%
	Number of halibut caught	14.9%	15.9%	19.1%	16.2%	17.5%	19.3%	20.6%	19.5%	17.8%
	Pounds of halibut caught	14.7%	15.7%	17.9%	18.3%	18.8%	20.0%	20.7%	20.6%	18.1%
Petersburg	Number of subsistence fishermen	8.4%	8.1%	7.8%	7.2%	6.5%	7.4%	7.9%	8.2%	7.7%
	Number of halibut caught	6.8%	7.1%	5.9%	5.7%	5.4%	5.8%	6.2%	6.5%	6.2%
	Pounds of halibut caught	5.4%	6.0%	5.2%	4.8%	4.6%	5.3%	5.4%	5.9%	5.3%
Sand Point	Number of subsistence fishermen	0.4%	1.8%	1.8%	2.3%	2.3%	2.5%	1.3%	1.2%	1.7%
	Number of halibut caught	0.5%	1.1%	2.4%	1.7%	2.5%	3.1%	1.4%	1.3%	1.8%
	Pounds of halibut caught	0.5%	1.0%	1.9%	1.8%	2.4%	2.8%	1.4%	0.9%	1.6%
Sitka	Number of subsistence fishermen	16.6%	15.1%	14.5%	15.5%	15.5%	15.9%	16.0%	15.2%	15.5%
	Number of halibut caught	15.1%	12.6%	10.8%	12.4%	11.7%	11.3%	10.6%	9.1%	11.7%
	Pounds of halibut caught	16.8%	14.0%	12.4%	14.5%	13.8%	12.4%	11.3%	10.4%	13.3%
All Other	Number of subsistence fishermen	57.7%	58.1%	56.7%	55.1%	56.0%	52.2%	53.4%	53.2%	55.3%
	Number of halibut caught	58.6%	58.8%	57.2%	59.6%	58.5%	56.7%	56.0%	58.4%	58.0%
	Pounds of halibut caught	59.0%	58.9%	57.8%	56.3%	56.4%	55.7%	56.4%	57.2%	57.3%
Alaska Total	Number of subsistence fishermen	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Number of halibut caught	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Pounds of halibut caught	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: NMFS 2011b,c

SECTION 3.0

COMMUNITY PROFILES AND THE LOCAL CONTEXT OF POTENTIAL IMPACTS OF GOA HALIBUT PSC REVISIONS

Detailed information on the range of GOA groundfish fishing communities relevant to the proposed action may be found in a number of other groundfish-related documents, including the *Alaska Groundfish Fisheries Final Programmatic Supplemental Environmental Impact Statement* (NMFS 2004) and *Sector and Regional Profiles of the North Pacific Groundfish Fishery* (Northern Economics and EDAW 2001), and in a technical paper (Downs 2003) supporting the *Final Environmental Impact Statement for Essential Fish Habitat Identification and Conservation in Alaska* (NMFS 2005) as well as that Environmental Impact Statement itself. These sources also include specific characterizations of the degree of individual community and regional engagement in, and dependency upon, the North Pacific groundfish fishery. For this analysis, these documents, as well as other NPFMC-related documents concerning other fisheries but containing detailed community profile information for a number of the GOA groundfish-related communities, are incorporated by reference, including the *Five-Year Review of the Crab Rationalization Management Program for Bering Sea and Aleutian Islands Crab Fisheries – Appendix A: Social Impact Assessment* (AECOM 2010); *Comprehensive Baseline Commercial Fishing Community Profiles: Unalaska, Akutan, King Cove, and Kodiak, Alaska – Final Report* (EDAW 2005); and *Comprehensive Baseline Commercial Fishing Community Profiles: Sand Point, Adak, St. Paul and St. George, Alaska – Final Report* (EDAW 2008). Additionally, *Community Profiles for North Pacific Fisheries – Alaska* (Sepez et al. 2005) was used in framing the summary community profiles presented here.

In general, the fishing communities that are expected to be potentially directly and adversely affected by the proposed action alternatives are those GOA groundfish communities where potentially affected vessel owners reside; where vessels make deliveries to shore-based processors and generate associated economic activities and public revenues, including those derived from landing or severance taxes; where vessel support services are provided; where vessels are otherwise located or homeported during the year and generate some level of related economic activity; and where skippers and crew reside. Community-level information for some of these potential data categories, however, is not available or is too inconsistently collected to be useful for multi-community analyses. Information on vessel homeport (or the meaning of homeport designations for given vessels), for example, is known to be inconsistent enough for homeport designation to be of little utility as an indicator of location of vessel-associated economic activity in general; direct information on the location of vessel purchases of support services specifically is not readily available. Information on the community of long-term residence of vessel skippers and crew and processing crew that work aboard the potentially affected vessels or in the shore-based processors active in the GOA groundfish fisheries is not readily available. Information developed for other recent analyses, however, suggests that, generally, companies operating vessels in the GOA groundfish trawl and hook-and-line sectors tend to recruit crew from many locations, depending on the specific location of vessel ownership, homeport, and/or the scale and scope of vessel operations. Different shore-based processors

use a combination of local and regional or national hiring that varies based on the location of the processing plant; the processing season and combination of species processed; and individual operational characteristics, including the size of plant operations, the mix of product forms produced, and the scale of the operating company. To the extent that these types of information are available for the individual communities profiled, a summary of these types of data is included in the community profiles below.

In terms of public revenues specifically, an analysis of taxes generated by GOA groundfish fisheries (see Section 4.6.9 of the Regulatory Impact Review [RIR] within the body of the main document to which this community analysis is an appendix) suggests that, at the Alaska statewide level, groundfish taxes foregone at the 5 percent and 10 percent PSC reduction levels would be more than offset by resulting gains in halibut taxes, while at the 15 percent PSC reduction level, groundfish taxes foregone would exceed gains in halibut taxes. However, it is important to note that net gains at the 5 and 10 percent PSC reduction levels would be only approximately \$30,000 and \$42,000, respectively, and net losses at the 15 percent PSC reduction level would be only approximately \$25,000, amounts that are not significant at the statewide level. Due to data confidentiality restrictions, potential impacts to municipality-/borough-imposed raw fish taxes cannot be disclosed for any Alaska community except Kodiak, but it is known that the greatest potential for impacts would occur in Kodiak. Potential public revenue impacts to Kodiak itself are discussed in some detail in the Kodiak community profile below but are not considered likely to be significant.

In general, it is not possible to quantitatively differentiate potential impacts of the different halibut PSC reduction alternatives on an individual community basis. Taken from a community perspective, however, qualitative analysis of the alternatives inherent in the following profiles suggests that, while impacts may be noticeable at the individual operation level for at least a few vessels and/or a few shore-based processors (and potentially at the individual operation level for at least a few local support service providers for those vessels and/or processors), the impacts at the community level for any of the involved fishing communities would likely be less than significant as gauged through the use of existing data. The sustained participation of these fishing communities would not be put at risk by any of the alternative halibut PSC modifications being considered.

The following sections provide a community-by-community characterization of the local community context of GOA groundfish fishery participation as well as participation in GOA halibut commercial, sport, and subsistence fisheries for those communities.

3.1 ANCHORAGE

3.1.1 Location

The City of Anchorage is located between the two northern arms of the Cook Inlet and is considered the primary urban center of the state. Anchorage, a Unified Home Rule Municipality, also encompasses the nearby communities of Girdwood and Eagle River, which are located on the Turnagain Arm and the southern shore of the Knik Arm, respectively. Anchorage is connected to the Alaska state highway and

railway systems, and thus is accessible by road and rail as well as by air and water (Sepez et al. 2005:167, 169). Anchorage is adjacent to the Central Gulf FMP area and halibut regulatory area 3A (Figure 1).

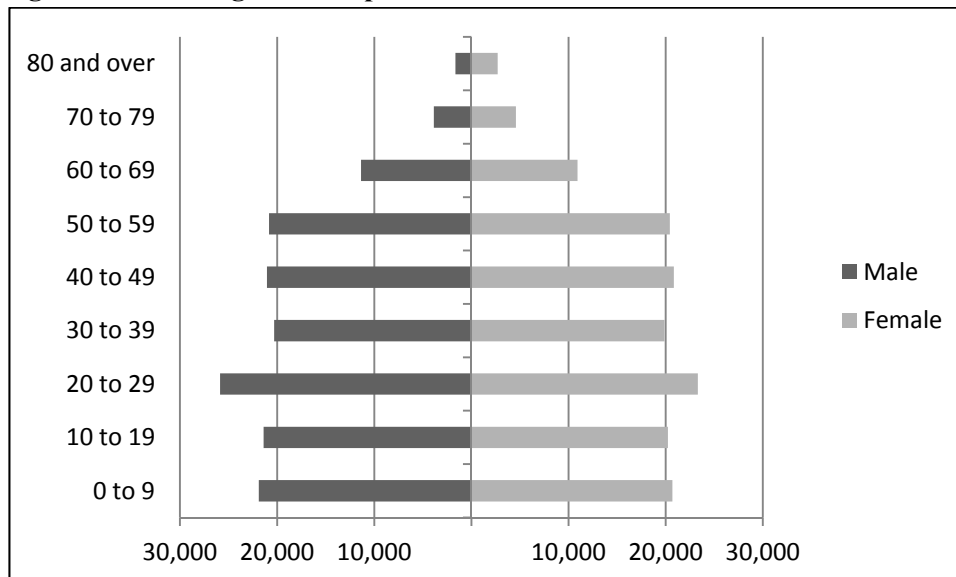
3.1.2 History

Anchorage is located in what traditionally was an Athabascan area, as coastal Athabascans once lived along the shores of the Cook Inlet. Anchorage began as a staging area for gold miners in 1887 and in 1922. The community was incorporated as a city in 1920 and experienced an increase in development during World War II and the Cold War due to its strategic position to Japan and the Soviet Union, respectively. A massive earthquake damaged much of Anchorage in 1964, but the city was ultimately rebuilt and grew as a result of development associated with the oil and gas industry (Sepez et al. 2005:168–169).

3.1.3 Community Demographics

According to U.S. Census figures from 2010, a total of 290,826 people reside in Anchorage and its neighboring communities. The gender composition of the municipality was relatively balanced, as demonstrated in Figure 3, and the largest cohort of residents consisted of individuals aged 20 to 29. Anchorage is more similar to state and national averages than are a number of the smaller fishing communities profiled in this section that feature relatively greater male populations typically associated with seafood processing and/or other industrial enclave type of development.

Figure 3. Anchorage 2010 Population Structure

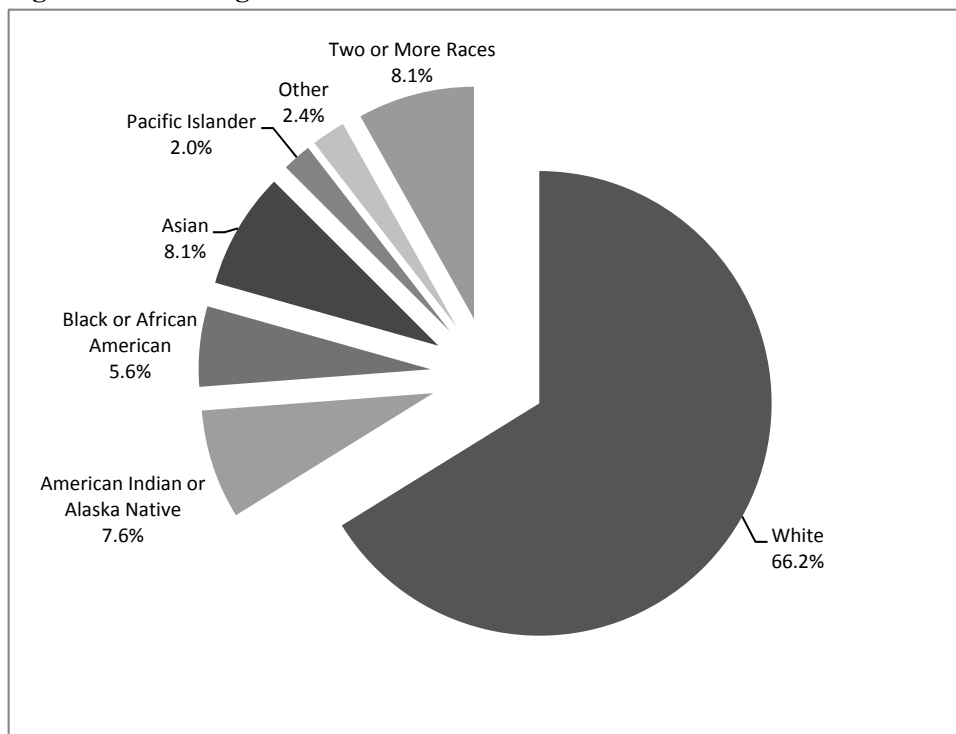


Source: U.S. Census 2011

Census figures from 2010 show that 66.0 percent of the residents of Anchorage identified themselves as White, 7.9 percent as American Indian or Alaska Native, 5.6 percent as Black/African American, 8.1

percent as Asian, 2.0 percent as Pacific Islander, and 10.4 percent as “some other race” or “two or more races.” Finally, 7.6 percent of the residents of any race in Anchorage identified themselves as Hispanic. Based on race and ethnicity combined, 37.4 percent of Anchorage’s total population was composed of minority residents (that is, all residents other than those identified as White/non-Hispanic [race/ethnicity]). Figure 4 provides a graphical representation of the racial structure of Anchorage in 2010 (DCED 2011a). In general, compared to a number of the smaller fishing communities profiled in this section, Anchorage’s population is diverse but has a relatively small Alaska Native population segment, typically associated with historically Alaska Native communities, as well as a relatively small Asian/Pacific Islander/Other population segment often associated with seafood processing operations that draw a proportionately large number of workers from a non-local labor pool.

Figure 4. Anchorage 2010 Racial Structure



Source: DCED 2011a

Housing data from the U.S. Census, as shown in Table 15, indicate that 97.1 percent of all Anchorage residents lived in non-group quarters housing, with total housing units in Anchorage numbering 113,032. Of those housing units, approximately 95.0 percent were occupied. Family households number 70,544, with an average household size of 1.6 persons. The proportionally few residents living in group quarters differentiates Anchorage from a number of the smaller fishing communities profiled in this section that typically have substantial numbers of relatively transient residents living in group housing associated with larger seafood processing operations.

Table 15. Anchorage 2010 Housing Information

Total Population	290,826	100%
Living in Non-Group Quarters	282,376	97.1%
Living in Group Quarters	8,450	2.9%
Total Housing Units	113,032	100%
Occupied Housing (Households)	107,332	95.0%
Vacant Housing	5,700	5.0%
Family Households	70,544	65.7%
Average Household Size	1.60	na

na = not applicable
Source: DCED 2011a

3.1.4 Local Economy

As discussed by Sepez et al. (2005:169), Anchorage is the primary commercial center for the state. As such, oil and gas industries, finance and real estate, transportation, communications, and government agencies are headquartered in Anchorage. Tourism plays an important role in the Anchorage economy, as many hotels, inns, and lodges offer accommodations throughout the city. According to the local chamber of commerce, many visitors rent recreational vehicles to see the state and use Anchorage as a “base” (ACOC 2011).

Seasonal fluctuations affect employment rates, but the latest estimates based on the 2005-2009 U.S. Census American Community Survey suggest that 140,992 people were employed in Anchorage, with an unemployment rate of 7.3 percent. Per capita income for people in Anchorage was estimated at \$33,436, median household income was \$70,151, and median family income was \$81,348. An estimated 7.8 percent of Anchorage’s residents were considered low-income, defined as those individuals living below the poverty threshold (DCED 2011b). As shown in Table 16, the economy of Anchorage is relatively diversified, with the top occupations in retail, office administration (likely related to the large number of government entities headquartered there), and food service. The top employers include those related to government, as well as a major local hospital and university campus.

Table 16. Anchorage Top Five Occupations and Employers

Occupations	
1	Retail Salespersons
2	Cashiers
3	Office and Administrative Support Workers
4	Office Clerks
5	Food Preparation and Serving Workers
Employers	
1	Anchorage School District
2	State of Alaska
3	Providence Hospital
4	Municipality of Anchorage
5	University of Alaska Anchorage

Source: ADOLWD 2011a

3.1.5 Commercial Fishery Engagement

3.1.5.1 Overview

As discussed by Sepez et al. (2005:170), the municipality of Anchorage is an important city for commercial fishing for a variety of reasons:

- Anchorage has its own coastal character and fishing grounds (Cook Inlet).
- Anchorage is a regional commercial port of the entire state.
- A concentration of resources, facilities, population, and transportation has converted Anchorage into a nexus for the fish processing industry.
- A wide variety of support services are offered.

Anchorage is the primary distribution center for the state, with the Port of Anchorage terminal berths handling approximately 85 percent of the general cargo for the Alaska Railbelt area (Sepez et al. 2005:170). As the primary commercial center, support services for commercial fishing vessels are varied and include hardware stores, mechanics, and other repair facilities—typically outfitted with machinery not found in more rural Alaskan communities.

3.1.5.2 Harvest Sector

General. From 2003 through 2010, the number of commercial fishing vessels in Anchorage has varied from 821 (in 2003) to 323 (in 2009). In 2010, the number of commercial fishing vessels was 359, with 1,038 registered crew members (CFEC 2011a, b).

In terms of fisheries of direct importance to Anchorage, halibut and salmon have had the most permits issued in recent years, with 109 and 641, respectively. The groundfish, herring, and crab fisheries are also important fisheries to Anchorage. The groundfish permits issued recently were concentrated in fixed gear (Sepez et al. 2005:170–172).

GOA Groundfish Trawl. Only one Anchorage resident-owned GOA groundfish trawl vessel was present in the data from 2003 through 2005, with none present from 2006 through 2010, for an average of less than one Anchorage resident-owned vessel per year over the period 2003-2010 (Table 1a), accounting only 1.1 percent of the total GOA groundfish trawl fleet at most during any year in this period (Table 1b).¹⁷ Confidentiality restrictions do not allow for a disclosure of exvessel gross revenues for these vessels, so these data are grouped with “all other Alaska” communities in the data reporting (Table 2a and Table 2b). Similarly, confidentiality restrictions do not allow for an Anchorage resident vessel owner-specific disclosure of halibut mortality, so these data are grouped in the “all other Alaska” communities in

¹⁷ No Anchorage GOA groundfish trawl vessels also fished hook-and-line gear in the GOA groundfish fisheries during the period 2003-2010.

the data reporting (Table 5a and Table 5b). The one Anchorage resident-owned GOA groundfish trawl vessel shown in the dataset for the years 2003-2010 fished in both the shallow- and deep-water complexes. No Anchorage residents were shown in the dataset as having owned GOA groundfish trawl catcher processors during the period 2003-2010.

GOA Groundfish Hook-and-Line. Anchorage resident-owned GOA groundfish hook-and-line vessels¹⁸ ranged from 16 (2004) to 8 (2007) between the years 2003 and 2010, with an average of 11.0 Anchorage resident-owned vessels per year during this period (Table 3a), accounting for 3.5 percent of the total GOA groundfish hook-and-line fleet at most during any year in this period (Table 3b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 was \$557,052, with the highest value occurring in 2008 at \$1,181,021 (Table 4a). In terms of the entire GOA groundfish hook-and-line fleet, Anchorage resident-owned vessels represent an average of 1.7 percent of total GOA groundfish fleet exvessel gross revenues (Table 4b). Halibut mortality was also relatively low for GOA groundfish hook-and-line Anchorage resident-owned vessels, with an average of 0.8 tons per year (Table 6a), representing 0.3 percent of the total average (Table 6b). Of the Anchorage resident-owned hook-and-line vessels shown in the dataset for the years 2003-2010, for any one year, a maximum of two vessels participated in the Southeast Outside Demersal Shelf Rockfish (DSR) fishery, while a maximum of 15 vessels participated in federally managed groundfish species fisheries other than DSR (classed as “other” in the dataset, which excludes sablefish as that fishery is exempt from halibut PSC modifications being considered). No Anchorage residents were shown in the dataset as having owned GOA groundfish hook-and-line catcher processors during the period 2003-2010.

GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Designations. No Anchorage resident-owned GOA groundfish vessels were part of the Amendment 80, AFA, or Rockfish program classes of vessels in 2010, the most recent year for which data are available (Table 7a), although there was at least some Anchorage resident-owned vessel participation in the AFA and Rockfish program classes during the overall period 2003-2010 (Table 7b).

GOA Commercial Halibut. The annual average number of commercial GOA halibut QS holders in Anchorage between 2003 and 2011 was 125.4; the highest number of individual QS holders occurred in 2003, with 162, but the number steadily decreased until 2010, when the number of individual QS holders was 103 (Table 8a). In 2011, the number of individual Anchorage resident GOA halibut QS holders was 105, which represented 4.1 percent of all GOA halibut QS holders (Table 8b). The amount of QS units held by these individuals (Table 9a) was slightly less in terms of percentage, however, at 2.8 percent of all GOA halibut QS units held in 2011 (Table 9b). While the number of Anchorage residents holding GOA halibut QS has decreased since 2003, the absolute number and percentage of QS units held by Anchorage residents has changed relatively little since 2003.

¹⁸ Consistent with the methodology described in the previous section, this category of vessel in the Anchorage and other community profiles excludes vessels that exclusively fished halibut and/or sablefish (because those fisheries are not regulated under the PSC modifications being considered) and includes any community resident-owned hook-and-line catcher processors (for the sake of more data completeness than would otherwise be possible due to data confidentiality restrictions).

3.1.5.3 Processing Sector

General. According to records from 2003, a total of 11 processing plants were present in Anchorage: Alaskan Sausage, Alaska Sea Pack, 10th & M Seafoods, Sockeye Alaska, Alaskan Smoked Salmon, Favco Inc., Great Pacific Seafood, Sagaya Wholesale, Samer-I Seafoods, Teddys Tasty Meals, and Yamaha Seafoods. However, the quantity of landings in Anchorage is relatively small due to fish regularly landed closer to the fishing grounds and transported to Anchorage for processing (Sepez et al. 2005:172).

GOA Groundfish Processing. No shore-based processors¹⁹ in Anchorage received trawl caught deliveries of GOA groundfish from 2003 through 2010 (Table 10a); thus no first wholesale gross revenues are available on a community basis or aggregated basis (Table 10b and Table 10c). Only one shore-based processor in Anchorage received hook-and-line caught GOA groundfish deliveries in 2009 and 2010 (Copper River Fine Seafoods Inc.), with no shore-based processors receiving deliveries of hook-and-line caught GOA groundfish in 2007 or 2008 (Table 11a). Due to confidentiality restrictions, the first wholesale gross revenues from hook-and-line caught GOA groundfish delivered to shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 11b and Table 11c). The annual average number of shore-based processors in Anchorage receiving any GOA groundfish caught by trawl and hook-and-line gear combined from 2003 through 2010 was 0.8 (Table 12a). Due to confidentiality restrictions, the first wholesale gross revenues from GOA groundfish caught by trawl and hook-and-line gear combined delivered to shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 12b and Table 12c).

GOA Halibut Processing. Anchorage shore-based processors were generally more active with regard to processing halibut, with one processor receiving halibut deliveries in 2009 and 2010, and two processors receiving deliveries in 2006 and 2008. These processing entities include Copper River Fine Seafoods Inc. and Favco Inc. In 2010, Copper River Fine Seafoods Inc. represented 2.5 percent of the total number of shore-based processors that received halibut deliveries in Alaska.

3.1.6 GOA Halibut Sportfishing

Anchorage residents held 56 sport charter fishing permits in 2012. All permits were in Area 3A and were held by 38 individual permit holders (Table 13a). Estimates of catch statistics for charter sportfishing for Anchorage residents specifically were not readily available, but overall statistics for Area 3A suggest that an annual average of 193,894 halibut were caught between 2003 and 2010, with the largest number of halibut caught in 2007 (236,133). The average weight per fish has declined since 2003, when it was 20.7 pounds, to 15.2 pounds in 2010. In 2010, the estimated yield of halibut in Area 3A was 2.7 million pounds, well below the average of 3.4 million pounds for the years 2003 through 2010 (Table 13b). The

¹⁹ Consistent with the methodology described in the previous section, GOA groundfish shore-based processors in the Anchorage and other community profiles are defined as processing operations that are identified by F_ID (Intent to Operate) and SBPR codes in the AKFIN data and that accepted catcher vessel (or catcher processor) class deliveries of GOA groundfish, excluding halibut and sablefish during the 2003-2010 time period.

Central Cook Inlet was one of the most productive areas in terms of total yield for the years 2007 through 2010 for charter sportfishing, with only the Lower Cook Inlet (Homer) exhibiting higher estimated total yields in Area 3A (Figure 2).

Estimates for non-charter sportfishing in Area 3A as a whole were similar, with the largest number of fish caught and the highest yield both in 2007 (166,338 and 2.3 million pounds, respectively). Average weight for non-charter halibut has declined since 2003, when it was 17.3 pounds, to 12.8 pounds in 2010. In 2010, the estimated yield of halibut in Area 3A was 1.59 million pounds, which was down from the average of 1.93 million pounds for the years 2003 through 2010 (Table 13b). The Central Cook Inlet was also one of the most productive areas in terms of total yield for the years 2007 through 2010 for non-charter sportfishing, with only the Lower Cook Inlet (Homer) exhibiting higher estimated total yields in Area 3A (Figure 2).

3.1.7 GOA Halibut Subsistence

The number of subsistence halibut fishermen in Anchorage was relatively small compared to the overall population. For example, in 2010, an estimated 47 subsistence fishermen (representing 0.02 percent of the total community population based on 2010 population numbers) caught halibut (Table 14a). Over the period 2003-2010, the largest number of subsistence fishermen occurred in 2007 (62), while the smallest number of fishermen occurred in 2003 (37). The number of halibut caught from 2003 through 2010 ranged from 324 (in 2008) to 967 (in 2004), with an annual average of 619 caught over this period. The annual average number of pounds caught between 2003 and 2010 was 14,577.5, which represented 1.4 percent of the total average number of pounds caught in Alaska for that time span (Table 14b).

3.2 CHIGNIK LAGOON

3.2.1 Location

Chignik Lagoon is located in southwest Alaska on the Alaskan Peninsula. Chignik Lagoon is located west of Chignik Bay, approximately 460 miles southwest of Anchorage. Chignik Lagoon is an unincorporated community in the Lake and Peninsula Borough and is accessible only by air and by water. The community is adjacent to the Central Gulf FMP (Chirikof District) and halibut regulatory area 3B.

3.2.2 History

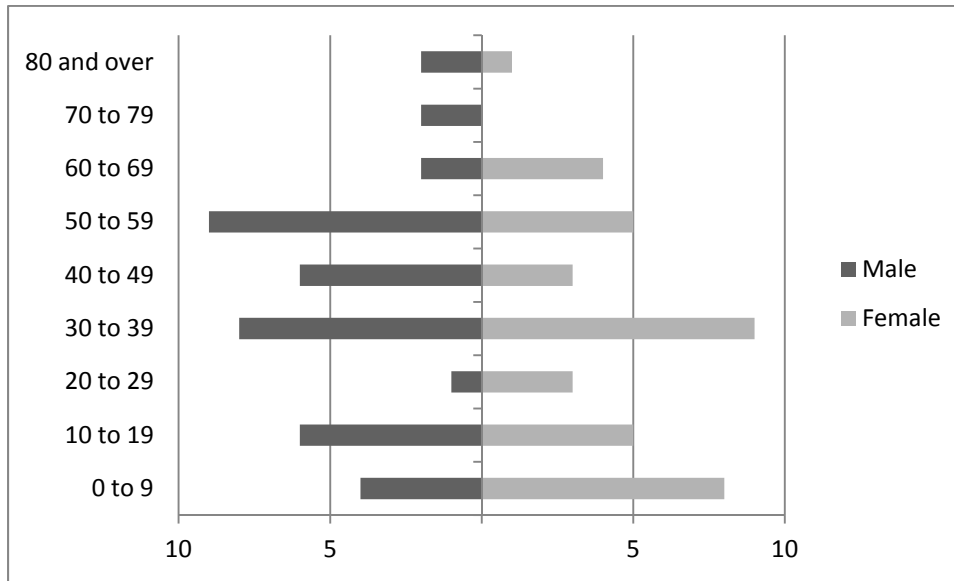
The Chignik Lagoon area has been the site of settlements for over 2,000 years, originally populated by the Kaniagmuit. The Russian post-contact era in this vicinity, however, included disease, warfare, and ultimately the destruction of a Kaniagmuit village. After the “golden age” of the fur trade, sea mammal populations were decimated and the Alaska Native population had been reduced to half its original number. Russian and Scandinavian fishermen then began to settle in the area, populating the nearby communities of Chignik (Chignik Bay) and Chignik Lake. In its present configuration, Chignik Lagoon is

a relatively new community, first appearing on U.S. Census records in the 1960s. It has since become a summer camp for hundreds of fishermen (Sepez et al. 2005:305–306).

3.2.3 Community Demographics

According to U.S. Census figures from 2010, a total of 78 people reside in Chignik Lagoon. There were proportionately more males in the population, as demonstrated in Figure 5, with the largest cohort of residents consisting of individuals aged 30 to 39. The gender composition of Chignik Lagoon varies from the state and national averages as it is influenced by the local fishing industry, which can draw people to the community seasonally, as well as the relatively small population, which can skew quantitative comparisons.

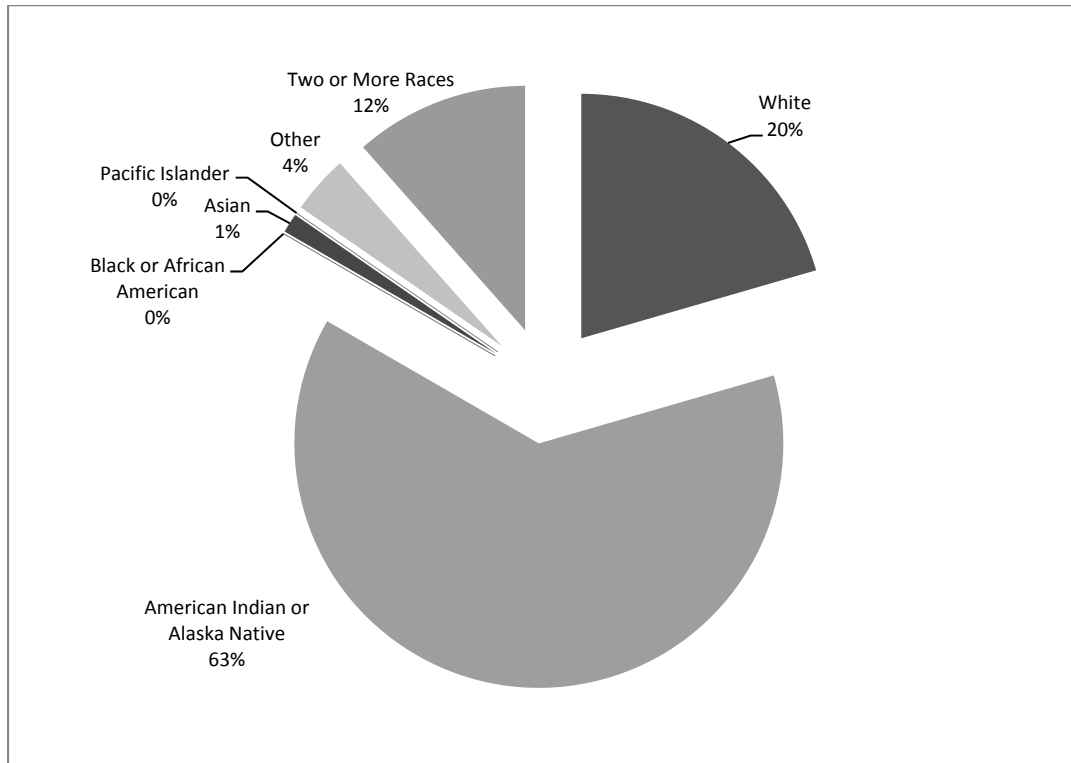
Figure 5. Chignik Lagoon 2010 Population Structure



Source: U.S. Census 2011

Census figures from 2010 show that 20.5 percent of the residents of Chignik Lagoon identified themselves as White, while the largest racial group was American Indian or Alaska Native at 62.8 percent. Approximately 1.3 percent identified themselves as Asian, and 15.3 percent as “some other race” or “two or more races,” with no residents identifying themselves as Black/African American or Pacific Islander. Finally, 3.9 percent of the residents of any race in Chignik Lagoon identified themselves as Hispanic. Based on race and ethnicity combined, 79.5 percent of Chignik Lagoon’s total population was composed of minority residents (that is, all residents other than those identified as White/non-Hispanic [race/ethnicity]). Figure 6 provides a graphical representation of the racial structure of Chignik Lagoon in 2010 (DCED 2011c). In general, Chignik Lagoon’s population is typical of a historic Alaska Native community, with a relatively large Alaska Native population segment. In contrast to a number of other communities profiled in this document, there is no large Asian/Pacific Islander/Other population segment emblematic of larger seafood processing operations.

Figure 6. Chignik Lagoon 2010 Racial Structure



Source: DCED 2011c

Housing data from the U.S. Census, as shown in Table 17, indicate that 100.0 percent of the residents in Chignik Lagoon lived in non-group quarters housing, with total housing units in the community numbering 66. Of those housing units, approximately 43.9 percent were occupied. Family households number 23, with an average household size of 2.69 persons. The lack of any population in group quarters housing and a large proportion of vacant housing are both consistent with the understanding that the population of the community fluctuates seasonally based on fishing vessel (and not fish processing) activity, although a core population lives in Chignik Lagoon throughout the year.

Table 17. Chignik Lagoon 2010 Housing Information

Total Population	78	100%
Living in Non-Group Quarters	78	100%
Living in Group Quarters	0	0%
Total Housing Units	66	100%
Occupied Housing (Households)	29	43.9%
Vacant Housing	37	56.1%
Family Households	23	79.3%
Average Household Size	2.69	na

na = not applicable
Source: DCED 2011c

3.2.4 Local Economy

As discussed by Sepez et al. (2005:306), Chignik Lagoon's economy is tied to commercial fishing, particularly the salmon fishery, with a larger community cluster economy encompassing nearby Chignik and Chignik Lake. There is processing activity in this larger combined area, but processing employment is highly seasonal and year-round employment is primarily associated with the local government. Chignik Lagoon is a member community of a Community Development Quota (CDQ) group, the Bristol Bay Economic Development Corporation.

As fishing seasons cycle through the year, local employment rates fluctuate. The latest employment estimates based on the 2005-2009 U.S. Census American Community Survey suggest that 23 people were employed in Chignik Lagoon, with zero unemployment. Per capita income for people in Chignik Lagoon was estimated at \$35,853, median household income was \$76,875, and median family income was \$76,458. No residents of Chignik Lagoon were considered low-income, defined as those individuals living below the poverty threshold (DCED 2011d). As shown in Table 18, the economy of Chignik Lagoon is dominated by government, with both top occupations related to governmental entities (including the school). The top employers include the school district, the village council, and the Native Village of Chignik Lagoon.

Table 18. Chignik Lagoon Top Two Occupations and Top Five Employers

Occupations*	
1	Teacher Assistants
2	Office Clerks
Employers	
1	Lake and Peninsula School District
2	Chignik Lagoon Village Council
3	Twin Peaks Construction Inc.
4	Native Village of Chignik Lagoon Water and Sewer
5	Bristol Bay Area Health Corporation

* Due to the small number of employed residents, only the top two occupations were identified by the ADOLWD.

Source: ADOLWD 2011b

3.2.5 Commercial Fishery Engagement

3.2.5.1 Overview

As discussed by Sepez et al. (2005:307), Chignik Lagoon is highly engaged in commercial fisheries, with 70 permits held by 29 permit holders (in 2000). Vessels in Chignik Lagoon were involved in the groundfish, salmon, halibut, herring, and crab fisheries.

3.2.5.2 Harvest Sector

General. From 2003 through 2010, the number of commercial fishing vessels in Chignik Lagoon has varied from 51 (in 2003 and 2004) to 38 (in 2006). In 2010, the number of commercial fishing vessels was 41, with 35 registered crew members (CFEC 2001a, b).

In terms of fisheries of direct importance to Chignik Lagoon, groundfish, salmon, and herring have had the most permits issued in recent years, with 30, 22, and 10 permits, respectively. The halibut fishery is also important in Chignik Lagoon, with five permits issued. Groundfish permits issued recently were concentrated in mechanical jig and pot gear (Sepez et al. 2005:307).

GOA Groundfish Trawl. No Chignik Lagoon resident-owned GOA groundfish trawl vessels were present in the data from 2003 through 2010.

GOA Groundfish Hook-and-Line. Chignik Lagoon resident-owned GOA ground fish hook-and-line vessels ranged between a high of 12 (2004) and a low of 4 (2003) between the years 2003 and 2010, with an average of 7.3 Chignik Lagoon resident-owned vessels per year during this period (Table 3a), accounting for 2.3 percent of the total GOA groundfish hook-and-line fleet at most during any year in this period (Table 3b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 was \$1,131,510, with the highest value occurring in 2008 at \$2,244,200 (Table 4a). In terms of the entire GOA groundfish hook-and-line fleet, Chignik Lagoon resident-owned vessels represent an average of 3.5 percent of the total GOA groundfish fleet exvessel gross revenues (Table 4b). Halibut mortality was relatively low for GOA groundfish hook-and-line resident-owned vessels, with an average of 0.7 tons per year (Table 6a), representing 0.2 percent of the total average (Table 6b). Of the Chignik Lagoon resident-owned GOA groundfish hook-and-line vessels shown in the dataset for the years 2003-2010, none of the vessels participated in the DSR fishery, with a maximum of 12 vessels participating in federally managed groundfish species fisheries other than DSR (classed as “other” in the dataset, which excludes sablefish as that fishery is exempt from the halibut PSC modifications being considered).

GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Designations. No Chignik Lagoon resident-owned GOA groundfish vessels were part of the Amendment 80, AFA or Rockfish program class of vessels in 2010 (the most recent year for which data are available (Table 7a), nor were any resident-owned vessels part of these programs between 2003 and 2009 (Table 7b).

GOA Commercial Halibut. The annual average number of commercial GOA halibut QS holders in Chignik Lagoon between 2003 and 2011 was 5.7; the highest number of individual QS holders occurred between 2003 and 2009 with 6, dropping to 5 QS holders in 2010. In 2011, the number of individual Chignik Lagoon resident GOA halibut QS holders was 5, which represented 0.2 percent of all GOA halibut QS holders (Table 8b). The amount of QS units held by these individuals (Table 9a) was slightly less in terms of percentage, however, at 0.1 percent of all GOA halibut QS units held in 2011 (Table 9b). As the number of Chignik Lagoon residents holding GOA halibut QS shares has slightly decreased since

2003, the absolute number and percentage of QS units held by Chignik Lagoon residents is also slightly lower in 2011 than in 2003.

3.2.5.3 Processing Sector

General. No shore-based processors are present in Chignik Lagoon.

3.2.6 GOA Halibut Sportfishing

In 2011, no one in the community of Chignik Lagoon held a sport charter halibut fishing permit (Table 13a). No non-charter halibut sport harvest information specific to the community of Chignik Lagoon is readily available.

3.2.7 GOA Halibut Subsistence

The number of subsistence halibut fishermen in Chignik Lagoon varies slightly from 2003 through 2010, with an estimated 6 subsistence fishermen in 2010 (representing 7.7 percent of the total community population based on 2010 population numbers) catching halibut (Table 14a). Over the period 2003-2010, the largest number of subsistence fishermen occurred in 2004 (34), while the smallest number of fishermen occurred in 2010 (6). The number of halibut caught per year from 2003 through 2010 ranged from 61 (in 2010) to 329 (in 2006), with an annual average of 165.9 caught over this period. The annual average number of pounds caught between 2003 and 2010 was 3,426.4, which represented 0.3 percent of the total average number of pounds caught in Alaska for that time span (Table 14b).

3.3 HOMER

3.3.1 Location

Homer is located on the southwestern edge of the Kenai Peninsula. Homer is approximately 120 miles southwest of Anchorage and faces Kachemak Bay to the south. Homer, incorporated as a First Class City within the Kenai Peninsula Borough, is connected to the Alaska state highway system, so it is accessible by road as well as by air and water (Sepez et al. 2005:228–229). Homer is adjacent to the Central Gulf FMP area and halibut regulatory area 3A (Figure 1).

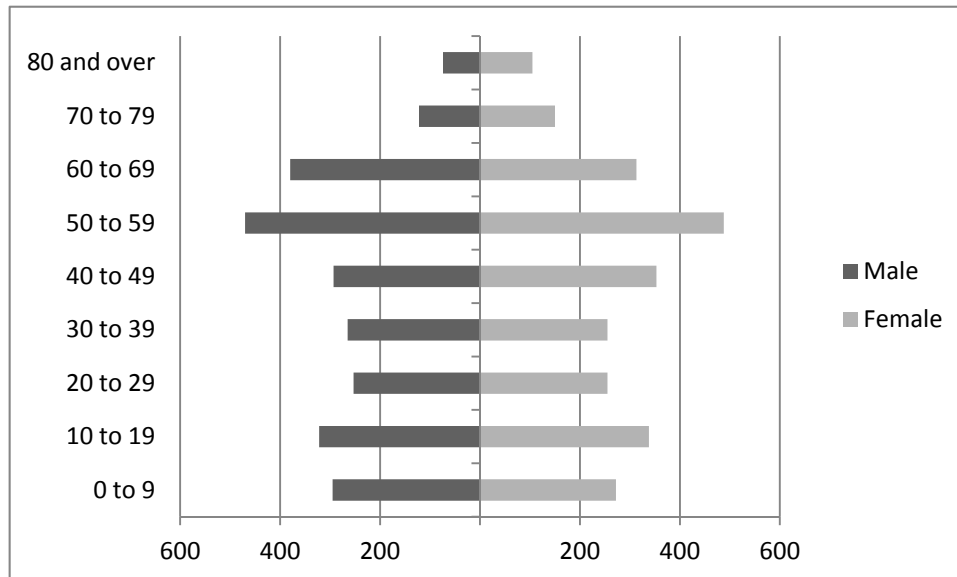
3.3.2 History

The City of Homer is an area historically considered to be Dena'ina Athabascan territory. The community was named after Homer Pennock, a gold mining company promoter. The Cook Inlet Coal Fields Company built much of the early community when coal was discovered in the 1890s. In addition to commercial fishing, the local economy has continued to depend on oil and coal for economic output (Sepez et al. 2005:228).

3.3.3 Community Demographics

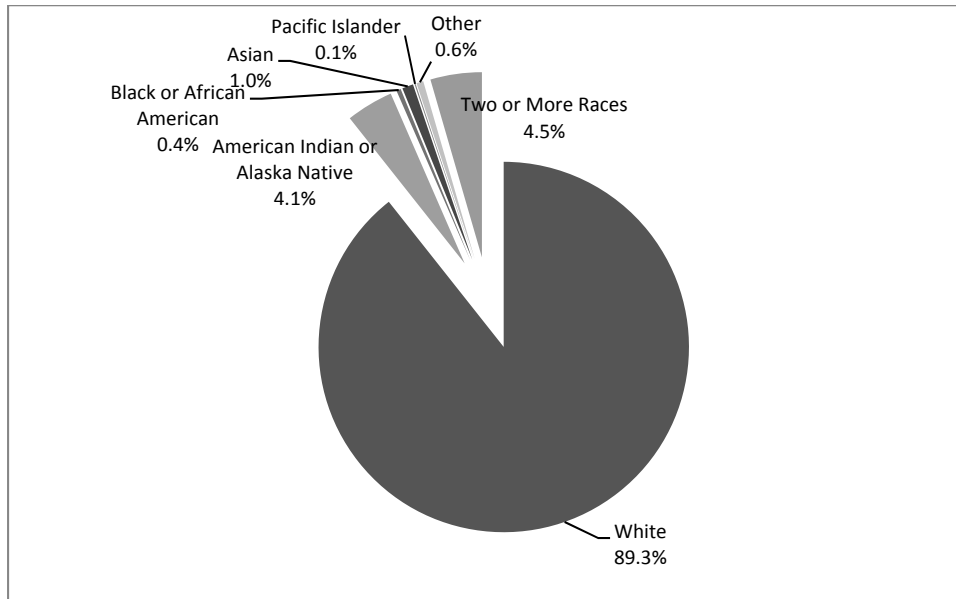
According to U.S. Census figures from 2010, a total of 5,003 people reside in Homer. The gender composition of the community was relatively balanced, as demonstrated in Figure 7, and the largest cohort of residents consisted of individuals aged 50 to 59. Homer is more similar to state and national averages than are a number of the smaller fishing communities profiled in this section that feature relatively greater male populations typically associated with seafood processing and/or other industrial enclave type of development.

Figure 7. Homer 2010 Population Structure



Source: U.S. Census 2011

Census figures from 2010 show that 89.3 percent of the residents of Homer identified themselves as White, 4.1 percent as American Indian or Alaska Native, 0.4 percent as Black/African American, 1.0 percent as Asian, 0.1 percent as Pacific Islander, and 5.1 percent as “some other race” or “two or more races.” Finally, 2.1 percent of the residents of any race in Homer identified themselves as Hispanic. Based on race and ethnicity combined, 11.7 percent of Homer’s total population was composed of minority residents (that is, all residents other than those identified as White/non-Hispanic [race/ethnicity]). Figure 8 provides a graphical representation of the racial structure of Homer in 2010 (DCED 2011e). In general, compared to a number of the smaller fishing communities profiled in this section, Homer’s population has a relatively small Alaska Native population segment, typically associated with historically Alaska Native communities, as well as a relatively small Asian/Pacific Islander/Other population segment often associated with larger seafood processing operations that draw a proportionally large number of workers from a non-local labor pool.

Figure 8. Homer 2010 Racial Structure

Source: DCED 2011e

Housing data from the U.S. Census, as shown in Table 19, indicate that 98.6 percent of all Homer residents lived in non-group quarters housing, with total housing units in Homer numbering 2,692. Of those housing units, approximately 83.0 percent were occupied. Family households number 1,296, with an average household size of 2.21 persons. The relatively few residents living in group quarters differentiates Homer from a number of the smaller fishing communities profiled in this section that typically have substantial numbers of relatively transient residents living in group housing associated with larger seafood processing operations.

Table 19. Homer 2010 Housing Information

Total Population	5,003	100%
Living in Non-Group Quarters	4,932	98.6%
Living in Group Quarters	71	1.4%
Total Housing Units	2,692	100%
Occupied Housing (Households)	2,235	83.0%
Vacant Housing	457	17.0%
Family Households	1,296	58.0%
Average Household Size	2.21	na

na = not applicable
Source: DCED 2011e

3.3.4 Local Economy

As discussed by Sepez et al. (2005:228–229), Homer’s economy is dominated by commercial and sport fishing, as well as fish processing and marine-related support services. These services include welding, electronics, and canvas work. Tourism has become more important to the local economy in the recent past. According to the local community’s website, marine trades are a primary industry cluster, with education and healthcare vital to the economy, “and contribut[ing] to Homer’s quality of life.” In recent years, Homer has become popular as a retirement community and summer home destination (City of Homer 2011).

Like many Alaskan communities, seasonal fluctuations affect employment rates, but the latest estimates based on the 2005-2009 U.S. Census American Community Survey suggest that 2,670 people were employed in Homer, with an unemployment rate of 7.7 percent. Per capita income for people in Homer was estimated at \$30,317, median household income was \$54,730, and median family income was \$67,188. An estimated 8.2 percent of Homer’s residents were considered low-income, defined as those individuals living below the poverty level threshold (DCED 2011f). As shown in Table 20, the economy of Homer, while dependent on commercial fishing, is dominated by education, retail, and healthcare-related occupations. The top employers include the local school district, two healthcare centers, the local main grocery store, and the City of Homer.

Table 20. Homer Top Five Occupations and Employers

Occupations	
1	Teachers and Instructors
2	Cashiers
3	Retail Salespersons
4	Recreational Therapists
5	Registered Nurses
Employers	
1	Kenai Peninsula Borough School District
2	South Peninsula Hospital
3	South Peninsula Behavioral Health Services
4	Safeway
5	City of Homer

Source: ADOLWD 2011c

3.3.5 Commercial Fishery Engagement

3.3.5.1 Overview

The population of Homer swells in the summer as individuals come to the community for commercial fishing-related employment. Homer has a large deep-water dock capable of accommodating 340-foot-long vessels, as well as a boat harbor with over 900 slips (Sepez et al. 2005:229). The sportfishing sector is of substantial economic importance to the community, so marine outfitters and other support services are more common in Homer than in smaller communities.

3.3.5.2 Harvest Sector

General. From 2003 through 2010, the number of commercial fishing vessels in Homer has varied from 518 (in 2004) to 431 (in 2005). In 2010, the number of commercial fishing vessels was 498, with 538 registered crew members (CFEC 2011a, b).

In terms of fisheries of direct importance to Homer, halibut, salmon, groundfish, and crab have had the most permits issued in recent years, with 197 residents holding 210 commercial halibut permits in the recent past (2005). Groundfish permits were concentrated in longline and mechanical jig gears. Salmon permits numbered 350, with 334 individual holders in 2005 (Sepez et al. 2005:229–231).

GOA Groundfish Trawl. Two Homer resident-owned GOA groundfish trawl vessels were present in the data in 2003, with the number dropping to one in 2005 and 2006, for an average of 0.5 Homer resident-owned vessels per year over the period 2003-2010 (Table 1a), accounting for only 1.8 percent of the total GOA groundfish trawl fleet at most during any year in this period (Table 1b).²⁰ Confidentiality restrictions do not allow for a disclosure of exvessel gross revenues for these vessels, so data are grouped with “all other Alaska” communities in the data reporting (Table 2a and Table 2b). Similarly, confidentiality restrictions do not allow for a Homer resident vessel owner-specific disclosure of halibut mortality, so these data are grouped in the “all other Alaska” communities in the data reporting (Table 5a and Table 5b). Of the Homer resident-owned GOA groundfish trawl vessels shown in the dataset for the years 2003-2010, all of the vessels fished in the shallow-water complex exclusively. No Homer residents were shown in the dataset as having owned GOA groundfish trawl catcher processors during the period 2003-2010.

GOA Groundfish Hook-and-Line. Homer resident-owned GOA groundfish hook-and-line vessels ranged from 54 (2004) to 41 (2005) between the years 2003 and 2010, with an average of 48.0 Homer resident-owned vessels per year during this period (Table 3a), accounting for 15.4 percent of the total GOA groundfish hook-and-line fleet at most during any year in this period (Table 3b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 was \$2,959,585, with the highest value occurring in 2007 at \$4,727,498 (Table 4a). In terms of the entire GOA groundfish hook-and-line fleet, Homer resident-owned vessels represented an average of 9.1 percent of total GOA groundfish fleet exvessel gross revenues (Table 4b). Halibut mortality for Homer resident-owned hook-and-line vessels was the highest of any community profiled in this section, with an average of 76.8 tons per year (Table 6a), representing 23.9 percent of the total average (Table 6b). Of the Homer resident-owned GOA groundfish hook-and-line vessels shown in the dataset for the years 2003-2010, for any one year, a maximum of 11 vessels participated in the DSR fishery, while a maximum of 52 vessels participated in federally managed groundfish species fisheries other than DSR (classed as “other” in the dataset, which excludes sablefish as that fishery is exempt from the halibut PSC modifications

²⁰ One Homer GOA groundfish trawl vessel also fished hook-and-line gear in the GOA groundfish fisheries during the period 2003-2010, but only for one year (2003); this vessel is included in the vessel numbers in both the GOA groundfish trawl and hook-and-line vessel discussions.

being considered). One Homer resident was shown in the dataset as having owned a GOA groundfish hook-and-line catcher processor in 2004, 2007, and 2008.

GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Designations. No Homer resident-owned GOA groundfish vessels were part of the Amendment 80, AFA, or Rockfish program classes of vessels in 2010, the most recent year for which data are available (Table 7a), and no Homer resident-owned vessels were classed as Amendment 80, AFA, or Rockfish vessels in the data between 2003 and 2010 (Table 7b).

GOA Commercial Halibut. The annual average number of commercial GOA halibut QS holders in Homer between 2003 and 2011 was 209.6; the highest number of individual QS holders occurred in 2003, with 236, but they ultimately decreased to a low of 192 in 2009 (Table 8a). In 2011, the number of individual Homer resident GOA halibut QS holders was 195, which represented 7.6 percent of all GOA halibut QS holders (Table 8b). The amount of QS units held by these individuals (Table 9a) was slightly less in terms of percentage, however, at 7.1 percent of all GOA halibut QS units held in 2011 (Table 9b). While the number of Homer residents holding GOA halibut QS has decreased since 2003, the absolute number of QS units held has increased and the percentage of QS units held by Homer residents has increased from 6.9 percent in 2003 to 7.1 percent in 2011.

3.3.5.3 Processing Sector

General. According to descriptions in 2005, a total of six processing plants were present in Homer. A total of 2,660 tons of fish from federally managed fisheries were processed in 2000, with 142 halibut and 109 groundfish vessels making deliveries (Sepez et al. 2005:231).

GOA Groundfish Processing. No shore-based processors in Homer received trawl caught deliveries of GOA groundfish from 2003 through 2010 (Table 10a); thus no first wholesale gross revenues are available on a community or aggregated basis (Table 10b and Table 10c). Only one shore-based processor in Homer received hook-and-line caught GOA groundfish deliveries in 2009 and 2010 (The Fish Factory in 2009 and The Auction Block Company in 2010), with two processing entities receiving deliveries in 2008 and 2006 (both Kachemak Bay Seafoods and The Fish Factory received deliveries each of those years) (Table 11a). Due to confidentiality restrictions, the first wholesale gross revenues from hook-and-line caught GOA groundfish delivered shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 11b and Table 11c). The annual average number of shore-based processors in Homer receiving any GOA groundfish caught by trawl and hook-and-line combined from 2003 through 2010 was 1.3 (Table 12a). Due to confidentiality restrictions, the first wholesale gross revenues from GOA groundfish caught by trawl and hook-and-line gear combined delivered to shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 12b and Table 12c).

GOA Halibut Processing. Homer shore-based processors were more active with regard to processing halibut, with four processors receiving halibut deliveries in 2010, and three processors receiving

deliveries in 2009 and 2008. These processing entities include Coal Point Trading Company, Kachemak Bay Seafoods, The Auction Block Company, and The Fish Factory. In 2010, the four processors in Homer represented 10.0 percent of the total number of shore-based processors that received halibut deliveries in Alaska.

3.3.6 GOA Halibut Sportfishing

Homer residents held 66 sport charter fishing permits in 2012. All permits were in Area 3A and were held by 56 individual permit holders (Table 13a). Estimates of catch statistics for charter sportfishing for Homer residents specifically are not readily available, but overall statistics for Area 3A suggest that an annual average of 193,894 halibut were caught between 2003 and 2010, with the largest number of halibut caught in 2007 (236,133). The average weight per fish has declined since 2003, when it was 20.7 pounds, to 15.2 pounds in 2010. In 2010, the estimated yield of halibut in Area 3A was 2.7 million pounds, well below the average of 3.4 million pounds for the years 2003 through 2010 (Table 13b). In terms of total yield, the charter activity in the Lower Cook Inlet, near Homer, was the highest among all subareas in 2C and 3A for the years 2007 through 2010 (Figure 2).

Estimates for non-charter sportfishing in Area 3A as a whole were similar, with the largest number of fish caught and the highest yield both in 2007 (166,338 and 2.3 million pounds, respectively). Average weight for non-charter halibut has declined since 2003, when it was 17.3 pounds, to 12.8 pounds in 2010. In 2010, the estimated yield of halibut in Area 3A was 1.59 million pounds, which was down from the average of 1.93 million pounds for the years 2003 through 2010 (Table 13b). In terms of total yield, the non-charter activity in the Lower Cook Inlet, near Homer, was also the highest among all subareas in 2C and 3A for the years 2007 through 2010 (Figure 2).

3.3.7 GOA Halibut Subsistence

The number of subsistence halibut fishermen in Homer was relatively small compared to the overall population. For example, in 2010, an estimated 11 subsistence fishermen (representing 0.2 percent of the total community population based on 2010 population numbers) caught halibut (Table 14a). Over the period 2003-2010, the largest number of subsistence fishermen occurred in 2008 (20), while the smallest number of fishermen occurred in 2003 and 2007 (both with 7). The number of halibut caught from 2003 through 2010 ranged from 36 (in 2007) to 479 (in 2009), with an annual average of 156.9 caught over this period. The annual average number of pounds caught between 2003 and 2010 was 2,141.8, which represented 0.2 percent of the total average number of pounds caught in Alaska for that time span (Table 14b).

3.4 JUNEAU

3.4.1 Location

Juneau is located in southeast Alaska along the Gastineau Channel, at the center of the Inside Passage. In addition to Juneau proper, the nearby settlements of Douglas, Auke Bay, and Aukquan are also part of the

City and Borough of Juneau. Juneau is located approximately 575 miles from Anchorage to the southeast. The community is not accessible by land, but regularly scheduled flights and air taxis service the community and it is the main node for the state's Marine Highway System (Sepez et al. 2005:98, 100–101). Juneau is adjacent to the Eastern Gulf FMP area and halibut regulatory area 2C (Figure 1).

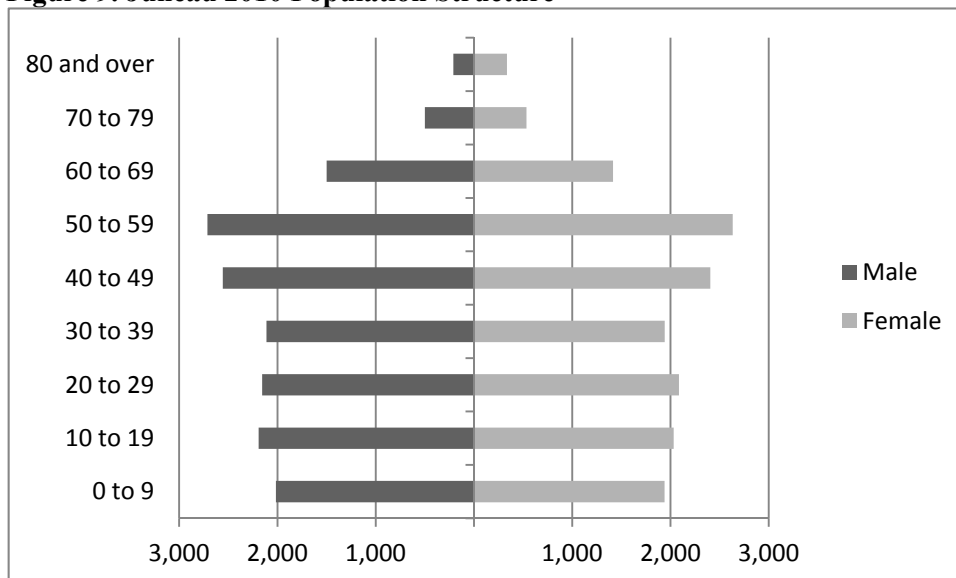
3.4.2 History

The area of Juneau has traditionally been inhabited by Tlingit groups. Once gold was discovered in the region in 1880, the community grew and quickly developed into a town focused on fishing, canning, transportation, trading, and mining services. The town was incorporated in 1900 and became the capital of Alaska in 1906. Large-scale mining ceased by the end of World War II and the economy of the community became dependent on government, fishing and fish processing, and tourism (Sepez et al. 2005:99).

3.4.3 Community Demographics

According to U.S. Census figures from 2010, a total of 31,275 people reside in the greater Juneau area, including Juneau proper as well as nearby communities. Like Anchorage, the gender composition of the community was relatively balanced, as demonstrated in Figure 9, and the largest cohort of residents consisted of individuals aged 50 to 59 (similar to Homer). Juneau is more similar to state and national averages than are a number of the smaller fishing communities profiled in this section that feature relatively greater male populations typically associated with seafood processing and/or other industrial enclave type of development.

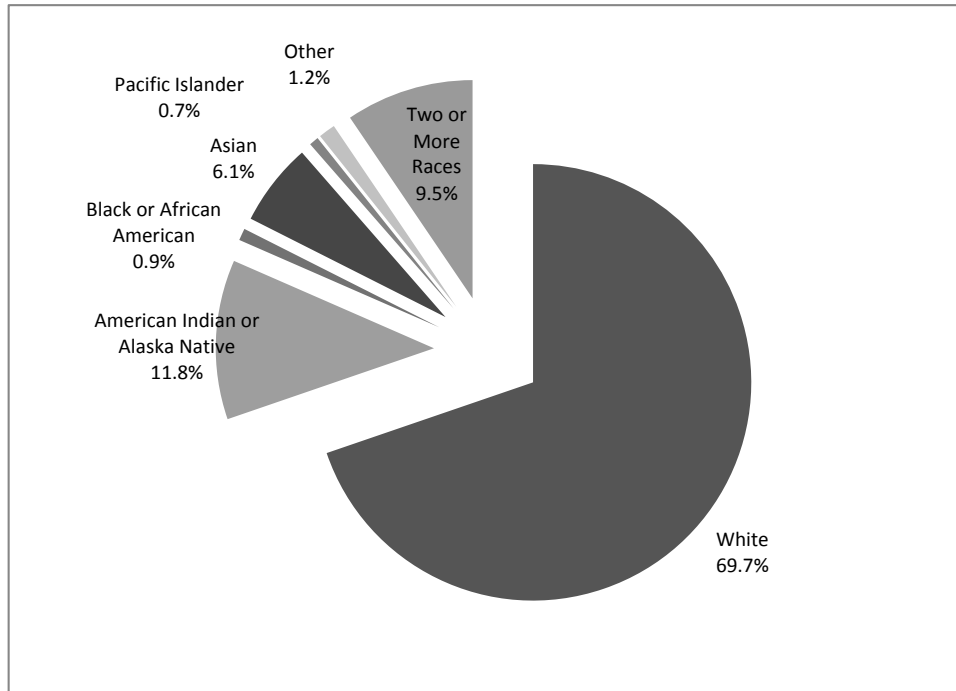
Figure 9. Juneau 2010 Population Structure



Source: U.S. Census 2011

Census figures from 2010 show that 69.7 percent of the residents of Juneau identified themselves as White, 11.8 percent as American Indian or Alaska Native, 0.9 percent as Black/African American, 6.1 as Asian, 0.7 as Pacific Islander, and 10.7 percent as “some other race” or “two or more races.” Finally, 5.1 percent of the residents of any race in Juneau identified themselves as Hispanic. Based on race and ethnicity combined, 32.6 percent of Juneau’s total population was composed of minority residents (that is, all residents other than those identified as White/non-Hispanic [race/ethnicity]). Figure 10 provides a graphic representation of the racial structure of Juneau in 2010 (DCED 2011g). In general, compared to a number of the smaller fishing communities profiled in this section, Juneau’s population has a smaller Alaska Native population segment, typically associated with historically Alaska Native communities, as well as a relatively small Asian/Pacific Islander/Other population segment often associated with larger seafood processing operations that draw a proportionately large number of workers from a non-local labor pool.

Figure 10. Juneau 2010 Racial Structure



Source: DCED 2011g

Housing data from the U.S. Census, as shown in Table 21, indicate that 97.2 percent of all Juneau residents live in non-group quarters housing, with total housing units in Juneau numbering 13,055. Of those housing units, approximately 93.4 percent were occupied. Family households number 7,742, with an average household size of 1.7 persons. The proportionally few residents living in group quarters differentiates Juneau from a number of the smaller fishing communities profiled in this section that typically have substantial numbers of relatively transient residents living in group housing associated with larger seafood processing operations.

Table 21. Juneau 2010 Housing Information

Total Population	31,275	100%
Living in Non-Group Quarters	30,388	97.2%
Living in Group Quarters	887	2.8%
Total Housing Units	13,055	100%
Occupied Housing (Households)	12,187	93.4%
Vacant Housing	868	6.6%
Family Households	7,742	63.5%
Average Household Size	1.70	na

na = not applicable
Source: DCED 2011g

3.4.4 Local Economy

As the state capital, Juneau's primary economic driver for the city is government and public administration. During the summer months, tourism is another major driver as cruise ships visit the community and other tourists arrive into southeast Alaska (Sepez et al. 2005:99–100). Commercial fishing is an important aspect of the economy of Juneau, as is logging and mining. Due to the economic importance of the government sector, many businesses are open year-round and a large assortment of recreational and cultural opportunities is available in the community (JEDC 2011).

Because many of the economic drivers in Juneau are seasonal, including the meeting of the annual legislative session from mid-January to mid-April, seasonal fluctuations affect employment rates. The latest estimates based on the 2005-2009 U.S. Census American Community Survey suggest that 17,443 people are employed in Juneau, with an unemployment rate of 6.1 percent. Per capita income for people in Juneau was estimated at \$34,880, median household income was \$76,437, and median family income was \$88,429. An estimated 6.7 percent of Juneau's residents are considered low-income, defined as those individuals living below the poverty level threshold (DCED 2011h). As shown in Table 22, the economy of Juneau is led by work in public administration and government, with the top occupations in retail, sales, and administration. The top employers include those related to government, education, and healthcare.

Table 22. Juneau Top Five Occupations and Employers

Occupations	
1	Retail Salespersons
2	Bookkeeping, Accounting, and Auditing Clerks
3	Office Clerks
4	Cashiers
5	Executive Secretaries and Administrative Assistants
Employers	
1	State of Alaska
2	Juneau School District
3	City and Borough of Juneau
4	University of Alaska
5	Bartlett Regional Hospital

Source: ADOLWD 2011d

3.4.5 Commercial Fishery Engagement

3.4.5.1 Overview

In the recent past (2005), it was documented that 519 commercial permits and 400 subsistence permits were present in Juneau, making the community a node for commercial and subsistence fishing in the area. Two deep draft docks and five small boat harbors are also present in Juneau (Sepez et al. 2005:101).

3.4.5.2 Harvest Sector

General. From 2003 through 2010, the number of commercial fishing vessels in Juneau has varied from 449 (in 2003) to 303 (in 2009 and 2010). In 2010, the community of Juneau had 361 registered crew members (CFEC 2011a, b).

In terms of fisheries of direct importance to Juneau, the local fleet has traditionally fished most of the major regional fisheries including crab, halibut, herring, groundfish, sablefish, shellfish, and salmon. According to a community profile compiled in 2005, 451 salmon permits and 169 halibut permits had been issued recently at that time. Over 130 groundfish permits were held by Juneau residents, with the vast majority of them for longliners (Sepez et al. 2005:101–102).

GOA Groundfish Trawl. Only one Juneau resident-owned GOA groundfish trawl vessel was present in the data in 2003, with none present from 2004 through 2010, for an average of less than one Juneau resident-owned vessel per year over the period 2003-2010 (Table 1a), accounting for only 0.9 percent of the total GOA groundfish trawl fleet at most during any year in this period (Table 1b).²¹ Confidentiality restrictions do not allow for a disclosure of exvessel gross revenues for local vessels, so these data are grouped with “all other Alaska” communities in the data reporting (Table 2a and Table 2b). Similarly, confidentiality restrictions do not allow for a Juneau resident vessel owner-specific disclosure of halibut mortality, so these data are grouped in the “all other Alaska” communities in the data reporting (Table 5a and Table 5b). The one Juneau resident-owned GOA groundfish trawl vessel shown in the dataset fished in the shallow-water complex. No Juneau residents were shown in the dataset as having owned GOA groundfish trawl catcher processors during the period 2003-2010.

GOA Groundfish Hook-and-Line. Juneau resident-owned GOA groundfish hook-and-line vessels ranged from 17 (2003) to 1 (2007) between the years 2003 and 2010, with an average of 8.4 Juneau resident-owned vessels per year during this period (Table 3a), accounting for 3.3 percent of the total GOA groundfish hook-and-line fleet at most during any year in this period (Table 3b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 cannot be disclosed due to confidentiality concerns and this information has been aggregated with

²¹ No Juneau GOA groundfish trawl vessels also fished hook-and-line gear in the GOA groundfish fisheries during the period 2003-2010.

Petersburg²² (another southeastern community). When combined, the annual average exvessel gross revenues between 2003 and 2010 were \$1,008,430, with the highest value occurring in 2008 at \$2,282,262 (Table 4a). In terms of the entire GOA groundfish hook-and-line fleet, Juneau and Petersburg resident-owned vessels represent an average of 3.1 percent of total GOA groundfish fleet exvessel gross revenues (Table 4b). Halibut mortality ranged widely between 2003 and 2010 for GOA groundfish hook-and-line Juneau/Petersburg resident-owned vessels, with an average of 13.2 tons per year²³ (Table 6a), representing 4.1 percent of the total average (Table 6b). Of the Juneau resident-owned GOA groundfish hook-and-line vessels shown in the dataset for the years 2003-2010, for any one year, a maximum of 15 vessels participated in the DSR fishery, while a maximum of three vessels participated in federally managed groundfish species fisheries other than DSR (classed as “other” in the dataset, which excludes sablefish as it is exempt from the halibut PSC modifications being considered). In 2010, however, no Juneau resident-owned vessels participated in the DSR fishery and three participated in non-DSR fisheries. No Juneau residents were shown in the dataset as having owned GOA groundfish hook-and-line catcher processors during the period 2003-2010.

GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Designations. No Juneau resident-owned GOA groundfish vessels were part of the Amendment 80, AFA, or Rockfish program classes of vessels in 2010, the most recent year for which data are available (Table 7a), and no Juneau resident-owned vessels were classed as Amendment 80, AFA, or Rockfish vessels in the data between 2003 and 2010 (Table 7b).

GOA Commercial Halibut. The annual average number of commercial GOA halibut QS holders in Juneau between 2003 and 2011 was 136.9; the highest number of individual QS holders occurred in 2003, with 155, but the number has steadily decreased since 2003 (Table 8a). In 2011, the number of individual Juneau resident GOA halibut QS holders was 116, which represented 4.5 percent of all GOA halibut QS holders (Table 8b). The amount of QS units held by these individuals (Table 9a) was less in terms of percentage, however, at 2.6 percent of all GOA halibut QS units held in 2011 (Table 9b). As the number of Juneau residents holding GOA halibut QS has decreased since 2003, so has the absolute number QS units held and percentage of QS units held by Juneau residents decreased from 3.6 percent in 2003 to 2.6 percent in 2011.

3.4.5.3 Processing Sector

General. According to descriptions in 2005, a total of eight processing plants were present in Juneau: Alaska Glacier Seafoods, Alaska Seafood Company, Superbear, Horst’s Seafood, Jon K Seafoods, Jerry’s Meats and Seafood, Taku Fisheries and Smokeries, and Juneau A&P Market. Landings data from 2000

²² Information for Juneau alone can only be disclosed for the years 2003-2006, inclusive. The Juneau GOA groundfish hook-and-line annual average exvessel gross revenues between 2003 and 2006, inclusive, were \$78,014, with the highest value occurring in 2005 at \$130,517. For the years 2007-2010, inclusive, too few Juneau GOA groundfish hook-and-line vessels participated in these fisheries to allow data disclosure.

²³ Information for Juneau alone can only be disclosed for the years 2003-2006, inclusive. The annual average halibut mortality between 2003 and 2006 for Juneau resident-owned GOA groundfish hook-and-line vessels was 0.07 tons per year, with the highest value occurring in 2004 at 0.17 tons. For the years 2007-2010, inclusive, too few Juneau GOA groundfish hook-and-line vessels participated in these fisheries to allow data disclosure.

indicate that nearly 1,400 tons of different federal fish species were processed in Juneau, as well as over 1,000 tons of salmon (Sepez et al. 2005:102).

GOA Groundfish Processing. No shore-based processors in Juneau received trawl caught deliveries of GOA groundfish from 2003 through 2010 (Table 10a); thus no first wholesale gross revenues are available on a community or aggregated basis (Table 10b and Table 10c). Only two shore-based processors in Juneau received hook-and-line caught groundfish deliveries in 2003 (Alaska Glacier Seafoods and SASSCO), with one accepting deliveries in 2004 and 2005 (Taku Smokeries Fisheries), two accepting deliveries in 2006 (Alaska Glacier Seafoods and Taku Smokeries Fisheries), and none accepting deliveries from 2007 through 2010 (Table 11a). Due to confidentiality restrictions, the first wholesale gross revenues from hook-and-line caught GOA groundfish delivered shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 11b and Table 11c). The annual average number of shore-based processors in Juneau receiving any GOA groundfish caught by trawl and hook-and-line gear combined from 2003 through 2010 was 0.8 (Table 12a). Due to confidentiality restrictions, the first wholesale gross revenues from GOA groundfish caught by trawl and hook-and-line gear combined delivered to shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 12b and Table 12c).

GOA Halibut Processing. Juneau shore-based processors were generally more active with regard to processing halibut, with two processors receiving halibut deliveries from 2006 through 2010. These processing entities included Alaska Glacier Seafoods and Taku Smokeries Fisheries. In 2010, these two entities represented 5.0 percent of the total number of shore-based processors that received halibut deliveries in Alaska.

3.4.6 GOA Halibut Sportfishing

Juneau residents held 23 sport charter fishing permits in 2012. Twenty-two of those permits were for Area 2C, while one was for Area 3A. These 23 permits were held by 19 individual permit holders (Table 13a). Estimates of catch statistics for charter sportfishing for Juneau residents are not readily available, but overall statistics for Area 2C (which was the area with the greatest participation) suggest that an annual average of 82,299 halibut were caught between 2003 and 2010, with the largest number of halibut caught in 2007 (109,835). The average weight per fish has increased since 2007, when it was 17.5 pounds, to 26.4 pounds in 2010. In 2010, the estimated yield of halibut in Area 2C was 1.1 million pounds, which was below the average of 1.6 million pounds for the years 2003 through 2010 (Table 13b). The Juneau subregion in Area 2C was not as productive in terms of charter total yield for the years 2007 through 2010, with many other subareas exhibiting higher estimated total yields, especially Sitka and Glacier Bay (Figure 2).

Estimates for non-charter sportfishing in Area 2C as a whole were similar, with the largest number of fish caught occurring in 2007 and the highest yield occurring in 2008 (68,498 and 1.3 million pounds, respectively). Average weight for non-charter halibut has declined on the whole since 2003, when it was

18.5 pounds, to 16.7 pounds in 2010. In 2010, the estimated yield of halibut in Area 2C was 0.9 million pounds, down slightly from the average of 1.00 million pounds for the years 2003 through 2010 (Table 13b). The Juneau subregion in Area 2C was not as productive in terms of non-charter total yield for the years 2007 through 2010, either, with many other subareas exhibiting similar or higher estimated total yields, especially Glacier Bay (Figure 2).

3.4.7 GOA Halibut Subsistence

The number of subsistence halibut fishermen in Juneau was relatively small compared to the overall population. For example, in 2010, an estimated 92 subsistence fishermen (representing 0.3 percent of the total community population based on 2010 population numbers) caught halibut (Table 14a). Over the period 2003-2010, the largest number of subsistence fishermen occurred in 2007 (106), while the smallest number of fishermen occurred in 2008 (80). The number of halibut caught from 2003 through 2010 ranged from 1,179 (in 2005) to 726 (in 2003), with an annual average of 914.9 caught over this period. The annual average number of pounds caught between 2003 and 2010 was 16,553.6, which represented 1.6 percent of the total average number of pounds caught in Alaska for that time span (Table 14b).

3.5 KING COVE

3.5.1 Location

King Cove is located on a sand spit fronting Deer Passage and Deer Island on the south side of the Alaska Peninsula near its western tip. Often referred to by residents and others in the region simply as “the Cove,” King Cove is about 18 miles southeast of the community of Cold Bay, 75 miles west of Sand Point, and 625 miles southwest of Anchorage (AECOM 2010:2–116). Incorporated as a First Class City, King Cove is a part of the Aleutians East Borough. King Cove is only accessible by air and sea, although a road connecting the community to Cold Bay, which has an airport that is able to accommodate larger aircraft and remain operational across a much broader range of frequently occurring inclement weather conditions than the King Cove air strip, is a local priority (Sepez et al. 2005:337). King Cove is adjacent to the Western Gulf FMP area and halibut regulatory area 3A (Figure 1).

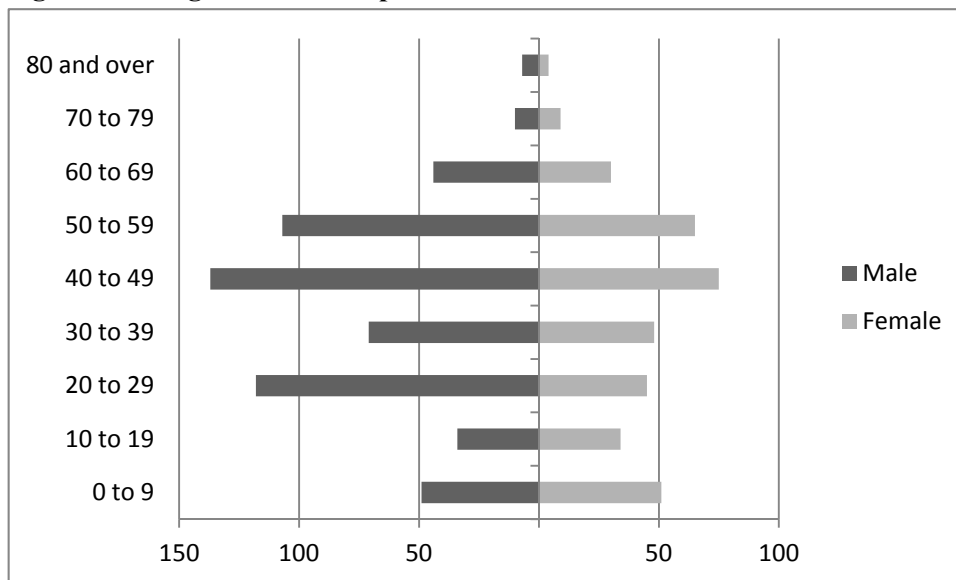
3.5.2 History

Although numerous pre-contact sites exist throughout the area, the contemporary community of King Cove traces its name to the 1880s when English immigrant Robert King married a local woman, became a trapper and sea otter hunter, and moved with his family to the cove. The present structure of the community can be traced to 1911 when Pacific American Fisheries built a salmon cannery on the present-day town site. The cannery operated continuously between 1911 and 1976, when it was partially destroyed by fire. King Cove was incorporated in 1949 (AECOM 2010:2–116).

3.5.3 Community Demographics

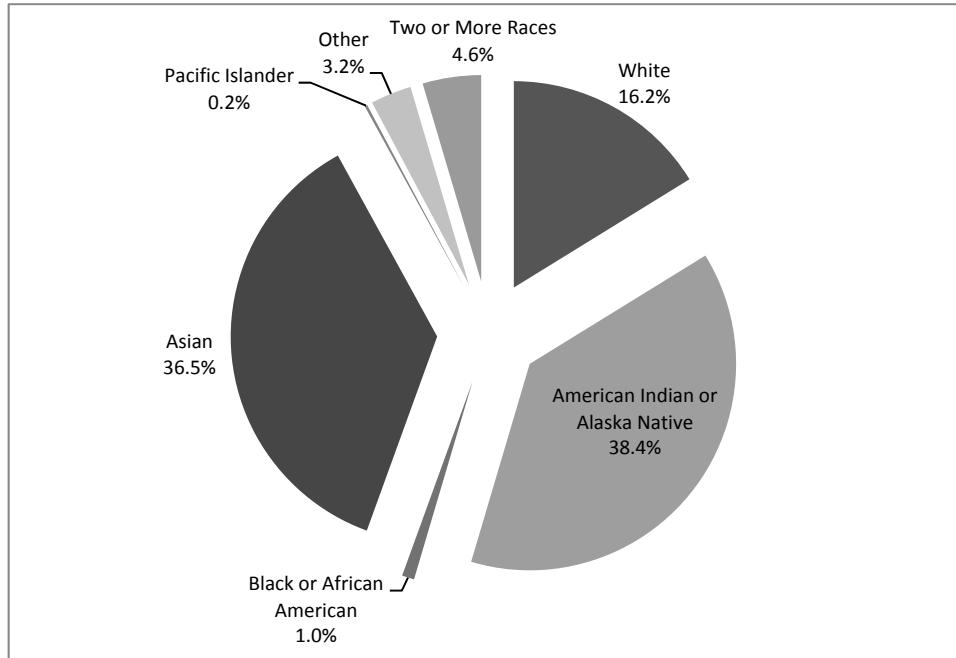
According to U.S. Census figures from 2010, a total of 938 people reside in King Cove. There were proportionally more males in the population than in most of the communities profiled, as demonstrated in Figure 11, and the largest cohort of residents consisted of individuals aged 40 to 49. The gender composition of King Cove varies widely from state and national averages as it is heavily influenced by the large local seafood processing operation, which in demographic terms may be described as an industrial enclave type of development, with its workforce drawn virtually exclusively from outside of the community.

Figure 11. King Cove 2010 Population Structure



Source: U.S. Census 2011

Census figures from 2010 show that only 16.2 percent of the residents of King Cove identified themselves as White, while the largest racial group was American Indian or Alaska Native at 38.4 percent. Approximately 1.0 percent identified themselves as Black/African American, 36.5 percent as Asian, 0.2 percent as Pacific Islander, and 7.8 percent as “some other race” or “two or more races.” Finally, 11.2 percent of the residents of any race in King Cove identified themselves as Hispanic. Based on race and ethnicity combined, 89.9 percent of King Cove’s total population was composed of minority residents (that is, all residents other than those identified as White/non-Hispanic [race/ethnicity]). Figure 12 provides a graphical representation of the racial structure of King Cove in 2010 (DCED 2011i). In general, King Cove’s population is in part typical of a historic Alaska Native community, with a relatively large Alaska Native population segment. Additionally, the relatively large Asian/Pacific Islander/Other population segment is emblematic of larger seafood processing operations, particularly in the Aleutians East Borough and the Aleutian and Pribilof Islands region in general, that draw a proportionately large number of workers from a non-local labor pool.

Figure 12. King Cove 2010 Racial Structure

Source: DCED 2011i

Housing data from the U.S. Census, as shown in Table 23, indicate that 53.3 percent of all King Cove residents lived in non-group quarters housing, with total housing units in King Cove numbering 229. Of those housing units, approximately 79.0 percent were occupied. Family households number 119, with an average household size of 2.76 persons. The large proportion of residents living in group quarters is indicative of a relatively transient population segment living in group housing associated with the large local seafood processing operation.

Table 23. King Cove 2010 Housing Information

Total Population	938	100%
Living in Non-Group Quarters	500	53.3%
Living in Group Quarters	438	46.7%
Total Housing Units	229	100%
Occupied Housing (Households)	181	79.0%
Vacant Housing	48	21.0%
Family Households	119	65.7%
Average Household Size	2.76	na

na = not applicable

Source: DCED 2011i

3.5.4 Local Economy

As discussed by AECOM (2010:2-125), King Cove is almost wholly dependent on commercial fishing; virtually everyone in the community is directly or indirectly connected to the local commercial fishing

vessel fleet, the community's large seafood processing operation, or service businesses that rely at least to some degree on fishing-related economic activity. In contrast to a number of other communities profiled in this section (e.g., Anchorage, Homer, Kodiak, and Juneau), tourism does not play much of a role in the local economy and the economic output of the community is closely tied to the overall output of the commercial fishery.

As fishing seasons cycle throughout the year, employment rates fluctuate. The latest employment estimate based on the 2005-2009 U.S. Census American Community Survey suggests that 253 were employed in King Cove, with an unemployment rate of 0.8 percent. Per capita income for people in King Cove was estimated at \$20,557, median household income was \$47,679, and median family income was \$54,167. An estimated 11.5 percent of King Cove's residents were considered low-income, defined as those individuals living below the poverty level threshold (DCED 2011j). As shown in Table 24, the economy of King Cove is dominated by commercial fishing, with the top occupations in food processing, retail, construction, and education. The top employers include the local fish processing plant, local and tribal government related entities, and one retail establishment.

Table 24. King Cove Top Five Occupations and Employers

Occupations	
1	Laborers and Freight, Stock, and Material Movers
2	Meat, Poultry, and Fish Cutters and Trimmers
3	Cashiers
4	Construction Laborers
5	Teachers and Instructors
Employers	
1	Peter Pan Seafoods
2	Aleutians East Borough School District
3	City of King Cove
4	Eastern Aleutian Tribes
5	John Gould and Sons Company, Inc. (True Value)

Source: ADOLWD 2011e

3.5.5 Commercial Fishery Engagement

3.5.5.1 Overview

King Cove is economically built upon the commercial fishing industry but has little in the way of a direct commercial fisheries support service sector. Though a major processing port, King Cove differs markedly from other communities such as Kodiak or Anchorage as King Cove's lone shoreplant has historically provided a variety of fleet support services that are generally provided by outside vendors in larger communities. Outside of public works, tribal, and school employment, there are arguably few local employment opportunities that are not directly linked back to supporting the fishing sector of the economy (AECOM 2010:2-125).

3.5.5.2 Harvest Sector

General. From 2003 through 2010, the number of commercial fishing vessels in King Cove has varied from 79 (in 2003) to 63 (in 2007). In 2010, the number of commercial fishing vessels was 70, with 109 registered crew members (CFEC 2011a, b).

As discussed by AECOM (2010:2-127), the local residential fleet in King Cove as a whole is primarily focused on salmon, with a secondary focus on cod. Within the overall fleet, however, there are several different types of vessels with different operational foci, including tendering salmon, cod, and pollock.

GOA Groundfish Trawl. Between two and five King Cove resident-owned GOA groundfish trawl vessels were present in the data from 2003 through 2010, with the greatest number of vessels indicated during 2009 (Table 1a), for an annual average of 3.5 vessels per year, accounting for 5.6 percent of the total GOA groundfish trawl fleet at most during any year in this period (Table 1b).²⁴ Confidentiality restrictions do not allow for a disclosure of exvessel gross revenues for local vessels, so these data are grouped with “all other Alaska” communities in the data reporting (Table 2a and Table 2b). Similarly, confidentiality restrictions do not allow for a King Cove resident vessel owner-specific disclosure of halibut mortality, so these data are grouped in the “all other Alaska” communities in the data reporting (Table 5a and Table 5b). Of the King Cove resident-owned GOA groundfish trawl vessels shown in the dataset for the years 2003-2010, all of the vessels fished in the shallow-water complex exclusively. No King Cove residents were shown in the dataset as having owned GOA groundfish trawl catcher processors during the period 2003-2010.

GOA Groundfish Hook-and-Line. King Cove resident-owned GOA groundfish hook-and-line vessels ranged from 18 (2008) to 13 (2009) between the years of 2003 and 2010, with an annual average of 15.3 King Cove resident-owned vessels per year during this period (Table 3a), accounting for 4.7 percent of the total GOA groundfish hook-and-line fleet at most during any year in this period (Table 3b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 was \$2,053,304, with the highest value occurring in 2007 at \$3,016,267 (Table 4a). In terms of the entire GOA groundfish hook-and-line fleet, King Cove resident-owned vessels represent an average of 6.3 percent of the total GOA groundfish fleet exvessel gross revenues (Table 4b). Halibut mortality was relatively low for GOA groundfish hook-and-line King Cove resident-owned vessels, with an average of 1.5 tons per year (Table 6a), representing 0.5 percent of the total average (Table 6b). Of the King Cove resident-owned GOA groundfish hook-and-line vessels shown in the dataset for the years 2003-2010, none participated in the DSR fishery and all participated in federally managed groundfish species fisheries other than DSR (classed as “other” in the dataset, which excludes sablefish as it is exempt from

²⁴ Multiple King Cove GOA groundfish trawl vessels also fished hook-and-line gear in the GOA groundfish fisheries during the period 2003-2010 (two vessels each year 2003-2006, four vessels in both 2007 and 2008, five vessels in 2009, and three vessels in 2010) and are included in the vessel numbers in both the trawl and hook-and-line vessel discussions; taken on an annual average basis, 85.7 percent of all King Cove GOA groundfish trawl vessels also fished GOA groundfish hook-and-line gear over this period.

the halibut PSC modifications being considered).²⁵ No King Cove residents were shown in the dataset as having owned GOA groundfish hook-and-line catcher processors during the period 2003-2010.

GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Designations. No King Cove resident-owned GOA groundfish vessels were part of the Amendment 80, AFA, or Rockfish program classes of vessels in 2010, the most recent year for which data are available (Table 7a), and no King Cove resident-owned vessels were classed as Amendment 80, AFA, or Rockfish vessels in the data between 2003 and 2010 (Table 7b).

GOA Commercial Halibut. The annual average number of commercial GOA halibut QS holders in King Cove between 2003 and 2011 was 14.2; the highest number of individual QS holders occurred in 2008, 2010, and 2011, with 15, and the number has stayed between 13 and 15 individual QS holders since 2003 (Table 8a). In 2011, the number of individual King Cove QS holders was 15, which represented 0.6 percent of all GOA halibut QS holders (Table 8b). The amount of QS units held by these individuals (Table 9a) was slightly less in terms of percentage, however, at 0.3 percent of all GOA halibut QS units held in 2011 (Table 9b). As the number of King Cove residents holding GOA halibut QS has stayed relatively constant since 2003, so has the absolute number QS units held and the percentage of QS units held (0.3 percent for all years).

3.5.5.3 Processing Sector

General. The only processing plant in King Cove is owned by the Peter Pan Seafood Company and, like the common name in the community suggests, the plant was and still is a “cannery,” although specific product form varies in importance from year to year with changes in markets, such that, in addition to canned salmon, the facility produces a variety of fresh and frozen salmon products. Though historically a salmon plant, the King Cove plant has over the years added crab as a strong secondary species, followed by halibut, and then cod and pollock. As of 2010, in addition to salmon, the King Cove plant processed a substantial volume of both opilio and red king crab. It also had developed substantial groundfish processing capability, with Pacific cod and pollock as the predominant groundfish species; substantial amounts of both cod and pollock are supplied from both the GOA and the Bering Sea/Aleutian Islands fishery management regions. The plant also still processes halibut on a regular basis, and herring and other species less often (AECOM 2010:2-140). While specific figures are confidential, in previous publicly released statements over the past several years, the City of King Cove has characterized King Cove landing tax annual revenues as typically being split roughly equally between salmon-, bottomfish-, and crab-related revenues, but with substantial year-to-year variation not being uncommon.

²⁵ According to other AKFIN data summarizing NOAA Fisheries catch accounting data, the fisheries most dominant in this “Other” category include Pacific cod and pollock (both bottom and midwater). While exact information for King Cove cannot be disclosed due to confidentiality concerns, for the latest year for which complete data are available (2010), approximately 10 times the number of vessels were involved in the Pacific cod fishery than either of the pollock fisheries, and the posted landings for Pacific cod (by weight) were approximately 4 times larger than for pollock (bottom) and 5 times larger than for pollock (midwater).

GOA Groundfish Processing. The one shore-based processor in the community received trawl caught deliveries of GOA groundfish for all years between 2003 and 2010 (Table 10a). However, due to confidentiality restrictions, the first wholesale gross revenues from trawl caught GOA groundfish delivered to the shore-based processor cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 10b and Table 10c). Likewise, the one shore-based processor in King Cove received hook-and-line caught GOA groundfish deliveries in 2005-2006 and 2008-2010 (Table 11a). Again, due to confidentiality restrictions, the first wholesale gross revenues from hook-and-line caught GOA groundfish delivered shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 11b and Table 11c). The annual average number of shore-based processors in King Cove receiving any GOA groundfish caught by trawl and hook-and-line gear combined from 2003 through 2010 was 1.0 (Table 12a). Due to confidentiality restrictions, the first wholesale gross revenues from GOA groundfish caught by trawl and hook-and-line gear combined delivered to shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 12b and Table 12c).

GOA Halibut Processing. The King Cove shore-based processor was also active with regard to processing halibut, having received deliveries every year from 2003 through 2010. The Peter Pan Seafoods processing plant represented 2.5 percent of the total number of shore-based processors that received halibut deliveries in Alaska.

3.5.6 GOA Halibut Sportfishing

In 2011, no one in the community of King Cove held a sport charter halibut fishing permit (Table 13a). No non-charter halibut sport harvest information specific to the community of King Cove is readily available.

3.5.7 GOA Halibut Subsistence

The number of subsistence halibut fishermen in King Cove was proportionately higher than several of the other communities profiled in this section. For example, in 2010, an estimated 49 subsistence fishermen (representing 5.2 percent of the total community population based on 2010 population numbers) caught halibut (Table 14a). Over the period 2003-2010, the largest number of subsistence fishermen (50) occurred in 2009, while the smallest number of fishermen occurred in 2003 (23). The number of halibut caught from 2003 through 2010 ranged from 310 (in 2007) to 510 (in 2010), with an annual average of 366 caught over this period. The annual average number of pounds caught between 2003 and 2010 was 7,561.4, which represented 0.7 percent of the total average number of pounds caught in Alaska for that time span (Table 14b).

3.6 KODIAK

3.6.1 Location

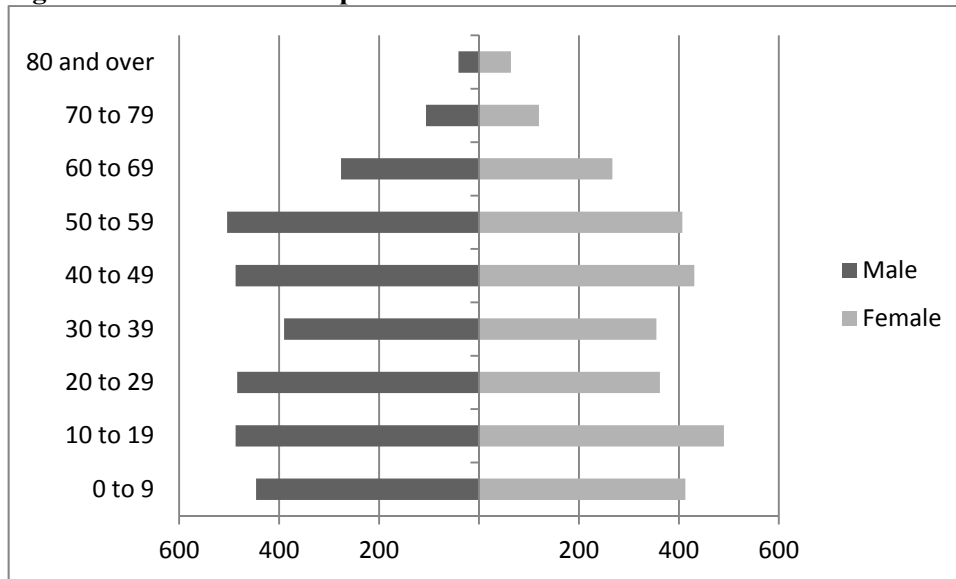
The community of Kodiak, located near the northeastern end of Kodiak Island in the Gulf of Alaska, is the largest island in Alaska and second in size within the United States only to the island of Hawaii. It is 252 air miles southwest of Anchorage, a 45-minute flight (AECOM 2010:2-195). Kodiak Island is only reachable by air and sea, but the on-island road system in the greater Kodiak area connects the community of Kodiak proper to the unincorporated communities of Chiniak and Womens Bay, as well Kodiak Station, the site of the largest U.S. Coast Guard installation in the country. Kodiak is incorporated as a Home Rule City within the Kodiak Island Borough (Sepez et al. 2005:201). Kodiak is adjacent to the Central Gulf FMP area and halibut regulatory area 3A (Figure 1).

3.6.2 History

Kodiak is in an area considered to be the traditional territory of the Alutiiq people and has been inhabited for the last 8,000 years. Russian explorers made contact with Alutiiq people in 1763 and the Russians established a sea otter hunting camp in 1784. Kodiak became the capital of the Russian colony in Alaska. Alaska ultimately became a U.S. territory in 1867 and a fish cannery opened locally in 1882. Kodiak became a major marshalling area during World War II. By the 1960s, the community had become a center for fish processing. A 9.2 magnitude earthquake and subsequent tsunami destroyed much of the community in 1964, but the community ultimately rebuilt and reestablished a groundfish processing industry by the 1970s (Sepez et al. 2005:200–201).

3.6.3 Community Demographics

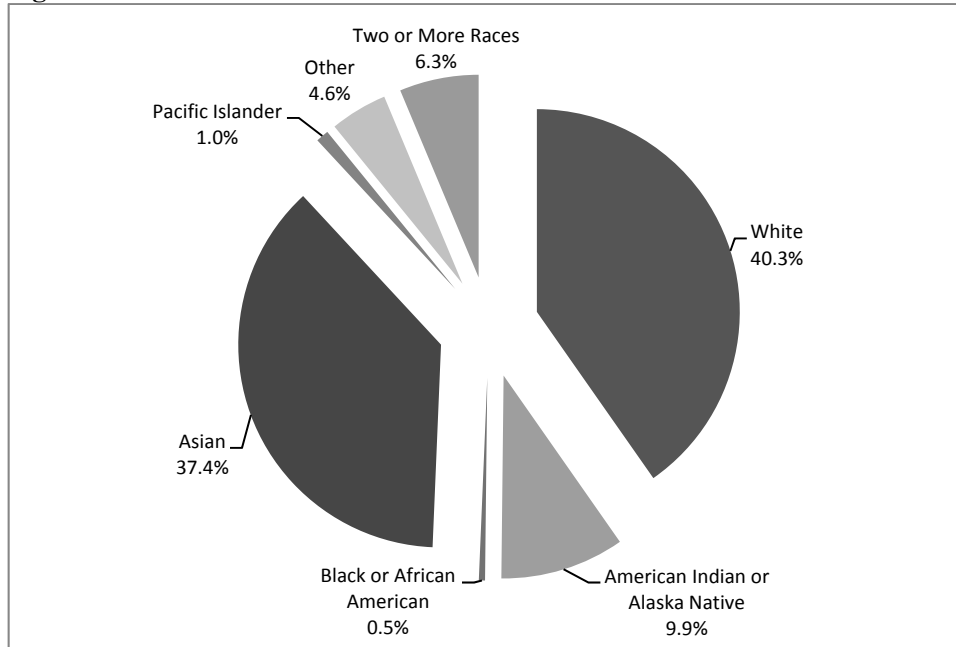
According to U.S. Census figures from 2010, a total of 6,130 people reside in Kodiak. There were proportionally more males in the population than most communities profiled, as demonstrated in Figure 13, and the largest cohort of residents consisted of individuals aged 10 to 19. The gender composition of Kodiak varies from state and national averages, especially during those years when individuals would be mostly likely to be in the active labor pool, indicative of being the work location of an industry or industries with predominately male, relatively transient workforces whose members have come to Kodiak for employment. However, Kodiak's population is not as disproportionately male as some of the smaller communities profiled that are tied to very large seafood processing operations relative to the overall population base, reflective of a more diverse economy and larger population base in Kodiak.

Figure 13. Kodiak 2010 Population Structure

Source: U.S. Census 2011

Census figures from 2010 show that 40.3 percent of the residents of Kodiak identified themselves as White, 9.9 percent as American Indian or Alaska Native, 0.5 percent as Black/African American, 37.4 percent as Asian, 1.0 percent as Pacific Islander, and 10.9 percent as “some other race” or “two or more races.” Finally, 9.4 percent of the residents of any race in Kodiak identified themselves as Hispanic. Based on race and ethnicity combined, 62.7 percent of Kodiak’s total population was composed of minority residents (that is, all residents other than those identified as White/non-Hispanic [race/ethnicity]). Figure 14 provides a graphic representation of the racial structure of Kodiak in 2010 (DCED 2011k). In general, compared to a number of smaller fishing communities, Kodiak has a relatively small Alaska Native population segment, but one that is larger than those communities that were not originally Alaska Native communities. Similar to the smaller profiled fishing communities of King Cove and Sand Point, however, Kodiak has a sizeable Asian/Pacific Islander/Other population segment that is often associated with larger seafood processing operations that draw a proportionately large number of workers from a non-local labor pool.

Figure 14. Kodiak 2010 Racial Structure



Source: DCED 2011k

Housing data from the U.S. Census, as shown in Table 25, indicate that 97.7 percent of all Kodiak residents lived in non-group quarters housing, with total housing units in Kodiak numbering 2,178. Of those housing units, approximately 93.6 percent were occupied. Family households number 1,342, with an average household size of 2.94 persons. The relatively few residents living in group quarters differentiates Kodiak from many other communities dominated by seafood processing, as those communities typically have substantial numbers of relatively transient residents living in group housing. Despite a large seafood processing population, these workers tend to be long-term Kodiak residents and do not live in group quarters housing, although many may have originally come to the community for seafood processing employment opportunities before settling in the community for the longer term.

Table 25. Kodiak 2010 Housing Information

Total Population	6,130	100%
Living in Non-Group Quarters	5,986	97.7%
Living in Group Quarters	144	2.3%
Total Housing Units	2,178	100%
Occupied Housing (Households)	2,039	93.6%
Vacant Housing	139	6.4%
Family Households	1,342	65.8%
Average Household Size	2.94	na

na = not applicable
Source: DCED 2011k

3.6.4 Local Economy

As described in AECOM (2010:2-198), the economic underpinning of the community of Kodiak is commercial fishing, with much of the direct and indirect economic activity in Kodiak relying to a greater or lesser degree on fishing activity as a base. Though commercial fishing remains a central element underpinning the local economy, Kodiak's economy is quite diversified, particularly by rural Alaska standards. The local U.S. Coast Guard installation, although relatively self-sufficient in a number of respects, contributes substantially to the local economy. Tourism has grown in importance in recent years as an economic driver but is not nearly as important to economy as the commercial fishing and government sectors.

The latest estimates based on the 2005-2009 U.S. Census American Community Survey suggest that 3,335 people were employed in Kodiak, with an unemployment rate of 5.3 percent. An estimated 10.8 percent of Kodiak's residents were considered low-income, defined as those individuals living below the poverty level threshold (DCED 2011). As shown in Table 26, the economy of Kodiak is dominated by the commercial fishing industry, with the top occupation related to fish processing. Four of the top five employers are fish processing companies in Kodiak.

Table 26. Kodiak Top Five Occupations and Employers

Occupations	
1	Meat, Poultry, and Fish Cutters and Trimmers
2	Cashiers
3	Office Clerks
4	Retail Salespersons
5	Sales and Related Workers
Employers	
1	International Seafoods of Alaska
2	Trident Seafoods
3	Ocean Beauty Seafoods
4	North Pacific Seafoods
5	Kodiak Island Borough School District

Source: ADOLWD 2011f

3.6.5 Commercial Fishery Engagement

3.6.5.1 Overview

The community of Kodiak is distinguished from most other Alaskan fishing ports by the number and range of support service businesses that cater in whole or in part to the commercial fishing industry. Support services include a wide range of companies, including companies that provide direct services to processing plants and harvesting vessels, such as hydraulic and welding firms, as well as indirect service providers that still depend to a degree on fisheries-related activities, such as accounting and bookkeeping services and vehicle rental enterprises. In addition, there are also several educational and governmental entities that operate fisheries-related research facilities in Kodiak (AECOM 2010:2-198; 2-211).

3.6.5.2 Harvest Sector

General. From 2003 through 2010, the number of commercial fishing vessels in Kodiak has varied from 582 (in 2003) to 452 (in 2009). In 2010, the number of commercial fishing vessels was 453, with 723 registered crew members (CFEC 2011a, b).

In terms of fisheries of direct importance to Kodiak, landing values are dominated by halibut, salmon, and Pacific cod. Sablefish, pollock, and Bristol Bay red king crab also compose a substantial amount of the total value of landings annually in Kodiak (Sepez et al. 2005:202–203).

GOA Groundfish Trawl. Of all the communities profiled for this section, Kodiak has the highest number of resident-owned GOA groundfish trawl vessels, with the number ranging from 20 to 12 from 2003 through 2010, for an average of 15.0 Kodiak resident-owned vessels per year over the period 2003-2010 (Table 1a).²⁶ The number of Kodiak resident-owned GOA groundfish trawl vessels accounts for 18.3 percent of the total GOA groundfish trawl fleet at most during any year in this period (Table 1b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 was \$10,386,167, with the highest value occurring in 2010 at \$13,852,259 (Table 2a). In terms of the entire GOA groundfish trawl fleet, Kodiak resident-owned vessels represented an average of 17.9 percent of total GOA groundfish fleet exvessel gross revenues (Table 2b). Halibut mortality for GOA groundfish trawl Kodiak resident-owned vessels has averaged 533.2 tons per year (Table 5a), representing 26.7 percent of the total average (Table 5b). Of the Kodiak resident-owned GOA groundfish trawl vessels shown in the dataset for the years 2003-2010, a maximum of 20 vessels fished in the shallow-water complex fishery during any one year, while a maximum of 16 vessels fished in the deep-water complex fishery (2003). In 2010, 15 Kodiak resident-owned GOA groundfish trawl vessels participated in the shallow-water complex fishery and 13 participated in the deep-water complex fishery. Two Kodiak residents were shown in the dataset as having owned GOA groundfish trawl catcher processors in 2003 and 2004.

GOA Groundfish Hook-and-Line. Kodiak resident-owned GOA groundfish hook-and-line vessels ranged from 149 (2004) to 107 (2010) between the years 2003 and 2010, with an average of 125.4 Kodiak resident-owned vessels per year during this period (Table 3a), accounting for 35.4 percent of the total GOA groundfish hook-and-line fleet at most during any year in this period (Table 3b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 was \$9,311,237, with the highest value occurring in 2008 at \$13,937,288 (Table 4a). In terms of the entire GOA groundfish hook-and-line fleet, Kodiak resident-owned vessels represented an average of 28.5 percent of the total GOA groundfish fleet exvessel gross revenues (Table 4b). Halibut mortality for the GOA groundfish hook-and-line Kodiak resident-owned vessels has averaged 53.3 tons per year (Table 6a), representing 16.6 percent of the total average (Table 6b). Of the Kodiak resident-owned GOA

²⁶ Multiple Kodiak GOA groundfish trawl vessels also fished hook-and-line gear in the GOA groundfish fisheries during the period 2003-2010 (six vessels in 2003, four vessels each in 2004 and 2005, three vessels in 2006, two vessels in 2008, and one vessel in 2007, 2009, and 2010) and are included in the vessel numbers in both the trawl and hook-and-line vessel discussions; taken on an annual average basis, 18.3 percent of all Kodiak GOA groundfish trawl vessels also fished GOA groundfish hook-and-line gear over this period.

groundfish hook-and-line vessels shown in the dataset for the years 2003-2010, for any one year, a maximum of 18 vessels participated in the DSR fishery, while a maximum of 146 vessels participated in federally managed groundfish species fisheries other than DSR (classed as “other” in the dataset, which excludes sablefish as that fishery is exempt from the PSC halibut modifications being considered). One Kodiak resident was shown in the dataset as having owned a GOA groundfish hook-and-line catcher processor in 2003-2005 and 2007.

GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Designations. No Kodiak resident-owned GOA groundfish vessels were part of the Amendment 80 class of vessels in 2010, but 5 vessels and 12 vessels were part of the AFA and Rockfish programs, respectively (Table 7a). This participation results in Kodiak resident-owned vessels representing 20.8 and 28.6 percent of all vessels in the AFA and Rockfish programs, respectively (Table 7b).

GOA Commercial Halibut. The annual average number of commercial GOA halibut QS holders in Kodiak between 2003 and 2011 was 229.4; the highest number of individual QS holders occurred in 2003, with 250, but the number has decreased on the whole until 2010, when the number of individual QS holders was 215 (Table 8a). In 2011, the number of individual Kodiak resident GOA halibut QS holders was 217, which represented 8.4 percent of all GOA halibut QS holders (Table 8b). The amount of QS units held by these individuals (Table 9a) was slightly more in terms of percentage, however, at 14.5 percent of all GOA halibut QS units held in 2011 (Table 9b). While the number of Kodiak residents holding GOA halibut QS has decreased since 2003, the absolute number and percentage of QS units held by Kodiak residents has increased since 2003.

3.6.5.3 Processing Sector

General. Kodiak’s shoreplants have played a substantial role in the history of the community, influencing its economic and demographic patterns over the years. Even among the eight major contemporary processing plants, there is a considerable amount of diversity in the size, volume, and species processed. Locally based processors vary in product output and specialization, ranging from large quantity canning of salmon, processed at several different locations within Kodiak, to fresh and fresh-frozen products, as well as niche markets servicing the sport-fishing industry (AECOM 2010:2-228).

GOA Groundfish Processing. Kodiak shore-based processors receiving trawl caught deliveries of GOA groundfish ranged from 6 to 9 between the years 2003 and 2010, with an annual average of 8.1 Kodiak shore-based processors receiving deliveries during this period (Table 10a). In terms of GOA groundfish first wholesale gross revenues for these processors, the annual average between 2003 and 2010 was \$75,583,688, with the highest value occurring in 2008 at \$100,205,026 (Table 10b). In terms of the entire GOA groundfish trawl first wholesale gross revenues, Kodiak shore-based processors represented an average of 74.7 percent of the total (Table 10c). Kodiak shore-based processors receiving hook-and-line caught deliveries of GOA groundfish ranged from 7 to 9 between the years 2003 and 2010, with an average of 8.0 Kodiak shore-based processors receiving deliveries during this period (Table 11a). In terms of GOA groundfish first wholesale gross revenues for these processors, the annual average between 2003

and 2010 was \$8,525,839, with the highest value occurring in 2006 at \$12,705,559 (Table 11b). In terms of the entire GOA groundfish hook-and-line first wholesale gross revenues, Kodiak shore-based processors represented an average of 84.2 percent of the total (Table 11c). The annual average number of shore-based processors in Kodiak receiving any GOA groundfish caught by trawl and hook-and-line gear combined from 2003 through 2010 was 8.6 (Table 12a). In terms of GOA groundfish first wholesale gross revenues for both combined gear types, the annual average between 2003 and 2010 was \$84,109,527 (Table 12b), representing 75.6 percent of the total average for that time span (Table 12c).

GOA Halibut Processing. Most of the Kodiak shore-based processors that were engaged in the groundfish processing were involved in halibut processing, with seven processors receiving halibut deliveries since 2009. These processing entities were Alaska Fresh Seafoods, International Seafoods of Alaska, Island Seafoods, North Pacific Seafoods, Ocean Beauty Seafoods, Trident Seafoods, and Westward Seafoods. In 2010, these seven processors represented 17.5 percent of the total number of shore-based processors that received halibut deliveries in Alaska.

3.6.6 GOA Halibut Sportfishing

Kodiak residents held 70 sport charter fishing permits in 2012. All permits were in Area 3A and were held by 42 individual permit holders (Table 13a). Estimates of catch statistics for charter sportfishing for Kodiak residents specifically are not readily available, but overall statistics for Area 3A suggest that an annual average of 193,894 halibut were caught between 2003 and 2010, with the largest number of halibut caught in 2007 (236,133). The average weight per fish has declined since 2003, when it was 20.7 pounds, to 15.2 pounds in 2010. In 2010, the estimated yield of halibut in Area 3A was 2.7 million pounds, well below the average of 3.4 million pounds for the years 2003 through 2010 (Table 13b). The Kodiak region was one of the more average areas in terms of charter total yield for the years 2007 through 2010, with areas near Seward, Anchorage, and Homer exhibiting higher estimated total yields in Area 3A (Figure 2).

Estimates for non-charter sportfishing in Area 3A as a whole were similar, with the largest number of fish caught and the highest yield both in 2007 (166,338 and 2.3 million pounds, respectively). Average weight for non-charter halibut has declined since 2003, when it was 17.3 pounds, to 12.8 pounds in 2010. In 2010, the estimated yield of halibut in Area 3A was 1.59 million pounds, which was down from the average of 1.93 million pounds for the years 2003 through 2010 (Table 13b). The Kodiak region was also one of the more average areas in terms of non-charter total yield for the years 2007 through 2010, with areas near Anchorage and Homer exhibiting higher estimated total yields in Area 3A (Figure 2).

3.6.7 GOA Halibut Subsistence

The number of subsistence halibut fishermen in Kodiak, proportionately, was one of the larger percentages for any of the communities profiled in this section. In 2010, an estimated 900 subsistence fishermen caught halibut, representing 14.7 percent of the total population (based on 2010 population numbers) (Table 14a). Over the period 2003-2010, the largest number of subsistence fishermen occurred

in 2008 (963), while the smallest number of fishermen occurred in 2003 (646). The number of halibut caught from 2003 through 2010 ranged from 6,526 (in 2003) to 10,694 (in 2005), with an annual average of 8,858.4 caught over this period. The annual average number of pounds caught between 2003 and 2010 was 183,743.3, which represented 18.1 percent of the total average number of pounds caught in Alaska for that time span (Table 14b).

3.6.8 Public Revenues

Potential impacts of proposed halibut PSC modifications to municipality/borough imposed raw fish taxes and/or severance taxes cannot be disclosed due to data confidentiality restrictions for any Alaska community except Kodiak, but it is known that the greatest potential for impacts would occur in Kodiak. While a separate analysis for the City of Kodiak alone has not been undertaken, the analysis of Kodiak Island Borough severance taxes generated by GOA groundfish fisheries (see Section 4.6.9 of the RIR in the body of the main document to which this community analysis is an appendix) suggests that at the borough level, estimated tax reductions from local groundfish deliveries (compared to a 2010 baseline) would be approximately zero at the 5 percent PSC reduction level, approximately \$3,000 at the 10 percent PSC reduction level, and approximately \$30,000 at the 15 percent PSC reduction level. According to an earlier analysis (AECOM 2010:2-269), Kodiak Island Borough fish tax revenue sharing for 2010 totaled \$1.3 million, such that a decline of \$30,000 would represent an approximate drop of 2 percent for that specific revenue source. Compared against total borough revenues of \$15.6 million for the year ended June 30, 2010 (Kodiak Island Borough 2011:14), it is not likely that a decline of this magnitude in a single revenue source, amounting to two-tenths of 1 percent of total revenues, would be significant.

3.7 PETERSBURG

3.7.1 Location

Petersburg is located on the northwest end of Mitkof Island along the Frederick Sound in the southeastern portion of the state. Petersburg is approximately 115 miles to the southeast of Juneau, and 670 miles east of Anchorage. Petersburg is only accessible by air and sea, and is on the mainline of the Alaska state ferry. Petersburg is incorporated as a Home Rule City and is not part of an organized borough (Sepez et al. 2005:126–128). Petersburg is adjacent to the Eastern Gulf FMP area and halibut regulatory area 2C (Figure 1).

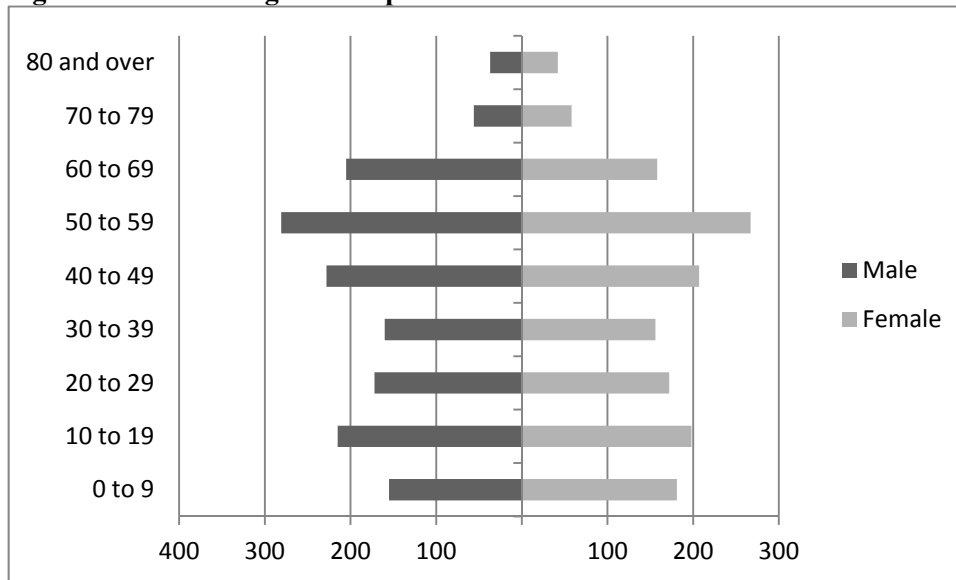
3.7.2 History

Petersburg is in an area considered to be traditional Tlingit territory. The community is named after Peter Buschmann, a Norwegian immigrant who came to the area in the 1890s and established a fish cannery shortly after arriving. The city was formed in 1910 and many of the residents were of Norwegian origin. In the early part of the 20th century, a shrimp processor and a cold storage plant were established and have been in continuous operation since (Sepez et al. 2005:126–127).

3.7.3 Community Demographics

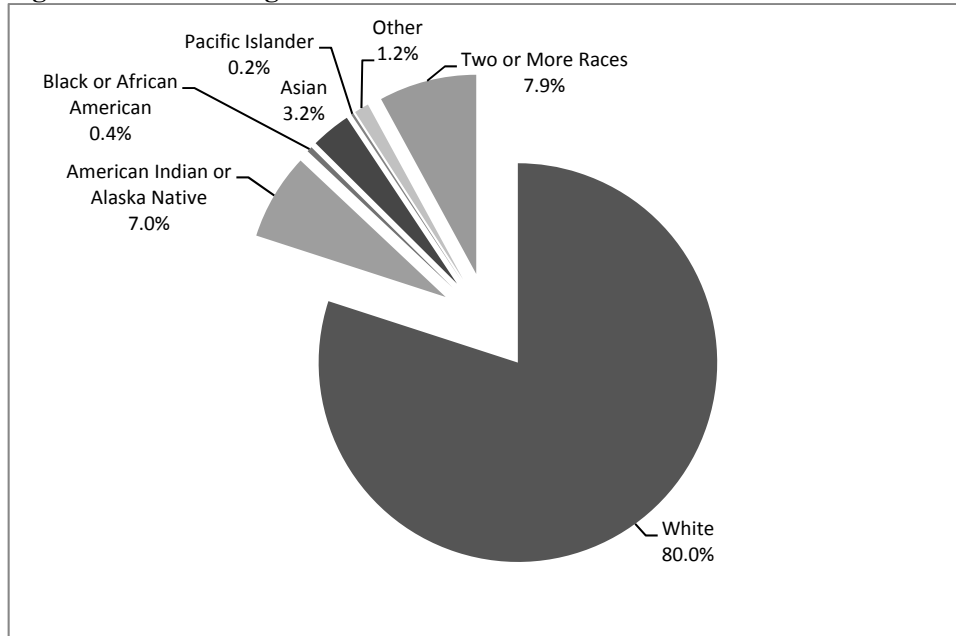
According to U.S. Census figures from 2010, a total of 2,948 people reside in Petersburg. The gender composition of the community was relatively balanced, as demonstrated by Figure 15, and the largest cohort of residents consisted of individuals aged 50 to 59. Petersburg is more similar to state and national averages than are a number of the smaller fishing communities profiled in this section that feature relatively greater male populations typically associated with seafood processing and/or other industrial enclave type of development.

Figure 15. Petersburg 2010 Population Structure



Source: U.S. Census 2011

Census figures from 2010 show that 80.0 percent of the residents of Petersburg identified themselves as White, 7.0 percent as American Indian or Alaska Native, 0.4 percent as Black/African American, 3.2 as Asian, 0.2 percent as Pacific Islander, and 9.1 percent as “some other race” or “two or more races.” Finally, 3.7 percent of the residents of any race in Petersburg identified themselves as Hispanic. Based on race and ethnicity combined, 21.8 percent of Petersburg’s total population was composed of minority residents (that is, all residents other than those identified as White/non-Hispanic [race/ethnicity]). Figure 16 provides a graphic representation of the racial structure of Petersburg in 2010 (DCED 2011m). In general, compared to a number of the smaller fishing communities profiled in this section, Petersburg’s population has a relatively small Alaska Native population segment, typically associated with historically Alaska Native communities, as well as a relatively small Asian/Pacific Islander/Other population segment often associated with larger seafood processing operations that draw a proportionally large number of workers from a non-local labor pool.

Figure 16. Petersburg 2010 Racial Structure

Source: DCED 2011m

Housing data from the U.S. Census, as shown in Table 27, indicate that 98.5 percent of all Petersburg residents live in non-group quarters housing, with total housing units in Petersburg numbering 1,356. Of those housing units, approximately 92.3 percent were occupied. Family households number 791, with an average household size of 2.32 persons. The relatively few residents living in group quarters differentiates Petersburg from a number of the smaller fishing communities profiled in this section that typically have substantial numbers of relatively transient residents living in group housing associated with larger seafood processing operations.

Table 27. Petersburg 2010 Housing Information

Total Population	2,948	100%
Living in Non-Group Quarters	2,905	98.5%
Living in Group Quarters	43	1.5%
Total Housing Units	1,356	100%
Occupied Housing (Households)	1,252	92.3%
Vacant Housing	104	7.7%
Family Households	791	63.2%
Average Household Size	2.32	na

na = not applicable

Source: DCED 2011m

3.7.4 Local Economy

As discussed by Sepez et al. (2005:127), Petersburg's economy is tied closely to commercial fishing, with multiple processors operating cold storage facilities and custom packing services. Other primary employment sectors in the community include federal, state, and city government agencies and a range of

support and retail businesses; the timber industry, previously important to the community, has virtually exited Petersburg in recent years. The community also experiences some tourism during the summer months as smaller cruise ships pull into Petersburg and other tourists come to spend time in the area fishing and sightseeing. A number of bed and breakfasts, cabins, lodges, and hotels provide lodging for tourists, and guided fishing and hunting tours are available (PCOC 2011).

Seasonal fluctuations affect employment rates, but the latest estimates based on the 2005-2009 U.S. Census American Community Survey suggest that 1,607 people were employed in Petersburg, with an unemployment rate of 2.4 percent. Per capita income for people in Petersburg was estimated at \$30,520, median household income was \$69,345, and median family income was \$91,068. An estimated 8.7 percent of Petersburg's residents were considered low-income, defined as those individuals living below the poverty level threshold (DCED 2011n). As shown in Table 28, the economy of Petersburg is dominated by the seafood industry, with other top occupations in healthcare, retail, education, and construction. The top employers include those related to the seafood industry, city and state government, education, and the local medical center.

Table 28. Petersburg Top Five Occupations and Employers

Occupations	
1	Meat, Poultry, and Fish Cutters and Trimmers
2	Healthcare Support Workers
3	Retail Salespersons
4	Teacher Assistants
5	Construction Laborers
Employers	
1	Icicle Seafoods
2	Petersburg School District
3	City of Petersburg
4	Petersburg Medical Center
5	State of Alaska

Source: ADOLWD 2011g

3.7.5 Commercial Fishery Engagement

3.7.5.1 Overview

As discussed by Sepez et al. (2005:128–129), Petersburg is highly engaged in commercial fisheries, with 1,226 permits held by 468 permit holders (in 2000). Vessels making landings to Petersburg were involved in herring, halibut, sablefish, groundfish, and salmon fisheries.

3.7.5.2 Harvest Sector

General. From 2003 through 2010, the number of commercial fishing vessels in Petersburg has varied from 555 (in 2005) to 529 (in 2006). In 2010, the number of commercial fishing vessels was 543, with 408 registered crew members (CFEC 2011a, b).

In terms of fisheries of direct importance to Petersburg, salmon, groundfish, and halibut have had the most permits issued in recent years, with 374, 158, and 221 permits, respectively. The herring, sablefish, and shellfish fisheries are also important fisheries in Petersburg. Groundfish permits issued recently were concentrated in longline gear, although a handful of trawl permits were present in the community (Sepez et al. 2005:128–129).

GOA Groundfish Trawl. Only one Petersburg resident-owned GOA groundfish trawl vessel was present in any year of the data from 2003 through 2010, for an average of an even 1.0 per year over the same period (Table 1a), accounting for only 1.2 percent of the total GOA groundfish trawl fleet at most during any year in this period (Table 1b).²⁷ Confidentiality restrictions do not allow for a disclosure of exvessel gross revenues for local vessels, so these data are grouped with “all other Alaska” communities in the data reporting (Table 2a and Table 2b). Similarly, confidentiality restrictions do not allow for a Petersburg resident vessel owner-specific disclosure of halibut mortality, so these data are grouped in the “all other Alaska” communities in the data reporting (Table 5a and Table 5b). Of the Petersburg resident-owned GOA groundfish trawl vessels shown in the dataset for the years 2003-2010, participation was exclusively in the shallow-water complex fishery. No Petersburg residents were shown in the dataset as having owned GOA groundfish trawl catcher processors during the period 2003-2010.

GOA Groundfish Hook-and-Line. Petersburg resident-owned GOA groundfish hook-and-line vessels ranged from 16 (2003) to 4 (2007 and 2008) between the years 2003 and 2010, with an average of 9.1 Petersburg resident-owned vessels per year during this period (Table 3a), accounting for 2.7 percent of the total GOA groundfish hook-and-line fleet at most during any year in this period (Table 3b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 cannot be disclosed due to confidentiality concerns and this information has been aggregated with Juneau²⁸ (another southeastern community). When combined, the annual average exvessel gross revenues between 2003 and 2010 were \$1,008,430, with the highest value occurring in 2008 at \$2,282,262 (Table 4a). In terms of the entire GOA groundfish hook-and-line fleet, Petersburg and Juneau resident-owned vessels represent an average of 3.1 percent of total GOA groundfish fleet exvessel gross revenues (Table 4b). Halibut mortality ranged widely between 2003 and 2010 for GOA groundfish hook-and-line Petersburg/Juneau²⁹ resident-owned vessels, with an average of 13.2 tons per year (Table 6a), representing 4.1 percent of the total average (Table 6b). Of the Petersburg resident-owned GOA groundfish hook-and-line vessels shown in the dataset for the years 2003-2010, for any one year, a maximum of 12 vessels participated in the DSR fishery, while a maximum of six vessels participated in federally managed groundfish species fisheries other than DSR (classed as “other” in the dataset, which excludes sablefish as that fishery is exempt from the

²⁷ One Petersburg GOA groundfish trawl vessel also fished hook-and-line gear in the GOA groundfish fisheries in multiple years during the period 2003-2010 (2003-2007 and in 2010); these vessels are included in the vessel numbers in both the GOA groundfish trawl and hook-and-line vessel discussions.

²⁸ Information for Petersburg alone can only be disclosed for the years 2003-2006, inclusive. The Petersburg GOA groundfish hook-and-line annual average exvessel gross revenues between 2003 and 2006, inclusive, were \$421,837, with the highest value occurring in 2003 at \$761,732. For the years 2007-2010, inclusive, too few Juneau GOA groundfish hook-and-line vessels participated in these fisheries to allow separate data disclosure for both Juneau and Petersburg.

²⁹ Information for Petersburg alone can only be disclosed for the years 2003-2006, inclusive. The annual average halibut mortality between 2003 and 2006 for Petersburg resident-owned GOA groundfish hook-and-line vessels was 8.9 tons per year, with the highest value occurring in 2003 at 15.9 tons. For the years 2007-2010, inclusive, too few Juneau GOA groundfish hook-and-line vessels participated in these fisheries to allow separate data disclosure for both Juneau and Petersburg.

halibut PSC modifications being considered). In 2010, however, no Petersburg resident-owned GOA groundfish hook-and-line vessels participated in the DSR fishery and six participated in non-DSR fisheries. A total of five Petersburg residents were shown in the dataset as having owned GOA groundfish hook-and-line catcher processors during the period 2003-2010, with three present in 2003, one present in 2005 and 2007, two present in 2006 and 2008-2009, and four present in 2010.

GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Designations. No Petersburg resident-owned GOA groundfish vessels were part of the Amendment 80, AFA, or Rockfish program classes of vessels in 2010, the most recent year for which data are available (Table 7a), and no Petersburg resident-owned vessels were classed as Amendment 80, AFA, or Rockfish vessels in the data between 2003 and 2010 (Table 7b).

GOA Commercial Halibut. The annual average number of commercial GOA halibut QS holders in Petersburg between 2003 and 2011 was 213.6; the highest number of individual QS holders occurred in 2003 and 2006, with 221, but the total number has decreased since to a low of 205 in 2010 and 2011 (Table 8a). In 2011, the number of individual Petersburg resident GOA halibut QS holders represented 8.0 percent of all GOA halibut QS holders (Table 8b). The amount of QS units held by these individuals (Table 9a) was slightly higher in terms of percentage, however, at 9.2 percent of all GOA halibut QS units held in 2011 (Table 9b). While the number of Petersburg residents holding GOA halibut QS has decreased on the whole since 2003, the absolute number and percentage of QS units held by Petersburg residents has changed little since 2003.

3.7.5.3 Processing Sector

General. According to records from 2003, a total of 12 seafood processors filed an “intent to operate,” which indicated an increase over the seven processors that operated in the community in 2000. Landings in Petersburg included approximately 931 tons of federally managed species, which were primarily halibut and groundfish. Approximately 21,660 tons of salmon were also landed in Petersburg in the recent past (2000) (Sepez et al. 2005:128–129).

GOA Groundfish Processing. No shore-based processors in Petersburg received trawl caught deliveries of GOA groundfish from 2003 through 2010 (Table 10a); thus no first wholesale gross revenues are available on a community or aggregated basis (Table 10b and Table 10c). Two shore-based processors in Petersburg received hook-and-line caught GOA groundfish deliveries in 2003, 2004, and 2006 (Icicle Seafoods and Norquest Seafoods), and one shore-based processor in Petersburg received deliveries in 2005 and 2007 (Icicle Seafoods). No shore-based processors have received deliveries of hook-and-line caught GOA groundfish since 2007 (Table 11a). Due to confidentiality restrictions, the first wholesale gross revenues from hook-and-line caught GOA groundfish delivered shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 11b and Table 11c). The annual average number of shore-based processors in Petersburg receiving any GOA groundfish caught by trawl and hook-and-line gear combined from 2003 through 2010 was 1.0 (Table 12a). Due to confidentiality restrictions, the first wholesale gross revenues from GOA groundfish caught by trawl and hook-and-line

gear combined delivered to shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 12b and Table 12c).

GOA Halibut Processing. Petersburg shore-based processors were generally more active with regard to processing halibut, with at least two processors receiving halibut deliveries since 2006. These processing entities included Coastal Cold Storage, Icicle Seafoods, and Norquest Seafoods (in 2008) and Icicle Seafoods and Trident Seafoods (in 2009 and 2010). In 2010, the two processing entities represented 5.0 percent of the total number of shore-based processors that received halibut deliveries in Alaska.

3.7.6 GOA Halibut Sportfishing

Petersburg residents held 17 sport charter fishing permits in 2012. All permits were in Area 2C and were held by 13 individual permit holders (Table 13a). Estimates of catch statistics for charter sportfishing for Petersburg residents specifically are not readily available, but overall statistics for Area 2C suggest that an annual average of 82,299 halibut were caught between 2003 and 2010, with the largest number of halibut caught in 2007 (109,835). The average weight per fish has increased since 2007, when it was 17.5 pounds, to 26.4 pounds in 2010. In 2010, the estimated yield of halibut in Area 2C was 1.1 million pounds, which was below the average of 1.6 million pounds for the years 2003 through 2010 (Table 13b). The Petersburg/Wrangell subregion in Area 2C was not as productive in terms of charter total yield for the years 2007 through 2010, compared to many other subareas exhibiting higher estimated total yields, especially Sitka and Glacier Bay (Figure 2).

Estimates for non-charter sportfishing in Area 2C as a whole were similar, with the largest number of fish caught occurring in 2007 and the highest yield occurring in 2008 (68,498 and 1.3 million pounds, respectively). Average weight for non-charter halibut has declined on the whole since 2003, when it was 18.5 pounds, to 16.7 pounds in 2010. In 2010, the estimated yield of halibut in Area 2C was 0.9 million pounds, down slightly from the average of 1.00 million pounds for the years 2003 through 2010 (Table 13b). The Petersburg/Wrangell subregion in Area 2C was not as productive in terms of non-charter total yield for the years 2007 through 2010, either, compared to other subareas exhibiting higher estimated total yields, especially Glacier Bay (Figure 2).

3.7.7 GOA Halibut Subsistence

The number of subsistence halibut fishermen in Petersburg was relatively high compared to other communities profiled in this section. For example, in 2010, an estimated 409 subsistence fishermen (representing 13.9 percent of the total community population based on 2010 population numbers) caught halibut (Table 14a). Over the period 2003-2010, the largest number of subsistence fishermen occurred in 2004 (482), while the smallest number of fishermen occurred in 2007 (386). The number of halibut caught from 2003 through 2010 ranged from 2,816 (in 2009) to 3,727 (in 2004), with an annual average of 3,058.4 caught over this period. The annual average number of pounds caught between 2003 and 2010 was 53,838.1, which represented 5.3 percent of the total average number of pounds caught in Alaska for that time span (Table 14b).

3.8 SAND POINT

3.8.1 Location

Sand Point is located on Humboldt Harbor on Popof Island in the Shumagin Islands group. Off the southern shore of the Alaska Peninsula in the Gulf of Alaska, Sand Point is 570 miles to the southwest of Anchorage. Sand Point is accessible by air and water and is part of the Alaska Marine Highway. Incorporated as a First Class City, Sand Point is a part of the Aleutians East Borough (EDAW 2008:2-1). Sand Point is near the dividing line between the Central and Western Gulf FMP areas and is adjacent to halibut regulatory area 3B (Figure 1).

3.8.2 History

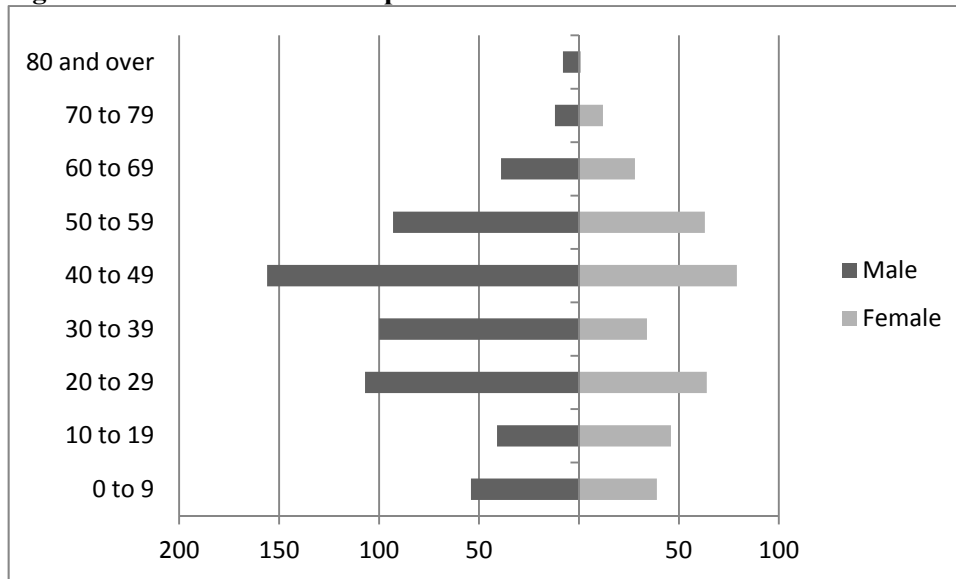
Sand Point is in an area that is part of the traditional territory of the Unga people. The community of Sand Point was founded in 1898 by a San Francisco fishing company as a trading post and cod fishing station. Unangans or Aleuts from surrounding villages and Scandinavian fishermen were the first residents of the contemporary community of Sand Point. The first settlers combined fishing and trading with fox farming and Sand Point served as a repair and supply center for gold mining during the early 1900s, but fish processing became the dominant activity in the 1930s (EDAW 2008:2-1).

3.8.3 Community Demographics

According to U.S. Census figures from 2010, a total of 976 people reside in Sand Point. There were proportionally more males in the population than in most of the communities profiled, as demonstrated in Figure 17, and the largest cohort of residents consisted of individuals aged 40 to 49. The gender composition of Sand Point varies widely from state and national averages as it is heavily influenced by the large local seafood processing operation, which in demographic terms may be described as an industrial enclave type of development, with its workforce drawn virtually exclusively from outside of the community.

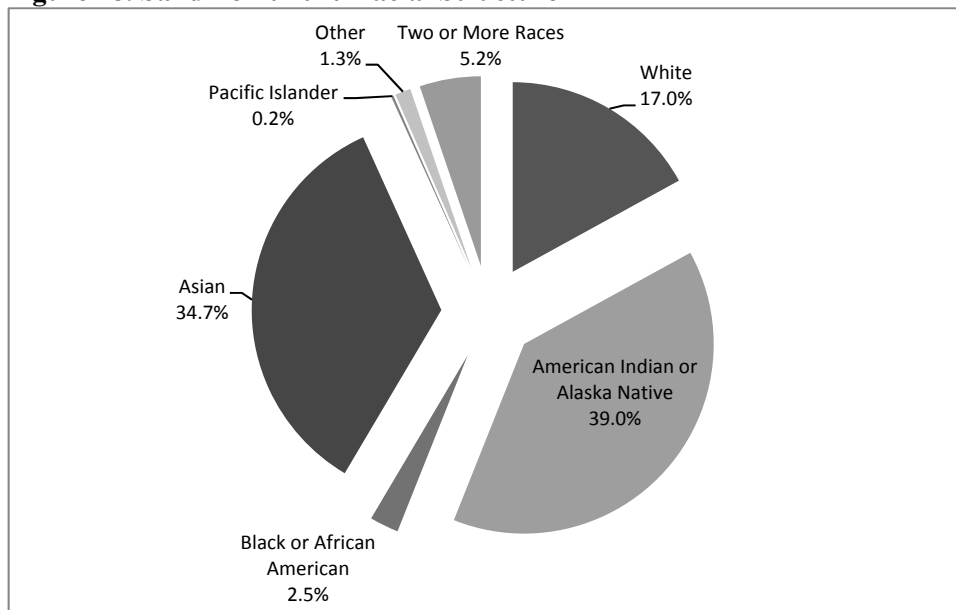
Census figures from 2010 show that only 17.0 percent of the residents of Sand Point identified themselves as White, while the largest racial group was American Indian or Alaska Native at 39.0 percent. Approximately 2.5 percent identified themselves as Black/African American, 34.7 percent as Asian, 0.2 percent as Pacific Islander, and 6.5 percent as “some other race” or “two or more races.” Finally, 6.2 percent of the residents of any race in Sand Point identified themselves as Hispanic. Based on race and ethnicity combined, 86.1 percent of Sand Point’s total population was composed of minority residents (that is, all residents other than those identified as White/non-Hispanic [race/ethnicity]). Figure 18 provides a graphical representation of the racial structure of Sand Point in 2010 (DCED 2011o). In general, Sand Point’s population was in part typical of a historic Alaska Native community, with a relatively large Alaska Native population segment. Additionally, the relatively large Asian/Pacific Islander/Other population segment is emblematic of larger seafood processing operations, particularly in the Aleutians East Borough and the Aleutian and Pribilof Islands region in general, that draw a proportionately large number of workers from a non-local labor pool.

Figure 17. Sand Point 2010 Population Structure



Source: U.S. Census 2011

Figure 18. Sand Point 2010 Racial Structure



Source: DCED 2011o

Housing data from the U.S. Census, as shown in Table 29, indicate that 64.1 percent of all Sand Point residents lived in non-group quarters housing, with total housing units in Sand Point numbering 290. Of those housing units, approximately 84.8 percent were occupied. Family households number 168, with an average household size of 2.54 persons. The large proportion of residents living in group quarters is indicative of a relatively transient population segment living in group housing associated with the large local seafood processing operation.

Table 29. Sand Point 2010 Housing Information

Total Population	976	100%
Living in Non-Group Quarters	626	64.1%
Living in Group Quarters	350	35.9%
Total Housing Units	290	100%
Occupied Housing (Households)	246	84.8%
Vacant Housing	44	15.2%
Family Households	168	68.3%
Average Household Size	2.54	na

na = not applicable
Source: DCED 2011o

3.8.4 Local Economy

As discussed by EDAW (2008:2-32), Sand Point is almost wholly dependent on commercial fishing and governmental economic sectors, which together provide the large majority of long-term employment in the community. Additionally, virtually everyone in Sand Point is directly or indirectly connected to the local commercial fishing vessel fleet, the community's large seafood processing operation, or service businesses that rely at least to some degree on fishing-related economic activity. Various construction projects provide important short- to medium-term employment. In contrast to a number of other communities profiled in this section (e.g., Anchorage, Homer, Kodiak, and Juneau), tourism does not play much of a role in the local economy and the economic output of the community is closely tied to the overall output of the commercial fishery.

As fishing seasons cycle through the year, employment rates fluctuate. The latest employment estimates based on the 2005-2009 U.S. Census American Community Survey suggest that 815 people were employed in Sand Point, with an unemployment rate of 7.2 percent. Per capita income for people in Sand Point was estimated at \$22,780, median household income was \$62,446, and median family income was \$61,012. An estimated 6.5 percent of Sand Point's residents were considered low-income, defined as those individuals living below the poverty level threshold (DCED 2011p). As shown in Table 30, the economy of Sand Point is dominated by commercial fishing and government, with three of the top occupations related to the commercial fishing industry. The top employers include the local fish processing plant, as well as those related to local and tribal government.

Table 30. Sand Point Top Five Occupations and Employers

Occupations	
1	Meat, Poultry, and Fish Cutters and Trimmers
2	Office Clerks
3	Laborers and Freight, Stock, and Material Movers
4	Maintenance Workers, Machinery
5	Cashiers
Employers	
1	Trident Seafoods
2	Aleutians East Borough School District
3	City of Sand Point
4	Shumagin Corporation
5	Eastern Aleutian Tribes

Source: ADOLWD 2011h

3.8.5 Commercial Fishery Engagement

3.8.5.1 Overview

Sand Point is similar to King Cove, in that the community is almost completely tied to the commercial fishing industry and has little in the way of a fisheries support sector aside from a handful of local business owners who specialize in marine-focused industries. Community residents report that there used to be more independent providers in years past when fisheries were active during longer periods of the year. In Sand Point, the primary shore-based plant has historically provided a variety of fleet support services (EDAW 2008:2-101).

3.8.5.2 Harvest Sector

General. From 2003 through 2010, the number of commercial fishing vessels in Sand Point has varied from 169 (in 2003) to 135 (in 2008). In 2010, the number of commercial fishing vessels was 144, with 117 registered crew members (CFEC 2011a, b).

As discussed by EDAW (2008:2-77), there are essentially two main components of the Sand Point residential commercial fishing fleet. The first is composed of 58-foot vessels that fish heavily during the winter fisheries (typically focusing on the cod trawl fishery) as well as during the summer salmon fisheries. The second is composed primarily of vessels in the 32- to 48-foot range that are more oriented toward summer salmon fisheries, although quite a few of these vessels also jig for cod in the winter and/or participate in the halibut fishery.

GOA Groundfish Trawl. Between 8 and 13 Sand Point resident-owned GOA groundfish trawl vessels were present in the data from 2003 through 2010, with the greatest number of vessels indicated during 2003 (Table 1a), accounting for 13.5 percent of the total GOA groundfish trawl fleet at most during any year in this period (Table 1b). Exvessel gross revenues for local vessels between 2003 and 2010 averaged \$3,092,417, with a maximum of \$3,933,251 occurring in 2006 (Table 2a).³⁰ Sand Point resident-owned GOA groundfish trawl vessels accounted for 6.7 percent of all exvessel gross revenues in 2010, and an average of 5.3 percent of all exvessel gross revenues for the years 2003 through 2010 (Table 2b). Halibut mortality between 2003 and 2010 averaged 12.7 tons, with a maximum mortality of 25.6 tons occurring in 2008 (Table 5a). Sand Point resident-owned GOA groundfish trawl vessels accounted for 0.1 percent of all halibut mortality in 2010, and an average of 0.6 percent of all halibut mortality for the years 2003 through 2010 (Table 5b). Of the Sand Point resident-owned GOA groundfish trawl vessels shown in the dataset for the years 2003-2010, all vessels participated in the shallow-water complex fishery exclusively. No Sand Point residents were shown in the dataset as having owned GOA groundfish trawl catcher processors during the period 2003-2010.

³⁰ Multiple Sand Point GOA groundfish trawl vessels also fished hook-and-line gear in the GOA groundfish fisheries during the period 2003-2010 (11 vessels in 2004, 10 vessels in 2003, nine vessels each year in 2005-2007 and in 2009, and seven vessels in 2008 and 2010) and are included in the vessel numbers in both the trawl and hook-and-line vessel discussions; taken on an annual average basis, 83.7 percent of all Sand Point GOA groundfish trawl vessels also fished GOA groundfish hook-and-line gear over this period.

GOA Groundfish Hook-and-Line. Sand Point resident-owned GOA groundfish hook-and-line vessels ranged from 50 (2003) to 18 (2006 and 2007) between the years of 2003 and 2010, with an average of 34.6 Sand Point resident-owned vessels per year during this period (Table 3a), accounting for 10.7 percent of the total GOA groundfish hook-and-line fleet at most during any year in this period (Table 3b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 was \$2,079,874, with the highest value occurring in 2003 at \$3,250,225 (Table 4a). In terms of the entire GOA groundfish hook-and-line fleet, Sand Point resident-owned vessels represent an average of 6.4 percent of the total GOA groundfish fleet exvessel gross revenues (Table 4b). Halibut mortality was relatively low for GOA groundfish hook-and-line Sand Point resident-owned vessels, with an average of 1.4 tons per year (Table 6a), representing 0.4 percent of the total average (Table 6b). Of the Sand Point resident-owned GOA groundfish hook-and-line vessels shown in the dataset for the years 2003-2010, for any one year, a maximum of one vessel participated in the DSR fishery, while a maximum of 50 vessels participated in federally managed groundfish species fisheries other than DSR (classified as “other” in the dataset, which excludes sablefish as that fishery is exempt from the halibut PSC modifications being considered).³¹ One Sand Point resident was shown in the dataset as having owned a GOA groundfish hook-and-line catcher processor in 2010.

GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Designations. No Sand Point resident-owned GOA groundfish vessels were part of the Amendment 80 or AFA program classes of vessels, and only one vessel was part of the Rockfish program class of vessels in 2010, the most recent year for which data are available (Table 7a). No Sand Point resident-owned vessel participation was present in the Amendment 80 or AFA programs between 2003 and 2010, but an average of 0.9 Sand Point resident-owned vessels have participated in the Rockfish program over those same years, representing 1.9 percent of all average participation (Table 7b).

GOA Commercial Halibut. The annual average number of commercial GOA halibut QS holders in Sand Point between 2003 and 2011 was 37.0; the highest number of individual QS holders occurred in 2003, with 43, but the number steadily decreased to 32 in 2007 before rebounding slightly. In 2011, the number of individual Sand Point resident GOA halibut QS holders was 34, which represented 1.3 percent of all GOA halibut QS holders (Table 8b). The amount of QS units held by these individuals (Table 9a) was slightly less in terms of percentage, however, at 0.8 percent of all GOA halibut QS units held in 2011 (Table 9b). As the number of Sand Point residents holding GOA halibut QS has decreased since 2003, the absolute number and percentage of QS units held by Sand Point residents is slightly lower in 2011 than in 2003.

3.8.5.3 Processing Sector

General. The single active processing plant in Sand Point is owned and operated by Trident Seafoods. In general, Trident management characterizes the Sand Point facility as a “white fish plant” in terms of its

³¹ According to other AKFIN data summarizing NOAA Fisheries catch accounting data, the fisheries most dominant in this “Other” category include Pacific cod and pollock (both bottom and midwater). While exact information for Sand Point cannot be disclosed due to confidentiality concerns, for the latest year for which complete data are available (2010), approximately 4 times the number of vessels were involved in the Pacific cod fishery than either of the pollock fisheries. Posted landings for Pacific cod, pollock (bottom), and pollock (midwater), were relatively substantial compared to other fisheries in the dataset.

dependency on cod, pollock, and halibut, in sharp contrast to the high volume of salmon run in other communities, such as King Cove. While salmon is run at Sand Point, according to earlier (May 2007) interviews with plant management, salmon production has dropped dramatically over time, with annual volume at the plant at the time of the interviews being approximately half that seen in the 1980s when the local salmon fishery was particularly prosperous (EDAW 2008:2-89). Further, Sand Point, unlike King Cove, has not processed any crab species covered by the Bering Sea/Aleutian Islands crab rationalization program since the implementation of that program in 2005 (AECOM 2010:1-43). A buying station for Peter Pan Seafoods is also present in Sand Point, with the physical processing taking place in King Cove. The buying station typically purchases cod, pollock, halibut, and salmon, giving local fishermen in Sand Point a second market for their catch (EDAW 2008:2-89).

GOA Groundfish Processing. The one shore-based processor in the community received trawl caught deliveries of GOA groundfish for all years between 2003 and 2010 (Table 10a). However, due to confidentiality restrictions, the first wholesale gross revenues from trawl caught GOA groundfish delivered to the shore-based processor cannot be disclosed, so these data were grouped with “all other” Alaska communities in the data reporting (Table 10b and Table 10c). Likewise, the one shore-based processor in Sand Point received hook-and-line caught GOA groundfish deliveries for all years between 2003 and 2010 (Table 11a). Again, due to confidentiality restrictions, the first wholesale gross revenues from hook-and-line caught GOA groundfish delivered shore-based processors cannot be disclosed, so these data were grouped with “all other” Alaska communities in the data reporting (Table 11b and Table 11c). The annual average number of shore-based processors in Sand Point receiving any GOA groundfish caught by trawl and hook-and-line gear combined from 2003 through 2010 was an even 1.0 (Table 12a). Due to confidentiality restrictions, the first wholesale gross revenues from GOA groundfish caught by trawl and hook-and-line gear combined delivered to shore-based processors cannot be disclosed, so these data were grouped with “all other” Alaska communities in the data reporting (Table 12b and Table 12c).

GOA Halibut Processing. The Sand Point shore-based processor was also active with regard to processing halibut, having received deliveries every year from 2003 through 2010. The Trident Seafoods processing plant represented 2.5 percent of the total number of shore-based processors that received halibut deliveries in Alaska.

3.8.6 GOA Halibut Sportfishing

In 2011, no one in the community of Sand Point held a sport charter halibut fishing permit (Table 13a). No non-charter halibut sport harvest information specific to the community of Sand Point is readily available.

3.8.7 GOA Halibut Subsistence

The number of subsistence halibut fishermen in Sand Point varies widely from 2003 through 2010, with an estimated 61 subsistence fishermen (representing 6.3 percent of the total community population based on 2010 population numbers) catching halibut (Table 14a). Over the period 2003-2010, the largest

number of subsistence fishermen occurred in 2007 (136), while the smallest number of fishermen occurred in 2003 (21). The number of halibut caught from 2003 through 2010 ranged from 225 (in 2003) to 1,510 (in 2008), with an annual average of 892.9 caught over this period. The annual average number of pounds caught between 2003 and 2010 was 15,872.8, which represented 1.6 percent of the total average number of pounds caught in Alaska for that time span (Table 14b).

3.9 SITKA

3.9.1 Location

Sitka is located in Southeast Alaska, on the western side of Baranof Island near Mt. Edgecumbe, a 3,200-foot extinct volcano. Sitka is approximately 93 miles southwest of Juneau, and 590 miles southeast of Anchorage. Sitka is only accessible by air and sea, and is on the Alaska Marine Highway system. Sitka is a Home Rule municipality and the city and borough governments have been unified since 1971 (Sepez et al. 2005:141). Sitka is adjacent to the Eastern Gulf FMP area (Southeast Outside District) and halibut regulatory area 2C.

3.9.2 History

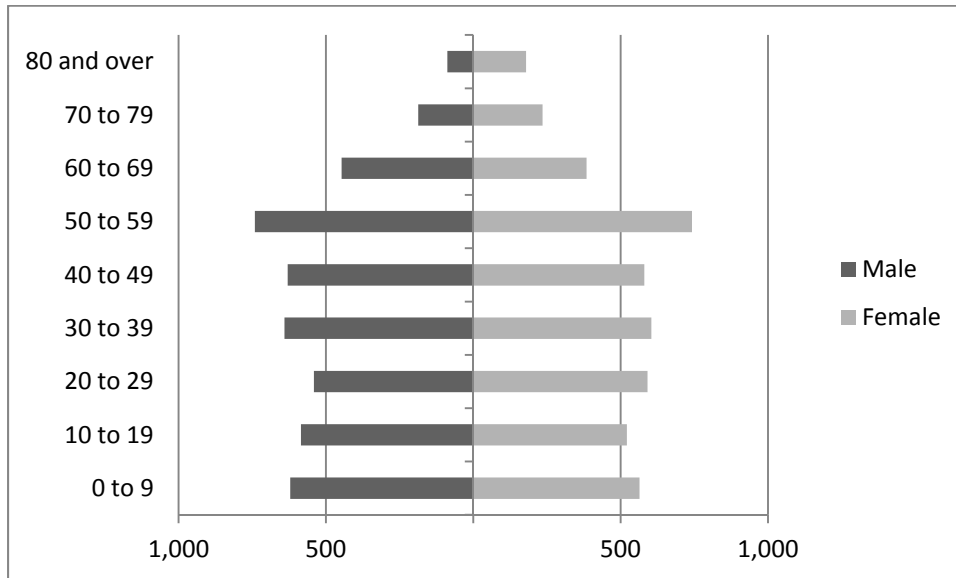
Sitka was originally a Tlingit village called “Shee Atika,” and was first contacted in 1741 by members of the Russian Vitus Bering expedition. By the first years of the 19th century, the Russian American Company had built a fort in Sitka, which was burned down by Tlingits in 1802. Two years later, the Russians retaliated and destroyed the Tlingit fort, forcing survivors to evacuate and effectively excluding the Tlingit people from the area for some time. Sitka had become the capital of Russian Alaska by 1808 and served as the major port on the north Pacific coast. Sitka became the center for traded goods like furs, lumber, salmon, and ice, for many nations. Once Alaska was purchased by the United States in 1867, Sitka remained the territorial capital until 1906, when the territorial government was moved to Juneau. One of the earliest canneries in Alaska was built in Sitka in 1878. Gold mines contributed to Sitka’s growth at the dawn of the 20th century and the city was incorporated in 1913. During World War II, the protection of Sitka and its port facilities was considered a high priority; the town was fortified, and the U.S. Navy built an air station across the harbor on Japonski Island, which brought with it 30,000 military personnel and 7,000 civilians. Today, Sitka is home to Mt. Edgecumbe High School, a state-run boarding school largely serving Alaska Native students from rural communities (located on the former military installation), as well as a number of commercial fishing operations and a large tourism sector (Sepez et al. 2005:140–141).

3.9.3 Community Demographics

According to U.S. Census figures from 2010, a total of 8,881 people reside in Sitka. The gender composition of the community was relatively balanced, as demonstrated by Figure 19, and the largest cohort of residents consisted of individuals aged 50 to 59. Sitka is more similar to state and national averages than are a number of the smaller fishing communities profiled in this section that feature

relatively greater male populations typically associated with large-scale transient worker based seafood processing and/or other industrial enclave type of development.

Figure 19. Sitka 2010 Population Structure

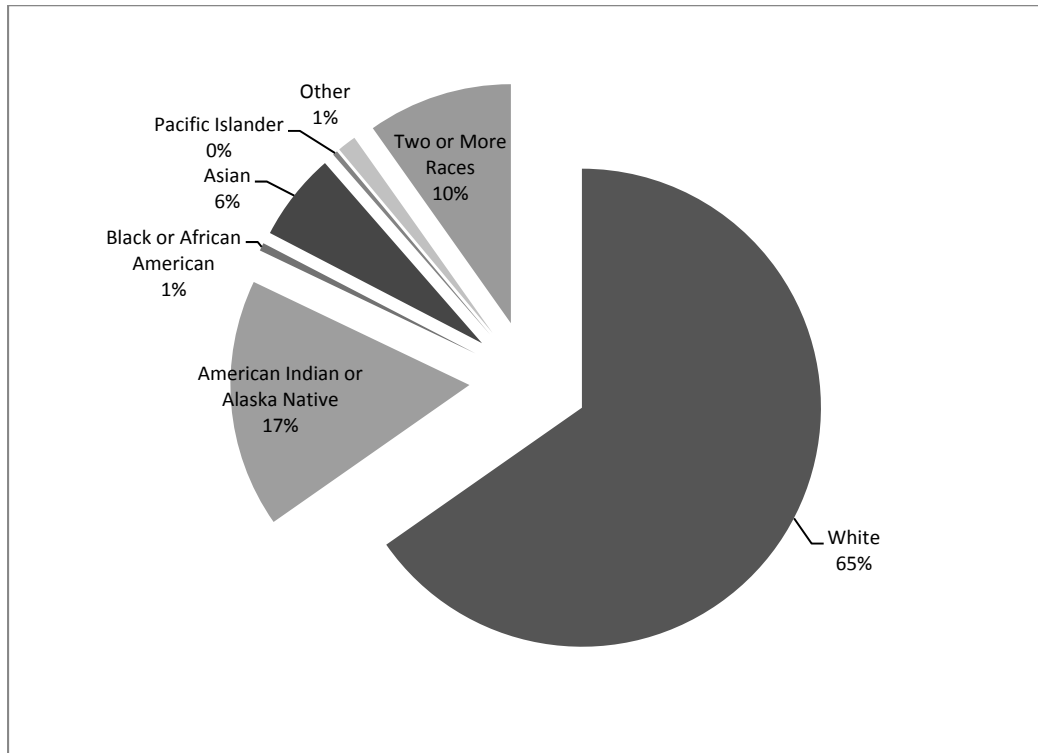


Source: U.S. Census 2011

Census figures from 2010 show that 65.3 percent of the residents of Sitka identified themselves as White, 16.8 as American Indian or Alaska Native, 0.5 percent as Black/African American, 6.0 as Asian, 0.3 as Pacific Islander, and 11.1 percent as “some other race” or “two or more races.” Finally, 4.9 percent of the residents of any race in Sitka identified themselves as Hispanic. Based on race and ethnicity combined, 36.5 percent of Sitka’s total population was composed of minority residents (that is, all residents other than those identified as White/non-Hispanic [race/ethnicity]). Figure 20 provides a graphic representation of the racial structure of Sitka in 2010 (DCED 2011q). In general, compared to a number of the smaller fishing communities profiled in this section, Sitka’s population has a relatively small Alaska Native population segment, typically associated with historically Alaska Native communities, as well as a relatively small Asian/Pacific Islander/Other population segment often associated with larger seafood processing operations that draw a proportionately large number of workers from a non-local labor pool.

Housing data from the U.S. Census, as shown in Table 31, indicate that 95.4 percent of all Sitka residents live in non-group quarters housing, with total housing units in Sitka numbering 4,102. Of those housing units, approximately 86.4 percent were occupied. Family households number 2,211, with an average household size of 1.5 persons. Although several seafood processors in Sitka are reported to have group housing for workers, the number of individuals living in group housing compared to the overall population is relatively small in contrast to some of the other, smaller fishing communities profiled in this section.

Figure 20. Sitka 2010 Racial Structure



Source: DCED 2011q

Table 31. Sitka 2010 Housing Information

Total Population	8,881	100%
Living in Non-Group Quarters	5,273	95.4%
Living in Group Quarters	255	4.6%
Total Housing Units	4,102	100%
Occupied Housing (Households)	3,545	86.4%
Vacant Housing	557	13.6%
Family Households	2,211	62.4%
Average Household Size	1.5	na

na = not applicable
Source: DCED 2011q

3.9.4 Local Economy

As discussed by Sepez et al. (2005:141–142), the economy of Sitka is relatively diversified compared to some of the smaller fishing communities profiled in this section. Commercial fishing is vitally important to the community, but Sitka has also emerged as a major tourist destination as over 200,000 cruise ship visitors come into Sitka annually. The retail, transportation, government, and health care sectors are also well developed in the community.

Seasonal fluctuations affect employment rates, by the latest estimates based on the 2005-2009 U.S. Census American Community Survey, which suggest that 4,652 people were employed in Sitka, with an unemployment rate of 7.6 percent. Per capita income for people in Sitka was \$30,013, median household income was \$58,895, and median family income was \$71,068. An estimated 6.7 percent of Sitka's residents were considered low-income, defined as those individuals living below the poverty level threshold (DCED 2011r). As shown in Table 32, four of the top five occupations in Sitka are in the retail or health care sectors, with the other top occupation in the seafood industry. The top employers include those related to the local health center, the school district, and city and borough government.

Table 32. Sitka Top Five Occupations and Employers

Occupations	
1	Retail Salespersons
2	Meat, Poultry, and Fish Cutters and Trimmers
3	Nursing Assistants
4	Registered Nurses
5	Cashiers
Employers	
1	Southeast Alaska Regional Health Consortium
2	Sitka Borough School District
3	State of Alaska (excludes U of A)
4	City and Borough of Sitka
5	Sitka Community Hospital

Source: ADOLWD 2011i

3.9.5 Commercial Fishery Engagement

3.9.5.1 Overview

As discussed by Sepez et al. (2005:142), Sitka is highly engaged in commercial fisheries, with 1,269 permits held by 586 individual residents (in 2000). Vessels making landings to Sitka were involved in halibut, herring, sablefish, groundfish, crab, shellfish, and salmon fisheries.

3.9.5.2 Harvest Sector

General. From 2003 through 2010, the number of commercial fishing vessels in Sitka has varied from 774 (in 2004) to 567 (in 2007). In 2010, the number of commercial fishing vessels was 615, with 552 registered crew members (CFEC 2011a, b).

In terms of fisheries of direct importance to Sitka, salmon, groundfish, and halibut have had the most permits issued in recent years, with 411, 338 (471, including sablefish), and 258 permits, respectively. The sablefish, crab, and sea cucumber fisheries are also important in Sitka. Groundfish permits issued recently were concentrated in longline and dinglebar troll gear, although a number of mechanical jig permits were present in the community (Sepez et al. 2005:142–143).

GOA Groundfish Trawl. No Sitka resident-owned GOA groundfish trawl vessels were present in the data from 2003 through 2010.

GOA Groundfish Hook-and Line. Sitka resident-owned GOA groundfish hook-and-line vessels ranged from 129 (2003) to 2 (2007 and 2008) between the years 2003 and 2010, with an average of 34.8 Sitka resident-owned vessels per year during this period (Table 3a), accounting for 19.9 percent of the total GOA groundfish hook-and-line fleet at most during any year in this period (Table 3b). In terms of GOA groundfish exvessel gross revenues for these vessels, the annual average between 2003 and 2010 cannot be disclosed due to confidentiality concerns, nor can this information be aggregated with other southeastern Alaskan communities profiled in this document due to confidentiality concerns.³² Halibut mortality information also cannot be disclosed or combined with other southeastern Alaskan communities due to confidentiality concerns.³³ Of the Sitka resident-owned GOA groundfish hook-and-line vessels shown in the dataset for the years 2003-2010, for any one year, a maximum of 127 vessels participated in the DSR fishery, while a maximum of 3 vessels participated in federally managed groundfish species fisheries other than DSR (classed as “other” in the dataset, which excludes sablefish as that fishery is exempt from the halibut PSC modifications being considered). In 2010, however, only one Sitka resident-owned GOA groundfish hook-and-line vessel participated in the DSR fishery and two participated in non-DSR fisheries.

GOA Groundfish Vessels and Amendment 80, AFA, and Rockfish Program Designations. No Sitka resident-owned GOA groundfish vessels were part of the Amendment 80, AFA, or Rockfish program classes of vessels in 2010, the most recent year for which data are available (Table 7a), and no Sitka resident-owned vessels were classed as Amendment 80, AFA, or Rockfish vessels in the data between 2003 and 2010 (Table 7b).

GOA Commercial Halibut. The annual average number of commercial GOA halibut QS holders in Sitka between 2003 and 2011 was 257.3; the highest number of individual QS holders occurred in 2003, with 289, but the total number has decreased since to a low of 238 in 2011 (Table 8a). In 2011, the number of individual Sitka resident GOA halibut QS holders represented 9.3 percent of all GOA halibut QS holders (Table 8b). The amount of QS units held by these individuals (Table 9a) was lower in terms of percentage, however, at 5.8 percent of all GOA halibut QS units held in 2011 (Table 9b). While the number of Sitka residents holding GOA halibut QS has decreased on the whole since 2003, the absolute number and percentage of QS units held by Sitka residents has remained relatively constant since 2003.

³² Information for Sitka alone can only be disclosed for the years 2003-2006, inclusive. The Sitka GOA groundfish hook-and-line annual average exvessel gross revenues between 2003 and 2006, inclusive, were \$384,861, with the highest value occurring in 2003 at \$654,903. For the years 2007-2010, inclusive, too few Sitka GOA groundfish hook-and-line vessels participated in these fisheries to allow separate data disclosure. (Data for Sitka have not been aggregated with those for Juneau and Petersburg in Section 2 of this document as they were not aggregated with those communities in the first version of this document [Sitka was not separately profiled in that version of the document] and to do so now would allow Sitka confidential information to be easily deduced. In the tables presented in Section 2, Sitka data are aggregated with those for “All Other Alaska.”)

³³ Information for Sitka alone can only be disclosed for the years 2003-2006, inclusive. The annual average halibut mortality between 2003 and 2006 for Sitka resident-owned GOA groundfish hook-and-line vessels was 0.6 tons per year, with the highest value occurring in 2004 at 2.2 tons. For the years 2007-2010, inclusive, too few Sitka GOA groundfish hook-and-line vessels participated in these fisheries to allow separate data disclosure (see previous footnote).

3.9.5.3 Processing Sector

General. According to records from 2003, a total of eight seafood processors filed an “intent to operate,” which indicated a similar level of processing activity that was present in 2000. The processors in Sitka are geared toward salmon but also have the capacity to process sablefish, groundfish, halibut, and herring (Sepez et al. 2005:143).

GOA Groundfish Processing. No shore-based processors in Sitka received trawl caught deliveries of GOA groundfish from 2003 through 2010 (Table 10a); thus no first wholesale gross revenues are available on a community or aggregated basis (Table 10b and Table 10c). Four shore-based processors in Sitka received hook-and-line caught GOA groundfish deliveries in 2004 (AQE Fishermen Services, North Pacific Processors, Seafood Producers Cooperative, and The Fresh Fish Company), three shore-based processors in 2003 and 2005 (David S. Castle, North Pacific Processors, and The Fresh Fish Company in 2003; North Pacific Seafoods, Seafood Producers Cooperative, and The Fresh Fish Company in 2005), two shore-based processors in 2006 through 2008 (North Pacific Seafoods and Seafood Producers Cooperative), and one shore-based processor in 2009 and 2010 (North Pacific Seafoods in 2009, and Seafood Producers Cooperative in 2010) (Table 11a). Due to confidentiality restrictions, the first wholesale gross revenues from hook-and-line caught GOA groundfish delivered to shore-based processors cannot be disclosed for any year except 2004, so data for all years are grouped with “all other” Alaska communities in the data reporting (Table 11b and Table 11c). The annual average number of shore-based processors in Sitka receiving any GOA groundfish caught by trawl and hook-and-line gear combined from 2003 through 2010 was 2.3 (Table 12a). Due to confidentiality restrictions, the first wholesale gross revenues from GOA groundfish caught by trawl and hook-and-line gear combined delivered to shore-based processors cannot be disclosed, so these data are grouped with “all other” Alaska communities in the data reporting (Table 12b and Table 12c).

GOA Halibut Processing. Sitka shore-based processors were generally more active with regard to processing halibut, with at least three processors receiving halibut deliveries since 2006. In 2010, a total of four shore-based processors received halibut deliveries. These processing entities included Absolute Fresh Seafoods, North Pacific Seafoods, Seafood Producers Cooperative, and Silver Bay Seafoods. In 2010, the four processing entities represented 10.0 percent of the total number of shore-based processors that received halibut deliveries in Alaska.

3.9.6 GOA Halibut Sportfishing

Sitka residents held 142 sport charter fishing permits in 2012. Almost all of the permits (140) were in Area 2C, while two permits were held in Area 3A. The permits were held by 65 individual permit holders (Table 13a). Estimates of catch statistics for charter sportfishing for Sitka residents specifically are not readily available, but overall statistics for Area 2C suggest that an annual average of 82,299 halibut were caught between 2003 and 2010, with the largest number of halibut caught in 2007 (109,835). The average weight per fish has increased since 2007, when it was 17.5 pounds, to 26.4 pounds in 2010. In 2010, the estimated yield of halibut in Area 2C was 1.1 million pounds, which was below the average of 1.6 million

pounds for the years 2003 through 2010 (Table 13b). The Sitka subregion in Area 2C was one of the most productive in terms of charter total yield for the years 2007 through 2010, with only the Glacier Bay subregion exhibiting similar estimated total yields (Figure 2).

Estimates for non-charter sportfishing in Area 2C as a whole were similar, with the largest number of fish caught occurring in 2007 and the highest yield occurring in 2008 (68,498 and 1.3 million pounds, respectively). Average weight for non-charter halibut has declined on the whole since 2003, when it was 18.5 pounds, to 16.7 pounds in 2010. In 2010, the estimated yield of halibut in Area 2C was 0.9 million pounds, down from the average of 1.00 million pounds for the years 2003 through 2010 (Table 13b). The Sitka subregion in Area 2C was not as productive in terms of non-charter total yield for the years 2007 through 2010 compared to other subareas, exceeding only the Haines/Skagway subregion (Figure 2).

3.9.7 GOA Halibut Subsistence

The proportion of subsistence halibut fishermen in Sitka was similar to other communities profiled in this section. For example, in 2010, an estimated 755 subsistence fishermen (representing 8.5 percent of the total community population based on 2010 population numbers) caught halibut (Table 14a). Over the period 2003-2010, the largest number of subsistence fishermen occurred in 2007 (921), while the smallest number of fishermen occurred in 2010 (755). The number of halibut caught from 2003 through 2010 ranged from 3,951 (in 2010) to 6,691 (in 2006), with an annual average of 5,820.5 caught over this period. The annual average number of pounds caught between 2003 and 2010 was 135,353.4, which represented 13.3 percent of the total average number of pounds caught in Alaska for that time span (Table 14b).

SECTION 4.0 COMMUNITY-LEVEL IMPACTS

4.1 COMMUNITY ENGAGEMENT, DEPENDENCE, AND VULNERABILITY

Vulnerability of communities to adverse community-level impacts from the proposed GOA halibut PSC reductions is in part a function of dependence of the community on the potentially affected GOA groundfish fisheries and the economic resiliency of the community. Dependency is influenced by the relative importance of GOA groundfish fisheries in the larger community fisheries sector(s), as well as the relative importance of the overall community fishery sector(s) within the larger community economic base (both in terms of private sector business activity and public revenues). Also important to adverse community-level impact outcomes is the specific nature of local engagement in the potentially affected GOA groundfish fisheries and alternative employment, business, and public revenue opportunities available within the community as a result of the location, scale, and relative economic diversity of the community.

The potential for beneficial community-level impacts from the proposed GOA halibut PSC reductions in any given community is in part a function of dependence of the community on the potentially affected GOA halibut fisheries. Dependency is influenced by the relative importance of GOA halibut fisheries in the larger community fisheries sector(s), as well as the relative importance of the overall community fishery sector(s) within the larger community economic base (both in terms of private sector business activity and public revenues). Also important to beneficial community-level impact outcomes is the specific nature of local engagement in the potentially affected GOA halibut fisheries and alternative employment, business, and public revenue opportunities available within the community as a result of the location, scale, and relative economic diversity of the community.

4.2 GOA GROUND FISH FISHERY ENGAGEMENT IN THE ALASKA COMMUNITIES PROFILED

With regard to the specific communities profiled and assessed as part of this document, the levels and natures of engagement in the GOA groundfish fishery vary widely. Specifically:

- Anchorage, on an annual average basis for the years 2003-2010, was engaged in the GOA groundfish fisheries through local ownership of less than one trawl vessel and 11 hook-and-line vessels. Average annual revenues for the trawl vessels cannot be disclosed; average annual combined GOA groundfish exvessel gross revenue for hook-and-line vessels was \$0.6 million. Anchorage averaged less than one shore-based GOA groundfish processor per year 2003-2010; no Anchorage processor accepted trawl caught GOA groundfish deliveries during this time period.

- Chignik Lagoon, on an annual average basis for the years 2003-2010, was engaged in the GOA groundfish fisheries through local ownership of eight hook-and-line vessels (with no local ownership of GOA groundfish trawl vessels during this time). Average annual combined GOA groundfish exvessel gross revenue for hook-and-line vessels was \$1.1 million. Chignik Lagoon did not have a shore-based processor accepting GOA groundfish deliveries from any gear type in any year 2003-2010.
- Homer, on an annual average basis for the years 2003-2010, was engaged in the GOA groundfish fisheries through local ownership of less than one trawl vessel and 48 hook-and-line vessels. Average annual revenues for the trawl vessels cannot be disclosed; average annual combined GOA groundfish exvessel gross revenue for hook-and-line vessels was \$3.0 million. Homer averaged less than one shore-based GOA groundfish processor per year 2003-2010; no Homer processor accepted trawl caught GOA groundfish deliveries during this time period.
- Juneau, on an annual average basis for the years 2003-2010, was engaged in the GOA groundfish fisheries through local ownership of less than one trawl vessel and eight hook-and-line vessels. Average annual revenues for the trawl or hook-and-line vessels cannot be disclosed. Juneau averaged less than one shore-based GOA groundfish processor per year 2003-2010; no Juneau processor accepted trawl caught GOA groundfish deliveries during this time period.
- King Cove, on an annual average basis for the years 2003-2010 was engaged in the GOA groundfish fisheries through local ownership of less than four trawl vessels and 15 hook-and-line vessels. Average annual revenues for the trawl vessels cannot be disclosed; average annual combined GOA groundfish exvessel gross revenue for hook-and-line vessels was \$2.1 million. King Cove averaged one shore-based GOA groundfish processor per year 2003-2010; this processor accepted both trawl and hook-and-line caught GOA groundfish deliveries during this period.
- Kodiak, on an annual average basis for the years 2003-2010, was engaged in the GOA groundfish fisheries through local ownership of 15 trawl vessels and 125 hook-and-line vessels. Average annual combined GOA groundfish exvessel gross revenue for the trawl vessels was \$10.4 million; average annual combined GOA groundfish exvessel gross revenue for hook-and-line vessels was \$9.3 million. Kodiak averaged nine shore-based GOA groundfish processors per year 2003-2010; Kodiak processors accepted both trawl caught and hook-and-line caught GOA groundfish deliveries during this period. Average annual combined first wholesale gross revenue from groundfish deliveries to these processors was \$84.1 million.
- Petersburg, on an annual average basis for the years 2003-2010, was engaged in the GOA groundfish fisheries through local ownership of one trawl vessel and nine hook-and-line vessels. Average annual revenues for the trawl or hook-and-line vessels cannot be disclosed. Petersburg averaged less than one shore-based GOA groundfish processor per year 2003-2010; no Petersburg processor accepted trawl caught GOA groundfish deliveries during this time period.

- Sand Point, on an annual average basis for the years 2003-2010, was engaged in the GOA groundfish fisheries through local ownership of 11 trawl vessels and 15 hook-and-line vessels. Average annual combined GOA groundfish exvessel gross revenue for the trawl vessels was \$3.1 million; average annual combined GOA groundfish exvessel gross revenue for hook-and-line vessels was \$2.1 million. Sand Point averaged one shore-based GOA groundfish processor per year 2003-2010; this processor accepted both trawl and hook-and-line caught GOA groundfish deliveries during this period.
- Sitka, on an annual average basis for the years 2003-2010, was engaged in the GOA groundfish fisheries through local ownership of 49 hook-and-line vessels (with no local ownership of GOA groundfish trawl vessels during this time). Average annual combined GOA groundfish exvessel gross revenue for hook-and-line vessels was \$0.4 million for the years 2003-2006 inclusive, the only years during which there were four or more locally owned vessels, allowing data disclosure. Sitka averaged two shore-based GOA groundfish processors per year 2003-2010; no Sitka processor accepted trawl caught GOA groundfish deliveries during this time period.

Table 33 provides a graphic representation of GOA groundfish fisheries engagement and GOA halibut fisheries engagement for the communities profiled. Also shown in this table is relative community size, which, in these cases, corresponds to relative diversity of the local economy.

Table 33. Graphic Representation of Annual Average Engagement in Potentially Affected Gulf Groundfish and Halibut Fisheries for Profiled Alaska Communities

Community	Relative Community Size	Gulf Groundfish Engagement		Gulf Halibut Engagement		
		Locally Owned Vessels		Shore-Based Processing Location	Local Commercial Halibut Quota Share Holders	Local Sport Charter Permit Holders
		Trawl Sector	Hook-and-Line Sector			
Anchorage	●	•	○	•	○	●
Chignik Lagoon	•	none	•	none	•	none
Homer	○	•	●	○	●	●
Juneau	●	•	•	•	○	○
King Cove	•	○	○	○	•	none
Kodiak	○	●	●	●	●	●

Community	Relative Community Size	Gulf Groundfish Engagement		Gulf Halibut Engagement		
		Locally Owned Vessels		Shore-Based Processing Location	Local Commercial Halibut Quota Share Holders	Local Sport Charter Permit Holders
		Trawl Sector	Hook-and-Line Sector			
Petersburg	○	○	●	○	●	●
Sand Point	●	●	●	○	●	none
Sitka	○	none	●	●	●	●

Key for Table 33

Type/Level of Engagement	●	○	●
Community Size	2010 population = less than 1,000	2010 population = 1,000 – 10,000	2010 population = greater than 10,000
GOA Groundfish Trawl Participation	2003-10 annual avg. = 0.1 – 0.9 vessels	2003-10 annual avg. = 1.0 – 9.9 vessels	2003-10 annual avg. = 10.0 or more vessels
GOA Groundfish Hook-and-Line Participation	2003-10 annual avg. = 0.1 – 9.9 vessels	2003-10 annual avg. = 10.0 – 24.9 vessels	2003-10 annual avg. = 25.0 or more vessels
GOA Groundfish Shore-Based Processing Participation	2003-10 annual avg. = 0.1 – 0.9 plants	2003-10 annual avg. = 1.0 – 1.9 plants	2003-10 annual avg. = 2.0 or more plants
GOA Commercial Halibut Participation	2003-10 annual avg. = 0.1 – 49.9 QS holders	2003-10 annual avg. = 50.0 – 199.9 QS holders	2003-10 annual avg. = 200 or more QS holders
GOA Sport Charter Halibut Participation	2011 (only) = 1 – 19 permit holders	2011 (only) = 20 – 39 permit holders	2011 (only) = 40 or more permit holders

4.3 GOA GROUND FISH FISHERY DEPENDENCY AND VULNERABILITY TO ADVERSE COMMUNITY-LEVEL IMPACTS OF THE PROPOSED ACTION AMONG ALASKA COMMUNITIES

The relative importance of the GOA groundfish fisheries likely to be affected by the proposed GOA halibut PSC revisions within the larger local fisheries sector and within the larger local economic base varies widely among the engaged Alaska communities. Similarly, the socioeconomic structure of the engaged communities varies widely along with the relative diversity of their respective local economies. (Detailed information regarding the diversity of fishery participation of hook-and-line and trawl GOA groundfish fleets by species, by community, is presented in Tables A-10 and A-11 in the attachment to this community analysis appendix. Detailed information regarding monthly participation of hook-and-line and trawl GOA groundfish fleets in the GOA groundfish fishery itself, by community, is presented in Tables A-12 and A-13 in the attachment to this community analysis appendix.)

4.3.1 Anchorage, Juneau, Petersburg, and Sitka

For Anchorage and Juneau, the relatively modest level of engagement in the GOA groundfish fishery combined with the size and relative diversity of the local economy makes adverse community-level impacts from the proposed GOA halibut PSC revisions unlikely. This is particularly true given that adverse impacts to the GOA groundfish fishery would be largely concentrated in trawl-related undertakings and both communities averaged less than one locally owned GOA groundfish trawl vessel per year and neither community had any shore-based processing of any trawl caught GOA groundfish over the period 2003-2010.

Sitka has a relatively modest level of engagement in the GOA groundfish fishery both in absolute terms and with respect to the local importance of other Southeast Alaska fisheries, particularly in recent years as local fleet engagement in the GOA groundfish fisheries has substantially declined. While not having as large or as diversified an economy as Anchorage or Juneau, Sitka is still a relatively large community by Alaska standards and is not exclusively dependent on fisheries, given the local importance of tourism, government, transportation, retail, and health care service sectors, among others. As a result of these combined factors, the proposed GOA halibut PSC revisions are not likely to result in adverse community-level impacts in Sitka. This is particularly true given that adverse impacts to the GOA groundfish fishery would be largely concentrated in trawl-related undertakings and Sitka had no locally owned GOA groundfish trawl vessels or any shore-based processing of any trawl caught GOA groundfish over the period 2003-2010.

Petersburg also has a relatively modest level of engagement in the GOA groundfish fishery both in absolute terms and with respect to the local importance of other Southeast Alaska fisheries. While not having a large or particularly diversified economy when compared to Anchorage, Juneau, or Sitka, Petersburg is not exclusively dependent on fisheries, given the local importance of outdoor tourism-oriented enterprises and a relatively large government sector, although it is important to note that Petersburg's economy has been less diversified in recent years than was previously the case due to the local exit of the timber industry. As a result of these combined factors, the proposed GOA halibut PSC revisions are not likely to result in adverse community-level impacts in Petersburg. This particularly true given that adverse impacts to the GOA groundfish fishery would be largely concentrated in trawl-related undertakings and Petersburg averaged less than one locally owned GOA groundfish trawl vessel per year and had no shore-based processing of any trawl caught GOA groundfish over the period 2003-2010.

4.3.2 Homer

For the community of Homer, a substantial portion of the local fleet is typically involved in GOA groundfish hook-and-line fisheries each year, but other fisheries (especially halibut and salmon) are generally considered to be of more economic importance to the local fleet and experience higher vessel participation rates. Some local GOA groundfish processing does occur, but not every year. Furthermore, the economy of Homer is relatively diversified, with active healthcare, construction, government, and tourism sectors. It is not anticipated that community-level impacts from the proposed GOA halibut PSC revisions would occur in Homer. This is particularly true given that adverse impacts to the GOA groundfish fishery would be largely concentrated in trawl-related undertakings and Homer averaged less

than one locally owned GOA groundfish trawl vessel per year and had no shore-based processing of any trawl caught GOA groundfish over the period 2003-2010.

4.3.3 Chignik Lagoon

Chignik Lagoon is a small, relatively isolated community heavily focused on commercial fishing within the private sector portion of the local economy. While other fisheries are also locally important, especially the salmon fisheries, the level of engagement in the GOA groundfish hook-and-line fisheries compared to the scale of the community suggests that Chignik Lagoon may be among the communities most heavily dependent on GOA groundfish fisheries from a locally owned hook-and-line fleet perspective. However, given that adverse impacts that may accrue to the GOA groundfish fishery as a result of GOA halibut PSC reductions would be largely concentrated in trawl-related undertakings and Chignik Lagoon had no locally owned GOA groundfish trawl vessels or any shore-based processing of any trawl caught (or any other gear caught) GOA groundfish over the period 2003-2010, the proposed GOA halibut PSC revisions are not likely to result in adverse community-level impacts in Chignik Lagoon.

4.3.4 King Cove and Sand Point

General

For the communities of King Cove and Sand Point, the local fleets are substantially engaged in the GOA groundfish fishery, with Sand Point residents in particular owning a substantial number of trawl vessels active in the GOA groundfish fisheries, and both communities having a relatively high proportion of their local fleets involved in the GOA groundfish hook-and-line fisheries. Both communities have individual locally owned vessels that participate in the GOA groundfish fisheries using both trawl and hook-and-line gear (with King Cove averaging 3.0 and Sand Point averaging 8.9 such vessels per year during the period 2003-2010, the highest average numbers of any Alaska communities participating in the relevant GOA groundfish fisheries during that time; this was 85.7 percent and 83.7 percent, respectively, of the annual average of all participating GOA groundfish trawl vessels from these two communities). This degree of overlap is unique to King Cove and Sand Point fleets among Alaska community fleets and, in theory, would make proportionally larger numbers of King Cove and Sand Point individual operations more vulnerable to adverse impacts of potential simultaneous trawl and hook-and-line GOA halibut PSC reductions than is the case in other Alaska communities. Previous fieldwork in these two communities would suggest that these potentially more vulnerable vessels are among the highest producing vessels in these communities. Both communities have a single shore-based processing plant that provides not only a market for the local fleet's catch, but also a number of support services that are not found elsewhere in the community. These relatively large shore-based processors also accept substantial volumes of deliveries from vessels fishing in the region but owned outside of these communities.

One potential mitigating factor for possible adverse impacts from the proposed action or alternatives with respect to local GOA groundfish trawl-related operations, however, is the seasonal timing of those operations in both King Cove and Sand Point. While specific volume or value numbers are confidential, over the period 2003-2009 inclusive, approximately 99.7 percent of the first wholesale value of groundfish harvested from the Western Gulf in the Pacific cod trawl directed fishery that was delivered to

plants within the Western Gulf area was delivered in the first halibut PSC season (January 20 through March 31), with the remainder being delivered in the fifth halibut PSC season (October 1 through December 31). Further, among the GOA groundfish fisheries potentially subject to proposed GOA halibut PSC reductions, directed fisheries trawl deliveries were exclusively limited to cod and pollock deliveries in Sand Point for all years 2003-2009, inclusive, and in King Cove from 2007-2009, inclusive. In the case of King Cove, while additional directed fisheries trawl deliveries of rex sole and shallow-water flatfish do appear in the data for 2003, 2004, and 2006, the first wholesale values associated with these deliveries are very small compared to those of cod and/or pollock (and, given the relative values, there is the possibility that all trips were in fact cod trips, but were defined as rex sole or shallow-water flatfish trips as an artifact of targeting algorithm within the dataset based on species composition).

While both King Cove and Sand Point locally owned trawl fleets exclusively engaged in shallow-water complex (as opposed to deep-water complex) GOA groundfish trawl fisheries over the period 2003-2010, inclusive, there was variation in the fleets in terms of pelagic versus non-pelagic trawl gear utilization over this same time period.

- Of the five unique King Cove vessels that participated in the relevant GOA groundfish trawl fisheries over this time period, between two and five vessels utilized non-pelagic trawl gear each year (for an annual average of 3.3 vessels), while only two vessels utilized pelagic trawl gear in one year (2010) over this same period (for an annual average of 0.3 vessels).
- Of the 14 unique Sand Point vessels that participated in the relevant GOA groundfish trawl fisheries over this time period, between four and 10 vessels utilized non-pelagic trawl gear each year (for an annual average of 8.0 vessels), while between seven and 11 vessels utilized pelagic trawl gear each year (for an annual average of 10.3 vessels) over this same period.

As noted in Section 4.6.6.3 of the RIR in the main document to which this community analysis is an appendix, in the shallow-water complex, halibut PSC limits historically constrained the fleet most often in September during the fourth halibut PSC season, which opens simultaneously with Pacific cod B season (that is, after King Cove and Sand Point fleets and processors had typically ended their GOA groundfish fishery engagement for the year); shallow-water seasonal limits have also constrained the fleet occasionally at various times throughout the year, most often in flatfish fisheries (that is, in fisheries that are not typically targeted by either King Cove or Sand Point resident-owned vessels).

Assuming that the potential impacts of trawl-related GOA halibut PSC reductions on the Western Gulf pollock fishery would be minimal (due to the ability to fish pollock with mid-water [pelagic] trawl gear after a halibut PSC closure), these historic GOA groundfish trawl sector engagement patterns suggest that any GOA halibut PSC revisions that affected any season other than the cod “A” season (January 1 through June 9) in the Western Gulf would have minimal impacts to King Cove and Sand Point. Specifically, if the alternative chosen had the effect of concentrating trawl GOA halibut PSC reductions in the fifth halibut PSC season, the potential adverse community impacts would be concentrated in Kodiak (as discussed in the next section), not in King Cove and/or Sand Point.

The economies of King Cove and Sand Point are not as large or as diversified as those of the other Alaska communities profiled, and what may be considered a small change in economic output for Anchorage,

Juneau, Homer, or Kodiak might well be considered substantial in King Cove and/or Sand Point. While operating numbers are confidential, Sand Point's processing plant is believed to be more dependent on GOA groundfish and less dependent on salmon (and Bering Sea/Aleutian Islands crab) than is the case for the King Cove plant. Therefore, a greater potential may exist for adverse effects of the proposed GOA halibut PSC revisions in Sand Point than in King Cove, based on a larger relative dependency in the local shore-based processing sector as well as in the local catcher vessel fleet sector. Recent detailed descriptions of local fleets, processors, support sector businesses, municipal services and revenues, and the links between these sectors, are available for both King Cove and Sand Point (AECOM 2010 and EDAW 2008, respectively). These descriptions were compiled for other NPFMC analyses, are readily available through the NPFMC website,³⁴ and are not recapitulated here.

The proposed GOA halibut PSC revisions may result in impacts to a number of King Cove and/or Sand Point resident-owned vessels engaged in the different GOA groundfish subsectors subject to the proposed action or alternatives that would be significant at the individual operation level (and perhaps particularly for those operations where the ability to switch from non-pelagic to pelagic trawl gear is constrained, although it is important to note that switching to pelagic trawl gear to avoid halibut bycatch can, depending on fishing conditions, have the effect of increasing Chinook salmon bycatch, thereby solving or reducing one PSC problem while creating or increasing another PSC problem³⁵). While detailed, field-based GOA halibut PSC revision-specific impact analyses of the interaction of the directly affected fishery sectors with local public and/or other private support sectors that could result in wider indirect impacts in either King Cove or Sand Point have not been undertaken due to time and resource constraints, significant community-level impacts, as gauged through the use of existing data, are not anticipated in King Cove or Sand Point.

Potential Environmental Justice Concerns

In terms of the potential for high and adverse impacts accruing disproportionately to minority populations or low-income populations (which would trigger environmental justice concerns under Executive Order 12898), as of 2010, based on a combination of race and ethnicity, 89.9 percent of King Cove's population was composed of minority residents (including 38.4 percent Alaska Native or American Indian), and 11.5 percent of King Cove's population was considered low-income. Similarly, as of 2010, based on a combination of race and ethnicity, 86.1 percent of Sand Point's population was composed of minority residents (including 39.0 percent Alaska Native or American Indian), and 6.5 percent of Sand Point's population was considered low-income. Although systematically collected demographic and income information on individual fishery participants by sector is not readily available, previous work (AECOM 2010 and EDAW 2008) and a working familiarity with those sectors does allow for at least some general characterizations for minority population engagement. Historically, both King Cove and Sand Point commercial fishing vessel owners and crew have tended to mirror the general population of the community, including very high Alaska Native representation.

³⁴ See http://www.fakr.noaa.gov/npfmc/PDFdocuments/catch_shares/Crab/5YearRev1210_AppxA.pdf for the King Cove community profile containing this information; see http://www.fakr.noaa.gov/npfmc/PDFdocuments/catch_shares/AKCommunityProfilesVol2.pdf for the Sand Point community profile containing this information.

³⁵ Minimization of Chinook salmon PSC in the central and western GOA pollock fisheries is the subject of a pending related fishery management action as described in Section 1.7.1 in the body of the main document to which this community analysis is an appendix.

In both King Cove and Sand Point, however, processing workers have tended to be relatively distinct demographically in relation to the rest of the local population; processing workers in both communities are overwhelmingly recruited from a labor pool from outside the community, live in group quarters supplied on-site by the locally operating processing company, and have tended to include a high proportion of non-White and non-Alaska Native minority workers. Due to the almost exclusive use of group quarters by processing workers in each community, it is possible to estimate the specific minority population(s) within this locally present workforce and compare it to the population of the community residing outside of group quarters.

Using 2010 federal census data, both the group quarters residents and non-group quarters residents in King Cove and Sand Point represent high minority populations, but the specific demography of these residence type based groups varies considerably, particularly with respect to relative proportions of Alaska Native and Asian origin residents. Based on a combination of race and ethnicity, 94.5 percent of King Cove's group quarters population (assumed to be processing workers) was composed of minority residents (including 1.6 percent Black/African American, 0.7 percent American Indian or Alaska Native, 71.5 percent Asian, 0.2 percent Native Hawaii or Other Pacific Islander, and 8.7 percent some other race or two or more races, along with 20.1 percent Hispanic of any origin). In contrast, 85.8 percent of King Cove's non-group quarters population (assumed to not be processing workers) was composed of minority residents (including 0.4 percent Black/African American, 71.4 percent American Indian or Alaska Native, 5.8 percent Asian, 0.2 percent Native Hawaii or Other Pacific Islander, and 7.0 percent some other race or two or more races, along with 3.4 percent Hispanic of any origin). Similarly, 96.9 percent of Sand Point's group quarters population was composed of minority residents (including 4.6 percent Black/African American, 0.6 percent American Indian or Alaska Native, 79.4 percent Asian, 0.3 percent Native Hawaii or Other Pacific Islander, and 5.4 percent some other race or two or more races, along with 9.4 percent Hispanic of any origin). In contrast, 80.0 percent of Sand Point's non-group quarters population (assumed to not be processing workers) was composed of minority residents (including 1.3 percent Black/African American, 60.5 percent American Indian or Alaska Native, 9.7 percent Asian, 0.2 percent Native Hawaii or Other Pacific Islander, and 7.2 percent some other race or two or more races, along with 4.3 percent Hispanic of any origin). Low-income status by housing type is not yet available within the 2010 census data.

As a result of the demographic characteristics summarized in this section, if significant adverse impacts were to accrue to the King Cove and/or Sand Point catcher vessel and/or processing sectors due to implementation of the proposed GOA halibut PSC reduction or alternatives, environmental justice concerns would apply. Different minority populations, however, would be affected by sector-specific impacts.

4.3.5 Kodiak

General

Kodiak is substantially engaged in and dependent upon a wide range of GOA fisheries. Its fleet is substantially engaged in a wide range of Gulf groundfish fisheries in terms of spatial and seasonal distribution of effort, species targeted, and gear types utilized, and Kodiak processing operations are very

much the center of Gulf groundfish shore-based processing, receiving groundfish landings from vessels from the Pacific Northwest as well as elsewhere in Alaska. A recent detailed community profile containing a description the local fleet, processors, support sector businesses, municipal services and revenues, and the links between these sectors is available for Kodiak (AECOM 2010). This fishery baseline-oriented profile was compiled for other NPFMC analyses, is readily available through the NPFMC website,³⁶ and is not recapitulated here.

Kodiak-Owned GOA Groundfish Catcher Vessels

The local Kodiak fleet is, by far, more heavily engaged (in absolute numbers) in the GOA groundfish fisheries potentially affected by the proposed GOA halibut PSC revisions than is the local fleet of any other Alaska community, with relatively large numbers of resident-owned vessels participating in both the trawl and hook-and-line sectors. As shown in Tables 1–4 in Section 2.0, the following occurred on an annual basis for the years 2003-2010:

- An average of 15.0 Kodiak-owned vessels participated in the GOA groundfish trawl fisheries, which represented 46.4 percent of Alaska vessels and 16.3 percent of all vessels participating in these trawl fisheries. The Kodiak-owned vessels accounted for \$10.4 million in annual GOA groundfish trawl exvessel gross revenues over this time period (which was about 71.7 percent of all Alaska-owned GOA groundfish trawl exvessel gross revenues).
- An average of 125.4 Kodiak-owned vessels participated in the GOA groundfish hook-and-line fisheries, which represented 34.2 percent of Alaska vessels and 28.5 percent of all vessels participating in these hook-and-line fisheries. The Kodiak-owned vessels accounted for \$9.3 million in annual GOA groundfish hook-and-line exvessel gross revenues over this time period (which was about 41.2 percent of all Alaska-owned GOA groundfish hook-and-line exvessel gross revenues).
- Typically, at least some Kodiak-owned vessels fished GOA groundfish with both gear types; there were on average 2.8 such vessels annually during 2003-2011, which was 18.3 percent of the annual average of all locally owned trawl vessels during this period.

Although Kodiak-owned GOA groundfish hook-and-line vessels outnumbered Kodiak-owned GOA groundfish trawl vessels by over eight to one, annual GOA groundfish hook-and-line exvessel gross revenues were only about 10.6 percent lower than those of GOA groundfish trawl exvessel gross revenues. Under the GOA halibut PSC reduction alternatives, on a fishery-wide basis, up to 5.9 percent of GOA groundfish trawl exvessel gross revenues would be foregone (assuming the maximum 15 percent GOA halibut PSC reduction), while up to 0.9 percent of GOA groundfish hook-and-line exvessel gross revenues would be foregone (assuming the maximum 15 percent GOA halibut PSC reduction); if both were reduced the maximum 15 percent, up to 6.8 percent of GOA groundfish trawl and GOA groundfish hook-and-line exvessel gross revenues would be foregone (see Section 4.4.1 for additional discussion).

³⁶ See http://www.fakr.noaa.gov/npfmc/PDFdocuments/catch_shares/Crab/5YearRev1210_AppxA.pdf for the Kodiak community profile containing this information.

For all Kodiak-owned GOA groundfish trawl vessels combined, the average annual exvessel gross revenues foregone could be up to approximately \$613,000 (at the GOA halibut PSC 15 percent reduction level) spread across 15 vessels on average (or roughly \$41,000 per vessel on average), while the average annual exvessel gross revenues foregone for all Kodiak-owned GOA groundfish hook-and-line vessels combined could be up to approximately \$84,000, spread across 125 vessels on average (or roughly \$700 per vessel on average).

Despite this relatively heavy engagement, community-level dependency on the specific GOA groundfish fisheries likely to be affected by the proposed management alternatives is somewhat mitigated by the fact that the local Kodiak fleet is one of the largest and most active fleets in Alaska. The Kodiak fleet typically participates heavily in all of the federal and state water fisheries in the region (as well as in the major fisheries in the Bering Sea/Aleutian Islands region) in addition to the various gear types in the GOA groundfish fisheries that would be affected to greater or lesser degrees by the proposed action.

One potential amplifying factor for possible adverse impacts from the proposed action or alternatives with respect to GOA groundfish trawl-related operations, however, is the seasonal timing of those operations in Kodiak. While GOA groundfish trawl-related operations in general are focused in the communities of Kodiak, King Cove, and Sand Point, the specific seasonal nature of that trawl engagement varies between the communities. While Kodiak is substantially engaged in trawl efforts across multiple GOA groundfish fisheries over the course of an annual cycle, the GOA groundfish trawl efforts most subject to potential adverse direct impacts from the proposed action or alternatives in King Cove and Sand Point are almost exclusively concentrated in the first halibut PSC season (January 20 through March 31), as noted in the King Cove and Sand Point summary above. This means that, in general, potential adverse impacts of any GOA halibut PSC revisions that would affect trawl operations in any season other than the cod “A” season (January 1 through June 9) would accrue disproportionately to Kodiak. Further, and more specifically, if the alternative/option combination of concentrating trawl GOA halibut PSC reductions in the fifth halibut PSC season (October 1 through December 31) were implemented, the potential adverse impacts associated with that implementation would accrue almost exclusively to Kodiak. Under any alternative that tended to concentrate closures toward the end of the year, Kodiak would be especially likely to experience any adverse impacts related to Gulf groundfish trawl fisheries, particularly with respect to flatfish-related operations (importantly including, but not limited to, arrowtooth flounder), as the fleet would be expected to continue the established practice of first taking lower volume, higher value species with typically lower halibut PSC rates, such as Pacific cod and pollock,³⁷ during the fifth halibut PSC season (and completing the total allowable catches for those species) before moving on to the higher volume and lower value flatfish species, the pursuit of which carries a greater risk of higher halibut PSC rates triggering a fifth halibut PSC season closure.

³⁷ While halibut PSC rates can be lowered if needed by switching from non-pelagic (bottom) trawl to pelagic (mid-water) trawl gear, and Kodiak vessels are able to do so as, in the words of one vessel owner, “the days of local boats that could only bottom fish are gone,” but it is important to note that the use of pelagic gear can involve high Chinook salmon bycatch rates, trading one PSC problem for another (see Section 1.7.1 in the body of the main document to which this community analysis is an appendix for further discussion of central and western GOA Chinook PSC issues and pending management actions to address the issue).

Tables 34a and 34b show Kodiak-owned trawl vessel participation by trawl type for halibut PSC seasons 1–4 and 5 in number of vessels and percentage of vessels, respectively, along with similar data for all other GOA trawl vessels. Tables 35a and 35b show exvessel gross revenues for Kodiak-owned trawl vessels for halibut PSC seasons 1–4 and 5 in dollars and percentages, respectively, along with similar data for all other GOA trawl vessels.

Table 34a. Participation in the Groundfish Fishery by Halibut PSC Season, Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, by Trawl Gear Type, 2003-2010 (number of vessels)

Community	Season	Trawl Type	Year								Average 2003-2010
			2003	2004	2005	2006	2007	2008	2009	2010	
Kodiak	Season 1-4	Deep Water Pelagic	1	1	2	6	7	10	5	7	4.9
		Deep Water Non-Pelagic	16	14	9	9	10	11	13	13	11.9
		Shallow Water Pelagic	14	12	12	12	11	13	13	15	12.8
		Shallow Water Non-Pelagic	19	17	13	12	12	15	14	15	14.6
		Total Unique Vessels	20	17	14	13	12	15	14	15	15.0
	Season 5	Deep Water Pelagic	0	0	0	0	3	0	1	2	0.8
		Deep Water Non-Pelagic	2	0	0	4	5	4	5	8	3.5
		Shallow Water Pelagic	11	8	10	9	6	4	11	13	9.0
		Shallow Water Non-Pelagic	4	1	1	8	7	13	11	7	6.5
		Total Unique Vessels	13	8	10	10	8	13	12	13	10.9
All Other	Season 1-4	Deep Water Pelagic	5	1	5	10	13	13	11	11	8.6
		Deep Water Non-Pelagic	35	41	41	39	35	35	36	35	37.1
		Shallow Water Pelagic	56	51	52	53	48	45	41	48	49.3
		Shallow Water Non-Pelagic	58	57	59	52	54	54	52	41	53.4
		Total Unique Vessels	89	76	78	76	74	71	71	69	75.5
	Season 5	Deep Water Pelagic	0	0	1	0	1	1	2	2	0.9
		Deep Water Non-Pelagic	13	0	0	12	10	11	8	13	8.4
		Shallow Water Pelagic	36	36	35	32	20	27	38	37	32.6
		Shallow Water Non-Pelagic	7	1	1	16	14	18	19	14	11.3
		Total Unique Vessels	47	37	35	38	29	35	41	40	37.8
Total	Season 1-4	Deep Water Pelagic	6	2	7	16	20	23	16	18	13.5
		Deep Water Non-Pelagic	51	55	50	48	45	46	49	48	49.0
		Shallow Water Pelagic	70	63	64	65	59	58	54	63	62.0
		Shallow Water Non-Pelagic	77	74	72	64	66	69	66	56	68.0
		Total Unique Vessels	109	93	92	89	86	86	85	84	90.5
	Season 5	Deep Water Pelagic	0	0	1	0	4	1	3	4	1.6
		Deep Water Non-Pelagic	15	0	0	16	15	15	13	21	11.9
		Shallow Water Pelagic	47	44	45	41	26	31	49	50	41.6
		Shallow Water Non-Pelagic	11	2	2	24	21	31	30	21	17.8
		Total Unique Vessels	60	45	45	48	37	48	53	53	48.6

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 34b. Participation in the Groundfish Fishery by Halibut PSC Season, Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, by Trawl Gear Type, 2003-2010 (percentage of vessels)

Community	Season	Trawl Type	Year								Average 2003-2010
			2003	2004	2005	2006	2007	2008	2009	2010	
Kodiak	Season 1-4	Deep Water Pelagic	5.0%	5.9%	14.3%	46.2%	58.3%	66.7%	35.7%	46.7%	32.5%
		Deep Water Non-Pelagic	80.0%	82.4%	64.3%	69.2%	83.3%	73.3%	92.9%	86.7%	79.2%
		Shallow Water Pelagic	70.0%	70.6%	85.7%	92.3%	91.7%	86.7%	92.9%	100.0%	85.0%
		Shallow Water Non-Pelagic	95.0%	100.0%	92.9%	92.3%	100.0%	100.0%	100.0%	100.0%	97.5%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Season 5	Deep Water Pelagic	0.0%	0.0%	0.0%	0.0%	37.5%	0.0%	8.3%	15.4%	6.9%
		Deep Water Non-Pelagic	15.4%	0.0%	0.0%	40.0%	62.5%	30.8%	41.7%	61.5%	32.2%
		Shallow Water Pelagic	84.6%	100.0%	100.0%	90.0%	75.0%	30.8%	91.7%	100.0%	82.8%
Shallow Water Non-Pelagic		30.8%	12.5%	10.0%	80.0%	87.5%	100.0%	91.7%	53.8%	59.8%	
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
All Other	Season 1-4	Deep Water Pelagic	5.6%	1.3%	6.4%	13.2%	17.6%	18.3%	15.5%	15.9%	11.4%
		Deep Water Non-Pelagic	39.3%	53.9%	52.6%	51.3%	47.3%	49.3%	50.7%	50.7%	49.2%
		Shallow Water Pelagic	62.9%	67.1%	66.7%	69.7%	64.9%	63.4%	57.7%	69.6%	65.2%
		Shallow Water Non-Pelagic	65.2%	75.0%	75.6%	68.4%	73.0%	76.1%	73.2%	59.4%	70.7%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Season 5	Deep Water Pelagic	0.0%	0.0%	2.9%	0.0%	3.4%	2.9%	4.9%	5.0%	2.3%
		Deep Water Non-Pelagic	27.7%	0.0%	0.0%	31.6%	34.5%	31.4%	19.5%	32.5%	22.2%
		Shallow Water Pelagic	76.6%	97.3%	100.0%	84.2%	69.0%	77.1%	92.7%	92.5%	86.4%
Shallow Water Non-Pelagic		14.9%	2.7%	2.9%	42.1%	48.3%	51.4%	46.3%	35.0%	29.8%	
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Total	Season 1-4	Deep Water Pelagic	5.5%	2.2%	7.6%	18.0%	23.3%	26.7%	18.8%	21.4%	14.9%
		Deep Water Non-Pelagic	46.8%	59.1%	54.3%	53.9%	52.3%	53.5%	57.6%	57.1%	54.1%
		Shallow Water Pelagic	64.2%	67.7%	69.6%	73.0%	68.6%	67.4%	63.5%	75.0%	68.5%
		Shallow Water Non-Pelagic	70.6%	79.6%	78.3%	71.9%	76.7%	80.2%	77.6%	66.7%	75.1%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Season 5	Deep Water Pelagic	0.0%	0.0%	2.2%	0.0%	10.8%	2.1%	5.7%	7.5%	3.3%
		Deep Water Non-Pelagic	25.0%	0.0%	0.0%	33.3%	40.5%	31.3%	24.5%	39.6%	24.4%
		Shallow Water Pelagic	78.3%	97.8%	100.0%	85.4%	70.3%	64.6%	92.5%	94.3%	85.6%
Shallow Water Non-Pelagic		18.3%	4.4%	4.4%	50.0%	56.8%	64.6%	56.6%	39.6%	36.5%	
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 35a. Exvessel Gross Revenues in the Groundfish Fishery by Halibut PSC Season, Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, 2003-2010 (dollars)

Community	Season	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Kodiak	Season 1-4	\$7,717,594	\$8,023,811	\$6,875,520	\$8,246,698	\$6,954,023	\$10,495,503	\$6,521,529	\$11,018,699	\$8,231,672
	Season 5	\$907,097	\$545,014	\$1,153,742	\$1,289,309	\$1,519,999	\$2,886,264	\$1,802,856	\$2,118,897	\$1,527,897
	Total	\$8,624,691	\$8,568,824	\$8,029,262	\$9,536,007	\$8,474,022	\$13,381,767	\$8,324,385	\$13,137,596	\$9,759,569
All Other	Season 1-4	\$34,948,320	\$31,512,223	\$46,151,494	\$55,315,302	\$47,590,572	\$54,977,982	\$38,248,454	\$51,011,374	\$44,969,465
	Season 5	\$4,204,307	\$2,442,326	\$4,178,104	\$4,568,014	\$4,672,251	\$8,366,494	\$6,484,928	\$8,467,928	\$5,423,044
	Total	\$39,152,627	\$33,954,549	\$50,329,598	\$59,883,316	\$52,262,823	\$63,344,476	\$44,733,382	\$59,479,301	\$50,392,509
Total	Season 1-4	\$42,665,914	\$39,536,034	\$53,027,014	\$63,562,001	\$54,544,595	\$65,473,485	\$44,769,982	\$62,030,073	\$53,201,137
	Season 5	\$5,111,403	\$2,987,340	\$5,331,846	\$5,857,323	\$6,192,250	\$11,252,758	\$8,287,785	\$10,586,824	\$6,950,941
	Total	\$47,777,317	\$42,523,374	\$58,358,860	\$69,419,323	\$60,736,845	\$76,726,243	\$53,057,767	\$72,616,897	\$60,152,078

Note: Exvessel gross revenues presented in this table are roughly similar to but differ from those shown in Table 2a in Section 2.0 as different data sources are used. Figures in this table should be used for internal comparison of seasonal distribution only and not for comparison with tables in Section 2.0.

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 35b. Exvessel Gross Revenues in the Groundfish Fishery by Halibut PSC Season, Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, 2003-2010 (percentage)

Community	Season	Year								
		2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	Season 1-4	89.5%	93.6%	85.6%	86.5%	82.1%	78.4%	78.3%	83.9%	84.3%
	Season 5	10.5%	6.4%	14.4%	13.5%	17.9%	21.6%	21.7%	16.1%	15.7%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All Other	Season 1-4	89.3%	92.8%	91.7%	92.4%	91.1%	86.8%	85.5%	85.8%	89.2%
	Season 5	10.7%	7.2%	8.3%	7.6%	8.9%	13.2%	14.5%	14.2%	10.8%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	Season 1-4	89.3%	93.0%	90.9%	91.6%	89.8%	85.3%	84.4%	85.4%	88.4%
	Season 5	10.7%	7.0%	9.1%	8.4%	10.2%	14.7%	15.6%	14.6%	11.6%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Interviews with local vessel trawl vessel owners would suggest that the flatfish fisheries (including arrowtooth flounder) would be the most at-risk under the GOA halibut PSC revision proposed action, and that the locally owned non-AFA boats would be the most directly affected due to both a relatively high dependence on the flatfish fishery and a relative lack of alternatives to pursue to adjust for any potential reductions that could result from the proposed action. This is seen as particularly true where a single vessel, including vessels from elsewhere, can have a substantial impact on shutting the fishery down due to high halibut PSC rates on a very limited number of tows. Industry representatives report that while flatfish fisheries not as profitable and are typically used by locally owned trawl vessels to fill in between other, higher value fishery seasons, flatfish operations do pencil out as substantially beneficial to overall vessel operations when considered from an annual perspective and are typically the only trawl fishery pursued by locally owned vessels after November 1.

Shore-based GOA Groundfish Processing Plants in Kodiak

Shore-based processors operating in Kodiak are more heavily engaged in the GOA groundfish fisheries in general than are processors in any other community, both in terms of the number of entities involved and the volume and value of groundfish processed. Fish processing provides an important part of the economic base of Kodiak, and a number of processing entities are among the top sources of employment in the community.

Shore-based processors operating in Kodiak are, by far, more heavily engaged (in absolute numbers) in the specific GOA groundfish fisheries potentially affected by the proposed GOA halibut PSC revisions than are the shore-based processors of any other Alaska community. As shown in Tables 10–12 in Section 2.0, on an annual basis for the years 2003-2010:

- An average of 8.1 shore-based processors in Kodiak accepted GOA groundfish trawl-caught deliveries, which represented 62.3 percent of all Alaska shore-based processors accepting GOA groundfish trawl-caught deliveries. The shore-based processors in Kodiak accounted for \$75.6 million in first wholesale gross revenues from GOA groundfish trawl-caught deliveries over this

time period (which was about 74.7 percent of all Alaska shore-based first wholesale gross revenues from GOA groundfish trawl-caught deliveries).

- An average of 8.0 shore-based processors in Kodiak accepted GOA groundfish hook-and-line-caught deliveries, which represented 29.6 percent of all Alaska shore-based processors accepting GOA groundfish hook-and-line-caught deliveries. The shore-based processors in Kodiak accounted for \$8.5 million in first wholesale gross revenues from GOA groundfish hook-and-line-caught deliveries over this time period (which was about 84.2 percent of all Alaska shore-based first wholesale gross revenues from GOA groundfish hook-and-line-caught deliveries).
- An average of 8.6 shore-based processors in Kodiak accepted GOA groundfish trawl-caught and/or hook-and-line-caught deliveries, which represented 29.1 percent of all Alaska shore-based processors accepting GOA trawl-caught and/or groundfish hook-and-line-caught deliveries. The shore-based processors in Kodiak accounted for \$84.1 million in first wholesale gross revenues from GOA groundfish trawl-caught and/or hook-and-line-caught deliveries over this time period (which was about 75.6 percent of all Alaska shore-based first wholesale gross revenues from GOA groundfish trawl-caught and/or hook-and-line-caught deliveries).

Shore-based GOA groundfish processors in Kodiak also process a wide range of other species. Tables 36a and 36b provide processing diversity information by species by number and percentage of processors, respectively, along with similar information for shore-based GOA groundfish processors in all other Alaska communities. Tables 37a and 37b provide processing diversity information by species by first wholesale gross revenues in dollars and by percentage, respectively.

Shore-based processors in Kodiak, like Kodiak-owned vessel operations, would be particularly vulnerable to GOA halibut PSC-related closures during the fifth halibut PSC season. Tables 38a, 38b, 38c, and 38d provide information on first wholesale gross revenue by groundfish species, by gear type. Tables 38a and 38b are limited to trawl deliveries and include and exclude pollock, respectively. Pollock is broken out separately in these tables due to the ability of pollock to be harvested with either pelagic or non-pelagic trawl to, among other things, adjust to PSC-related issues. Tables 38c and 38d provide parallel information for all gear types, not just trawl, including and excluding pollock, respectively. As shown in these tables, first wholesale gross revenues in the fifth halibut PSC season have been highly variable for shore-based processors in Kodiak, but on average arrowtooth flounder and shallow water flatfish combined accounted for 64 percent of the first wholesale gross revenues associated with trawl deliveries and 39 percent of the first wholesale gross revenues associated with deliveries of all gear types during the fifth halibut PSC season from 2006 through 2010.

Table 36a. Fishery Participation by Species for Shore-based Processors in Alaska Accepting GOA Groundfish Deliveries by Community, 2003-2010 (number of processors)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Kodiak	Groundfish	8	8	9	9	10	8	9	9	8.8
	Flatfish	6	7	7	8	9	8	9	8	7.8
	Rockfish	8	8	9	9	9	8	8	8	8.4
	Sablefish	8	8	9	9	9	8	9	8	8.5
	Halibut	7	6	8	8	8	7	6	7	7.1
	Herring	5	4	6	4	4	5	7	4	4.9
	Salmon	6	7	7	7	8	7	7	8	7.1
	King Crab	4	4	3	3	3	3	3	4	3.4
	Tanner Crab	5	5	6	5	5	5	4	6	5.1
	Other Shellfish	2	3	3	2	4	3	3	3	2.9
	All Other Species	8	8	9	8	10	8	9	9	8.6
	BSAI All Species	1	1	0	1	1	1	1	1	0.9
Total Unique Processors	8	8	9	9	10	8	9	9	8.8	
All Other	Groundfish	32	32	36	36	34	32	30	33	33.1
	Flatfish	6	3	3	3	5	2	4	14	5.0
	Rockfish	35	35	40	38	34	34	32	34	35.3
	Sablefish	32	32	35	35	30	28	27	32	31.4
	Halibut	39	39	40	42	38	35	34	36	37.9
	Herring	9	9	8	7	7	9	11	9	8.6
	Salmon	36	33	38	37	40	41	38	37	37.5
	King Crab	15	14	12	11	9	11	10	9	11.4
	Tanner Crab	13	12	12	11	11	12	8	9	11.0
	Other Shellfish	13	17	15	15	14	16	13	19	15.3
	All Other Species	26	29	30	29	30	26	25	26	27.6
	BSAI All Species	10	9	11	10	9	9	5	7	8.8
Total Unique Processors	44	45	48	47	46	46	42	42	45.0	
Total	Groundfish	40	40	45	45	44	40	39	42	41.9
	Flatfish	12	10	10	11	14	10	13	22	12.8
	Rockfish	43	43	49	47	43	42	40	42	43.6
	Sablefish	40	40	44	44	39	36	36	40	39.9
	Halibut	46	45	48	50	46	42	40	43	45.0
	Herring	14	13	14	11	11	14	18	13	13.5
	Salmon	42	40	45	44	48	48	45	45	44.6
	King Crab	19	18	15	14	12	14	13	13	14.8
	Tanner Crab	18	17	18	16	16	17	12	15	16.1
	Other Shellfish	15	20	18	17	18	19	16	22	18.1
	All Other Species	34	37	39	37	40	34	34	35	36.3
	BSAI All Species	11	10	11	11	10	10	6	8	9.6
Total Unique Processors	52	53	57	56	56	54	51	51	53.8	

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 36b. Fishery Participation by Species for Shore-based Processors in Alaska Accepting GOA Groundfish Deliveries by Community, 2003-2010 (percentage of processors)

Geography	Fishery	Year									
		2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010	
Kodiak	Groundfish	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Flatfish	75.0%	87.5%	77.8%	88.9%	90.0%	100.0%	100.0%	88.9%	88.6%	
	Rockfish	100.0%	100.0%	100.0%	100.0%	90.0%	100.0%	88.9%	88.9%	95.7%	
	Sablefish	100.0%	100.0%	100.0%	100.0%	90.0%	100.0%	100.0%	88.9%	97.1%	
	Halibut	87.5%	75.0%	88.9%	88.9%	80.0%	87.5%	66.7%	77.8%	81.4%	
	Herring	62.5%	50.0%	66.7%	44.4%	40.0%	62.5%	77.8%	44.4%	55.7%	
	Salmon	75.0%	87.5%	77.8%	77.8%	80.0%	87.5%	77.8%	88.9%	81.4%	
	King Crab	50.0%	50.0%	33.3%	33.3%	30.0%	37.5%	33.3%	44.4%	38.6%	
	Tanner Crab	62.5%	62.5%	66.7%	55.6%	50.0%	62.5%	44.4%	66.7%	58.6%	
	Other Shellfish	25.0%	37.5%	33.3%	22.2%	40.0%	37.5%	33.3%	33.3%	32.9%	
	All Other Species	100.0%	100.0%	100.0%	88.9%	100.0%	100.0%	100.0%	100.0%	98.6%	
BSAI All Species	12.5%	12.5%	0.0%	11.1%	10.0%	12.5%	11.1%	11.1%	10.0%		
Total Unique Processors	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
All Other	Groundfish	72.7%	71.1%	75.0%	76.6%	73.9%	69.6%	71.4%	78.6%	73.6%	
	Flatfish	13.6%	6.7%	6.3%	6.4%	10.9%	4.3%	9.5%	33.3%	11.1%	
	Rockfish	79.5%	77.8%	83.3%	80.9%	73.9%	73.9%	76.2%	81.0%	78.3%	
	Sablefish	72.7%	71.1%	72.9%	74.5%	65.2%	60.9%	64.3%	76.2%	69.7%	
	Halibut	88.6%	86.7%	83.3%	89.4%	82.6%	76.1%	81.0%	85.7%	84.2%	
	Herring	20.5%	20.0%	16.7%	14.9%	15.2%	19.6%	26.2%	21.4%	19.2%	
	Salmon	81.8%	73.3%	79.2%	78.7%	87.0%	89.1%	90.5%	88.1%	83.3%	
	King Crab	34.1%	31.1%	25.0%	23.4%	19.6%	23.9%	23.8%	21.4%	25.3%	
	Tanner Crab	29.5%	26.7%	25.0%	23.4%	23.9%	26.1%	19.0%	21.4%	24.4%	
	Other Shellfish	29.5%	37.8%	31.3%	31.9%	30.4%	34.8%	31.0%	45.2%	33.9%	
	All Other Species	59.1%	64.4%	62.5%	61.7%	65.2%	56.5%	59.5%	61.9%	61.4%	
BSAI All Species	22.7%	20.0%	22.9%	21.3%	19.6%	19.6%	11.9%	16.7%	19.4%		
Total Unique Processors	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
Total	Groundfish	76.9%	75.5%	78.9%	80.4%	78.6%	74.1%	76.5%	82.4%	77.9%	
	Flatfish	23.1%	18.9%	17.5%	19.6%	25.0%	18.5%	25.5%	43.1%	23.7%	
	Rockfish	82.7%	81.1%	86.0%	83.9%	76.8%	77.8%	78.4%	82.4%	81.2%	
	Sablefish	76.9%	75.5%	77.2%	78.6%	69.6%	66.7%	70.6%	78.4%	74.2%	
	Halibut	88.5%	84.9%	84.2%	89.3%	82.1%	77.8%	78.4%	84.3%	83.7%	
	Herring	26.9%	24.5%	24.6%	19.6%	19.6%	25.9%	35.3%	25.5%	25.1%	
	Salmon	80.8%	75.5%	78.9%	78.6%	85.7%	88.9%	88.2%	88.2%	83.0%	
	King Crab	36.5%	34.0%	26.3%	25.0%	21.4%	25.9%	25.5%	25.5%	27.4%	
	Tanner Crab	34.6%	32.1%	31.6%	28.6%	28.6%	31.5%	23.5%	29.4%	30.0%	
	Other Shellfish	28.8%	37.7%	31.6%	30.4%	32.1%	35.2%	31.4%	43.1%	33.7%	
	All Other Species	65.4%	69.8%	68.4%	66.1%	71.4%	63.0%	66.7%	68.6%	67.4%	
BSAI All Species	21.2%	18.9%	19.3%	19.6%	17.9%	18.5%	11.8%	15.7%	17.9%		
Total Unique Processors	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 37a. First Wholesale Gross Revenues by Fishery by Shore-based Processors in Alaska Accepting GOA Groundfish Deliveries by Community, 2003-2010 (dollars)

Geography	Fishery	Year									
		2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010	
Kodiak	Groundfish	\$67,780,460	\$83,496,666	\$98,705,703	\$108,632,297	\$117,030,795	\$130,378,045	\$89,397,281	\$127,799,948	\$102,902,650	
	Flatfish	\$4,869,938	\$5,186,147	\$9,479,724	\$14,580,195	\$16,384,285	\$19,638,564	\$14,557,125	\$11,222,938	\$11,989,865	
	Groundfish and Flatfish	\$72,650,399	\$88,682,814	\$108,185,428	\$123,212,493	\$133,415,081	\$150,016,609	\$103,954,406	\$139,022,887	\$114,892,514	
	Rockfish	\$5,529,826	\$4,732,965	\$5,750,759	\$10,375,552	\$10,783,442	\$8,985,597	\$8,626,918	\$10,788,036	\$8,196,637	
	Sablefish	\$9,778,546	\$9,718,848	\$8,797,827	\$9,948,903	\$12,461,062	\$11,902,161	\$12,312,105	\$17,142,236	\$11,507,711	
	Halibut	\$26,834,611	\$29,143,820	\$31,222,838	\$26,409,241	\$40,741,874	\$38,952,159	\$29,527,271	\$40,333,811	\$32,895,703	
	Herring	\$1,949,958	\$4,280,851	\$3,896,177	\$1,824,505	\$2,011,010	\$3,189,873	\$4,410,602	\$3,678,207	\$3,155,148	
	Salmon	\$43,146,772	\$43,770,111	\$57,309,237	\$60,416,547	\$70,085,786	\$58,198,014	\$77,710,846	\$72,499,063	\$60,392,047	
	Shellfish	\$7,988,373	\$8,759,989	\$9,678,968	\$9,850,730	\$9,770,104	\$15,360,902	\$10,275,166	\$12,927,704	\$10,576,492	
	Other	\$2,560,270	\$1,410,876	\$1,778,488	\$1,790,907	\$2,818,375	\$3,573,617	\$2,308,416	\$3,595,656	\$2,479,576	
	Total	\$170,438,755	\$190,500,274	\$226,619,722	\$243,828,877	\$282,086,732	\$290,178,932	\$249,125,729	\$299,987,600	\$244,095,828	
All Other	Groundfish and Flatfish	\$114,103,040	\$110,535,142	\$126,412,316	\$166,141,250	\$142,849,054	\$160,033,330	\$118,472,236	\$137,526,422	\$134,509,099	
	Rockfish	\$2,856,633	\$2,749,317	\$2,890,603	\$3,781,813	\$2,611,216	\$2,634,511	\$2,444,948	\$2,764,792	\$2,841,729	
	Sablefish	\$69,116,341	\$69,192,717	\$75,408,499	\$87,851,937	\$80,051,306	\$89,350,336	\$73,999,762	\$82,638,302	\$78,451,150	
	Halibut	\$107,559,070	\$133,496,800	\$154,525,858	\$174,339,435	\$171,375,259	\$148,707,533	\$117,352,943	\$173,254,595	\$147,576,437	
	Herring	\$9,681,688	\$8,905,222	\$7,550,324	\$7,906,532	\$12,846,437	\$19,896,786	\$24,398,191	\$20,985,241	\$14,021,303	
	Salmon	\$235,750,877	\$299,329,810	\$308,031,186	\$343,056,180	\$435,962,676	\$433,971,711	\$360,278,911	\$481,946,837	\$362,291,024	
	Shellfish	\$134,261,999	\$132,935,627	\$133,644,344	\$132,135,689	\$175,138,949	\$216,063,099	\$169,409,467	\$177,832,876	\$158,927,756	
	Other	\$3,448,058	\$6,721,664	\$4,444,456	\$5,977,924	\$6,457,061	\$5,348,943	\$7,390,154	\$9,818,625	\$6,200,861	
		Total	\$676,777,705	\$763,866,300	\$812,907,587	\$921,190,759	\$1,027,291,958	\$1,076,006,249	\$873,746,612	\$1,086,767,689	\$904,819,357
	Total	Groundfish and Flatfish	\$186,753,438	\$199,217,956	\$234,597,743	\$289,353,742	\$276,264,134	\$310,049,939	\$222,426,642	\$276,549,309	\$249,401,613
Rockfish		\$8,386,459	\$7,482,282	\$8,641,362	\$14,157,365	\$13,394,658	\$11,620,108	\$11,071,865	\$13,552,827	\$11,038,366	
Sablefish		\$78,894,887	\$78,911,566	\$84,206,325	\$97,800,840	\$92,512,367	\$101,252,496	\$86,311,867	\$99,780,538	\$89,958,861	
Halibut		\$134,393,680	\$162,640,621	\$185,748,696	\$200,748,675	\$212,117,132	\$187,659,692	\$146,880,214	\$213,588,406	\$180,472,140	
Herring		\$11,631,646	\$13,186,073	\$11,446,501	\$9,731,037	\$14,857,447	\$23,086,659	\$28,808,792	\$24,663,448	\$17,176,450	
Salmon		\$278,897,649	\$343,099,921	\$365,340,423	\$403,472,727	\$506,048,462	\$492,169,726	\$437,989,757	\$554,445,900	\$422,683,071	
Shellfish		\$142,250,372	\$141,695,616	\$143,323,312	\$141,986,419	\$184,909,053	\$231,424,001	\$179,684,633	\$190,760,580	\$169,504,248	
Other		\$6,008,328	\$8,132,539	\$6,222,944	\$7,768,831	\$9,275,436	\$8,922,560	\$9,698,570	\$13,414,281	\$8,680,436	
		Total	\$847,216,460	\$954,366,574	\$1,039,527,309	\$1,165,019,637	\$1,309,378,689	\$1,366,185,180	\$1,122,872,341	\$1,386,755,290	\$1,148,915,185

Note: First wholesale gross revenues presented in this table differ from those shown in Table 12a in Section 2.0 as different data sources are used. Figures in this table should be used for internal comparison of species distribution only and not for comparison with tables in Section 2.0.

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 37b. First Wholesale Gross Revenues by Fishery by Shore-based Processors in Alaska Accepting GOA Groundfish Deliveries by Community, 2003-2010 (percentage)

Geography	Fishery	Year								
		2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	Groundfish	39.8%	43.8%	43.6%	44.6%	41.5%	44.9%	35.9%	42.6%	42.2%
	Flatfish	2.9%	2.7%	4.2%	6.0%	5.8%	6.8%	5.8%	3.7%	4.9%
	Groundfish and Flatfish	42.6%	46.6%	47.7%	50.5%	47.3%	51.7%	41.7%	46.3%	47.1%
	Rockfish	3.2%	2.5%	2.5%	4.3%	3.8%	3.1%	3.5%	3.6%	3.4%
	Sablefish	5.7%	5.1%	3.9%	4.1%	4.4%	4.1%	4.9%	5.7%	4.7%
	Halibut	15.7%	15.3%	13.8%	10.8%	14.4%	13.4%	11.9%	13.4%	13.5%
	Herring	1.1%	2.2%	1.7%	0.7%	0.7%	1.1%	1.8%	1.2%	1.3%
	Salmon	25.3%	23.0%	25.3%	24.8%	24.8%	20.1%	31.2%	24.2%	24.7%
	Shellfish	4.7%	4.6%	4.3%	4.0%	3.5%	5.3%	4.1%	4.3%	4.3%
	Other	1.5%	0.7%	0.8%	0.7%	1.0%	1.2%	0.9%	1.2%	1.0%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All Other	Groundfish and Flatfish	16.9%	14.5%	15.6%	18.0%	13.9%	14.9%	13.6%	12.7%	14.9%
	Rockfish	0.4%	0.4%	0.4%	0.4%	0.3%	0.2%	0.3%	0.3%	0.3%
	Sablefish	10.2%	9.1%	9.3%	9.5%	7.8%	8.3%	8.5%	7.6%	8.7%
	Halibut	15.9%	17.5%	19.0%	18.9%	16.7%	13.8%	13.4%	15.9%	16.3%
	Herring	1.4%	1.2%	0.9%	0.9%	1.3%	1.8%	2.8%	1.9%	1.5%
	Salmon	34.8%	39.2%	37.9%	37.2%	42.4%	40.3%	41.2%	44.3%	40.0%
	Shellfish	19.8%	17.4%	16.4%	14.3%	17.0%	20.1%	19.4%	16.4%	17.6%
	Other	0.5%	0.9%	0.5%	0.6%	0.6%	0.5%	0.8%	0.9%	0.7%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	Groundfish and Flatfish	22.0%	20.9%	22.6%	24.8%	21.1%	22.7%	19.8%	19.9%	21.7%
	Rockfish	1.0%	0.8%	0.8%	1.2%	1.0%	0.9%	1.0%	1.0%	1.0%
	Sablefish	9.3%	8.3%	8.1%	8.4%	7.1%	7.4%	7.7%	7.2%	7.8%
	Halibut	15.9%	17.0%	17.9%	17.2%	16.2%	13.7%	13.1%	15.4%	15.7%
	Herring	1.4%	1.4%	1.1%	0.8%	1.1%	1.7%	2.6%	1.8%	1.5%
	Salmon	32.9%	36.0%	35.1%	34.6%	38.6%	36.0%	39.0%	40.0%	36.8%
	Shellfish	16.8%	14.8%	13.8%	12.2%	14.1%	16.9%	16.0%	13.8%	14.8%
	Other	0.7%	0.9%	0.6%	0.7%	0.7%	0.7%	0.9%	1.0%	0.8%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 38a. First Wholesale Gross Revenues by Fishery by Shore-based Processors in Kodiak Accepting GOA Groundfish Deliveries, Halibut PSC Season 5 Only, by Groundfish Species (including Pollock), Trawl Gear, 2006-2010 (dollars)

Community	Fishery	Year					Average 2006-2010
		2006	2007	2008	2009	2010	
Kodiak	Arrowtooth Flounder	\$734,668	\$453,507	\$1,055,510	\$222,549	\$2,237,385	\$940,724
	Pacific Cod	\$493,898	\$901,350	\$3,019,806	\$62,803	\$0	\$895,571
	Pollock (bottom)	\$5,674,532	\$4,333,546	\$9,752,726	\$470,947	\$1,865,644	\$4,419,479
	Pollock (midwater)	\$1,394,222	\$2,262,934	\$1,794,248	\$6,103,244	\$6,902,801	\$3,691,490
	Rockfish	\$26,781	\$1,335,449	\$394,707	\$484,769	\$2,307,478	\$909,837
	Shallow Water Flatfish	\$1,126,264	\$2,305,827	\$4,226,326	\$3,099,526	\$994,175	\$2,350,424
	Other Species	\$136	\$0	\$9,739	\$163,473	\$0	\$34,670
	Total	\$9,450,501	\$11,592,613	\$20,253,063	\$10,607,311	\$14,307,483	\$13,242,194

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 38b. First Wholesale Gross Revenues by Fishery by Shore-based Processors in Kodiak Accepting GOA Groundfish Deliveries, Halibut PSC Season 5 Only, by Groundfish Species (excluding Pollock), Trawl Gear, 2006-2010 (dollars)

Community	Fishery	Year					Average 2006-2010
		2006	2007	2008	2009	2010	
Kodiak	Arrowtooth Flounder	\$734,668	\$453,507	\$1,055,510	\$222,549	\$2,237,385	\$940,724
	Pacific Cod	\$493,898	\$901,350	\$3,019,806	\$62,803	\$0	\$895,571
	Rockfish	\$26,781	\$1,335,449	\$394,707	\$484,769	\$2,307,478	\$909,837
	Shallow Water Flatfish	\$1,126,264	\$2,305,827	\$4,226,326	\$3,099,526	\$994,175	\$2,350,424
	Other Species	\$136	\$0	\$9,739	\$163,473	\$0	\$34,670
	Total	\$2,381,747	\$4,996,133	\$8,706,089	\$4,033,120	\$5,539,038	\$5,131,225

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 38c. First Wholesale Gross Revenues by Fishery by Shore-based Processors in Kodiak Accepting GOA Groundfish Deliveries, Halibut PSC Season 5 Only, by Groundfish Species (including Pollock), All Gear Types, 2006-2010 (dollars)

Community	Fishery	Year					Average 2006-2010
		2006	2007	2008	2009	2010	
Kodiak	Arrowtooth Flounder	\$734,668	\$453,507	\$1,055,510	\$222,549	\$2,237,385	\$940,724
	Pacific Cod	\$5,348,874	\$7,446,414	\$7,088,699	\$701,637	\$296,968	\$4,176,518
	Pollock (bottom)	\$5,674,532	\$4,333,546	\$9,752,726	\$470,947	\$1,865,644	\$4,419,479
	Pollock (midwater)	\$1,394,222	\$2,262,934	\$1,794,248	\$6,103,244	\$6,902,801	\$3,691,490
	Rockfish	\$29,262	\$1,335,449	\$394,832	\$484,769	\$2,307,478	\$910,358
	Shallow Water Flatfish	\$1,126,264	\$2,305,827	\$4,226,326	\$3,099,526	\$994,175	\$2,350,424
	Other Species	\$136	\$0	\$9,739	\$164,477	\$653	\$35,001
	Total	\$14,307,957	\$18,137,677	\$24,322,080	\$11,247,150	\$14,605,104	\$16,523,994

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Table 38d. First Wholesale Gross Revenues by Fishery by Shore-based Processors in Kodiak Accepting GOA Groundfish Deliveries, Halibut PSC Season 5 Only, by Groundfish Species (excluding Pollock), All Gear Types, 2006-2010 (dollars)

Community	Fishery	Year					Average 2006-2010
		2006	2007	2008	2009	2010	
Kodiak	Arrowtooth Flounder	\$734,668	\$453,507	\$1,055,510	\$222,549	\$2,237,385	\$940,724
	Pacific Cod	\$5,348,874	\$7,446,414	\$7,088,699	\$701,637	\$296,968	\$4,176,518
	Rockfish	\$29,262	\$1,335,449	\$394,832	\$484,769	\$2,307,478	\$910,358
	Shallow Water Flatfish	\$1,126,264	\$2,305,827	\$4,226,326	\$3,099,526	\$994,175	\$2,350,424
	Other Species	\$136	\$0	\$9,739	\$164,477	\$653	\$35,001
	Total	\$7,239,203	\$11,541,196	\$12,775,106	\$4,672,959	\$5,836,659	\$8,413,025

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2012

Information gathered in interviews with Kodiak processing plant managers would suggest that while cod and pollock would likely be able to be run during the fifth halibut PSC season under any of the GOA halibut PSC reduction alternatives, fifth halibut PSC season flatfish would likely be the fishery that would experience the most impacts. Lack of flatfish to process toward the end of the year in particular could create a range of challenges with respect to continuity of operations and labor force issues for Kodiak shore-based processors. Interview data suggest:

- First wholesale gross revenues are not indicative of processing labor requirements. Higher volume species translate into more processing labor hours than lower volume, higher value species. From an employee perspective (as opposed to a plant operations perspective), higher volume equates to a higher number of hours worked and therefore higher compensation.
- In general, plant managers report that non-cod, non-pollock processing “fills in voids for processors” between processing seasons for higher value groundfish and other species, allowing the plant to remain operating, cover fixed costs in whole or in part, and keep the workforce busy during what would otherwise be downtime in both the spring and fall.
- While Kodiak plants have typically ceased processing operations between mid-November and the end of December, performing plant maintenance and upgrades during that time, at least a few of the plants have been shortening the end-of-year/holidays processing downtime in recent years, working non-processing projects in during shorter breaks.
- While halibut, black cod, and some other species would continue to be run during the fifth halibut PSC season after cod and pollock operations cease around November 1, even if flatfish were unavailable, the crews required to process those species are characterized as a skeleton crews compared to those required for flatfish processing, with perhaps 10 percent of the crew required for full operations.
- Although practices vary between plants, nearly all Kodiak plants use a combination of local resident labor and non-resident hires. Local resident labor is used throughout the year, supplemented to greater or lesser degrees for longer or shorter periods of time, depending on the operation, with temporary labor brought into the community for peak seasons (with temporary labor making up greater than one-third but less than one-half of the peak labor force for at least some of the larger plants). All, plants, however, report using largely to exclusively local processing labor during processing that occurs during the fifth halibut PSC season processing, especially after the completion of cod and pollock processing during that season.
- Local resident processing workers tend to return to their countries of origin to visit extended families during the fall suspension of procession operations (typically from mid-November through the end of the year) and include this downtime as a part of their family financial planning, seeing it as a positive benefit of processing work. If GOA halibut PSC restrictions caused a longer processing hiatus, however, concerns have been expressed about ability to retain local resident workers over the long term.

- Typically, processing workers file for unemployment benefits to bridge the end-of-year holidays processing plants shutdowns and, while eligibility for benefits would still be retained if longer downtimes were to occur during the fifth halibut PSC season, the level of unemployment benefits available to individuals is calculated off wages earned during a base period consisting of the first four of the five most recently completed quarters, meaning extended non-earning times would impact the level of future benefits. Local unemployment figures for the Kodiak Island Borough derived from the Alaska Department of Labor and published by the Kodiak Chamber of Commerce show unemployment in 2000, 2005, 2007, and 2010 as being 8.1, 8.3, 6.0, and 7.1 percent, respectively, with seafood processing workers making up 68, 66, 60, and 55 percent of the unemployed during those years, respectively.
- Indirect impacts to the community could occur with a decline in processing employee spending during extended processing plant downtimes.

A concern has been expressed in Kodiak that if, due to a combination of factors listed above, resident processing workers are unable to be retained by the local plants, then processing in Kodiak could shift toward a more transient rather than a more resident workforce, changing the socioeconomic and/or demographic structure of the community. As noted elsewhere (AECOM 2010), the population structure of Kodiak, with its resident processing workforce and a substantial related population segment composed of former processing workers who have remained in the community, often with their families, after transitioning to other local employment, is very different than that of the major Alaska groundfish processing ports in the greater region, including Sand Point, King Cove, Akutan, and Unalaska/Dutch Harbor, where much more transient processing workforces are the rule. Interview data would suggest that the relative integration of processing employment and current and former processing employees and their families into the fabric of the community is seen as a positive aspect of life in Kodiak, leading to a more stable community and a higher quality of life in the community than would otherwise be the case. Interviews with plant managers would suggest that GOA halibut PSC revision-related impacts to deliveries of shallow water flatfish and arrowtooth flounder in terms of processing labor demand would fall disproportionately on local resident labor, and that a drop in demand would be most problematic for the bulk of the local workforce during the first part of November, before many processing workers leave the community for extended periods around the holidays, and for some would extend to the end-of-year processing shutdown closer to Christmas. Whether these potential impacts would translate into an overall loss of resident workers is an open question, depending on a number of factors, including the degree to which the delivering fleet could adapt to revised PSC limits.

Concerns have also been expressed that increased processor downtimes could cause a general increase in the cost of living in Kodiak through potential increases in the cost of shipping goods to the community (that is, a drop in southbound [outbound] seafood shipping demand could lead to a reduction from twice-weekly to once-weekly northbound [inbound] service to the community). Interviews with Horizon Lines officials, however, suggest that (1) major northbound shipping customers have multi-year contracts with Horizon, so impacts, if any, would not be felt for several years, and (2) Horizon typically already takes one of its vessels out of the two-vessel Kodiak weekly shipping rotation during the fall to allow for vessel

maintenance and to reduce labor, dockage, and wharfage costs (although fixed costs are still incurred and Horizon is still responsible for twice-weekly deliveries to its customers who have contracted for those services).

Kodiak Engagement in GOA Halibut Fisheries

Kodiak is substantially engaged in and dependent upon GOA halibut fisheries. Local engagement includes the following:

- Among Alaska communities, Kodiak is home to, by far, the most commercial halibut IFQ quota share holders for Areas 2C, 3A, and 3B combined (497 permits) as well as Areas 4A and 4B combined (85 permits).
- Among Alaska communities, Kodiak residents hold, by far, the most commercial halibut IFQ program quota share units for Areas 2C, 3A, and 3B combined (42.5 million) as well as Areas 4A and 4B combined (4.8 million quota share units).
- Among Alaska communities, Kodiak residents owned the highest annual average number of commercial halibut vessels 2003-2010 (238 vessels).
- Among Alaska communities, Kodiak-owned commercial halibut vessels, by far, have the highest annual average exvessel gross revenues 2003-2010 (\$30.6 million).

Kodiak residents are also engaged in the halibut sport charter fisheries and halibut subsistence fisheries, but this engagement, while substantial, is relatively modest compared to the community's engagement in the commercial halibut fishery. While the GOA halibut PSC revisions are intended to benefit the halibut stock over the longer term and ultimately all of the various halibut fisheries relying on that stock, the amount of gross revenue gains projected for targeted halibut fisheries in the foreseeable future is modest, as discussed in Sections 4.5.3 (commercial halibut fisheries), 4.5.4 (sport charter halibut fisheries), and 4.5.5 (subsistence halibut fisheries). While improved halibut stock conditions would benefit Kodiak across the several halibut sectors in the long run (both directly and indirectly, such as with an increase in IFQ valuation), the immediate Kodiak halibut fishery gains from the proposed GOA halibut PSC reductions would not offset the immediate Kodiak GOA groundfish fishery losses from those same GOA halibut PSC reductions.

Community-Level Impacts

While the economy of Kodiak is ultimately reliant on commercial fishing and fish processing, other locally present economic sectors are also important and enhance economic resiliency. These sectors include government, education, aerospace, and tourism sectors, among others, with the local U.S. Coast Guard installation particularly important within the government sector. Ultimately, the level of impact felt in Kodiak will depend on whether trawl vessel operators are able to modify their behavior and reduce halibut PSC rates while still supplying Kodiak plants with adequate processing inputs. The analysis in this

document assumes that no behavioral modification will take place but, as pointed out by local residents during fieldwork, recent experience in the GOA rockfish pilot program has shown that reduction of halibut PSC rates is possible, given the right set of circumstances. To the extent that fishing practices can be modified to reduce halibut PSC rates in the GOA groundfish fisheries to conform to revised GOA halibut PSC levels, potential adverse impacts to Kodiak-owned vessels and shore-based processors operating in Kodiak are overstated in this analysis. To the extent that targeted halibut fishery conditions are actually improved due to increases in exploitable biomass over the long term from implementation of the proposed action or alternatives, potential beneficial impacts to Kodiak-owned vessels and shore-based processors in Kodiak are understated in the analysis.

While a comprehensive, field-based GOA halibut PSC revision-specific impact analysis of the interaction of the directly affected fishery sectors with local public and/or other private support sectors that could result in wider indirect impacts in Kodiak has not been undertaken due to time and resource constraints, significant community-level impacts, as gauged primarily through the use of existing data and targeted field follow-up, are not anticipated in Kodiak. For some individual operations, however, especially within the GOA groundfish trawl sector in Kodiak and those processing operations in Kodiak substantially dependent upon GOA groundfish trawl deliveries of flatfish in particular, adverse impacts may be felt at the operational level, particularly if the fleet cannot effectively modify behavior to reduce historical halibut PSC rates. Overall, however, the sustained participation of Kodiak in the GOA groundfish fisheries would not be put at risk by any of the proposed GOA halibut PSC revision alternatives being considered.

Beyond quantifiable community impacts, it should be noted that consideration of potential GOA halibut PSC revisions is a divisive issue in Kodiak, due to at least two factors: competing fishery and gear interests being represented in the community and a general uneasiness regarding the consistency or objectivity of existing halibut bycatch data. For some engaged in the targeted halibut fishery who have seen halibut quotas (and the value of halibut IFQs) decline, the fact that groundfish fishery halibut PSC levels have been fixed (rather than indexed to halibut quota variations) has been a sore point. From their perspective, groundfish fishery users of halibut within the fixed PSC limits have not been asked to shoulder the same burden that targeted users of halibut have and, indeed, could be causing, again from their perspective, a further erosion of quota available to targeted fishery halibut users, resulting in a basic equity issue. On the other hand, some local GOA groundfish trawl vessel owners will point to the fact that groundfish fishery halibut PSC levels did not increase in the years when targeted halibut fishery quotas and the value of halibut IFQs were on the increase, such that GOA groundfish fishery participants did not share in the benefits that were gained during years when halibut fishery conditions were improving (and presumably higher PSC limits could be sustained to the benefit of groundfish fishery participants without harming the halibut fishery), which could also be seen as an equity issue. Regarding local perceptions of halibut bycatch data, a number of participants across multiple sectors suggested that without more extensive observer coverage of both the GOA groundfish trawl and hook-and-line sectors, there is the opportunity for inconsistency in bycatch data reporting and, without more consistently collected data to establish better baseline conditions, considerations of GOA halibut PSC revisions are premature. While

these equity and bycatch baseline issues may be divisive within Kodiak, they are not quantifiable impacts within the community.

Potential Environmental Justice Concerns

In terms of the potential for high and adverse impacts accruing disproportionately to minority populations or low-income populations (which would trigger environmental justice concerns under Executive Order 12898), as of 2010, based on a combination of race and ethnicity, 62.7 percent of Kodiak's population was composed of minority residents (including 9.9 percent Alaska Native or American Indian), and 10.8 percent of Kodiak's population was considered low-income. Although systematically collected demographic and income information on individual fishery participants by sector is not readily available, previous work (AECOM 2010) and a working familiarity with those sectors does allow for at least some general characterizations for minority population engagement. Historically, Kodiak commercial fishing vessel owners and crew have tended to mirror the general population of the community (or, if anything, be demographically less diverse in non-Alaska Native minority representation than the general population).

On the other hand, particularly in recent years, while processing workers in Kodiak have tended to be drawn from the local labor pool, they have tended to include a higher proportion of minority residents than the general population of the community. Interview data from previous NPFMC projects suggest that a number of those workers originally moved to the community specifically for processing employment opportunities; with local processors providing relatively few company housing options, individuals originally coming to Kodiak for processing opportunities have diversified the local population. This is true both within the seafood industry workforce specifically and for the community in general. For the community as a whole, in many cases individuals who originally came to Kodiak for seafood processing work have subsequently transitioned into a number of other sectors in the local economy over time and/or the relatives who accompanied or followed individuals who were originally moved to Kodiak for seafood processing employment have themselves settled long term in the community. As a result, if significant adverse impacts were to accrue to the Kodiak processing sector as a result of the proposed action or alternatives, environmental justice concerns would apply.

4.3.6 Other Alaska Communities

In addition to the communities profiled as being the most engaged in the potentially affected GOA groundfish fisheries, GOA groundfish-related activities do take place in a number of other Alaska communities. The communities engaged, and the nature and degree of that engagement, varies widely by sector.

- Engagement through local ownership of GOA groundfish trawl vessels was very limited in other Alaska communities. While three other Alaska communities had locally owned vessels participate in the 2003 GOA groundfish trawl fisheries, only Girdwood has had any resident GOA groundfish trawl vessel ownership since 2004, and then only one vessel each year 2005-

2010 inclusive; this vessel also utilized hook-and-line gear in GOA groundfish fisheries in two years over the 2003-2010 period (2007 and 2008).³⁸

- More widespread was community engagement through local shore-based processing. Engagement through being the location of at least one shore-based processor accepting at least one GOA groundfish delivery in at least one of the years 2003-2010 occurred in 14 other Alaska communities, but consistency of engagement varied widely across these communities.
 - At least one shore-based processor each in Akutan, Cordova, Seward, and Unalaska/Dutch Harbor accepted GOA trawl or hook-and-line caught groundfish deliveries (exclusive of halibut and sablefish) every year during the period 2003-2010, including the three most recent years. Shore-based processors in only one other community, Yakutat, took deliveries in at least one (but less than all three) of the most recent years for which data are available.
 - Among the communities not profiled, in addition to Akutan, Cordova, Seward, and Unalaska/Dutch Harbor, only Kenai and Hoonah, participating in five of the last eight years for which data are available, had local shore-based GOA groundfish processing occur in more than half of the years during the period 2003-2010 inclusive.
 - Among the communities not profiled, few shore-based processors accepted GOA groundfish trawl caught deliveries during the period 2003-2010. These included processors in Akutan and Unalaska/Dutch Harbor (at least one processor each year); Kenai (one processor in 2003 only); Ninilchik (one processor in 2003 and 2006 only); and Seward (one processor in 2004, 2005, and 2010 only).
- The most extensive engagement among Alaska communities other than those profiled, by far, was through local ownership of GOA groundfish vessels that utilized hook-and-line gear. According to the dataset used for this analysis, a total of 64 Alaska communities³⁹ (including those profiled) had at least one local resident-owned vessel participate in the GOA groundfish hook-and-line fisheries in at least one year during the years 2003-2010. In addition to the profiled communities, Ketchikan had at least 10 resident-owned vessels participate in the GOA groundfish hook-and-line fisheries at least one year during this period, but many more communities had at least some level of continuous engagement and/or locally substantial engagement in these fisheries. As shown in Table 39:
 - A total of 36 communities (including the nine communities profiled) had at least some locally owned GOA groundfish vessel hook-and-line gear participation in each of the years 2003-2010 inclusive;

³⁸ For both of the two other Alaska communities that had local ownership of one GOA groundfish trawl vessel each in 2003 (Anchor Point and Nikolaevsk), these vessels also fished GOA groundfish with hook-and-line gear that same year.

³⁹ As noted earlier, while a total of 64 different Alaska communities are shown in the dataset as having at least one local resident-owned vessel participating in hook-and-line GOA groundfish fisheries in at least one year over the period 2003-2010, a few of the communities reported separately in the dataset are actually part of the same municipality (e.g., Dutch Harbor is part of the City of Unalaska; Auke Bay and Douglas are within the City and Borough of Juneau; and Girdwood and Eagle River are part of the Municipality of Anchorage).

- A total of 33 communities (including the nine communities profiled) had at least five unique locally owned vessels participate in the GOA groundfish fisheries with hook-and-line gear over the years 2003-2010 inclusive;
- A total of 14 communities (including the nine communities profiled) had at least four locally owned vessels participate in the GOA groundfish fisheries with hook-and-line gear on an annual average basis during the years 2003-2010 inclusive; and,
- A total of 965 unique⁴⁰ Alaska owned vessels participated in the GOA groundfish hook-and-line fisheries over this time period (including 801 vessels in the nine communities profiled).

Table 39. Individual GOA Groundfish Hook-and-Line Vessels (All) by Community of Vessel Owner, 2003-2010 (number of vessels)

Community	Unique Vessels 2003-2010	2003	2004	2005	2006	2007	2008	2009	2010	Annual Average 2003-2010
Adak	1	0	0	0	0	0	0	0	1	0.1
Akutan	4	1	1	0	0	2	4	3	3	1.8
Anchor Point	17	7	6	8	1	2	6	3	2	4.4
Anchorage	39	13	16	10	10	8	10	12	9	11.0
Auke Bay	1	0	1	1	1	0	0	0	0	0.4
Chignik	7	4	4	6	4	4	4	1	1	3.5
Chignik Lagoon	18	4	12	8	6	7	9	7	5	7.3
Chiniak	1	0	1	0	0	0	0	0	0	0.1
Clam Gulch	3	1	1	1	2	0	0	1	1	0.9
Cordova	12	2	4	2	2	1	3	3	6	2.9
Craig	8	3	1	4	0	0	0	1	0	1.1
Delta Junction	6	2	4	5	5	6	6	5	5	4.8
Dillingham	1	1	0	0	0	0	0	0	0	0.1
Douglas	13	7	3	6	3	2	1	0	0	2.8
Dutch Harbor	6	2	1	3	0	3	3	0	0	1.5
Eagle River	4	1	1	1	0	1	0	1	0	0.6
Egegik	1	0	0	1	0	0	0	0	0	0.1
Elfin Cove	3	1	1	1	1	0	0	0	0	0.5
False Pass	5	3	3	2	3	0	1	1	1	1.8
Fritz Creek	4	1	0	0	0	1	1	1	3	0.9
Girdwood	1	0	0	0	0	1	1	0	0	0.3
Gustavus	3	0	2	1	1	0	0	0	0	0.5
Haines	9	3	4	1	1	1	0	0	0	1.3
Halibut Cove	2	0	0	0	2	0	0	0	0	0.3
Homer	117	44	54	48	41	48	45	52	52	48.0
Hoonah	5	3	2	2	2	1	0	0	0	1.3
Juneau	38	17	16	17	7	1	3	3	3	8.4
Kasilof	4	1	1	0	1	0	1	2	0	0.8
Kenai	6	2	2	1	0	1	2	1	2	1.4
Ketchikan	22	12	14	7	1	0	0	0	0	4.3
King Cove	31	17	15	14	15	14	18	13	16	15.3
King Salmon	1	0	0	1	1	0	0	0	0	0.3
Kodiak	282	139	149	148	123	110	116	111	107	125.4

⁴⁰ The 965 grand total vessel figure was derived by adding the number of unique vessels for each community; if community of ownership changed for a vessel during the period 2003-2010, that vessel would have been counted as a unique vessel in each community total, resulting in some double counting of vessels in the grand total.

Community	Unique Vessels 2003-2010	2003	2004	2005	2006	2007	2008	2009	2010	Annual Average 2003-2010
Larsen Bay	5	2	4	2	0	1	0	0	1	1.3
Meyers Chuck	1	1	1	1	0	0	0	0	0	0.4
Nelson Lagoon	2	1	2	0	0	0	0	0	0	0.4
Nikiski	1	0	0	1	1	0	0	0	0	0.3
Nikolaevsk	7	4	3	2	1	2	2	2	4	2.5
Ninilchik	4	3	3	3	2	0	0	0	0	1.4
Nome	1	0	0	0	0	0	0	1	0	0.1
Old Harbor	9	4	2	5	2	3	4	5	2	3.4
Ouzinkie	7	6	2	3	1	1	2	3	3	2.6
Palmer	2	1	2	2	2	1	2	1	2	1.6
Pelican	7	5	3	1	1	0	0	0	0	1.3
Perryville	4	2	4	3	1	0	1	0	0	1.4
Petersburg	31	16	15	13	10	4	4	5	6	9.1
Port Alexander	4	4	0	0	0	0	0	0	0	0.5
Port Lions	8	3	3	2	1	1	3	1	2	2.0
Saint Paul Island	1	0	0	0	0	0	1	1	0	0.3
Sand Point	78	50	45	40	18	18	38	32	36	34.6
Seldovia	7	2	4	1	0	3	3	5	2	2.5
Seward	9	4	0	0	0	2	6	2	2	2.0
Sitka	167	129	73	49	17	2	2	3	3	34.8
Soldotna	2	1	0	1	1	0	0	0	0	0.4
Sterling	1	0	1	0	0	0	0	0	0	0.1
Tenakee	3	1	0	1	1	0	0	0	0	0.4
Tuluksak	1	0	1	0	0	0	0	0	0	0.1
Unalaska	8	2	1	0	2	2	0	1	1	1.1
Valdez	2	0	0	2	0	0	0	0	0	0.3
Ward Cove	1	1	1	1	0	0	0	0	0	0.4
Wasilla	13	3	3	1	1	4	8	4	5	3.6
Willow	5	3	2	2	3	4	3	3	3	2.9
Wrangell	7	4	4	1	1	0	0	0	0	1.3
Yakutat	2	0	0	0	0	0	1	0	1	0.3
Total	965	543	498	436	299	262	314	290	290	366.5

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Relatively low vessel numbers in any given year, however, restrict the amount of GOA groundfish exvessel gross revenue information that can be disclosed for the Alaska communities other than those profiled, even for the relatively widespread efforts in the GOA groundfish hook-and-line sector. As shown in Table 40, while at least one year of exvessel gross revenue information can be shown for 22 communities other than those profiled, exvessel gross revenue information for more than half of the years 2003-2010 can only be displayed for two of these communities (Chignik and Delta Junction). Based on those years for which data can be disclosed (ranging between one and eight years total, depending on the community), the average annual exvessel gross revenues deriving from GOA groundfish hook-and-line gear fishery vessel participation for those 22 Alaska communities other than those profiled fall into the following categories:

- Ten communities had non-confidential data years annual averages of under \$100,000 (and of these, seven were under \$25,000, including four under \$10,000);

- Six communities had non-confidential data years annual averages between \$100,000 and \$249,999;
- Four communities had non-confidential data years annual averages between \$250,000 and \$499,999; and
- Two communities had non-confidential data years annual averages over \$500,000 (with the highest being \$601,000).

Table 40. GOA Groundfish Hook-and-Line Exvessel Gross Revenues by Community of Vessel Owner, 2003-2010 (dollars)

Community	Unique Vessels 2003-2010	2003	2004	2005	2006	2007	2008	2009	2010	Non-Confidential Data Year Average 2003-2010
Adak	1	*	*	*	*	*	*	*	*	*
Akutan	4	*	*	*	*	*	\$101,804	*	*	\$101,804
Anchor Point	17	\$298,641	\$254,303	\$285,990	*	*	\$356,139	*	*	\$298,769
Anchorage	39	\$361,128	\$473,752	\$487,402	\$356,601	\$448,857	\$1,181,021	\$380,243	\$767,412	\$557,052
Auke Bay	1	*	*	*	*	*	*	*	*	*
Chignik	7	\$124,605	\$198,878	\$342,142	\$395,575	\$322,048	\$168,347	*	*	\$258,599
Chignik Lagoon	18	\$629,796	\$747,886	\$742,131	\$875,374	\$1,740,300	\$2,244,200	\$885,943	\$1,186,450	\$1,131,510
Chiniak	1	*	*	*	*	*	*	*	*	*
Clam Gulch	3	*	*	*	*	*	*	*	*	*
Cordova	12	*	\$58,842	*	*	*	*	*	\$184,135	\$121,489
Craig	8	*	*	\$8,015	*	*	*	*	*	\$8,015
Delta Junction	6	*	\$307,373	\$309,993	\$684,491	\$743,717	\$1,035,768	\$593,695	\$528,481	\$600,503
Dillingham	1	*	*	*	*	*	*	*	*	*
Douglas	13	\$11,598	*	\$7,177	*	*	*	*	*	\$9,387
Eagle River	4	*	*	*	*	*	*	*	*	*
Egegik	1	*	*	*	*	*	*	*	*	*
Elfin Cove	3	*	*	*	*	*	*	*	*	*
False Pass	5	*	*	*	*	*	*	*	*	*
Fritz Creek	4	*	*	*	*	*	*	*	*	*
Girdwood	1	*	*	*	*	*	*	*	*	*
Gustavus	3	*	*	*	*	*	*	*	*	*
Haines	9	*	\$1,172	*	*	*	*	*	*	\$1,172
Halibut Cove	2	*	*	*	*	*	*	*	*	*
Homer	117	\$1,870,262	\$2,148,119	\$1,697,509	\$2,938,228	\$4,727,498	\$4,183,544	\$3,050,763	\$3,060,755	\$2,959,585
Hoonah	5	*	*	*	*	*	*	*	*	*
Juneau and Petersburg**	69	\$783,436	\$171,343	\$214,819	\$829,805	\$1,691,787	\$2,282,262	\$1,550,592	\$543,397	\$1,008,430
Kasilof	4	*	*	*	*	*	*	*	*	*
Kenai	6	*	*	*	*	*	*	*	*	*
Ketchikan	22	\$29,788	\$22,780	\$142,642	*	*	*	*	*	\$65,070
King Cove	31	\$1,628,404	\$1,836,228	\$1,579,762	\$2,347,351	\$3,016,267	\$2,672,847	\$1,048,009	\$2,297,563	\$2,053,304
King Salmon	1	*	*	*	*	*	*	*	*	*
Kodiak	282	\$5,731,575	\$7,247,863	\$8,300,350	\$10,248,684	\$12,957,842	\$13,937,288	\$6,932,354	\$9,133,938	\$9,311,237
Larsen Bay	5	*	\$53,636	*	*	*	*	*	*	\$53,636
Meyers Chuck	1	*	*	*	*	*	*	*	*	*
Nelson Lagoon	2	*	*	*	*	*	*	*	*	*
Nikiski	1	*	*	*	*	*	*	*	*	*
Nikolaevsk	7	\$401,725	*	*	*	*	*	*	\$239,359	\$320,542
Ninilchik	4	*	*	*	*	*	*	*	*	*
Nome	1	*	*	*	*	*	*	*	*	*
Old Harbor	9	\$108,138	*	\$297,770	*	*	\$274,300	\$169,997	*	\$212,551
Ouzinkie	7	\$21,462	*	*	*	*	*	*	*	\$21,462
Palmer	2	*	*	*	*	*	*	*	*	*
Pelican	7	\$9,509	*	*	*	*	*	*	*	\$9,509
Perryville	4	*	\$52,116	*	*	*	*	*	*	\$52,116
Port Alexander	4	\$23,192	*	*	*	*	*	*	*	\$23,192
Port Lions	8	*	*	*	*	*	*	*	*	*
Saint Paul Island	1	*	*	*	*	*	*	*	*	*
Sand Point	78	\$3,250,225	\$2,119,262	\$1,455,572	\$1,452,544	\$1,698,231	\$2,338,213	\$1,457,289	\$2,867,659	\$2,079,874
Seldovia	7	*	\$175,819	*	*	*	*	\$388,367	*	\$282,093
Seward	9	\$47,549	*	*	*	*	\$375,741	*	*	\$211,645
Sitka	167	\$654,903	\$562,502	\$206,905	\$115,133	*	*	*	*	\$384,861

Community	Unique Vessels 2003-2010	2003	2004	2005	2006	2007	2008	2009	2010	Non-Confidential Data Year Average 2003-2010
Soldotna	2	*	*	*	*	*	*	*	*	*
Sterling	1	*	*	*	*	*	*	*	*	*
Tenakee	3	*	*	*	*	*	*	*	*	*
Tuluksak	1	*	*	*	*	*	*	*	*	*
Unalaska/Dutch Harbor	14	\$114,953	*	*	*	\$185,639	*	*	*	\$150,296
Valdez	2	*	*	*	*	*	*	*	*	*
Ward Cove	1	*	*	*	*	*	*	*	*	*
Wasilla	13	*	*	*	*	\$387,809	\$640,002	\$186,963	\$794,679	\$502,363
Willow	5	*	*	*	*	\$181,583	*	*	*	\$181,583
Wrangell	7	\$24,929	\$4,469	*	*	*	*	*	*	\$14,699
Yakutat	2	*	*	*	*	*	*	*	*	*
Total	965 [^]	\$16,125,817	\$16,436,342	\$16,078,178	\$20,243,787	\$28,101,579	\$31,791,477	\$16,644,215	\$21,603,829	\$22,986,347

* Data suppressed due to confidentiality restrictions

** Communities combined due to confidentiality restrictions

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Of the six non-profiled communities with annual non-confidential data year average GOA groundfish hook-and-line exvessel gross revenues of \$250,000 or greater:

- The four communities in the \$250,000 to \$499,000 range included Anchor Point (population 1,930), Nikolaevsk (population 318), and Seldovia (population 255). All three of these communities are located within a 15-mile radius of Homer; Anchor Point and Nikolaevsk are road connected, while Seldovia is not. While the specific history and length of settlement of these communities vary, all three have, to varying degrees, historically featured commercial fishing as a substantial part of the local economic base. The other community, Chignik (population 91), is a small, relatively isolated community heavily focused on commercial fishing within the private sector portion of the local economy.
- The two communities in the \$500,000 or greater range were Delta Junction (population 958) and Wasilla (population 7,831), neither of which is physically located on the Gulf of Alaska nor is typically considered to include commercial fishing as a major sector in the local economy (although local residents do hold fishing permits for a range of fisheries elsewhere). Both communities are considered to have stronger ties to the economies of the Alaskan Interior and/or the greater Anchorage area than to the Gulf of Alaska.

In general, in the most recent years, vulnerability of the other participating Alaska communities to substantial adverse impacts potentially resulting from GOA halibut PSC revisions would appear to be limited. Among these other communities most engaged in GOA groundfish processing, while specific processing volume and value numbers are confidential, it is known that Akutan and Unalaska/Dutch Harbor processors are much more heavily involved in Bering Sea/Aleutian Islands fisheries than GOA fisheries; Cordova processing is more heavily dependent on the salmon fisheries rather than on the GOA groundfish fisheries; and, within Kenai and Seward, processing activities overall represent a modest portion of a relatively diversified local economy. Among these other communities with catcher vessels participating in the potentially affected GOA groundfish fisheries, this participation typically represents a modest segment of the local fleet and/or a modest proportion of local fleet efforts. There are, however, at

least some communities for which locally owned vessel GOA groundfish hook-and-line participation represents a substantial component of the overall fisheries engagement of the local fleet, particularly a few smaller communities such as Chignik, where relative dependency on the fishery is also increased by a comparatively small and undiversified local economy and alternate sources of employment and income are limited.

4.4 RISKS TO FISHING COMMUNITY SUSTAINED PARTICIPATION IN THE GOA GROUND FISH FISHERIES

4.4.1 General

In general, while overall annual first wholesale revenues foregone in the GOA groundfish fisheries can be calculated to be between zero and 6.8 percent,⁴¹ based on specific combinations of alternatives and a 2003-2009/2010 annual average baseline (Table 41), it is not possible to quantitatively differentiate potential impacts of the different GOA halibut PSC reduction alternatives on an individual community basis due to data confidentiality restrictions and/or a lack of quantitative information that would allow an assessment of local impacts beyond some of the most immediate impacts to direct fishery participants. Qualitatively, however, it is possible to anticipate the communities where adverse impacts, if any, would most likely take place, along with the nature, direction, and at least rough order of magnitude of those impacts.

Table 41. Estimated Annual Average 2003-2010 First Wholesale Gross Revenue Foregone in GOA Groundfish Fisheries, All Areas Combined, Hook-and-Line and Trawl Combined, from Catcher Vessel Deliveries and Catcher Processors Combined, by Alternative PSC Reduction Level by Gear Type (percentage)

Gear Type and Level of PSC Reduction		Trawl PSC Reduction			
		Status Quo	5%	10%	15%
Hook-and-Line PSC Reduction	Status Quo	0.0%	1.2%	3.7%	5.9%
	5%	0.2%	1.5%	3.9%	6.1%
	10%	0.5%	1.8%	4.2%	6.5%
	15%	0.9%	2.1%	4.5%	6.8%

Source: Calculated from Tables 4-27 and 4-77 in main body of this document

Adverse impacts would likely be felt at the individual operation level for at least a few vessels and/or processing plants in a number of Alaska communities due to increased costs and/or a drop in revenues associated with either changing fishing patterns and/or practices to reduce halibut bycatch or because of season-ending closures based on a particular gear- or species-based sector hitting a (revised) halibut PSC

⁴¹ The maximum 6.8 percent first wholesale gross revenues foregone would result from \$9.7 million foregone under a 15 percent GOA groundfish hook-and-line halibut PSC reduction combined with a 15 percent GOA groundfish trawl halibut PSC reduction compared against a combined annual average baseline 2003-2010 inclusive (see Table 4-77 of the RIR in the body of the main document to which this community analysis is an appendix) of first wholesale gross revenues of \$142.8 million GOA-wide (see Table 4-27 in the RIR in the body of the main document to which this community analysis is an appendix; calculated off of the catcher processor and catcher vessel hook-and-line and trawl values combined). These numbers should be used to indicate a rough order of magnitude of change rather than a quantification of change due to several factors, including the fact that annual averages calculated off Table 4-27 were based on 2003-2009 data, while annual averages calculated in Table 4-77 were based on 2003-2010 data.

limit earlier in the season than would have been the case under existing/previous (higher) halibut PSC thresholds. Additionally, recent community and social impact assessments for North Pacific fishery management actions suggest that as locally operating vessels in particular experience adverse impacts, indirect impacts are also soon felt by at least some local support service providers to the degree that those individual enterprises are dependent upon customers who participate in the specific fishery or fisheries affected (and the relative dependence of those customers on those specifically affected fisheries). Given the scope of overall economic impacts anticipated to result from any of the management alternatives assessed for the proposed GOA halibut PSC revisions, however, community-level impacts would likely not be discernible for most of the engaged communities and would likely not be significant for any of the involved communities as gauged by the use of existing information. The sustained participation of these fishing communities (typically assessed under National Standard 8 of the Magnuson-Stevens Fishery Conservation and Management Act) would not be put at risk by any of the proposed GOA halibut PSC revision alternatives being considered.

Specifically in terms of applying an overall first wholesale gross revenues foregone estimation to different patterns of community engagement in the relevant GOA groundfish fisheries, the estimates in Table 41 would suggest that if trawl PSC level was unchanged (maintained at status quo levels), the potential annual first wholesale gross revenues foregone would range from 0.2 percent to 0.5 percent to 0.9 percent of an annual average baseline for the years 2003-2010 for the proposed 5 percent, 10 percent, and 15 percent (hook-and-line only) PSC level reductions, respectively. Assuming no adaptive responses or changes in fishing strategy to avoid or minimize potential impacts, these would be the anticipated levels of annual first wholesale gross revenues foregone (and a similar anticipated ratio of exvessel gross revenues foregone would apply) for those communities where the local GOA groundfish fleet and/or processing entities are exclusively engaged in hook-and-line fisheries (as opposed to being engaged in the trawl fisheries and/or trawl and hook-and-line fisheries). This at-worst anticipated less than 1.0 percent local annual first wholesale gross revenues (and/or exvessel gross revenues) foregone would apply to nearly all Alaska communities other than those nine communities profiled, due to the lack of engagement in the GOA groundfish trawl fisheries detailed earlier.

The estimates in Table 41 would suggest that if hook-and-line PSC level was unchanged (maintained at status quo levels), the potential annual first wholesale gross revenues foregone would range from 1.2 percent to 3.7 percent to 5.9 percent of an annual average baseline for the years 2003-2009 for the proposed 5 percent, 10 percent, and 15 percent (trawl only) PSC level reductions, respectively. Unlike the case with hook-and-line engagement, however, no Alaska communities are engaged in the GOA groundfish fisheries exclusively through the trawl sector; all communities that participate in the trawl sector also participate in the hook-and-line sector. If one or both of the GOA groundfish hook-and-line and trawl halibut PSC limits were reduced, potential annual first wholesale gross revenues foregone would range from 0.2 percent to 6.8 percent. Outside of the nine Alaska communities profiled, few communities are substantially engaged in the GOA groundfish fisheries within the trawl sector, as detailed earlier, so the upper range of the estimates for first wholesale gross revenues foregone is unlikely to apply to those communities. Even among the communities profiled, only three communities have the potential to experience the upper range of these impacts, while six do not:

- Anchorage, Chignik Lagoon, Homer, Juneau, Petersburg, and Sitka are engaged in the GOA groundfish fisheries almost exclusively through hook-and-line fisheries; all six averaged one or less locally owned GOA groundfish trawl vessels per year and no shore-based processors in any of these communities accepted GOA groundfish trawl caught deliveries during the period 2003-2010. As a result, these communities are not likely to experience the estimated upper range of potential adverse impacts that could result if simultaneous trawl and hook-and-line GOA halibut PSC reductions were implemented.
- King Cove, Sand Point, and Kodiak are each substantially engaged, from a local perspective, in both the GOA groundfish trawl and hook-and-line fisheries both in terms of a locally owned fleet and in terms of local shore-based processing. These are the communities, therefore, that would be the most likely to potentially experience the upper range of potential adverse impacts that could result if simultaneous trawl and hook-and-line GOA halibut PSC reductions were implemented.
 - Proportionally, more individual vessels would theoretically have the potential to experience the upper end of the range adverse impacts in Sand Point and King Cove due to the absolute and relative number of vessels participating in both the trawl and hook-and-line GOA groundfish fisheries (but actual impacts would vary based on the alternatives chosen and the relative dependency of the individual vessels on each of the gear types); similarly, the single shore-based processor in each of these two communities is substantially engaged in the GOA groundfish fisheries in general and through trawl caught deliveries in particular. For both King Cove and Sand Point, however, the potential for community-level impacts would likely be mitigated to a substantial degree by the specific nature of historic community engagement in the relevant GOA groundfish fisheries, whereby community-level vulnerability would be effectively limited to the degree to which GOA halibut PSC reductions would affect the Pacific cod fishery in the Western GOA during the first halibut PSC season (only).
 - Kodiak would be the Alaska community most vulnerable to adverse impacts resulting from proposed GOA halibut PSC revisions due to widespread engagement in all of the relevant regional groundfish fisheries over the course of an annual cycle in general. Kodiak would also be particularly vulnerable to impacts from alternatives/options that concentrated GOA halibut PSC reductions in the fifth halibut PSC season.

For all communities, this analysis has focused on historical participation patterns, and actual impacts of any particular GOA halibut PSC limit reduction alternative upon implementation and in subsequent years would be determined in large part by the aggregation of individual operation-level responses to the new PSC limits. As noted in Section 4.6.6 of the RIR in the main document to which this community analysis is an appendix, a number of potential fleet responses to GOA halibut PSC limit reductions could shape specific impact outcomes.

4.4.2 Potential Cumulative Small/Rural Community and Cultural Context Issues

This analysis has largely focused on community impacts associated with the implementation of proposed Gulf halibut PSC revisions through the use of quantitative fishery information and through characterizations of a number of Alaskan communities that describe the magnitude of social- and community-level engagement and dependency on those fisheries. This approach provides a relatively comprehensive analysis of anticipated socioeconomic impacts that could occur as a result of GOA halibut PSC revisions. It should be noted, however, that fishing regulatory actions can result in a wide range of social and sociocultural impacts in rural fishing communities. For many residents of these communities, fishing is not seen as merely a commercial venture, but an integral part of self identity. This relationship is compounded for those residents who come from families with multi-generational experience in commercial and/or subsistence fishing, particularly for those Alaska Native residents for whom fishing is part of a larger, integrated traditional subsistence and economic sustenance practice rooted in thousands of years of history. A number of researchers have explored the relationship between contemporary fishery management actions (e.g., IFQ, catch-shares, rationalization, limited entry, etc.) and the sociocultural impacts that can result, including impacts to identity. The following survey of existing literature is not meant to be comprehensive, but is instead included here to indicate the types of research being conducted within the Gulf of Alaska on these issues and the potentially interactive nature of the present proposed management actions with other management actions that have taken place in recent years.

Dr. Courtney Carothers has focused regularly on marine resource conservation and management in Alaska in her academic work. In her article in *Human Organization* entitled, “Equity and Access to Fishing Rights: Exploring the Community Quota Program in the Gulf of Alaska” (2011), Carothers discusses the Community Quota Program, which instead of giving a quota to an individual or single vessel, quota is given to a community that has created a formal organization (501[c]3) or Community Quota Entity. Its purpose is described by Carothers: “The Community Quota Program was designed to redistribute fishing opportunities by enabling small remote fishing communities in the Gulf of Alaska to utilize collective resources to purchase and retain fishing rights” (Carothers 2011). Carothers suggests that these organizations help, but do not alleviate, the inequality to access experienced by small fishing-dependent communities and individuals. In discussing the status of the Community Quota Program, Langdon and Springer point out that the traditional pattern for many communities is for broad participation by many, rather than privatized quotas owned and fished by the few (2006). The authors describe the impacts and note that, “Opportunities for entry participation in fisheries are virtually nonexistent and they are the most available opportunities in villages” (Langdon and Springer 2006).

In “Fishing Rights and Small Communities: Alaska Halibut IFQ Transfer Patterns” (Carothers et al. 2010), the authors discuss quota share emigration and how halibut IFQ has resulted in small rural fishing communities (especially those with populations of 1,500 or less) having disproportionately lost fishing rights and how Alaska Native communities are more likely to sell than buy quota. Since quotas have an attached monetary value, many small community residents tend to sell their quotas in tough financial times. The authors also discuss how the quota share market behavior is linked to these small rural fishing communities through the redistribution process of the community selling their quota shares to larger

communities, or collectives. The authors describe how, in order to make the program more equitable, the NPFMC started the “Community Purchase Program” for 42 communities of 1,500 people or less.

Focusing specifically on Aleut and Alaska Native fisheries, Dr. Katherine Reedy-Maschner discusses similar issues. She recently published an ethnographic view of Native fisheries and the attitudes and beliefs of those that fish the fishery (Reedy-Maschner 2010). Maschner suggests that Alaska Native fishermen’s views on marine resources and management can be at odds with environmentalists and conservation/management programs because their use of the marine environment differs from that of at least some other commercial fishermen. She finds that a number of programs more broadly targeted at commercial fishermen in general do not take into account the particular context and operational realities of a substantial portion of Alaska Native fishing operations and suggests that some programs serve to undercut the ability of Alaska Native fishermen to follow traditional cultural patterns of marine resource utilization.

“‘Rationalized Out’: Discourses and Realities of Fisheries Privatization in Kodiak, Alaska” (Carothers 2008a) discusses how the rationalization framework is biased toward maximizing profit each season, rather than accommodating seasonal ups and downs in both profit and biomass. Carothers suggests, “By prioritizing efficient profit generation, the rationalization framework is not embraced as rational, but rather as antithetical to village-based fisheries. The flexible nature of village fishing (i.e. fishing when income is needed and living with the ups and downs) is constrained by rationalization policies that commodify fishing rights.” Carothers quotes a resident of Ouzinkie as saying, “The young people have been aced out of the fishing...you know, permits...which we are going to try to change.” As described by Carothers, individualization and privatization of fishing rights have been linked by many small village residents to their community’s decrease in fishing participation.⁴²

Emilie Springer’s thesis, *Through a Cod’s Eye: Exploring the Social Context of Alaska’s Bering Sea Groundfish Industry*, is another example of the kind of research being done that looks at broader social issues and effects of marine resource management (2007). Springer discusses how fishermen of groundfish in the Bering Sea (specifically cod), describe their participation in commercial fishing. Springer presents Bering Sea cod fishermen as a representative sample of individuals in other groundfish fisheries, as well as Bering Sea crab fisheries and Alaska state water fisheries. With the exception of vessels using pot gear, Springer notes that during the 1990s, fishermen in the Bering Sea cod fleet experienced a number of changes, including those resulting from the Community Development Quota program, the License Limitation Program, and Stellar sea lion protection measures. Springer suggests that as a result of those changes, the fleet matured and opportunities for new, young fishermen were reduced as the fleet was able to fish on a more consistent schedule.⁴³

⁴² Many of the issues explored by Carothers in recent articles are presented either in full or in part in her doctoral dissertation, *Privatizing the Right to Fish: Challenges to Livelihood and Community in Kodiak, Alaska* (2008b), in which Carothers explores the difficulties experienced by fishermen in Kodiak, Alaska, as a result of rationalization and IFQs. She also discusses halibut IFQs distributive outcomes and associated predictable patterns of participation in the quota market by different groups of quota holders.

⁴³ Springer’s conclusions do not include vessels using pot gear; she suggests more opportunities for younger crew members are present on pot gear vessels due to the physically demanding nature of the gear.

Dr. Meredith Marchioni explores personal belief and intention in her doctoral dissertation, *Attitudes Towards the Marine Environment and Implications for Marine Resource Management in Seward, Alaska*, (2009) and notes that each individual's attitudes [of those studied] toward the marine environment is influenced by the role they play in the marine environment, whether as a commercial fisherman or non-participant. Marchioni notes that each group has their own intentions and ideas about the marine environment, and that, while they may be consistent within each group, these ideas differ widely between groups. She suggests that regional commercial and sport fishermen more closely engaged in day-to-day fishing operations tend foremost to hold a pragmatic view of marine resources and environment while the views of those more closely engaged in day-to-day management and conservation initiatives tend to be more influenced by what could be termed a more generalized environmental science or Western environmentalist perspective.

While sustained participation of fishing communities in the GOA groundfish fisheries would not appear to be directly at risk from implementation of the proposed action or alternatives, the literature reviewed in this section, along with recent NPFMC analyses, including the recently completed crab rationalization five-year program review social impact assessment (AECOM 2010), underlines the fact that the proposed action is not taking place in isolation. Existing trends suggest that sustained participation in a range of commercial fisheries by residents of small communities in the region has become more challenging in recent years, with less inherent flexibility to adjust to both short- and long-term fluctuations in resource availability (as well as to changing markets for seafood products). This flexibility is widely perceived in the communities as a key element in an overall adaptive strategy practiced in subsistence and economic contexts in the region for generations. This strategy involves piecing together individual livings (and often local economies) with an employment and income plurality approach. This plurality approach is particularly important given that the availability of non-fishing alternatives for income and employment are limited and, like the natural resources (and market factors) that underpin commercial fishing opportunities, tend to be subject to both short- and long-term fluctuations. This ongoing fluctuation in non-fishing opportunities further reinforces the importance of flexibility in the pursuit of a range of commercial fishing opportunities to enable individuals and communities the ability to successfully combine fishing and non-fishing as well as commercial and subsistence pursuits considered critical to long-term socioeconomic and sociocultural survival if not stability. To the extent that the proposed action or alternatives would serve to further restrain that flexibility, overall sustained participation in a range of local fisheries by residents of the smaller communities in particular would be made all the more challenging.

4.5 POTENTIAL COMMUNITY-LEVEL BENEFICIAL IMPACTS RESULTING FROM POSITIVE IMPACTS TO GOA HALIBUT FISHERIES

4.5.1 Overview

It is assumed that direct halibut fisheries, including the commercial, sport charter, and subsistence halibut fisheries, would potentially benefit from the proposed GOA halibut PSC revisions relative to the degree that the GOA halibut stock itself would potentially benefit from these proposed actions (and the effective redistribution of overall allocations between sectors that may occur with the various alternatives).

Beneficial impacts to these fisheries would likely, in some measure, serve to offset adverse impacts to GOA groundfish fisheries resulting from the proposed GOA halibut PSC revisions at the community level if not at the individual operational level. The communities most heavily engaged in the relevant GOA groundfish fisheries, however, are not always the communities most centrally engaged in/dependent upon the various GOA halibut fisheries; therefore, the individual communities that have the potential to experience the greatest adverse impacts to the groundfish fisheries may or may not be the same communities as those that have the potential to experience the greatest beneficial impacts to the halibut fisheries. Further, it is important to note that there would be differences in the timing of adverse and beneficial impacts; while adverse impacts to GOA groundfish fisheries would be immediate, beneficial impacts to GOA halibut fisheries would not be immediately apparent.

4.5.2 Distribution of Potential Beneficial Impacts by Halibut Fishery Sector Across GOA Communities

In general, the potential beneficial impacts to the various halibut fisheries would be spread more widely among communities than would be the potential adverse impacts to the groundfish fisheries. This potential differential distribution of adverse and beneficial impacts is expected to vary within and among communities, but the greatest overlap of potential negatively affected and positively affected populations would most likely occur in the communities profiled. Among these nine communities, however, the mix of local engagement in the varied GOA groundfish and GOA halibut sectors varies substantially. For example, while Kodiak residents are heavily engaged in all of the GOA groundfish and GOA halibut fishery sectors, King Cove and Sand Point, while substantially engaged in the GOA groundfish trawl fisheries, have no local resident permit holders in the GOA halibut sport charter fisheries. In contrast, while Homer and Kodiak are heavily engaged in the sport charter halibut fisheries, a number of other communities with active halibut sport charter operations have little or no engagement in the relevant GOA groundfish fisheries. Similarly, while Homer, Kodiak, and Petersburg have substantial concentrations of commercial GOA halibut fishing activity, many other communities with little or no engagement in the relevant GOA groundfish fisheries have at least locally substantial engagement in the commercial GOA halibut fisheries.

- Table 42 provides information on the distribution of commercial halibut IFQ permits held, by Alaska community, in 2011. As shown, Kodiak, Sitka, Petersburg, Homer, Juneau, and Anchorage, in that order, represented the top six communities for the number of commercial halibut IFQ program permits held for areas 2C, 3A, and 3B combined in 2011, while Sand Point, King Cove, and Chignik Lagoon ranked 13th, 25th, and 40th, respectively. A total of 44 Alaska communities held 10 or more permits in these combined areas.

Table 42. Number of Commercial Halibut IFQ Program Quota Share Holders, by Alaska Community, 2011

Community	Number of Quota Share Holders Held by Area						Subtotal 4A and 4B
	2C	3A	3B	Subtotal 2C, 3A, and 3B	4A	4B	
Kodiak	4	287	206	497	58	27	85
Sitka	316	124	13	453	8	3	11
Petersburg	330	87	4	421	6	1	7
Homer	5	273	123	401	58	8	66
Juneau	160	49	2	211	4	1	5
Anchorage	5	122	36	163	11	4	15
Cordova	3	110	3	116	2	2	4
Wrangell	97	12	2	111	1	0	1
Ketchikan	83	7	0	90	0	0	0
Haines	65	14	0	79	0	1	1
Kenai	2	60	3	65	0	0	0
Craig	64	0	0	64	0	0	0
Sand Point	0	1	54	55	0	0	0
Seward	2	44	7	53	0	1	1
Soldotna	0	52	0	52	0	0	0
Yakutat	1	46	0	47	0	0	0
Douglas	24	15	4	43	0	0	0
Wasilla	5	29	6	40	4	0	4
Hoonah	27	6	0	33	0	0	0
Anchor Point	0	22	7	29	0	0	0
Elfin Cove	23	6	0	29	0	0	0
Seldovia	0	21	6	27	1	0	1
Auke Bay	21	5	0	26	0	0	0
Kasilof	1	23	0	24	0	0	0
King Cove	0	0	24	24	0	0	0
Eagle River	1	21	1	23	0	0	0
Gustavus	16	5	2	23	1	1	2
Nikolaevsk	0	16	6	22	0	0	0
Valdez	0	20	1	21	0	0	0
Fairbanks	7	10	3	20	4	1	5
Kake	20	0	0	20	0	0	0
Delta Junction	0	15	3	18	0	0	0
Pelican	11	6	0	17	0	0	0
Ward Cove	17	0	0	17	0	0	0
Palmer	0	14	2	16	3	3	6
Ouzinkie	0	14	0	14	0	0	0
Angoon	13	0	0	13	0	0	0
Dillingham	4	4	5	13	3	2	5
Clam Gulch	0	12	0	12	0	0	0
Ninilchik	0	12	0	12	0	0	0
Chignik Lagoon	0	1	9	10	0	0	0
Metlakatla	10	0	0	10	0	0	0
Point Baker	10	0	0	10	0	0	0
Port Lions	0	10	0	10	2	0	2
Halibut Cove	0	7	2	9	0	0	0
Old Harbor	0	6	3	9	0	0	0
Togiak	5	1	3	9	5	0	5
Edna Bay	8	0	0	8	0	0	0
Hydaburg	8	0	0	8	0	0	0
Port Alexander	7	1	0	8	0	0	0
Sterling	0	8	0	8	0	0	0
Willow	0	7	1	8	0	0	0

Community	Number of Quota Share Holders Held by Area						
	2C	3A	3B	Subtotal 2C, 3A, and 3B	4A	4B	Subtotal 4A and 4B
False Pass	0	0	7	7	0	0	0
Klawock	5	2	0	7	0	0	0
Nikiski	0	7	0	7	0	0	0
Thorne Bay	7	0	0	7	0	0	0
Fritz Creek	0	6	0	6	0	0	0
Girdwood	0	6	0	6	0	0	0
Manokotak	2	2	2	6	2	0	2
Saint Paul Island	1	1	4	6	9	0	9
Tenakee Springs	2	3	0	5	0	0	0
Naknek	2	1	1	4	2	0	2
Port Graham	0	4	0	4	0	0	0
Central	0	2	1	3	3	0	3
Chignik	0	0	3	3	0	0	0
Nome	1	1	1	3	0	0	0
Saint George Island	1	1	1	3	1	0	1
South Naknek	1	1	1	3	1	0	1
Twin Hills	1	1	1	3	1	0	1
Anderson	0	2	0	2	0	0	0
Chiniak	0	2	0	2	0	0	0
Chugiak	0	2	0	2	0	0	0
Dutch Harbor	0	2	0	2	14	5	19
Hyder	2	0	0	2	0	0	0
Mekoryuk	0	2	0	2	0	0	0
Moose Pass	0	2	0	2	0	0	0
Perryville	0	0	2	2	0	0	0
Skagway	2	0	0	2	0	0	0
Unalaska	0	0	2	2	29	3	32
Whittier	0	2	0	2	0	0	0
Chenega Bay	0	1	0	1	0	0	0
Chignik Lake	0	0	1	1	0	0	0
Coffman Cove	0	1	0	1	0	0	0
Cold Bay	0	0	1	1	0	0	0
Copper Center	0	1	0	1	0	0	0
Elmendorf Air Force Base	0	1	0	1	0	0	0
Indian	0	1	0	1	0	0	0
King Salmon	0	0	1	1	1	0	1
Meyers Chuck	1	0	0	1	0	0	0
North Pole	0	1	0	1	0	0	0
Pilot Point	1	0	0	1	1	0	1
Salcha	0	1	0	1	0	0	0
Adak	0	0	0	0	1	3	4
Akutan	0	0	0	0	14	0	14
Atka	0	0	0	0	0	15	15

Note: Table is considered a count of all current (at time of writing) quota share holders, including all areas, vessel categories, blocks, and CDQ compensation flags.
Source: NMFS 2011a

- Table 43 provides information on the distribution of commercial halibut program quota share units held, by Alaska community, in 2011. As shown, Kodiak, Petersburg, Homer, Sitka, Anchorage, and Juneau, in that order, represented the top six communities for the number of halibut QS units held for areas 2C, 3A, and 3B combined in 2011, while Sand Point, King Cove, and Chignik Lagoon ranked 14th, 26th, and 42nd, respectively. A total of 63 Alaska communities held 10,000 or more QS share units in these combined areas.

Table 43. Number of Commercial Halibut IFQ Program Quota Share Units Held, by Alaska Community, 2011

Community	Number of Quota Share Units Held by Area						
	2C	3A	3B	Subtotal 2C, 3A, and 3B	4A	4B	Subtotal 4A and 4B
Kodiak	3,058	30,730,756	11,749,157	42,482,971	2,816,735	1,986,636	4,803,371
Petersburg	15,806,621	11,834,663	288,725	27,930,009	164,097	2	164,099
Homer	35,114	15,581,062	5,069,201	20,685,377	1,661,462	409,577	2,071,039
Sitka	10,499,335	6,632,860	737,544	17,869,739	287,618	272,771	560,389
Anchorage	168,775	6,123,499	1,976,725	8,268,999	383,786	391,837	775,623
Juneau	4,783,695	3,297,926	4,878	8,086,499	31,110	2,368	33,478
Cordova	19,284	7,007,436	254,197	7,280,917	276,248	173,556	449,804
Wrangell	4,550,142	1,055,919	114,159	5,720,220	51,441	0	51,441
Seward	1,305	3,216,341	392,029	3,609,675	0	1,686	1,686
Ketchikan	2,681,109	732,865	0	3,413,974	0	0	0
Kenai	1,876	2,652,155	414,792	3,068,823	0	0	0
Douglas	1,120,299	1,287,301	474,502	2,882,102	0	0	0
Seldovia	0	2,032,470	520,955	2,553,425	12,238	0	12,238
Sand Point	0	13,324	2,426,144	2,439,468	0	0	0
Haines	1,814,867	582,273	0	2,397,140	0	7,293	7,293
Eagle River	121	2,317,131	788	2,318,040	0	0	0
Wasilla	97,959	1,763,086	238,625	2,099,670	43,345	0	43,345
Soldotna	0	2,024,601	0	2,024,601	0	0	0
Craig	1,771,589	0	0	1,771,589	0	0	0
Yakutat	1,086	1,253,178	0	1,254,264	0	0	0
Delta Junction	0	1,139,113	87,470	1,226,583	0	0	0
Anchor Point	0	898,489	253,693	1,152,182	0	0	0
Dillingham	1,991	710,006	304,912	1,016,909	29	370,314	370,343
Auke Bay	719,399	296,694	0	1,016,093	0	0	0
Hoonah	673,921	314,314	0	988,235	0	0	0
King Cove	0	0	952,665	952,665	0	0	0
Nikolaevsk	0	739,180	143,757	882,937	0	0	0
Pelican	657,664	213,519	0	871,183	0	0	0
Kasilof	2,394	863,300	0	865,694	0	0	0
Elfin Cove	595,159	253,254	0	848,413	0	0	0
Halibut Cove	0	741,050	77,502	818,552	0	0	0
Palmer	0	724,430	86,867	811,297	115,280	123,608	238,888
Kake	735,757	0	0	735,757	0	0	0
Valdez	0	589,321	4,401	593,722	0	0	0
Ouzinkie	0	569,582	0	569,582	0	0	0
Gustavus	376,744	154,850	28,817	560,411	34,766	41,459	76,225
Clam Gulch	0	500,885	0	500,885	0	0	0
Ninilchik	0	427,629	0	427,629	0	0	0
Fairbanks	163,775	138,536	120,172	422,483	85,393	22,392	107,785
Willow	0	345,094	69,492	414,586	0	0	0
Ward Cove	391,053	0	0	391,053	0	0	0
Chignik Lagoon	0	319	387,114	387,433	0	0	0
Mekoryuk	0	361,887	0	361,887	0	0	0
Nikiski	0	325,174	0	325,174	0	0	0
Metlakatla	279,731	0	0	279,731	0	0	0
Angoon	250,048	0	0	250,048	0	0	0
Edna Bay	248,631	0	0	248,631	0	0	0
False Pass	0	0	246,444	246,444	0	0	0
Nome	57	174,731	63,291	238,079	0	0	0
Fritz Creek	0	225,047	0	225,047	0	0	0
Chiniak	0	205,480	0	205,480	0	0	0
Coffman Cove	0	187,329	0	187,329	0	0	0

Community	Number of Quota Share Units Held by Area						
	2C	3A	3B	Subtotal 2C, 3A, and 3B	4A	4B	Subtotal 4A and 4B
Tenakee Springs	463	175,498	0	175,961	0	0	0
Saint Paul Island	15,836	39,991	114,192	170,019	128,052	0	128,052
Old Harbor	0	149,323	13,255	162,578	0	0	0
Klawock	29,639	114,830	0	144,469	0	0	0
Thorne Bay	143,735	0	0	143,735	0	0	0
Point Baker	139,506	0	0	139,506	0	0	0
Chignik	0	0	128,220	128,220	0	0	0
Sterling	0	117,284	0	117,284	0	0	0
Port Alexander	110,972	78	0	111,050	0	0	0
Unalaska	0	0	108,152	108,152	818,740	39,459	858,199
Port Lions	0	103,067	0	103,067	52,906	0	52,906
Port Graham	0	91,204	0	91,204	0	0	0
Girdwood	0	80,480	0	80,480	0	0	0
Hydaburg	78,458	0	0	78,458	0	0	0
Central	0	28,495	38,224	66,719	56,596	0	56,596
Cold Bay	0	0	64,445	64,445	0	0	0
Perryville	0	0	37,903	37,903	0	0	0
Hyder	28,778	0	0	28,778	0	0	0
Skagway	27,892	0	0	27,892	0	0	0
Moose Pass	0	18,083	0	18,083	0	0	0
Meyers Chuck	11,906	0	0	11,906	0	0	0
Dutch Harbor	0	9,891	0	9,891	527,361	113,141	640,502
Whittier	0	8,474	0	8,474	0	0	0
Indian	0	4,703	0	4,703	0	0	0
Naknek	642	1,318	385	2,345	153	0	153
Chignik Lake	0	0	1,866	1,866	0	0	0
Copper Center	0	1,459	0	1,459	0	0	0
Manokotak	254	784	229	1,267	61	0	61
Chugiak	0	1,122	0	1,122	0	0	0
Anderson	0	986	0	986	0	0	0
Togiak	459	86	188	733	110	0	110
Chenega Bay	0	628	0	628	0	0	0
Elmendorf Air Force Base	0	561	0	561	0	0	0
King Salmon	0	0	325	325	86	0	86
Pilot Point	305	0	0	305	73	0	73
Saint George Island	59	183	54	296	14	0	14
Twin Hills	43	132	39	214	10	0	10
South Naknek	25	78	23	126	6	0	6
North Pole	0	99	0	99	0	0	0
Salcha	0	72	0	72	0	0	0
Adak	0	0	0	0	21,042	231,248	252,290
Akutan	0	0	0	0	288,622	0	288,622
Atka	0	0	0	0	0	228,097	228,097

Note: Table is considered a count of all current (at time of writing) quota share units, including all areas, vessel categories, blocks, and CDQ compensation flags.
Source: NMFS 2011a

- The document to which this community analysis is an appendix provides information on the top 10 Alaska IFQ halibut ports (see Table 3-9 in the Environmental Assessment portion of the main body of that document). In terms of 2009 net weights, in rank order, those ports were Homer, Kodiak, Seward, Unalaska/Dutch Harbor, Sitka, Juneau, Petersburg, Akutan, Yakutat, and Sand Point. In other words, only five of the top 10 halibut ports were identified as those communities

most centrally engaged in the GOA groundfish fisheries; the other three communities identified as being most centrally engaged in the GOA groundfish fisheries (Anchorage, Chignik Lagoon, and King Cove) were not identified among the top 10 halibut ports.

- Table 44a provides annual information on the number of individual commercial halibut vessels by community of vessel owner for 2003 through 2010 for each of the communities profiled as well as all other Alaska communities with an annual average of 20 or more vessels over this same time period. Table 44b provides the same type of information, but expressed as vessel percentages rather than as vessel counts.
- Table 45a provides annual information on commercial halibut exvessel gross revenues in dollars by community of halibut vessel owner for 2003 through 2010 for each of the communities profiled as well as all other Alaska communities with an annual average of 20 or more vessels over this same time period. Table 45b provides the same type of information, but expressed as exvessel gross revenue percentages rather than as exvessel gross revenue dollars.

Table 44a. Individual GOA Commercial Halibut Vessels by Community of Vessel Owner, 2003-2010 (number of vessels)

Geography	Year								Average 2003-2010
	2003	2004	2005	2006	2007	2008	2009	2010	
Anchorage	40	36	39	38	27	31	27	20	32.3
Chignik Lagoon	6	6	6	7	6	4	6	4	5.6
Cordova	58	55	56	48	56	51	47	43	51.8
Craig	37	42	42	34	29	36	33	33	35.8
Douglas	28	17	22	23	27	23	22	26	23.5
Haines	28	27	32	26	30	23	27	25	27.3
Homer	203	195	170	161	160	154	164	178	173.1
Juneau	116	117	110	110	90	93	81	71	98.5
Ketchikan	52	53	55	62	61	45	39	40	50.9
King Cove	5	5	5	7	7	7	8	6	6.3
Kodiak	264	252	240	247	237	229	210	225	238.0
Mekoryuk	28	31	29	30	32	28	29	28	29.4
Petersburg	197	202	193	185	175	181	173	171	184.6
Saint Paul	23	13	16	17	18	25	28	29	21.1
Sand Point	30	27	27	24	24	26	25	25	26.0
Seward	32	40	38	32	37	32	31	35	34.6
Sitka	223	226	244	246	220	208	188	213	221.0
Toksook Bay	40	22	36	30	41	37	34	33	34.1
Tununak	25	20	25	23	30	28	27	27	25.6
Unalaska/Dutch Harbor	22	24	20	16	18	27	22	25	21.8
Wrangell	53	46	50	49	55	42	42	42	47.4
All Other Alaska	461	420	399	406	431	418	385	370	411.3
Alaska Total	1,971	1,876	1,854	1,821	1,811	1,748	1,648	1,669	1,799.8
Oregon Total	108	102	91	85	80	72	59	50	80.9
Washington Total	379	385	344	370	340	342	333	319	351.5
All Other States Total	77	65	71	64	56	60	51	51	61.9
Total	2,535	2,428	2,360	2,340	2,287	2,222	2,091	2,089	2,294.0

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 44b. Individual GOA Commercial Halibut Vessels by Community of Vessel Owner, 2003-2010 (percentage of vessels)

Geography	Year								
	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	1.6%	1.5%	1.7%	1.6%	1.2%	1.4%	1.3%	1.0%	1.4%
Chignik Lagoon	0.2%	0.2%	0.3%	0.3%	0.3%	0.2%	0.3%	0.2%	0.2%
Cordova	2.3%	2.3%	2.4%	2.1%	2.4%	2.3%	2.2%	2.1%	2.3%
Craig	1.5%	1.7%	1.8%	1.5%	1.3%	1.6%	1.6%	1.6%	1.6%
Douglas	1.1%	0.7%	0.9%	1.0%	1.2%	1.0%	1.1%	1.2%	1.0%
Haines	1.1%	1.1%	1.4%	1.1%	1.3%	1.0%	1.3%	1.2%	1.2%
Homer	8.0%	8.0%	7.2%	6.9%	7.0%	6.9%	7.8%	8.5%	7.5%
Juneau	4.6%	4.8%	4.7%	4.7%	3.9%	4.2%	3.9%	3.4%	4.3%
Ketchikan	2.1%	2.2%	2.3%	2.6%	2.7%	2.0%	1.9%	1.9%	2.2%
King Cove	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.4%	0.3%	0.3%
Kodiak	10.4%	10.4%	10.2%	10.6%	10.4%	10.3%	10.0%	10.8%	10.4%
Mekoryuk	1.1%	1.3%	1.2%	1.3%	1.4%	1.3%	1.4%	1.3%	1.3%
Petersburg	7.8%	8.3%	8.2%	7.9%	7.7%	8.1%	8.3%	8.2%	8.0%
Saint Paul	0.9%	0.5%	0.7%	0.7%	0.8%	1.1%	1.3%	1.4%	0.9%
Sand Point	1.2%	1.1%	1.1%	1.0%	1.0%	1.2%	1.2%	1.2%	1.1%
Seward	1.3%	1.6%	1.6%	1.4%	1.6%	1.4%	1.5%	1.7%	1.5%
Sitka	8.8%	9.3%	10.3%	10.5%	9.6%	9.4%	9.0%	10.2%	9.6%
Toksook Bay	1.6%	0.9%	1.5%	1.3%	1.8%	1.7%	1.6%	1.6%	1.5%
Tununak	1.0%	0.8%	1.1%	1.0%	1.3%	1.3%	1.3%	1.3%	1.1%
Unalaska/Dutch Harbor	0.9%	1.0%	0.8%	0.7%	0.8%	1.2%	1.1%	1.2%	0.9%
Wrangell	2.1%	1.9%	2.1%	2.1%	2.4%	1.9%	2.0%	2.0%	2.1%
All Other Alaska	18.2%	17.3%	16.9%	17.4%	18.8%	18.8%	18.4%	17.7%	17.9%
Alaska Total	77.8%	77.3%	78.6%	77.8%	79.2%	78.7%	78.8%	79.9%	78.5%
Oregon Total	4.3%	4.2%	3.9%	3.6%	3.5%	3.2%	2.8%	2.4%	3.5%
Washington Total	15.0%	15.9%	14.6%	15.8%	14.9%	15.4%	15.9%	15.3%	15.3%
All Other States Total	3.0%	2.7%	3.0%	2.7%	2.4%	2.7%	2.4%	2.4%	2.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

**Table 45a. GOA Commercial Halibut Exvessel Gross Revenues
by Community of Vessel Owner, 2003-2010 (dollars)**

Geography	Year								
	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	\$3,118,327	\$3,129,776	\$2,948,581	\$3,667,174	\$3,812,233	\$3,823,277	\$2,673,971	\$2,483,051	\$3,207,049
Chignik Lagoon	\$396,534	\$380,693	\$310,905	\$342,496	\$401,341	\$390,390	\$242,785	\$306,385	\$346,441
Cordova	\$3,263,180	\$3,384,926	\$2,963,606	\$3,575,754	\$4,781,383	\$4,485,527	\$2,899,675	\$3,900,495	\$3,656,818
Craig	\$770,426	\$973,682	\$934,745	\$1,156,546	\$1,061,669	\$1,290,141	\$670,648	\$820,390	\$959,781
Douglas	\$1,139,398	\$825,908	\$1,032,017	\$1,681,444	\$2,088,673	\$1,819,887	\$1,106,630	\$1,958,807	\$1,456,595
Haines	\$688,025	\$749,191	\$829,566	\$965,689	\$1,843,012	\$1,466,527	\$1,016,118	\$1,594,762	\$1,144,111
Homer	\$15,457,478	\$15,910,180	\$14,937,030	\$19,478,627	\$21,754,870	\$21,622,085	\$15,562,390	\$24,550,721	\$18,659,173
Juneau	\$4,964,442	\$6,301,774	\$5,862,414	\$6,997,860	\$6,619,942	\$5,753,584	\$3,683,254	\$4,292,049	\$5,559,415
Ketchikan	\$1,976,153	\$2,591,666	\$2,648,164	\$3,170,315	\$3,172,535	\$2,086,916	\$1,286,271	\$1,663,315	\$2,324,417
King Cove	\$848,233	\$852,824	\$765,776	\$760,260	\$726,962	\$854,937	\$603,485	\$688,463	\$762,617
Kodiak	\$27,894,205	\$27,979,412	\$26,138,965	\$31,532,826	\$35,099,853	\$36,266,720	\$23,647,813	\$36,301,251	\$30,607,631
Mekoryuk	\$102,642	\$145,069	\$225,517	\$320,676	\$696,080	\$436,809	\$314,430	\$395,219	\$329,555
Petersburg	\$11,842,633	\$14,346,025	\$16,067,924	\$18,900,728	\$19,352,871	\$17,459,472	\$10,907,034	\$15,336,437	\$15,526,640
Saint Paul	\$793,055	\$992,515	\$1,006,469	\$1,750,193	\$1,983,999	\$3,730,680	\$1,328,169	\$2,983,980	\$1,821,133
Sand Point	\$2,116,252	\$1,759,422	\$1,642,007	\$1,657,439	\$1,598,566	\$2,408,705	\$1,223,436	\$1,993,777	\$1,799,950
Seward	\$3,446,295	\$4,007,769	\$3,380,787	\$3,821,906	\$5,135,470	\$4,725,209	\$3,247,544	\$4,527,407	\$4,036,548
Sitka	\$8,960,736	\$10,682,781	\$11,490,935	\$13,641,706	\$13,524,122	\$11,110,851	\$7,393,323	\$11,339,867	\$11,018,040
Toksook Bay	\$65,330	\$18,501	\$115,744	\$274,375	\$434,342	\$438,710	\$250,632	\$373,869	\$246,438
Tununak	\$21,680	\$9,366	\$36,147	\$113,224	\$124,226	\$114,022	\$36,356	\$52,664	\$63,461
Unalaska/Dutch Harbor	\$1,391,557	\$1,195,946	\$959,751	\$1,314,286	\$1,519,828	\$1,538,725	\$924,754	\$2,180,856	\$1,378,213
Wrangell	\$2,269,151	\$2,750,814	\$2,431,196	\$3,187,871	\$3,272,088	\$2,292,055	\$1,428,482	\$1,991,870	\$2,452,941
All Other Alaska	\$14,671,243	\$15,617,919	\$15,411,507	\$18,610,146	\$21,257,307	\$20,285,945	\$14,231,123	\$20,468,846	\$17,569,255
Alaska Total	\$106,196,974	\$114,606,161	\$112,139,753	\$136,921,540	\$150,261,373	\$144,401,173	\$94,678,321	\$140,204,479	\$124,926,222
Oregon Total	\$11,897,158	\$10,748,685	\$9,983,418	\$11,045,651	\$13,712,108	\$10,876,375	\$6,438,439	\$8,125,014	\$10,353,356
Washington Total	\$39,345,288	\$40,293,720	\$39,021,416	\$45,178,959	\$48,333,689	\$45,891,297	\$31,952,346	\$43,563,116	\$41,697,479
All Other States Total	\$7,489,811	\$6,118,024	\$7,146,739	\$6,893,546	\$6,662,112	\$7,180,379	\$5,033,641	\$7,539,275	\$6,757,941
Total	\$164,929,231	\$171,766,590	\$168,291,326	\$200,039,696	\$218,969,282	\$208,349,224	\$138,102,748	\$199,431,884	\$183,734,998

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

**Table 45b. GOA Commercial Halibut Exvessel Gross Revenues
by Community of Vessel Owner, 2003-2010 (percentage)**

Geography	Year								
	2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Anchorage	1.9%	1.8%	1.8%	1.8%	1.7%	1.8%	1.9%	1.2%	1.7%
Chignik Lagoon	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Cordova	2.0%	2.0%	1.8%	1.8%	2.2%	2.2%	2.1%	2.0%	2.0%
Craig	0.5%	0.6%	0.6%	0.6%	0.5%	0.6%	0.5%	0.4%	0.5%
Douglas	0.7%	0.5%	0.6%	0.8%	1.0%	0.9%	0.8%	1.0%	0.8%
Haines	0.4%	0.4%	0.5%	0.5%	0.8%	0.7%	0.7%	0.8%	0.6%
Homer	9.4%	9.3%	8.9%	9.7%	9.9%	10.4%	11.3%	12.3%	10.2%
Juneau	3.0%	3.7%	3.5%	3.5%	3.0%	2.8%	2.7%	2.2%	3.0%
Ketchikan	1.2%	1.5%	1.6%	1.6%	1.4%	1.0%	0.9%	0.8%	1.3%
King Cove	0.5%	0.5%	0.5%	0.4%	0.3%	0.4%	0.4%	0.3%	0.4%
Kodiak	16.9%	16.3%	15.5%	15.8%	16.0%	17.4%	17.1%	18.2%	16.7%
Mekoryuk	0.1%	0.1%	0.1%	0.2%	0.3%	0.2%	0.2%	0.2%	0.2%
Petersburg	7.2%	8.4%	9.5%	9.4%	8.8%	8.4%	7.9%	7.7%	8.5%
Saint Paul	0.5%	0.6%	0.6%	0.9%	0.9%	1.8%	1.0%	1.5%	1.0%
Sand Point	1.3%	1.0%	1.0%	0.8%	0.7%	1.2%	0.9%	1.0%	1.0%
Seward	2.1%	2.3%	2.0%	1.9%	2.3%	2.3%	2.4%	2.3%	2.2%
Sitka	5.4%	6.2%	6.8%	6.8%	6.2%	5.3%	5.4%	5.7%	6.0%
Toksook Bay	0.0%	0.0%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.1%
Tununak	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
Unalaska/Dutch Harbor	0.8%	0.7%	0.6%	0.7%	0.7%	0.7%	0.7%	1.1%	0.8%
Wrangell	1.4%	1.6%	1.4%	1.6%	1.5%	1.1%	1.0%	1.0%	1.3%
All Other Alaska	8.9%	9.1%	9.2%	9.3%	9.7%	9.7%	10.3%	10.3%	9.6%
Alaska Total	64.4%	66.7%	66.6%	68.4%	68.6%	69.3%	68.6%	70.3%	68.0%
Oregon Total	7.2%	6.3%	5.9%	5.5%	6.3%	5.2%	4.7%	4.1%	5.6%
Washington Total	23.9%	23.5%	23.2%	22.6%	22.1%	22.0%	23.1%	21.8%	22.7%
All Other States Total	4.5%	3.6%	4.2%	3.4%	3.0%	3.4%	3.6%	3.8%	3.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

- Table 46a provides annual information on the range of species run by shore-based halibut processors in Kodiak and all other Alaska communities for 2003 through 2010 by processor count. Table 46b provides the same type of information, but expressed as vessel percentages rather than as processor counts.
- Table 47a provides annual information on the range of species run by shore-based halibut processors in Kodiak and all other Alaska communities for 2003 through 2010 by first wholesale gross revenues. Table 47b provides the same type of information, but expressed as first wholesale gross revenue percentages rather than as first wholesale gross revenue dollars.

Table 46a. Fishery Participation by Shore-based Processors in Alaska Accepting GOA Halibut Deliveries by Community, 2003-2010 (number of processors)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Kodiak	Groundfish	8	8	9	9	9	8	8	8	8.4
	Flatfish	6	7	7	8	9	8	8	8	7.6
	Rockfish	8	8	9	9	9	8	8	8	8.4
	Sablefish	8	8	9	9	9	8	8	8	8.4
	Halibut	8	7	9	9	9	8	7	7	8.0
	Herring	5	4	6	4	4	5	7	4	4.9
	Salmon	7	8	7	8	9	8	8	9	8.0
	King Crab	4	4	3	3	3	3	3	4	3.4
	Tanner Crab	5	5	6	5	5	5	4	6	5.1
	Other Shellfish	2	3	3	2	4	3	3	3	2.9
	All Other Species	8	8	9	8	9	8	8	8	8.3
	BSAI All Species	1	1	0	1	1	1	1	1	0.9
Total Unique Processors	9	9	10	10	10	9	9	9	9.4	
All Other	Groundfish	38	37	46	43	43	38	35	36	39.5
	Flatfish	6	4	4	4	5	2	4	14	5.4
	Rockfish	43	42	51	46	45	40	37	39	42.9
	Sablefish	37	38	44	40	35	34	29	35	36.5
	Halibut	71	73	74	79	71	63	57	59	68.4
	Herring	9	12	13	13	12	13	14	12	12.3
	Salmon	61	64	68	69	70	70	61	59	65.3
	King Crab	18	16	14	12	11	13	11	11	13.3
	Tanner Crab	13	12	12	11	10	12	8	10	11.0
	Other Shellfish	19	22	22	20	18	19	15	24	19.9
	All Other Species	32	35	37	35	36	32	30	33	33.8
	BSAI All Species	27	29	29	29	26	25	20	21	25.8
Total Unique Processors	82	89	88	92	91	87	76	76	85.1	
Total	Groundfish	46	45	55	52	52	46	43	44	47.9
	Flatfish	12	11	11	12	14	10	12	22	13.0
	Rockfish	51	50	60	55	54	48	45	47	51.3
	Sablefish	45	46	53	49	44	42	37	43	44.9
	Halibut	79	80	83	88	80	71	64	66	76.4
	Herring	14	16	19	17	16	18	21	16	17.1
	Salmon	68	72	75	77	79	78	69	68	73.3
	King Crab	22	20	17	15	14	16	14	15	16.6
	Tanner Crab	18	17	18	16	15	17	12	16	16.1
	Other Shellfish	21	25	25	22	22	22	18	27	22.8
	All Other Species	40	43	46	43	45	40	38	41	42.0
	BSAI All Species	28	30	29	30	27	26	21	22	26.6
Total Unique Processors	91	98	98	102	101	96	85	85	94.5	

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 46b. Fishery Participation by Shore-based Processors in Alaska Accepting GOA Halibut Deliveries by Community, 2003-2010 (percentage of processors)

Geography	Fishery	Year								
		2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	Groundfish	88.9%	88.9%	90.0%	90.0%	90.0%	88.9%	88.9%	88.9%	89.3%
	Flatfish	66.7%	77.8%	70.0%	80.0%	90.0%	88.9%	88.9%	88.9%	81.3%
	Rockfish	88.9%	88.9%	90.0%	90.0%	90.0%	88.9%	88.9%	88.9%	89.3%
	Sablefish	88.9%	88.9%	90.0%	90.0%	90.0%	88.9%	88.9%	88.9%	89.3%
	Halibut	88.9%	77.8%	90.0%	90.0%	90.0%	88.9%	77.8%	77.8%	85.3%
	Herring	55.6%	44.4%	60.0%	40.0%	40.0%	55.6%	77.8%	44.4%	52.0%
	Salmon	77.8%	88.9%	70.0%	80.0%	90.0%	88.9%	88.9%	100.0%	85.3%
	King Crab	44.4%	44.4%	30.0%	30.0%	30.0%	33.3%	33.3%	44.4%	36.0%
	Tanner Crab	55.6%	55.6%	60.0%	50.0%	50.0%	55.6%	44.4%	66.7%	54.7%
	Other Shellfish	22.2%	33.3%	30.0%	20.0%	40.0%	33.3%	33.3%	33.3%	30.7%
	All Other Species	88.9%	88.9%	90.0%	80.0%	90.0%	88.9%	88.9%	88.9%	88.0%
	BSAI All Species	11.1%	11.1%	0.0%	10.0%	10.0%	11.1%	11.1%	11.1%	9.3%
Total Unique Processors	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
All Other	Groundfish	46.3%	41.6%	52.3%	46.7%	47.3%	43.7%	46.1%	47.4%	46.4%
	Flatfish	7.3%	4.5%	4.5%	4.3%	5.5%	2.3%	5.3%	18.4%	6.3%
	Rockfish	52.4%	47.2%	58.0%	50.0%	49.5%	46.0%	48.7%	51.3%	50.4%
	Sablefish	45.1%	42.7%	50.0%	43.5%	38.5%	39.1%	38.2%	46.1%	42.9%
	Halibut	86.6%	82.0%	84.1%	85.9%	78.0%	72.4%	75.0%	77.6%	80.3%
	Herring	11.0%	13.5%	14.8%	14.1%	13.2%	14.9%	18.4%	15.8%	14.4%
	Salmon	74.4%	71.9%	77.3%	75.0%	76.9%	80.5%	80.3%	77.6%	76.7%
	King Crab	22.0%	18.0%	15.9%	13.0%	12.1%	14.9%	14.5%	14.5%	15.6%
	Tanner Crab	15.9%	13.5%	13.6%	12.0%	11.0%	13.8%	10.5%	13.2%	12.9%
	Other Shellfish	23.2%	24.7%	25.0%	21.7%	19.8%	21.8%	19.7%	31.6%	23.3%
	All Other Species	39.0%	39.3%	42.0%	38.0%	39.6%	36.8%	39.5%	43.4%	39.6%
	BSAI All Species	32.9%	32.6%	33.0%	31.5%	28.6%	28.7%	26.3%	27.6%	30.2%
Total Unique Processors	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Total	Groundfish	50.5%	45.9%	56.1%	51.0%	51.5%	47.9%	50.6%	51.8%	50.7%
	Flatfish	13.2%	11.2%	11.2%	11.8%	13.9%	10.4%	14.1%	25.9%	13.8%
	Rockfish	56.0%	51.0%	61.2%	53.9%	53.5%	50.0%	52.9%	55.3%	54.2%
	Sablefish	49.5%	46.9%	54.1%	48.0%	43.6%	43.8%	43.5%	50.6%	47.5%
	Halibut	86.8%	81.6%	84.7%	86.3%	79.2%	74.0%	75.3%	77.6%	80.8%
	Herring	15.4%	16.3%	19.4%	16.7%	15.8%	18.8%	24.7%	18.8%	18.1%
	Salmon	74.7%	73.5%	76.5%	75.5%	78.2%	81.3%	81.2%	80.0%	77.5%
	King Crab	24.2%	20.4%	17.3%	14.7%	13.9%	16.7%	16.5%	17.6%	17.6%
	Tanner Crab	19.8%	17.3%	18.4%	15.7%	14.9%	17.7%	14.1%	18.8%	17.1%
	Other Shellfish	23.1%	25.5%	25.5%	21.6%	21.8%	22.9%	21.2%	31.8%	24.1%
	All Other Species	44.0%	43.9%	46.9%	42.2%	44.6%	41.7%	44.7%	48.2%	44.4%
	BSAI All Species	30.8%	30.6%	29.6%	29.4%	26.7%	27.1%	24.7%	25.9%	28.2%
Total Unique Processors	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 47a. First Wholesale Gross Revenues by Fishery by Shore-based Processors in Alaska Accepting GOA Halibut Deliveries by Community, 2003-2010 (dollars)

Geography	Fishery	Year								
		2003	2004	2005	2006	2007	2008	2009	2010	Average 2003-2010
Kodiak	Groundfish	\$67,780,460	\$83,496,666	\$98,705,703	\$108,632,297	\$116,971,597	\$130,378,045	\$88,848,176	\$127,479,686	\$102,786,579
	Flatfish	\$4,869,938	\$5,186,147	\$9,479,724	\$14,580,195	\$16,384,285	\$19,638,564	\$14,556,847	\$11,222,938	\$11,989,830
	Rockfish	\$5,529,826	\$4,732,965	\$5,750,759	\$10,375,552	\$10,783,442	\$8,985,597	\$8,626,918	\$10,788,036	\$8,196,637
	Sablefish	\$9,778,546	\$9,718,848	\$8,797,827	\$9,948,903	\$12,461,062	\$11,902,161	\$12,296,180	\$17,142,236	\$11,505,720
	Halibut	\$26,844,151	\$29,147,979	\$31,234,902	\$26,410,221	\$40,745,651	\$38,954,737	\$29,529,978	\$40,333,811	\$32,900,179
	Herring	\$1,949,958	\$4,280,851	\$3,896,177	\$1,824,505	\$2,011,010	\$3,189,873	\$4,410,602	\$3,678,207	\$3,155,148
	Salmon	\$43,148,424	\$43,771,152	\$57,309,237	\$60,428,440	\$70,131,570	\$58,219,015	\$77,732,104	\$72,551,754	\$60,411,462
	All Shellfish	\$7,988,373	\$8,759,989	\$9,678,968	\$9,850,730	\$9,770,104	\$15,360,902	\$10,275,166	\$12,927,704	\$10,576,492
	All Other Species	\$2,560,270	\$1,410,876	\$1,778,488	\$1,790,907	\$2,759,177	\$3,573,617	\$2,108,474	\$3,557,720	\$2,442,441
	Total	\$170,449,948	\$190,505,473	\$226,631,786	\$243,841,751	\$282,017,898	\$290,202,510	\$248,384,443	\$299,682,093	\$243,964,488
All Other	Groundfish	\$113,448,047	\$110,293,536	\$125,717,551	\$164,469,442	\$140,324,975	\$155,771,189	\$115,908,825	\$137,060,347	\$132,874,239
	Flatfish	\$298,019	\$101,137	\$232,333	\$832,858	\$1,155,240	\$598,889	\$767,806	\$424,234	\$551,315
	Rockfish	\$3,005,403	\$2,929,232	\$2,998,413	\$3,832,209	\$2,826,478	\$2,773,194	\$2,480,782	\$2,800,393	\$2,955,763
	Sablefish	\$70,649,133	\$70,180,061	\$77,197,579	\$89,299,045	\$81,317,731	\$90,663,827	\$74,226,363	\$87,951,567	\$80,185,663
	Halibut	\$122,062,941	\$144,373,735	\$168,158,277	\$188,137,147	\$188,578,818	\$168,925,969	\$128,133,240	\$193,299,097	\$162,708,653
	Herring	\$6,786,168	\$13,701,874	\$18,997,598	\$15,837,948	\$20,686,663	\$29,387,353	\$35,209,809	\$32,529,639	\$21,642,131
	Salmon	\$334,679,539	\$424,109,675	\$451,569,206	\$504,356,665	\$616,641,969	\$596,718,614	\$493,899,637	\$667,534,842	\$511,188,768
	All Shellfish	\$150,937,324	\$144,774,647	\$141,163,997	\$138,025,165	\$168,863,320	\$208,914,564	\$183,802,126	\$204,959,618	\$167,680,095
	All Other Species	\$3,528,551	\$7,064,475	\$4,918,984	\$6,706,631	\$6,624,010	\$6,817,107	\$7,516,298	\$10,572,436	\$6,718,562
	Total	\$805,395,123	\$917,528,371	\$990,953,938	\$1,111,497,112	\$1,227,019,205	\$1,260,570,706	\$1,041,944,886	\$1,337,132,173	\$1,086,505,189
Total	Groundfish	\$181,228,507	\$193,790,202	\$224,423,254	\$273,101,740	\$257,296,573	\$286,149,234	\$204,757,001	\$264,540,033	\$235,660,818
	Flatfish	\$5,167,957	\$5,287,285	\$9,712,057	\$15,413,054	\$17,539,525	\$20,237,452	\$15,324,653	\$11,647,173	\$12,541,145
	Rockfish	\$8,535,229	\$7,662,197	\$8,749,172	\$14,207,761	\$13,609,920	\$11,758,791	\$11,107,700	\$13,588,429	\$11,152,400
	Sablefish	\$80,427,679	\$79,898,909	\$85,995,405	\$99,247,948	\$93,778,792	\$102,565,988	\$86,522,544	\$105,093,803	\$91,691,383
	Halibut	\$148,907,092	\$173,521,714	\$199,393,179	\$214,547,368	\$229,324,469	\$207,880,706	\$157,663,218	\$233,632,909	\$195,608,832
	Herring	\$8,736,126	\$17,982,725	\$22,893,775	\$17,662,454	\$22,697,672	\$32,577,225	\$39,620,411	\$36,207,846	\$24,797,279
	Salmon	\$377,827,962	\$467,880,826	\$508,878,444	\$564,785,105	\$686,773,540	\$654,937,629	\$571,631,741	\$740,086,596	\$571,600,230
	All Shellfish	\$158,925,697	\$153,534,636	\$150,842,965	\$147,875,895	\$178,633,424	\$224,275,466	\$194,077,292	\$217,887,323	\$178,256,587
	All Other Species	\$6,088,822	\$8,475,351	\$6,697,472	\$8,497,538	\$9,383,188	\$10,390,725	\$9,624,771	\$14,130,156	\$9,161,003
	Total	\$975,845,070	\$1,108,033,844	\$1,217,585,724	\$1,355,338,862	\$1,509,037,103	\$1,550,773,216	\$1,290,329,329	\$1,636,814,266	\$1,330,469,677

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

Table 47b. First Wholesale Gross Revenues by Fishery by Shore-based Processors in Alaska Accepting GOA Halibut Deliveries by Community, 2003-2010 (percentage)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Kodiak	Groundfish	39.8%	43.8%	43.6%	44.6%	41.5%	44.9%	35.8%	42.5%	42.1%
	Flatfish	2.9%	2.7%	4.2%	6.0%	5.8%	6.8%	5.9%	3.7%	4.9%
	Rockfish	3.2%	2.5%	2.5%	4.3%	3.8%	3.1%	3.5%	3.6%	3.4%
	Sablefish	5.7%	5.1%	3.9%	4.1%	4.4%	4.1%	5.0%	5.7%	4.7%
	Halibut	15.7%	15.3%	13.8%	10.8%	14.4%	13.4%	11.9%	13.5%	13.5%
	Herring	1.1%	2.2%	1.7%	0.7%	0.7%	1.1%	1.8%	1.2%	1.3%
	Salmon	25.3%	23.0%	25.3%	24.8%	24.9%	20.1%	31.3%	24.2%	24.8%
	All Shellfish	4.7%	4.6%	4.3%	4.0%	3.5%	5.3%	4.1%	4.3%	4.3%
	All Other Species	1.5%	0.7%	0.8%	0.7%	1.0%	1.2%	0.8%	1.2%	1.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
All Other	Groundfish	14.1%	12.0%	12.7%	14.8%	11.4%	12.4%	11.1%	10.3%	12.2%
	Flatfish	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%
	Rockfish	0.4%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.3%
	Sablefish	8.8%	7.6%	7.8%	8.0%	6.6%	7.2%	7.1%	6.6%	7.4%
	Halibut	15.2%	15.7%	17.0%	16.9%	15.4%	13.4%	12.3%	14.5%	15.0%
	Herring	0.8%	1.5%	1.9%	1.4%	1.7%	2.3%	3.4%	2.4%	2.0%
	Salmon	41.6%	46.2%	45.6%	45.4%	50.3%	47.3%	47.4%	49.9%	47.0%
	All Shellfish	18.7%	15.8%	14.2%	12.4%	13.8%	16.6%	17.6%	15.3%	15.4%
	All Other Species	0.4%	0.8%	0.5%	0.6%	0.5%	0.5%	0.7%	0.8%	0.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Total	Groundfish	18.6%	17.5%	18.4%	20.2%	17.1%	18.5%	15.9%	16.2%	17.7%
	Flatfish	0.5%	0.5%	0.8%	1.1%	1.2%	1.3%	1.2%	0.7%	0.9%
	Rockfish	0.9%	0.7%	0.7%	1.0%	0.9%	0.8%	0.9%	0.8%	0.8%
	Sablefish	8.2%	7.2%	7.1%	7.3%	6.2%	6.6%	6.7%	6.4%	6.9%
	Halibut	15.3%	15.7%	16.4%	15.8%	15.2%	13.4%	12.2%	14.3%	14.7%
	Herring	0.9%	1.6%	1.9%	1.3%	1.5%	2.1%	3.1%	2.2%	1.9%
	Salmon	38.7%	42.2%	41.8%	41.7%	45.5%	42.2%	44.3%	45.2%	43.0%
	All Shellfish	16.3%	13.9%	12.4%	10.9%	11.8%	14.5%	15.0%	13.3%	13.4%
	All Other Species	0.6%	0.8%	0.6%	0.6%	0.6%	0.7%	0.7%	0.9%	0.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Source: AKFIN summaries of NOAA Fisheries catch accounting data, 2011

- Table 48 provides information on the distribution of sport charter halibut fishing permits held by Alaska community in 2012. As shown, Sitka, Ketchikan, Homer, Kodiak, and Anchorage, in that order, represented the top five communities for the number of sport charter halibut permits held for areas 2C and 3A combined, while Juneau and Petersburg ranked 10th and 13th respectively. No sport charter permits were reported held by King Cove, Sand Point, or Chignik Lagoon residents. A total of 61 different Alaska communities had a least one resident halibut sport charter permit holder; a total of 27 different Alaska communities had five or more individuals who held halibut sport charter permits in 2012.

Table 48. Number of Sport Charter Halibut Fishing Permits Held, by Alaska Community, 2012

Community	Individual Permit Holders	Permits by Area		Total Permits Held	Total Interim Permits
		2C	3A		
Sitka	65	140	2	142	2
Ketchikan	37	121	0	121	0
Kodiak	42	0	70	70	1
Homer	56	0	66	66	1
Anchorage	38	0	56	56	0
Seward	22	0	47	47	1
Craig	18	47	0	47	0
Soldotna	21	4	37	41	8
Ninilchik	25	0	31	31	0
Juneau	19	22	1	23	1
Elfin Cove	7	17	4	21	5
Anchor Point	13	0	18	18	0
Petersburg	13	17	0	17	0
Auke Bay	5	14	0	14	0
Klawock	6	12	0	12	0
Valdez	8	0	12	12	0
Yakutat	6	0	11	11	0
Angoon	4	10	0	10	0
Hoonah	6	9	0	9	1
Ward Cove	8	9	0	9	0
Seldovia	3	0	9	9	0
Pelican	5	9	0	9	0
Point Baker	2	8	0	8	0
Ouzinkie	2	0	8	8	0
Thorne Bay	5	8	0	8	1
Port Alexander	4	8	0	8	0
Larsen Bay	2	0	8	8	0
Wasilla	5	0	7	7	1
Port Graham	1	0	7	7	0
Nanwalek	1	0	7	7	0
Coffman Cove	4	7	0	7	0
Whittier	5	6	0	6	0
Port Lions	6	6	0	6	0
Gustavus	4	5	0	5	1
Kenai	5	0	5	5	0
Kasilof	5	0	5	5	1
Palmer	5	1	4	5	0
Hydaburg	1	4	0	4	0
Sterling	3	0	4	4	0
North Pole	4	0	4	4	0
Edna Bay	1	4	0	4	0
Wrangell	4	4	0	4	0
Eagle River	3	0	3	3	0
Clam Gulch	3	0	3	3	0
Chugiak	2	0	3	3	0
Cordova	2	0	3	3	0
Old Harbor	3	0	3	3	0
Big Lake	3	0	3	3	1
Tenakee Springs	1	2	0	2	0
Fritz Creek	2	1	1	2	1
Fairbanks	2	0	2	2	0
Haines	2	2	0	2	0
Naukati Bay	1	1	0	1	0

Community	Individual Permit Holders	Permits by Area		Total Permits Held	Total Interim Permits
		2C	3A		
Salcha	1	0	1	1	0
Fort Greely	1	0	1	1	0
Aniak	1	0	1	1	0
Pedro Bay	1	0	1	1	0
Anderson	1	0	1	1	0
Moose Pass	1	0	1	1	0
Saint Paul Island	1	0	1	1	0
Girdwood	1	0	1	1	0

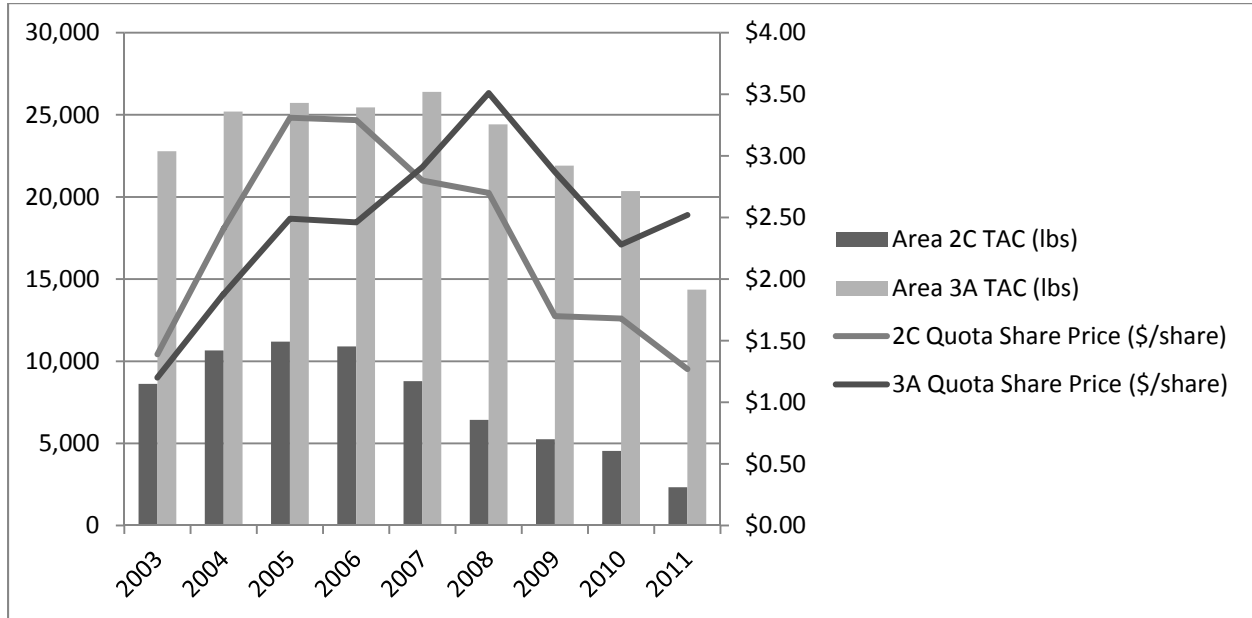
Source: NMFS 2012

It is also likely that the potential beneficial impacts to individual commercial and sport charter halibut fishery participants would be relatively modest, specifically in economic terms, compared to potential negative impacts to individual groundfish fishery participants likely to be directly affected by the proposed GOA halibut PSC reductions.⁴⁴ (Further, beneficial impacts to the GOA halibut fisheries would likely occur gradually over time, while adverse impacts to the GOA groundfish fisheries would be more immediate.)

As described in detail in Section 3.2 in the body of the main document to which this community analysis is an appendix, however, the commercial, sport, and subsistence halibut fisheries in the GOA have not been in equilibrium, and modest gains in the short term, it is hoped, will eventually lead to more substantial gains over the long run. For the commercial halibut fisheries in Areas 2C and 3A in particular, it is important to note that the proposed GOA halibut PSC revisions are not taking place within the context halibut fishery that has seen sharp declines in total allowable catch (TAC) and quota share price in recent years. As shown in Figure 21, TAC for halibut in Area 2C has been declining since 2005 and in Area 3A since 2007. At the same time, individual operations have seen the value of their quota shares decline. In Area 2C, the 2011 quota share price was less than half of that seen in 2005, while in Area 3A, although some rebound occurred between 2010 and 2011, the quota share price in 2011 was still well below prices seen in 2008. Figure 22 shows a strong upward trend in exvessel price per pound for halibut in Area 2C and Area 3A in recent years, but the decline in TAC has meant that total TAC value for commercial fishermen (as measured by total exvessel price per pound times the number of pounds in the TAC) has declined for fishermen in Area 2C since 2006 and for fishermen in Area 3A since 2007, despite a gain from 2009 to 2010 in both areas.

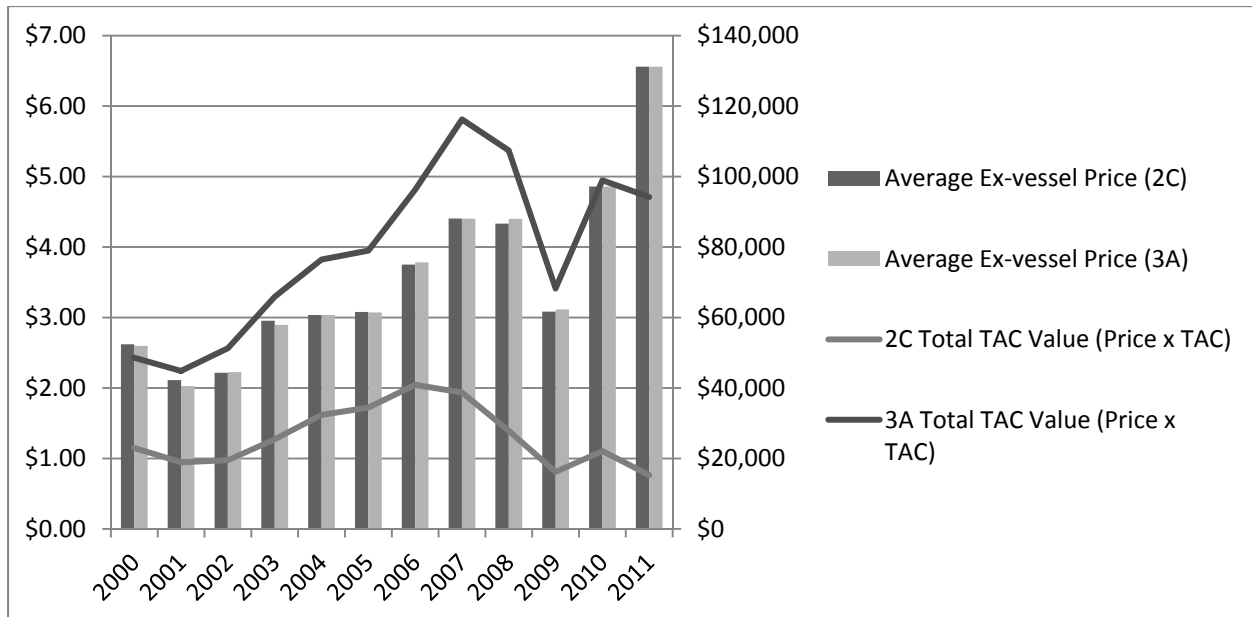
⁴⁴ As noted earlier, the estimated maximum GOA groundfish annual first wholesale gross revenues foregone (under a combined 15 percent GOA groundfish trawl halibut PSC reduction and a 15 percent GOA groundfish hook-and-line halibut PSC reduction) would be approximately \$9.7 million GOA-wide. In contrast, as noted below, the estimated maximum GOA commercial halibut annual first wholesale gross revenues increase under the same conditions would be approximately \$2.4 million GOA-wide. These figures should be used for a rough order of magnitude comparison only, as they were developed using different assumptions and methodologies, as discussed in the RIR. Further, these figures, of course, do not take into account a range of social and economic impacts on both the operational and community levels that would extend beyond gross revenue changes that may be experienced by direct sector participants. Particularly important is the fact that they do not take into account the sociocultural as well as the socioeconomic importance of the halibut fishery, across its multiple sectors, to numerous Alaska communities, especially small, remote, primarily indigenous communities, and the direct and indirect benefits that would accrue to these communities as a result of sustaining and improving the overall vitality of the GOA halibut fisheries over the long run.

Figure 21. Alaskan Commercial Halibut TAC (thousands of pounds) Compared to Average Quota Share Sale Price (dollars per share), Areas 2C and 3A, 2003-2011



Source: IPHC 2011b, 2012; NPFMC 2012

Figure 22. Alaskan Commercial Halibut Average Exvessel Price (dollars) Compared to Total TAC Value (thousands of dollars), Areas 2C and 3A, 2000-2010



Note: 2010 and 2011 average exvessel prices for areas 2C and 3A are not available; values presented here are based on total statewide exvessel value and harvest figures.

Source: IPHC 2011a, 2012; NMFS 2011d,e; NMFS2012c

4.5.3 Potential Beneficial Impacts to GOA Communities Engaged in the Commercial Halibut Fishery

As summarized in Section 4.6.2.1 of the RIR in the main document to which this community analysis is an appendix, the levels of potential beneficial impacts to the commercial halibut fisheries in the relevant regulatory areas,⁴⁵ depending on low and high price estimates,⁴⁶ are as follows:

- In the Area 2C halibut fishery:
 - Increases to total area-wide first wholesale gross revenues were estimated to be \$500 (low price) or \$800 (high price) annually for each 5 percent decrease in the hook-and-line halibut PSC limit.
 - As there is essentially no trawl fishery in Area 2C, no direct impacts to Area 2C halibut fishery participants are expected from trawl PSC reductions.
- In the Area 3A halibut fishery:
 - Increases to total area-wide first wholesale gross revenues were estimated to be \$20,800 (low price) and \$39,000 (high price) annually⁴⁷ for each 5 percent decrease in the hook-and-line halibut PSC limit.
 - Increases to total area-wide first wholesale gross revenues were estimated to be \$231,900 (low price) and \$438,000 (high price) annually for each 5 percent decrease in the trawl halibut PSC limit.
- In the Area 3B halibut fishery:
 - Increases to total area-wide first wholesale gross revenues were estimated to be \$48,000 (low price) and \$94,600 (high price) annually for each 5 percent decrease in the hook-and-line halibut PSC limit.
 - Increases to total area-wide first wholesale gross revenues were estimated to be \$110,300 (low price) and \$218,000 (high price) annually for each 5 percent decrease in the trawl halibut PSC limit.

⁴⁵ Note: the figures provided in this section were calculated using catch sharing plan numbers for the division of halibut between sectors as developed in Section 4.6.2.1 of the RIR within the body of the main document to which this community analysis is an appendix. As described in that section, the NPFMC is considering utilizing guideline harvest level numbers rather than catch sharing plan numbers for this division, but as no final decision has been made, this section has continued to use the original catch sharing plan numbers, with the result that beneficial impacts to the sector and communities may be understated in this analysis, depending on final Council action.

⁴⁶ For Area 2C, low and high prices used were \$3.64/lb and \$6.32/lb, respectively; for Area 3A, low and high prices used were \$3.52/lb and \$6.65/lb, respectively; for Area 3B, low and high prices used were \$4.13/lb and \$8.15/lb, respectively.

⁴⁷ Estimates for Area 3A assume implementation of Step 2 of the Catch Share Plan as described in the RIR in the main document to which this community analysis is an appendix (which would maximize beneficial impacts to the commercial halibut fishery); for Areas 2C and 3B the impacts of Step 1 and Step 2 would be the same.

In each of these cases, the increases noted in first wholesale gross revenues would be distributed across (divided among) all commercial halibut fishery participants in the respective regulatory area. Hook-and-line halibut PSC reductions in each area at any level (five, 10, or 15 percent) would result in first wholesale gross revenue increases that would likely be inconsequential when distributed to the individual halibut vessel operation level.

GOA groundfish trawl halibut PSC reductions could result in estimated increases in total halibut first wholesale gross revenues of up to \$1.3 million (at the 15 percent trawl PSC reduction level under the high price scenario) in Area 3A and \$0.7 million (at the 15 percent trawl PSC reduction level under the high price scenario) in Area 3B. This would represent an estimated increase of approximately 0.98 percent for Area 3A and 0.87 percent for Area 3B over 2010 area-wide first wholesale revenues. Combined, GOA groundfish hook-and-line and trawl halibut PSC reductions at 15 percent each would result in an annual gain of \$2.4 million in commercial halibut first wholesale gross revenues GOA-wide under the high price scenario, which would represent an estimated increase of approximately 0.99 percent over GOA-wide halibut first wholesale revenues in 2010.

When spread among all commercial halibut operations in the area, including operations/vessels that are owned outside of Alaska, these increases are not likely to be significant at the community level for any of the participating Alaska communities (especially when paired with offsetting decreases in returns from the GOA groundfish fisheries in some communities), although beneficial impacts may be evident to some at the individual operation level. Additionally, all things being equal, increasing the vitality of the GOA halibut fisheries in general may be expected to increase the value of Gulf halibut QS held to some degree, but the likely amount of this potential increase, which would occur over time as fishery conditions change, is unknown.

4.5.4 Potential Beneficial Impacts to GOA Communities Engaged in the Sport Charter Halibut Fishery

For the sport charter halibut sector, as described in Section 4.6.2.2 of the RIR in the main document to which this community analysis is an appendix, the increase in the number of fish available to the sport charter halibut fleet in Area 2C that would result from GOA groundfish hook-and-line and/or trawl halibut PSC reductions at the five, 10, or 15 percent level is inconsequential (i.e., an increase of 0.01 percent at most, which would occur only under the 15 percent hook-and-line PSC reduction level), so no impacts to sport charter halibut businesses in this area are anticipated. For Area 3A, assuming that the gross revenue was equally divided among all of the businesses that hold a halibut charter permit, the average increase in revenue per guided sport business would range from \$0 to approximately \$1,100, depending on the level of GOA groundfish trawl and/or hook-and-line halibut PSC reductions, the number of sport charter halibut businesses that are permitted in the long term, and the division of the constant exploitation yield between the sport charter and commercial halibut fishery sectors.⁴⁸

⁴⁸ On an area-wide basis, as shown in Table 4-51 of the RIR in the main document to which this community analysis is an appendix, the annual increase in sport charter halibut gross revenue is estimated to range from \$0 to \$289,549 for all of Area 3A, depending on the combination of GOA halibut PSC reduction alternatives chosen. The maximum gross revenue increase represents approximately 1.1 percent of the average annual estimated sport charter halibut vessel gross revenues for Area 3A over the period 2004-2010, inclusive, shown in Table 40.

These increases are not likely to be significant at the community level for any of the participating Alaska communities (especially when paired with offsetting decreases in returns from the GOA groundfish fisheries), although beneficial impacts may be evident to some individual operations at the higher halibut PSC reduction levels (see Table 49 for sport charter halibut vessel gross revenue estimates for Area 3A; the estimated maximum potential increase per business per year [\$1,094] is roughly equal to gross revenues for one extra trip per vessel per year [\$1,125]⁴⁹). Additionally, similar to the case with the commercial halibut fishery, increasing the vitality of the GOA halibut fisheries in general may be expected to increase the value of Gulf halibut sport charter permits held to some degree, but the likely amount of this potential increase, which would occur over time as fishery conditions change, is unknown.

Table 49. Sport Charter Halibut Vessels and Estimated Gross Revenues in Area 3A by Year, 2004-2010

Year	Area 3A					
	Trips	Estimated Gross Revenue for Area	Vessels	Estimated Gross Revenue per Vessel	Trips/Vessel	Estimated Average Gross Revenue per Trip
2004	23,248	\$26,154,000	530	\$49,347	43	\$1,148
2005	23,278	\$26,187,750	567	\$46,187	41	\$1,127
2006	24,126	\$27,141,750	622	\$43,636	39	\$1,119
2007	25,491	\$28,677,375	643	\$44,599	40	\$1,115
2008	23,314	\$26,228,250	604	\$43,424	39	\$1,113
2009	18,981	\$21,353,625	547	\$39,038	35	\$1,115
2010	19,599	\$22,048,875	523	\$42,158	37	\$1,139
Average	22,577	\$25,398,804	576.6	\$44,056	39.1	\$1,125

Assumptions:

\$225 – Estimated average cost of a trip per client (used in the CSP RIR, NPFMC 2010)

5 – Assumed average number of clients per trip (rough order of magnitude)

\$1,125 – Estimated average gross revenue per trip (average cost per trip per client x average number of clients per trip)

Source: ADF&G Saltwater Logbook data (for number of vessels and number of trips data); see Table 4-46 in the RIR in the body of the main document to which this community analysis is an appendix.

4.5.5 Potential Beneficial Impacts to GOA Communities Engaged in the Subsistence Halibut Fishery

Locally important subsistence halibut fishing takes place in many GOA communities not directly engaged in the relevant GOA groundfish fisheries; in some cases, the communities most heavily engaged in the GOA groundfish fisheries are the communities in the region least engaged in the subsistence halibut fishery. For example, Anchorage, Homer, and Juneau, three of the nine communities profiled as the most heavily engaged in the relevant GOA groundfish fisheries, are not among the higher subsistence use communities (with local subsistence halibut participation rates in Anchorage, Homer, and Juneau

⁴⁹ Note: Historic sport charter halibut data in Table 36 are based on vessel records for the years shown; the projected GOA halibut PSC revision-related increase in sport charter halibut revenues is expressed as a per business average as opposed to a per vessel average (due to recent changes in record keeping in response to changes in sector regulations). As some businesses own multiple vessels, the average increase per vessel would be less than the average increase per business shown, but historical data on businesses (as opposed to vessels), which would allow a more direct historical versus projection comparison, are not readily available.

undoubtedly influenced by those communities not being classified as rural for the purposes of federal subsistence resource management).

Table 50 provides an overview of the distribution of Alaska subsistence halibut fishers by area; there were 26 Alaska communities whose residents had combined estimated subsistence halibut harvests of approximately 7,000 pounds or more (net weight) in 2010, and residents of these communities accounted for 88 percent of the total Alaska subsistence halibut harvest in that year (Alaska Department of Fish and Game 2011:14). Residents of the Kodiak area (including the city of Kodiak and areas of Kodiak Island connected to it by road) ranked first with 21 percent of the total Alaska harvest and Sitka ranked second with about 10 percent; there were 68 other Alaska communities with at least one resident who participated in the subsistence halibut fishery in 2010 (Alaska Department of Fish and Game 2011:14).

Table 50. Alaska Halibut Subsistence Fishers, 2010

Tribe or Rural Community Area	Number of Fishers	Percent of Fishers
Area 2C (Southeast Alaska)	3,020	60.5%
Area 3A (Southcentral Alaska)	1,574	31.5%
Area 3B (Alaska Peninsula)	176	3.5%
Area 4E (East Bering Sea Coast)	84	1.7%
Other Areas	137	2.7%
Total	4,991	100.0%

Source: Alaska Department of Fish and Game 2011

While increased vitality of halibut stocks would benefit all user groups, as noted in Section 4.6.2.3 of the RIR in the main document to which this community analysis is an appendix, reducing the GOA halibut PSC by 5 percent, 10 percent, or 15 percent is assumed not to affect the amount of halibut that is available to subsistence users in any of the regulatory areas, including areas 2C, 3A, and/or 3B, given that halibut are allocated to subsistence users before other user groups. It is important to note, however, that to the extent that GOA halibut PSC reductions improve halibut stock, halibut subsistence operations would potentially be improved in any given area through, for example, decreases in effort that would be needed to obtain the same volume of the resource and across all areas, due to migration of halibut spreading the gains realized in one area to adjacent areas and eventually all areas.

4.5.6 Potential Beneficial Impacts to GOA Communities Engaged in the Unguided Sport Halibut Fishery

Like subsistence halibut fishing, unguided sport halibut fishing also takes place across a wide range of communities, but unlike subsistence halibut fishing, unguided sport halibut fishing also occurs at locally important levels in non-rural communities. While increased vitality of halibut stocks would benefit all user groups, as noted in Section 4.6.2.3 of the RIR in the main document to which this community analysis is an appendix, reducing the GOA halibut PSC by 5 percent, 10 percent, or 15 percent is assumed not to affect the amount of halibut that is available to the unguided sport sector in any of the regulatory areas, including areas 2C, 3A, and/or 3B. Also like subsistence halibut fishing, it is important to note,

however, that to the extent that GOA halibut PSC reductions improve halibut stock, unguided sport halibut operations would potentially be improved in any given area through, for example, decreases in effort that would be needed to obtain the same volume of the resource and across all areas, due to migration of halibut spreading the gains realized in one area to adjacent and eventually all areas.

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Attachment to Appendix 7
Community Analysis Detailed Fishery Participation Tables (Source for included tables: AKFIN summaries of NOAA Fisheries catch accounting data, 2011; 2012)

Gulf of Alaska Groundfish Yearly and Annual Average Participation Tables 2003-2010

- A-1: GOA Groundfish Trawl Catcher Vessels by Community of Vessel Owner
- A-2: GOA Groundfish Trawl Catcher Processors by Community of Vessel Owner
- A-3: GOA Groundfish Hook-and-Line Catcher Vessels by Community of Vessel Owner
- A-4: GOA Groundfish Hook-and-Line Catcher Processors by Community of Vessel Owner
- A-5: GOA Groundfish Trawl Catcher Vessels Amendment 80, American Fisheries Act, and Rockfish Program Status by Community of Vessel Owner
- A-6: GOA Groundfish Trawl Catcher Processors Amendment 80, American Fisheries Act, and Rockfish Program Status by Community of Vessel Owner
- A-7: GOA Groundfish Hook-and-Line Catcher Vessels Amendment 80, American Fisheries Act, and Rockfish Program Status by Community of Vessel Owner
- A-8: GOA Groundfish Hook-and-Line Catcher Processors Amendment 80, American Fisheries Act, and Rockfish Program Status by Community of Vessel Owner
- A-9: GOA Groundfish Shore-Based Processors by Location of Plant

Gulf of Alaska Groundfish Vessels Fishery Participation Diversity by Species Group Tables 2003-2010

- A-10a: Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels by Community of Vessel Owner, 2003-2010 (number of vessels)
- A-10b: Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels by Community of Vessel Owner, 2003-2010 (percentage of vessels)
- A-11a: Fishery Participation by Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, 2003-2010 (number of vessels)
- A-11b: Fishery Participation by Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, 2003-2010 (percentage of vessels)

Gulf of Alaska Groundfish Fishery Vessel Monthly Participation Tables 2003-2010

- A-12a: Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels by Community of Vessel Owner, 2003-2010 (number of vessels)
- A-12b: Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels by Community of Vessel Owner, 2003-2010 (percentage of vessels)
- A-13a: Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, 2003-2010 (number of vessels)
- A-13b: Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels by Community of Vessel Owner, 2003-2010 (percentage of vessels)

Table A-1
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Fishery Category
(Deep- and Shallow-Water Complex; Pelagic and Non-Pelagic Trawl), by State and Community of Vessel Owner, 2003-2010
(1 of 4)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003				2004				2005				2006				2007			
			DW		SW		DW		SW		DW		SW		DW		SW		DW		SW	
			PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT
AK	ANCHOR POINT	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANCHORAGE	1	0	1	1	1	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0
	GIRDWOOD	2	0	0	1	1	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	1
	HOMER	2	0	0	1	2	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0
	KING COVE	5	0	0	0	2	0	0	0	2	0	0	0	4	0	0	0	4	0	0	0	4
	KODIAK	24	1	14	14	17	1	12	13	15	2	9	12	13	6	10	12	12	8	10	11	12
	NIKOLAEVSK	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PETERSBURG	2	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1
	SAND POINT	14	0	0	13	5	0	0	11	9	0	0	11	10	0	0	11	10	0	0	9	9
CA	SANTA BARBARA	1	0	0	1	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0
HI	KAILUA KONA	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
ID	FRUITLAND	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1
OR	BROOKINGS	1	0	0	1	1	0	1	1	1	0	1	1	1	0	1	1	1	0	0	1	1
	CLOVERDALE	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	DALLAS	1	0	0	0	0	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1
	DEPOE BAY	1	0	1	1	0	0	1	1	0	0	1	1	0	0	0	1	0	0	1	1	0
	FLORENCE	2	0	2	2	2	0	2	2	2	0	2	2	2	1	2	2	2	1	2	2	2
	NEWPORT	12	1	5	8	9	0	5	8	10	0	5	7	9	3	5	7	6	4	6	7	7
	PORT ORFORD	1	0	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1
	SILETZ	3	0	2	2	2	0	2	2	2	0	2	2	2	0	2	2	2	0	1	1	1
	SOUTH BEACH	1	0	0	1	1	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1
	TOLEDO	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	WARRENTON	1	0	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1

Table A-1
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Fishery Category
(Deep- and Shallow-Water Complex; Pelagic and Non-Pelagic Trawl), by State and Community of Vessel Owner, 2003-2010
(2 of 4)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003				2004				2005				2006				2007				
			DW		SW		DW		SW		DW		SW		DW		SW		DW		SW		
			PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	
WA	ABERDEEN	2	0	0	2	2	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
	ANACORTES	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	BELLINGHAM	4	0	0	1	3	0	0	1	1	0	0	1	1	0	0	1	1	0	0	2	1	
	CAMAS	1	0	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
	EAST WENATCHEE	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	EDMONDS	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	FOX ISLAND	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	GIG HARBOR	1	0	0	1	1	0	0	1	0	0	0	1	1	0	0	1	1	0	0	1	1	
	LYNDEN	2	0	1	1	1	0	1	1	1	0	2	1	2	0	1	0	0	0	0	0	0	
	LYNNWOOD	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MERCER ISLAND	1	0	1	1	1	0	1	1	0	0	0	1	1	0	0	1	1	0	0	1	1	
	RENTON	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	
	SEATTLE	28	1	1	10	6	0	2	9	6	1	2	11	6	1	3	13	5	3	4	12	9	
	SOUTH BEND	2	1	1	1	1	0	2	0	2	1	2	2	2	0	1	1	1	1	1	1	1	
	SQURMAMISH	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	VASHON	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	

Table A-1
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Fishery Category
(Deep- and Shallow-Water Complex; Pelagic and Non-Pelagic Trawl), by State and Community of Vessel Owner, 2003-2010
(3 of 4)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2008				2009				2010				Average Annual Participation 2003-2010			
			DW		SW		DW		SW		DW		SW		DW		SW	
			PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT
AK	ANCHOR POINT	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.1
	ANCHORAGE	1	0	0	0	0	0	0	0	0	0	0	0	0.0	0.4	0.4	0.4	
	GIRDWOOD	2	0	0	1	0	0	0	1	1	0	0	1	1	0.0	0.0	0.9	0.8
	HOMER	2	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.4	0.4	
	KING COVE	5	0	0	0	4	0	0	0	5	0	0	2	1	0.0	0.0	0.3	3.3
	KODIAK	24	10	11	13	15	6	14	13	14	8	13	15	15	5.3	11.6	12.9	14.1
	NIKOLAEVSK	1	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.1	
	PETERSBURG	2	0	0	0	1	0	0	0	1	0	0	1	1	0.0	0.0	0.1	1.0
SAND POINT	14	0	0	7	7	0	0	11	10	0	0	9	4	0.0	0.0	10.3	8.0	
CA	SANTA BARBARA	1	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.4	0.3	
HI	KAILUA KONA	1	0	0	1	1	0	0	1	1	0	0	1	1	0.0	0.0	1.0	1.0
ID	FRUITLAND	1	1	1	1	1	1	1	1	1	0	0	0	0.4	0.6	0.6	0.6	
OR	BROOKINGS	1	0	0	1	1	0	1	1	1	0	0	1	1	0.0	0.5	1.0	1.0
	CLOVERDALE	1	0	0	0	0	0	0	0	0	0	0	0	0.0	0.3	0.0	0.3	
	DALLAS	1	0	1	1	1	0	0	0	0	0	0	0	0.0	0.6	0.6	0.6	
	DEPOE BAY	1	1	1	1	1	0	1	1	1	0	1	1	1	0.1	0.9	1.0	0.4
	FLORENCE	2	1	2	2	2	1	2	2	2	1	2	2	2	0.6	2.0	2.0	2.0
	NEWPORT	12	4	5	7	7	3	4	6	4	2	4	6	6	2.1	4.9	7.0	7.3
	PORT ORFORD	1	0	1	1	1	1	1	1	1	0	1	1	1	0.3	1.0	1.0	1.0
	SILETZ	3	0	1	1	1	2	2	2	2	1	2	2	2	0.4	1.8	1.8	1.8
	SOUTH BEACH	1	1	1	1	1	0	1	1	1	1	1	1	1	0.3	0.9	1.0	1.0
	TOLEDO	1	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.1	0.0	
WARRENTON	1	0	0	0	0	0	0	0	0	0	0	0	0.3	0.6	0.6	0.6		

Table A-1
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Fishery Category
(Deep- and Shallow-Water Complex; Pelagic and Non-Pelagic Trawl), by State and Community of Vessel Owner, 2003-2010
(4 of 4)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2008				2009				2010				Average Annual Participation 2003-2010			
			DW		SW		DW		SW		DW		SW		DW		SW	
			PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT
WA	ABERDEEN	2	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.5	0.5
	ANACORTES	1	1	0	1	1	0	0	0	0	0	0	0	0	0.5	0.5	0.8	0.8
	BELLINGHAM	4	0	1	1	2	0	0	2	2	0	1	2	3	0.0	0.3	1.4	1.8
	CAMAS	1	0	0	0	0	0	0	0	0	1	1	1	1	0.0	0.4	0.4	0.4
	EAST WENATCHEE	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.0	1.0	1.0
	EDMONDS	2	0	0	1	1	0	0	1	1	0	0	1	1	0.0	0.0	0.6	0.5
	FOX ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.1	0.1
	GIG HARBOR	1	0	0	1	1	0	0	1	1	0	0	1	1	0.0	0.0	1.0	0.9
	LYNDEN	2	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.6	0.4	0.5
	LYNNWOOD	1	0	0	0	0	0	0	0	0	1	1	1	1	0.1	0.1	0.1	0.1
	MERCER ISLAND	1	0	0	1	1	0	0	1	1	0	0	1	1	0.0	0.3	1.0	0.9
	RENTON	1	0	0	0	1	0	0	0	1	0	0	0	0	0.0	0.0	0.0	0.8
	SEATTLE	28	2	6	14	10	1	4	12	5	2	2	10	5	1.4	3.0	11.4	6.5
	SOUTH BEND	2	1	1	1	1	1	1	1	1	1	1	1	1	0.8	1.3	1.0	1.3
	SQURMAMISH	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.0	0.0	0.1
VASHON	1	0	0	1	1	0	0	1	1	0	0	1	0	0.0	0.0	1.0	0.9	

Table A-2
Gulf of Alaska Groundfish Trawl Catcher Processor Participation by Year and Fishery Category (Deep- and Shallow-Water Complex; Pelagic and Non-Pelagic Trawl), by State and Community of Vessel Owner, 2003-2010
 (1 of 2)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003				2004				2005				2006				2007				2008			
			DW		SW		DW		SW		DW		SW		DW		SW		DW		SW		DW		SW	
			PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT
AK	KODIAK	2	0	2	0	2	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ME	ROCKLAND	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	
WA	BELLINGHAM	2	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	0	0	0	1	0	0	0	
	DUVALL	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	SEATTLE	19	1	15	0	3	1	13	0	4	1	13	0	2	1	13	0	2	1	12	0	3	1	12	0	5
	SEQUIM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	SOUTH BEND	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1

Table A-2
Gulf of Alaska Groundfish Trawl Catcher Processor Participation by Year and Fishery Category (Deep- and Shallow-Water Complex; Pelagic and Non-Pelagic Trawl), by State and Community of Vessel Owner, 2003-2010
 (2 of 2)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2009				2010				Average Annual Participation 2003-2010			
			DW		SW		DW		SW		DW		SW	
			PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT	PT	NPT
AK	KODIAK	2	0	0	0	0	0	0	0	0	0.0	0.5	0.0	0.5
ME	ROCKLAND	2	0	0	0	0	1	0	0	0.0	0.6	0.0	0.1	
WA	BELLINGHAM	2	0	0	0	0	0	0	0	0.0	0.4	0.0	0.5	
	DUVALL	1	0	0	0	0	0	0	0	0.0	0.1	0.0	0.0	
	SEATTLE	19	2	16	0	6	1	15	0	4	1.1	13.6	0.0	3.6
	SEQUIM	1	0	0	0	1	0	0	0	0	0.0	0.0	0.0	0.1
	SOUTH BEND	1	0	1	0	1	0	1	0	1	0.0	1.0	0.0	1.0

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(1 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003		2004		2005		2006		2007		2008	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
AK	ADAK	1	0	0	0	0	0	0	0	0	0	0	0	0
	AKUTAN	4	0	1	0	1	0	0	0	0	0	2	0	4
	ANCHOR POINT	17	0	7	0	6	2	7	0	1	0	2	0	6
	ANCHORAGE	39	2	12	3	15	2	10	3	8	1	8	1	10
	AUKE BAY	1	0	0	1	0	1	1	1	0	0	0	0	0
	CHIGNIK	7	0	4	0	4	0	6	0	4	0	4	0	4
	CHIGNIK LAGOON	17	0	4	0	11	0	8	0	6	0	7	0	9
	CHINIAK	1	0	0	1	1	0	0	0	0	0	0	0	0
	CLAM GULCH	3	1	0	0	1	0	1	0	2	0	0	0	0
	CORDOVA	12	1	1	1	3	0	2	0	2	0	1	0	3
	CRAIG	7	3	0	1	0	4	0	0	0	0	0	0	0
	DELTA JUNCTION	6	0	2	0	4	1	5	0	5	0	6	0	6
	DILLINGHAM	1	0	1	0	0	0	0	0	0	0	0	0	0
	DOUGLAS	13	7	0	3	0	6	0	2	1	1	1	0	1
	DUTCH HARBOR	6	0	2	0	1	0	3	0	0	0	3	0	3
	EAGLE RIVER	4	0	1	0	1	1	0	0	0	0	1	0	0
	ELFIN COVE	3	1	0	1	0	1	0	1	0	0	0	0	0
	FALSE PASS	5	0	3	0	3	0	2	0	3	0	0	0	1
	FRITZ CREEK	4	0	1	0	0	0	0	0	0	0	1	0	1
	GIRDWOOD	1	0	0	0	0	0	0	0	0	0	1	0	1
	GUSTAVUS	3	0	0	2	0	1	0	1	0	0	0	0	0
	HAINES	9	3	0	4	0	1	0	1	0	0	1	0	0
	HALIBUT COVE	2	0	0	0	0	0	0	1	1	0	0	0	0

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(2 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003		2004		2005		2006		2007		2008	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	HOMER	116	4	42	10	49	5	47	8	38	1	47	0	44
	HOONAH	5	3	0	2	0	2	0	2	0	1	0	0	0
	JUNEAU	38	15	3	13	3	14	3	5	2	0	1	0	3
	KASILOF	4	0	0	0	1	0	0	0	1	0	0	0	1
	KENAI	6	0	2	0	2	0	1	0	0	0	1	0	2
	KETCHIKAN	21	12	0	13	0	6	1	1	0	0	0	0	0
	KING COVE	30	0	17	0	15	0	13	0	15	0	14	0	18
	KING SALMON	1	0	0	0	0	0	1	0	1	0	0	0	0
	KODIAK	281	15	134	18	145	13	144	10	123	5	109	4	115
	LARSEN BAY	5	0	2	0	4	0	2	0	0	0	1	0	0
	MEYERS CHUCK	1	1	0	1	0	1	0	0	0	0	0	0	0
	NELSON LAGOON	2	0	1	0	2	0	0	0	0	0	0	0	0
	NIKISKI	1	0	0	0	0	1	0	0	1	0	0	0	0
	NIKOLAEVSK	7	0	4	0	3	0	2	0	1	0	2	0	2
	NINILCHIK	4	0	3	1	3	0	3	0	2	0	0	0	0
	NOME	1	0	0	0	0	0	0	0	0	0	0	0	0
	OLD HARBOR	9	0	4	0	2	0	5	0	2	0	3	1	4
	OUZINKIE	7	1	5	1	1	0	3	0	1	0	1	0	2
	PALMER	2	0	1	0	2	0	2	0	2	0	1	0	2
	PELICAN	7	5	0	3	0	1	0	1	0	0	0	0	0
	PERRYVILLE	4	0	2	0	4	0	3	0	1	0	0	0	1
	PETERSBURG	26	11	2	12	3	11	1	6	3	1	2	0	2
	PORT ALEXANDER	4	4	0	0	0	0	0	0	0	0	0	0	0

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(3 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003		2004		2005		2006		2007		2008	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	PORT LIONS	8	0	3	0	3	0	2	1	0	0	1	0	3
	SAINT PAUL ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	1
	SAND POINT	77	0	50	0	45	0	40	1	18	0	18	0	38
	SELDOVIA	7	2	1	1	3	1	0	0	0	0	3	0	3
	SEWARD	8	0	3	0	0	0	0	0	0	0	2	0	5
	SITKA	166	127	3	72	1	48	1	16	1	1	1	2	0
	SOLDOTNA	2	0	1	0	0	1	1	0	1	0	0	0	0
	STERLING	1	0	0	1	0	0	0	0	0	0	0	0	0
	TENAKEE	3	1	0	0	0	1	0	1	0	0	0	0	0
	TULUKSAK	1	0	0	0	1	0	0	0	0	0	0	0	0
	UNALASKA	7	0	1	0	1	0	0	0	2	0	2	0	0
	VALDEZ	2	0	0	0	0	2	0	0	0	0	0	0	0
	WARD COVE	1	1	0	1	0	1	0	0	0	0	0	0	0
	WASILLA	13	1	2	1	2	0	1	0	1	1	4	0	8
	WILLOW	5	0	3	1	2	0	2	0	3	0	4	0	3
	WRANGELL	7	4	0	4	0	1	0	1	0	0	0	0	0
	YAKUTAT	2	0	0	0	0	0	0	0	0	0	0	0	1
AR	FAYETVILLE	1	0	0	0	0	0	0	0	0	0	0	0	0
AZ	MESA	1	0	1	0	1	0	0	0	1	0	0	0	0
CA	ALAMO	1	0	0	0	0	0	0	0	0	0	1	0	1
	CARMICHAEL	1	0	1	0	1	0	1	0	0	0	0	0	0
	FIREST HILL	1	0	0	0	0	0	0	0	0	0	0	0	0
	FORT BRAGG	1	0	0	1	1	0	0	0	0	0	0	0	0

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(4 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003		2004		2005		2006		2007		2008	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	HAYWARD	1	0	1	0	1	0	1	0	0	0	0	0	0
	MOUNT AUKUM	1	0	0	0	0	0	1	0	1	0	1	0	1
	OAKLAND	1	0	1	0	0	0	0	0	0	0	0	0	0
	RICHMOND	1	0	1	0	0	0	0	0	0	0	0	0	0
	SAN LIANDER	1	0	0	0	0	0	1	0	0	0	0	0	0
	SAN PEDRO	1	0	1	0	1	0	1	0	1	0	1	0	1
	SANTA BARBARA	1	0	0	0	1	0	1	0	0	0	0	0	0
CO	STEAMBOAT	1	0	1	1	1	1	1	0	1	0	1	0	1
HI	KAILUA KONA	1	0	1	0	1	0	1	0	0	0	0	0	1
ID	BOISE	2	0	1	1	0	0	0	0	0	0	0	0	0
	MOUNTAIN HOME	1	0	1	0	0	0	0	0	0	0	0	0	0
MI	BAY CITY	1	0	1	0	1	0	1	0	0	0	0	0	0
	MUNGER	1	0	0	0	0	0	0	0	1	0	1	0	1
MN	HOVLAND	1	1	0	0	0	0	0	0	0	0	0	0	0
	MANKATO	1	0	1	0	1	0	0	0	0	0	0	0	0
MT	HUSON	1	0	0	0	0	0	1	0	0	0	0	0	0
	SWAN LAKE	1	0	0	1	0	0	0	0	0	0	0	0	0
ND	LANKIN	1	0	0	0	0	1	1	0	0	0	0	0	0
OR	ASTORIA	1	0	0	0	0	0	0	0	0	0	0	0	1
	BAKER CITY	1	0	0	0	1	0	0	0	0	0	0	0	0
	BEND	1	0	0	0	0	0	0	0	0	0	0	0	0
	BROOKINGS	1	0	0	1	1	0	0	0	0	0	0	0	0
	CANNON BEACH	1	0	0	0	0	0	0	0	0	0	0	0	0

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(5 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003		2004		2005		2006		2007		2008	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	CLATSKANIE	1	0	0	0	0	1	0	0	0	0	0	0	0
	DEPOE BAY	2	0	1	2	1	0	0	0	0	0	0	0	0
	GARIBALDI	1	0	0	0	0	0	0	0	0	0	1	0	1
	GEARHART	1	0	0	0	1	0	0	0	0	0	0	0	0
	GERVAIS	1	0	0	0	0	0	0	0	1	0	0	0	0
	HOOD RIVER	1	1	0	1	0	1	0	0	0	0	0	0	0
	MAPLETON	1	0	1	0	1	0	1	0	1	0	0	0	0
	MILTON FREEWATER	1	0	1	0	1	0	1	0	1	0	1	0	1
	MOLALLA	2	0	0	0	0	1	0	0	0	0	1	0	1
	NEWPORT	8	2	3	0	3	0	0	1	1	0	0	1	2
	PORTLAND	1	0	0	0	0	0	0	0	1	0	1	0	1
	REEDSPORT	3	0	1	1	0	0	0	0	0	0	1	0	1
	SALEM	1	0	0	0	1	0	0	0	0	0	0	0	1
	SILVERTON	1	0	0	0	0	0	0	0	1	0	0	0	0
	SISTERS	2	0	2	0	2	0	1	0	2	0	1	0	0
	SOUTH BEACH	1	0	0	0	1	0	1	0	0	0	0	0	0
	THE DALLES	1	0	0	0	0	1	0	0	0	0	0	0	0
	WALDPORT	1	0	0	0	0	0	1	0	1	0	1	0	1
	WARRENTON	1	0	0	0	1	0	0	0	0	0	0	0	0
	WEST LINN	1	0	0	0	0	1	0	0	0	0	0	0	0
	WESTFIR	1	1	0	0	0	0	0	0	0	0	0	0	0
	WOODBURN	1	0	0	0	0	0	0	0	1	0	1	0	1
SD	CLEAR LAKE	1	0	0	0	0	0	0	0	1	0	0	0	0

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003		2004		2005		2006		2007		2008	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	LEMMON	1	0	0	1	0	0	0	0	0	0	0	0	0
VT	QUECHEE	1	0	0	0	0	0	0	0	0	0	0	0	0
WA	ABERDEEN	1	0	0	1	0	0	0	0	0	0	0	0	0
	ANACORTES	10	6	3	4	1	2	0	1	1	0	0	0	1
	BAINBRIDGE ISLAND	1	0	1	0	0	0	0	1	1	0	0	0	0
	BELLINGHAM	6	1	3	1	4	2	2	0	1	0	2	0	2
	BLAINE	5	0	0	2	1	2	2	1	2	1	1	0	1
	BOTHELL	2	0	1	0	1	0	1	0	1	0	0	0	0
	BOW	2	1	1	0	2	1	1	0	0	0	0	0	0
	CAMANO ISLAND	1	0	0	0	1	0	0	0	0	0	0	0	0
	CATHLAMET	2	0	1	1	1	1	2	0	0	0	0	0	0
	CHEWELAH	1	0	0	0	0	1	0	1	0	0	0	0	0
	CHINOOK	2	1	0	0	0	0	0	1	0	0	0	0	0
	COLVILLE	1	0	0	1	0	0	0	0	0	0	0	0	0
	DAVENPORT	1	0	0	0	0	1	0	0	0	0	0	0	0
	EDMONDS	8	0	2	1	2	0	1	0	1	0	3	0	5
	ELMA	2	0	0	0	0	0	0	0	0	0	0	0	0
	ENUMCLAW	1	1	0	0	0	1	0	1	0	0	0	0	0
	EVERETT	3	1	1	1	1	1	1	1	1	0	0	0	0
	FERDALE	1	0	0	0	0	1	0	0	0	0	0	0	0
FERNDALE	1	0	0	0	0	0	0	0	0	0	0	1	0	
FOX ISLAND	1	1	1	0	0	0	0	0	0	0	0	0	0	
FRIDAY HARBOR	1	1	1	0	0	0	0	0	0	0	0	0	0	

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003		2004		2005		2006		2007		2008	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	GIG HARBOR	3	0	0	0	0	0	0	0	1	0	0	0	1
	GRANITE FALLS	1	0	1	0	0	0	1	0	0	0	0	0	0
	KENNEWICK	1	0	1	0	1	0	0	0	0	0	0	0	0
	KENT	3	0	0	0	0	0	0	0	0	0	0	0	2
	KIRKLAND	1	0	0	0	0	0	1	0	0	0	0	0	0
	KITTITAS	1	0	0	1	0	0	0	0	0	0	0	0	0
	LAKE STEVENS	1	0	0	0	0	0	0	0	0	0	0	0	0
	LAKWOOD	1	0	1	0	0	0	0	0	0	0	0	0	0
	LONG BEACH	1	0	0	0	0	1	0	0	0	0	0	0	0
	LYNDEN	1	0	0	1	0	1	0	0	0	0	0	0	0
	MILL CREEK	2	1	0	0	0	0	1	0	0	0	0	0	0
	MONTESANO	2	0	1	0	0	0	0	0	0	0	0	0	1
	MOUNT VERNON	3	1	0	1	0	1	0	0	0	0	0	0	0
	MT VERNON	1	0	0	0	0	0	0	0	0	0	0	0	1
	MUKILTEO	1	1	0	0	0	0	0	0	0	0	0	0	0
	OAK HARBOR	1	0	1	0	0	0	0	0	0	0	0	0	0
	ORTING	1	0	0	0	1	0	1	0	0	0	0	0	0
	PORT ANGELES	5	5	0	1	0	0	0	0	0	0	0	0	0
	PORT ORCHARD	1	1	0	1	0	1	0	0	0	0	0	0	0
	PORT TOWNSEND	5	1	0	1	1	2	2	0	0	0	0	0	0
	POULSBO	3	0	0	0	1	0	0	0	1	0	1	0	1
	PROSSER	2	1	0	1	0	0	0	0	0	0	0	0	0
	RAYMOND	1	0	0	0	1	0	0	0	0	0	0	0	0

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003		2004		2005		2006		2007		2008	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	REARDAN	1	0	1	0	1	0	1	0	1	0	1	0	0
	RENTON	1	0	0	0	1	0	0	0	1	0	0	0	0
	RIDGEFIELD	2	0	0	0	0	1	1	0	1	0	0	0	0
	SEATTLE	36	2	11	5	11	4	8	2	11	1	7	0	12
	SEAVIEW	1	0	1	0	0	1	0	0	0	0	0	0	0
	SEDRO WOOLEY	1	0	0	0	0	0	0	0	0	0	0	0	0
	SEDRO WOOLLEY	2	0	0	0	1	0	0	0	0	0	0	0	1
	SEQUIM	1	0	1	0	0	0	0	0	0	0	0	0	0
	SHORELINE	10	0	4	2	2	0	1	1	4	0	5	1	5
	SILVERDALE	1	0	0	1	0	0	0	0	0	0	0	0	0
	SNOHOMISH	1	0	1	0	1	0	0	0	0	0	0	0	0
	STANWOOD	1	0	0	0	0	0	0	0	0	0	1	0	1
	SULTAN	1	0	0	1	0	0	0	0	0	0	0	0	0
	SUMNER	3	0	3	0	3	0	3	0	0	0	0	0	0
	VASHON	3	0	3	1	1	0	1	1	1	0	1	0	1
	WOODINVILLE	2	0	0	0	2	0	0	0	0	0	0	0	0
	WOODWAY	1	0	1	0	1	0	1	0	1	0	0	0	0
	YAKIMA	1	0	0	0	1	0	1	0	1	0	0	0	0
OTHER	PLAMONDON, ALBERTA	1	0	0	0	0	0	0	0	0	0	1	0	0
	BLANK	2	0	0	1	0	0	0	0	0	0	0	0	1

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2009		2010		Average Annual Participation 2003-2010	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
AK	ADAK	1	0	0	0	1	0.0	0.1
	AKUTAN	4	0	3	0	3	0.0	1.8
	ANCHOR POINT	17	1	3	0	2	0.4	4.3
	ANCHORAGE	39	0	12	0	9	1.5	10.5
	AUKE BAY	1	0	0	0	0	0.4	0.1
	CHIGNIK	7	0	1	0	1	0.0	3.5
	CHIGNIK LAGOON	17	0	7	0	5	0.0	7.1
	CHINIAK	1	0	0	0	0	0.1	0.1
	CLAM GULCH	3	0	1	0	1	0.1	0.8
	CORDOVA	12	0	3	0	6	0.3	2.6
	CRAIG	7	0	0	0	0	1.0	0.0
	DELTA JUNCTION	6	0	5	0	5	0.1	4.8
	DILLINGHAM	1	0	0	0	0	0.0	0.1
	DOUGLAS	13	0	0	0	0	2.4	0.4
	DUTCH HARBOR	6	0	0	0	0	0.0	1.5
	EAGLE RIVER	4	0	1	0	0	0.1	0.5
	ELFIN COVE	3	0	0	0	0	0.5	0.0
	FALSE PASS	5	0	1	0	1	0.0	1.8
	FRITZ CREEK	4	0	1	0	3	0.0	0.9
	GIRDWOOD	1	0	0	0	0	0.0	0.3
GUSTAVUS	3	0	0	0	0	0.5	0.0	
HAINES	9	0	0	0	0	1.1	0.1	
HALIBUT COVE	2	0	0	0	0	0.1	0.1	

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(10 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2009		2010		Average Annual Participation 2003-2010	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	HOMER	116	0	52	1	52	3.6	46.4
	HOONAH	5	0	0	0	0	1.3	0.0
	JUNEAU	38	0	3	0	3	5.9	2.6
	KASILOF	4	1	1	0	0	0.1	0.5
	KENAI	6	0	1	0	2	0.0	1.4
	KETCHIKAN	21	0	0	0	0	4.0	0.1
	KING COVE	30	0	13	0	16	0.0	15.1
	KING SALMON	1	0	0	0	0	0.0	0.3
	KODIAK	281	3	111	0	107	8.5	123.5
	LARSEN BAY	5	0	0	0	1	0.0	1.3
	MEYERS CHUCK	1	0	0	0	0	0.4	0.0
	NELSON LAGOON	2	0	0	0	0	0.0	0.4
	NIKISKI	1	0	0	0	0	0.1	0.1
	NIKOLAEVSK	7	0	2	0	4	0.0	2.5
	NINILCHIK	4	0	0	0	0	0.1	1.4
	NOME	1	0	1	0	0	0.0	0.1
	OLD HARBOR	9	0	5	0	2	0.1	3.4
	OUZINKIE	7	0	3	0	3	0.3	2.4
	PALMER	2	0	1	0	2	0.0	1.6
	PELICAN	7	0	0	0	0	1.3	0.0
	PERRYVILLE	4	0	0	0	0	0.0	1.4
	PETERSBURG	26	1	2	0	2	5.3	2.1
	PORT ALEXANDER	4	0	0	0	0	0.5	0.0

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2009		2010		Average Annual Participation 2003-2010	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	PORT LIONS	8	0	1	0	2	0.1	1.9
	SAINT PAUL ISLAND	1	0	1	0	0	0.0	0.3
	SAND POINT	77	0	32	0	35	0.1	34.5
	SELDOVIA	7	0	5	0	2	0.5	2.1
	SEWARD	8	0	2	0	1	0.0	1.6
	SITKA	166	1	2	1	2	33.5	1.4
	SOLDOTNA	2	0	0	0	0	0.1	0.4
	STERLING	1	0	0	0	0	0.1	0.0
	TENAKEE	3	0	0	0	0	0.4	0.0
	TULUKSAK	1	0	0	0	0	0.0	0.1
	UNALASKA	7	0	1	0	1	0.0	1.0
	VALDEZ	2	0	0	0	0	0.3	0.0
	WARD COVE	1	0	0	0	0	0.4	0.0
	WASILLA	13	0	4	0	5	0.4	3.4
	WILLOW	5	0	3	0	3	0.1	2.9
	WRANGELL	7	0	0	0	0	1.3	0.0
YAKUTAT	2	0	0	0	1	0.0	0.3	
AR	FAYETVILLE	1	0	0	0	1	0.0	0.1
AZ	MESA	1	0	0	0	0	0.0	0.4
CA	ALAMO	1	0	0	0	1	0.0	0.4
	CARMICHAEL	1	0	0	0	0	0.0	0.4
	FIREST HILL	1	0	0	0	1	0.0	0.1
	FORT BRAGG	1	0	0	0	0	0.1	0.1

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(12 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2009		2010		Average Annual Participation 2003-2010	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	HAYWARD	1	0	0	0	0	0.0	0.4
	MOUNT AUKUM	1	0	1	0	0	0.0	0.6
	OAKLAND	1	0	0	0	0	0.0	0.1
	RICHMOND	1	0	0	0	0	0.0	0.1
	SAN LIANDER	1	0	0	0	0	0.0	0.1
	SAN PEDRO	1	0	0	0	0	0.0	0.8
	SANTA BARBARA	1	0	0	0	0	0.0	0.3
CO	STEAMBOAT	1	0	1	0	0	0.3	0.9
HI	KAILUA KONA	1	0	1	0	0	0.0	0.6
ID	BOISE	2	0	0	0	0	0.1	0.1
	MOUNTAIN HOME	1	0	0	0	0	0.0	0.1
MI	BAY CITY	1	0	0	0	0	0.0	0.4
	MUNGER	1	0	1	0	0	0.0	0.5
MN	HOVLAND	1	0	0	0	0	0.1	0.0
	MANKATO	1	0	0	0	0	0.0	0.3
MT	HUSON	1	0	0	0	0	0.0	0.1
	SWAN LAKE	1	0	0	0	0	0.1	0.0
ND	LANKIN	1	0	0	0	0	0.1	0.1
OR	ASTORIA	1	0	1	0	1	0.0	0.4
	BAKER CITY	1	0	0	0	0	0.0	0.1
	BEND	1	0	1	0	1	0.0	0.3
	BROOKINGS	1	0	0	0	0	0.1	0.1
	CANNON BEACH	1	0	1	0	1	0.0	0.3

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(13 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2009		2010		Average Annual Participation 2003-2010	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	CLATSKANIE	1	0	0	0	0	0.1	0.0
	DEPOE BAY	2	0	0	0	0	0.3	0.3
	GARIBALDI	1	0	0	0	0	0.0	0.3
	GEARHART	1	0	0	0	0	0.0	0.1
	GERVAIS	1	0	0	0	0	0.0	0.1
	HOOD RIVER	1	0	0	0	0	0.4	0.0
	MAPLETON	1	0	0	0	0	0.0	0.5
	MILTON FREEWATER	1	0	0	0	1	0.0	0.9
	MOLALLA	2	0	0	0	0	0.1	0.3
	NEWPORT	8	0	1	1	1	0.6	1.4
	PORTLAND	1	0	0	0	1	0.0	0.5
	REEDSPORT	3	0	0	0	0	0.1	0.4
	SALEM	1	0	0	0	0	0.0	0.3
	SILVERTON	1	0	0	0	0	0.0	0.1
	SISTERS	2	0	0	0	0	0.0	1.0
	SOUTH BEACH	1	0	0	0	0	0.0	0.3
	THE DALLES	1	0	0	0	0	0.1	0.0
	WALDPORT	1	0	1	0	1	0.0	0.8
	WARRENTON	1	0	0	0	0	0.0	0.1
	WEST LINN	1	0	0	0	0	0.1	0.0
	WESTFIR	1	0	0	0	0	0.1	0.0
	WOODBURN	1	0	0	0	0	0.0	0.4
SD	CLEAR LAKE	1	0	0	0	0	0.0	0.1

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(14 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2009		2010		Average Annual Participation 2003-2010	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	LEMMON	1	0	0	0	0	0.1	0.0
VT	QUECHEE	1	0	0	0	1	0.0	0.1
WA	ABERDEEN	1	0	0	0	0	0.1	0.0
	ANACORTES	10	0	1	0	0	1.6	0.9
	BAINBRIDGE ISLAND	1	0	0	0	0	0.1	0.3
	BELLINGHAM	6	0	2	0	2	0.5	2.3
	BLAINE	5	0	1	0	1	0.8	1.1
	BOTHELL	2	0	0	0	0	0.0	0.5
	BOW	2	0	0	0	0	0.3	0.5
	CAMANO ISLAND	1	0	0	0	0	0.0	0.1
	CATHLAMET	2	0	0	0	0	0.3	0.5
	CHEWELAH	1	0	0	0	0	0.3	0.0
	CHINOOK	2	0	0	0	0	0.3	0.0
	COLVILLE	1	0	0	0	0	0.1	0.0
	DAVENPORT	1	0	0	0	0	0.1	0.0
	EDMONDS	8	0	2	0	3	0.1	2.4
	ELMA	2	0	0	0	2	0.0	0.3
	ENUMCLAW	1	0	0	0	0	0.4	0.0
	EVERETT	3	0	0	0	0	0.5	0.4
	FERDALE	1	0	0	0	0	0.1	0.0
	FERNDALE	1	0	0	0	0	0.1	0.0
	FOX ISLAND	1	0	0	0	0	0.1	0.1
FRIDAY HARBOR	1	0	0	0	0	0.1	0.1	

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(15 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2009		2010		Average Annual Participation 2003-2010	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	GIG HARBOR	3	0	1	0	1	0.0	0.5
	GRANITE FALLS	1	0	0	0	0	0.0	0.3
	KENNEWICK	1	0	0	0	0	0.0	0.3
	KENT	3	0	1	0	0	0.0	0.4
	KIRKLAND	1	0	0	0	0	0.0	0.1
	KITTITAS	1	0	0	0	0	0.1	0.0
	LAKE STEVENS	1	0	0	0	1	0.0	0.1
	LAKESWOOD	1	0	0	0	0	0.0	0.1
	LONG BEACH	1	0	0	0	0	0.1	0.0
	LYNDEN	1	0	0	0	0	0.3	0.0
	MILL CREEK	2	0	0	0	0	0.1	0.1
	MONTESANO	2	0	1	0	0	0.0	0.4
	MOUNT VERNON	3	0	0	0	1	0.4	0.1
	MT VERNON	1	0	1	0	0	0.0	0.3
	MUKILTEO	1	0	0	0	0	0.1	0.0
	OAK HARBOR	1	0	0	0	0	0.0	0.1
	ORTING	1	0	0	0	0	0.0	0.3
	PORT ANGELES	5	0	0	0	0	0.8	0.0
	PORT ORCHARD	1	0	0	0	0	0.4	0.0
	PORT TOWNSEND	5	0	0	0	0	0.5	0.4
	POULSBO	3	0	1	1	1	0.1	0.8
	PROSSER	2	0	0	0	0	0.3	0.0
	RAYMOND	1	0	0	0	0	0.0	0.1

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-3
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(16 of 16)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2009		2010		Average Annual Participation 2003-2010	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
	REARDAN	1	0	0	0	0	0.0	0.6
	RENTON	1	0	0	0	0	0.0	0.3
	RIDGEFIELD	2	0	0	0	0	0.1	0.3
	SEATTLE	36	0	5	0	7	1.8	9.0
	SEAVIEW	1	0	0	0	0	0.1	0.1
	SEDRO WOOLEY	1	0	0	0	1	0.0	0.1
	SEDRO WOOLLEY	2	0	1	0	0	0.0	0.4
	SEQUIM	1	0	0	0	0	0.0	0.1
	SHORELINE	10	0	4	0	1	0.5	3.3
	SILVERDALE	1	0	0	0	0	0.1	0.0
	SNOHOMISH	1	0	0	0	0	0.0	0.3
	STANWOOD	1	0	0	0	0	0.0	0.3
	SULTAN	1	0	0	0	0	0.1	0.0
	SUMNER	3	0	0	0	0	0.0	1.1
	VASHON	3	0	1	0	1	0.3	1.3
	WOODINVILLE	2	0	0	0	0	0.0	0.3
	WOODWAY	1	0	0	0	0	0.0	0.5
	YAKIMA	1	0	0	0	0	0.0	0.4
OTHER	PLAMONDON, ALBERTA	1	0	0	0	0	0.0	0.1
	BLANK	2	0	0	0	0	0.1	0.1

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-4
Gulf of Alaska Groundfish Hook-and-Line Catcher Processor Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(1 of 2)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2003		2004		2005		2006		2007	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
AK	HOMER	1	0	0	1	0	0	0	0	0	0	1
	KODIAK	1	0	1	0	1	0	1	0	0	0	1
	PETERSBURG	5	0	3	0	0	0	1	0	2	0	1
	SAND POINT	1	0	0	0	0	0	0	0	0	0	0
	SEWARD	1	1	0	0	0	0	0	0	0	0	0
	UNALASKA	1	0	1	0	0	0	0	0	0	0	0
CA	RICHMOND	1	0	1	0	0	0	0	0	0	0	0
WA	EDMONDS	2	0	0	0	0	0	0	0	1	0	1
	ELMA	1	0	0	0	0	0	0	0	0	0	0
	EVERETT	1	0	1	0	0	0	0	0	1	0	0
	LYNDEN	3	0	0	0	1	0	1	0	1	0	2
	MILL CREEK	1	0	0	0	0	0	0	0	0	0	0
	MOUNTLAKE TERRACE	1	0	0	0	0	0	0	0	0	0	0
	SEATTLE	28	0	11	0	10	0	5	1	13	0	9

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-4
Gulf of Alaska Groundfish Hook-and-Line Catcher Processor Participation by Year and Fishery Category
(Demersal Shelf Rockfish and Other*), by State and Community of Vessel Owner, 2003-2010
(2 of 2)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	2008		2009		2010		Average Annual Participation 2003-2010	
			DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR	DSR	Non-DSR
AK	HOMER	1	0	1	0	0	0	0	0.1	0.3
	KODIAK	1	0	0	0	0	0	0	0.0	0.5
	PETERSBURG	5	0	2	0	2	0	4	0.0	1.9
	SAND POINT	1	0	0	0	0	0	1	0.0	0.1
	SEWARD	1	1	1	0	0	0	1	0.3	0.3
	UNALASKA	1	0	0	0	0	0	0	0.0	0.1
CA	RICHMOND	1	0	0	0	0	0	0	0.0	0.1
WA	EDMONDS	2	0	0	0	0	0	0	0.0	0.3
	ELMA	1	0	0	0	1	0	1	0.0	0.3
	EVERETT	1	0	0	0	0	0	1	0.0	0.4
	LYNDEN	3	0	2	0	1	0	1	0.0	1.1
	MILL CREEK	1	0	1	0	1	0	0	0.0	0.3
	MOUNTLAKE TERRACE	1	0	1	0	0	0	0	0.0	0.1
	SEATTLE	28	0	11	1	13	0	10	0.3	10.3

* "Other" (shown as "non-DSR" in the table) includes federally managed groundfish species other than DSR, exclusive of sablefish (as that fishery is exempt from GOA halibut PSC modifications being considered).

Table A-5
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(1 of 6)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
AK	ANCHOR POINT	1	0	0	1	0	0	1	0	0	1	0	0	0	0
	ANCHORAGE	1	1	0	0	1	0	0	1	0	0	1	0	0	0
	GIRDWOOD	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	HOMER	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	KING COVE	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	KODIAK	24	15	0	5	14	0	5	12	0	5	11	0	5	11
	NIKOLAEVSK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	PETERSBURG	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAND POINT	14	1	0	0	1	0	0	1	0	0	1	0	0	1
CA	SANTA BARBARA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
HI	KAILUA KONA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
ID	FRUITLAND	1	1	0	0	0	0	0	0	0	0	1	0	0	1
OR	BROOKINGS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CLOVERDALE	1	1	0	0	1	0	0	1	0	0	0	0	0	0
	DALLAS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	DEPOE BAY	1	1	0	1	1	0	1	1	0	1	1	0	1	1
	FLORENCE	2	1	0	1	1	0	1	1	0	1	1	0	1	1
	NEWPORT	12	12	0	8	7	0	8	7	0	7	6	0	5	6
	PORT ORFORD	1	1	0	1	1	0	1	1	0	1	1	0	1	1
	SILETZ	3	3	0	0	2	0	0	2	0	0	2	0	0	2

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-5
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(2 of 6)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	SOUTH BEACH	1	1	0	1	1	0	1	1	0	1	1	0	1	1
	TOLEDO	1	1	0	0	0	0	0	0	0	0	0	0	1	1
	WARRENTON	1	1	0	0	1	0	0	1	0	0	1	0	0	1
WA	ABERDEEN	2	1	0	1	0	0	1	0	0	0	0	0	0	0
	ANACORTES	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BELLINGHAM	4	1	0	0	0	0	0	0	0	0	0	0	0	0
	CAMAS	1	1	0	0	1	0	0	1	0	0	0	0	0	0
	EAST WENATCHEE	1	1	0	0	1	0	0	1	0	0	1	0	0	1
	EDMONDS	2	1	0	0	0	0	0	0	0	0	0	0	0	0
	FOX ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GIG HARBOR	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LYNDEN	2	2	0	0	1	0	0	1	0	0	2	0	0	1
	LYNNWOOD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MERCER ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	RENTON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEATTLE	28	22	0	9	3	0	7	5	0	9	6	0	10	6
	SOUTH BEND	2	2	0	0	1	0	0	2	0	0	2	0	0	1
	SQURMAMISH	1	1	0	0	1	0	0	0	0	0	0	0	0	0
VASHON	1	0	0	0	0	0	0	0	0	0	0	0	0	0	

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-5
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(3 of 6)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
AK	ANCHOR POINT	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANCHORAGE	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	GIRDWOOD	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	HOMER	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	KING COVE	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	KODIAK	24	15	0	5	11	0	5	12	0	5	12	0	5	12
	NIKOLAEVSK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	PETERSBURG	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAND POINT	14	1	0	0	1	0	0	0	0	0	0	1	0	0	1
CA	SANTA BARBARA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
HI	KAILUA KONA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
ID	FRUITLAND	1	1	0	0	1	0	0	1	0	0	1	0	0	0
OR	BROOKINGS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CLOVERDALE	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	DALLAS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	DEPOE BAY	1	1	0	1	1	0	1	1	0	1	1	0	1	1
	FLORENCE	2	1	0	1	1	0	1	1	0	1	1	0	1	1
	NEWPORT	12	12	0	5	6	0	5	6	0	5	5	0	5	5
	PORT ORFORD	1	1	0	1	1	0	1	1	0	1	1	0	1	1
	SILETZ	3	3	0	0	1	0	0	1	0	0	2	0	0	2

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-5
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(4 of 6)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	SOUTH BEACH	1	1	0	1	1	0	1	1	0	1	0	1	0	1
	TOLEDO	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	WARRENTON	1	1	0	0	1	0	0	0	0	0	0	0	0	0
WA	ABERDEEN	2	1	0	0	0	0	0	0	0	0	0	0	0	0
	ANACORTES	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BELLINGHAM	4	1	0	0	0	0	0	0	0	0	0	0	0	1
	CAMAS	1	1	0	0	0	0	0	0	0	0	0	0	0	1
	EAST WENATCHEE	1	1	0	0	1	0	0	1	0	0	1	0	0	1
	EDMONDS	2	1	0	0	1	0	0	1	0	0	1	0	0	1
	FOX ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GIG HARBOR	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LYNDEN	2	2	0	0	0	0	0	0	0	0	0	0	0	0
	LYNNWOOD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MERCER ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	RENTON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEATTLE	28	22	0	11	6	0	9	7	0	10	6	0	9	3
	SOUTH BEND	2	2	0	0	1	0	0	1	0	0	1	0	0	1
	SQURMAMISH	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	VASHON	1	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-5
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(5 of 6)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
AK	ANCHOR POINT	1	0	0.0	0.4	0.0
	ANCHORAGE	1	1	0.0	0.0	0.4
	GIRDWOOD	2	0	0.0	0.0	0.0
	HOMER	2	0	0.0	0.0	0.0
	KING COVE	5	0	0.0	0.0	0.0
	KODIAK	24	15	0.0	5.0	11.9
	NIKOLAEVSK	1	0	0.0	0.0	0.0
	PETERSBURG	2	0	0.0	0.0	0.0
	SAND POINT	14	1	0.0	0.0	0.9
CA	SANTA BARBARA	1	0	0.0	0.0	0.0
HI	KAILUA KONA	1	0	0.0	0.0	0.0
ID	FRUITLAND	1	1	0.0	0.0	0.6
OR	BROOKINGS	1	0	0.0	0.0	0.0
	CLOVERDALE	1	1	0.0	0.0	0.3
	DALLAS	1	0	0.0	0.0	0.0
	DEPOE BAY	1	1	0.0	1.0	1.0
	FLORENCE	2	1	0.0	1.0	1.0
	NEWPORT	12	12	0.0	6.0	6.0
	PORT ORFORD	1	1	0.0	1.0	1.0
	SILETZ	3	3	0.0	0.0	1.8

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-5
Gulf of Alaska Groundfish Trawl Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(6 of 6)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
	SOUTH BEACH	1	1	0.0	1.0	1.0
	TOLEDO	1	1	0.0	0.1	0.1
	WARRENTON	1	1	0.0	0.0	0.6
WA	ABERDEEN	2	1	0.0	0.3	0.0
	ANACORTES	1	0	0.0	0.0	0.0
	BELLINGHAM	4	1	0.0	0.0	0.1
	CAMAS	1	1	0.0	0.0	0.4
	EAST WENATCHEE	1	1	0.0	0.0	1.0
	EDMONDS	2	1	0.0	0.0	0.5
	FOX ISLAND	1	0	0.0	0.0	0.0
	GIG HARBOR	1	0	0.0	0.0	0.0
	LYNDEN	2	2	0.0	0.0	0.6
	LYNNWOOD	1	0	0.0	0.0	0.0
	MERCER ISLAND	1	0	0.0	0.0	0.0
	RENTON	1	0	0.0	0.0	0.0
	SEATTLE	28	22	0.0	9.3	5.3
	SOUTH BEND	2	2	0.0	0.0	1.3
	SQURMAMISH	1	1	0.0	0.0	0.1
VASHON	1	0	0.0	0.0	0.0	

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-6
Gulf of Alaska Groundfish Trawl Catcher Processor Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(1 of 3)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
AK	KODIAK	2	2	2	0	2	2	0	2	0	0	0	0	0	0
ME	ROCKLAND	2	2	2	0	0	0	0	0	0	0	0	1	0	0
WA	BELLINGHAM	2	2	0	0	0	0	0	0	2	0	2	1	0	1
	DUVALL	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	SEATTLE	19	19	15	1	8	13	0	8	13	0	8	13	0	7
	SEQUIM	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH BEND	1	1	1	0	1	1	0	1	1	0	1	1	0	1

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-6
Gulf of Alaska Groundfish Trawl Catcher Processor Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(2 of 3)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003	Total Unique Flagged* Vessels 2003	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
AK	KODIAK	2	2	0	0	0	0	0	0	0	0	0	0	0	0
ME	ROCKLAND	2	2	1	0	0	0	0	0	0	0	0	1	0	0
WA	BELLINGHAM	2	2	1	0	1	0	0	0	0	0	0	0	0	0
	DUVALL	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	SEATTLE	19	19	12	1	7	13	1	9	16	1	10	15	1	9
	SEQUIM	1	1	0	0	0	0	0	0	1	0	0	0	0	0
	SOUTH BEND	1	1	1	0	1	1	0	1	1	0	1	1	0	1

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-6
Gulf of Alaska Groundfish Trawl Catcher Processor Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(3 of 3)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged*	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
AK	KODIAK	2	2	0.5	0.0	0.5
ME	ROCKLAND	2	2	0.6	0.0	0.0
WA	BELLINGHAM	2	2	0.5	0.0	0.5
	DUVALL	1	1	0.1	0.0	0.0
	SEATTLE	19	19	13.8	0.6	8.3
	SEQUIM	1	1	0.1	0.0	0.0
	SOUTH BEND	1	1	1.0	0.0	1.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(1 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
AK	ADAK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	AKUTAN	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANCHOR POINT	17	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANCHORAGE	39	0	0	0	0	0	0	0	0	0	0	0	0	0
	AUKE BAY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHIGNIK	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHIGNIK LAGOON	17	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHINIAK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CLAM GULCH	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	CORDOVA	12	0	0	0	0	0	0	0	0	0	0	0	0	0
	CRAIG	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	DELTA JUNCTION	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	DILLINGHAM	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	DOUGLAS	13	0	0	0	0	0	0	0	0	0	0	0	0	0
	DUTCH HARBOR	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	EAGLE RIVER	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	ELFIN COVE	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	FALSE PASS	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	FRITZ CREEK	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	GIRDWOOD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GUSTAVUS	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	HAINES	9	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(2 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003- 2010	Total Unique Flagged* Vessels 2003- 2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	HALIBUT COVE	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	HOMER	116	0	0	0	0	0	0	0	0	0	0	0	0	0
	HOONAH	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	JUNEAU	38	0	0	0	0	0	0	0	0	0	0	0	0	0
	KASILOF	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	KENAI	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	KETCHIKAN	21	0	0	0	0	0	0	0	0	0	0	0	0	0
	KING COVE	30	0	0	0	0	0	0	0	0	0	0	0	0	0
	KING SALMON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	KODIAK	281	7	0	1	4	0	0	2	0	1	1	0	2	2
	LARSEN BAY	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	MEYERS CHUCK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	NELSON LAGOON	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	NIKISKI	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	NIKOLAEVSK	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	NINILCHIK	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	NOME	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	OLD HARBOR	9	0	0	0	0	0	0	0	0	0	0	0	0	0
	OUZINKIE	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	PALMER	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	PELICAN	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	PERRYVILLE	4	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(3 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003- 2010	Total Unique Flagged* Vessels 2003- 2010	2003			2004			2005			2006				
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish		
	PETERSBURG	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PORT ALEXANDER	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PORT LIONS	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAINT PAUL ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAND POINT	77	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	SELDOVIA	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEWARD	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SITKA	166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SOLDOTNA	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	STERLING	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TENAKEE	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TULUKSAK	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNALASKA	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VALDEZ	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	WARD COVE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	WASILLA	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	WILLOW	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	WRANGELL	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	YAKUTAT	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AR	FAYETVILLE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AZ	MESA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CA	ALAMO	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(4 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	CARMICHAEL	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FIREST HILL	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FORT BRAGG	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	HAYWARD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOUNT AUKUM	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	OAKLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	RICHMOND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAN LIANDER	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAN PEDRO	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SANTA BARBARA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
CO	STEAMBOAT	1	0	0	0	0	0	0	0	0	0	0	0	0	0
HI	KAILUA KONA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
ID	BOISE	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOUNTAIN HOME	1	0	0	0	0	0	0	0	0	0	0	0	0	0
MI	BAY CITY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MUNGER	1	0	0	0	0	0	0	0	0	0	0	0	0	0
MN	HOVLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MANKATO	1	0	0	0	0	0	0	0	0	0	0	0	0	0
MT	HUSON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SWAN LAKE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
ND	LANKIN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
OR	ASTORIA	1	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(5 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	BAKER CITY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BEND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BROOKINGS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CANNON BEACH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CLATSKANIE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	DEPOE BAY	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	GARIBALDI	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GEARHART	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GERVAIS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	HOOD RIVER	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MAPLETON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MILTON FREEWATER	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOLALLA	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	NEWPORT	8	1	0	0	0	0	0	0	0	0	0	0	1	1
	PORTLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	REEDSPORT	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	SALEM	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SILVERTON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SISTERS	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH BEACH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	THE DALLES	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	WALDPORT	1	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(6 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	WARRENTON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	WEST LINN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	WESTFIR	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	WOODBURN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
SD	CLEAR LAKE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LEMMON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
VT	QUECHEE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	ABERDEEN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANACORTES	10	0	0	0	0	0	0	0	0	0	0	0	0	0
	BAINBRIDGE ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BELLINGHAM	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	BLAINE	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	BOTHELL	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	BOW	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAMANO ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CATHLAMET	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHEWELAH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHINOOK	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	COLVILLE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAVENPORT	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	EDMONDS	8	1	0	0	0	0	0	0	0	0	0	0	0	0
	ELMA	2	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(7 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	ENUMCLAW	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	EVERETT	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	FERDALE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FERNDALE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FOX ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FRIDAY HARBOR	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GIG HARBOR	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	GRANITE FALLS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	KENNEWICK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	KENT	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	KIRKLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	KITTITAS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LAKE STEVENS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LAKWOOD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LONG BEACH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LYNDEN	1	1	0	0	0	0	0	1	0	0	1	0	0	0
	MILL CREEK	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	MONTESANO	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOUNT VERNON	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	MT VERNON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MUKILTEO	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	OAK HARBOR	1	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(8 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	ORTING	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	PORT ANGELES	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	PORT ORCHARD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	PORT TOWNSEND	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	POULSBO	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	PROSSER	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	RAYMOND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	REARDAN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	RENTON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	RIDGEFIELD	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEATTLE	36	1	0	0	1	0	0	1	0	0	1	0	0	1
	SEAVIEW	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEDRO WOOLEY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEDRO WOOLLEY	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEQUIM	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SHORELINE	10	0	0	0	0	0	0	0	0	0	0	0	0	0
	SILVERDALE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SNOHOMISH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	STANWOOD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SULTAN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SUMNER	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	VASHON	3	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	WOODINVILLE	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	WOODWAY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	YAKIMA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER	PLAMONDON, ALBERTA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BLANK	2	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(10 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
AK	ADAK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	AKUTAN	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANCHOR POINT	17	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANCHORAGE	39	0	0	0	0	0	0	0	0	0	0	0	0	0
	AUKE BAY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHIGNIK	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHIGNIK LAGOON	17	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHINIAK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CLAM GULCH	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	CORDOVA	12	0	0	0	0	0	0	0	0	0	0	0	0	0
	CRAIG	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	DELTA JUNCTION	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	DILLINGHAM	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	DOUGLAS	13	0	0	0	0	0	0	0	0	0	0	0	0	0
	DUTCH HARBOR	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	EAGLE RIVER	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	ELFIN COVE	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	FALSE PASS	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	FRITZ CREEK	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	GIRDWOOD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GUSTAVUS	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	HAINES	9	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003- 2010	Total Unique Flagged* Vessels 2003- 2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	HALIBUT COVE	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	HOMER	116	0	0	0	0	0	0	0	0	0	0	0	0	0
	HOONAH	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	JUNEAU	38	0	0	0	0	0	0	0	0	0	0	0	0	0
	KASILOF	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	KENAI	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	KETCHIKAN	21	0	0	0	0	0	0	0	0	0	0	0	0	0
	KING COVE	30	0	0	0	0	0	0	0	0	0	0	0	0	0
	KING SALMON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	KODIAK	281	7	0	0	0	0	0	0	0	0	0	0	0	0
	LARSEN BAY	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	MEYERS CHUCK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	NELSON LAGOON	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	NIKISKI	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	NIKOLAEVSK	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	NINILCHIK	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	NOME	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	OLD HARBOR	9	0	0	0	0	0	0	0	0	0	0	0	0	0
	OUZINKIE	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	PALMER	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	PELICAN	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	PERRYVILLE	4	0	0	0	0	0	0	0	0	0	0	0	0	0

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Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(12 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	PETERSBURG	26	0	0	0	0	0	0	0	0	0	0	0	0	
	PORT ALEXANDER	4	0	0	0	0	0	0	0	0	0	0	0	0	
	PORT LIONS	8	0	0	0	0	0	0	0	0	0	0	0	0	
	SAINT PAUL ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	
	SAND POINT	77	1	0	0	0	0	0	0	0	0	0	0	0	
	SELDOVIA	7	0	0	0	0	0	0	0	0	0	0	0	0	
	SEWARD	8	0	0	0	0	0	0	0	0	0	0	0	0	
	SITKA	166	0	0	0	0	0	0	0	0	0	0	0	0	
	SOLDOTNA	2	0	0	0	0	0	0	0	0	0	0	0	0	
	STERLING	1	0	0	0	0	0	0	0	0	0	0	0	0	
	TENAKEE	3	0	0	0	0	0	0	0	0	0	0	0	0	
	TULUKSAK	1	0	0	0	0	0	0	0	0	0	0	0	0	
	UNALASKA	7	0	0	0	0	0	0	0	0	0	0	0	0	
	VALDEZ	2	0	0	0	0	0	0	0	0	0	0	0	0	
	WARD COVE	1	0	0	0	0	0	0	0	0	0	0	0	0	
	WASILLA	13	0	0	0	0	0	0	0	0	0	0	0	0	
	WILLOW	5	0	0	0	0	0	0	0	0	0	0	0	0	
	WRANGELL	7	0	0	0	0	0	0	0	0	0	0	0	0	
	YAKUTAT	2	0	0	0	0	0	0	0	0	0	0	0	0	
AR	FAYETVILLE	1	0	0	0	0	0	0	0	0	0	0	0	0	
AZ	MESA	1	0	0	0	0	0	0	0	0	0	0	0	0	
CA	ALAMO	1	0	0	0	0	0	0	0	0	0	0	0	0	

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Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(13 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	CARMICHAEL	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FIREST HILL	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FORT BRAGG	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	HAYWARD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOUNT AUKUM	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	OAKLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	RICHMOND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAN LIANDER	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAN PEDRO	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SANTA BARBARA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
CO	STEAMBOAT	1	0	0	0	0	0	0	0	0	0	0	0	0	0
HI	KAILUA KONA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
ID	BOISE	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOUNTAIN HOME	1	0	0	0	0	0	0	0	0	0	0	0	0	0
MI	BAY CITY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MUNGER	1	0	0	0	0	0	0	0	0	0	0	0	0	0
MN	HOVLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MANKATO	1	0	0	0	0	0	0	0	0	0	0	0	0	0
MT	HUSON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SWAN LAKE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
ND	LANKIN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
OR	ASTORIA	1	0	0	0	0	0	0	0	0	0	0	0	0	0

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Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	BAKER CITY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BEND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BROOKINGS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CANNON BEACH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CLATSKANIE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	DEPOE BAY	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	GARIBALDI	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GEARHART	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GERVAIS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	HOOD RIVER	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MAPLETON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MILTON FREEWATER	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOLALLA	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	NEWPORT	8	1	0	0	0	0	0	0	0	0	0	0	0	0
	PORTLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	REEDSPORT	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	SALEM	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SILVERTON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SISTERS	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	SOUTH BEACH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	THE DALLES	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	WALDPORT	1	0	0	0	0	0	0	0	0	0	0	0	0	0

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Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	WARRENTON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	WEST LINN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	WESTFIR	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	WOODBURN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
SD	CLEAR LAKE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LEMMON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
VT	QUECHEE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	ABERDEEN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	ANACORTES	10	0	0	0	0	0	0	0	0	0	0	0	0	0
	BAINBRIDGE ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BELLINGHAM	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	BLAINE	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	BOTHELL	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	BOW	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAMANO ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CATHLAMET	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHEWELAH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	CHINOOK	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	COLVILLE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAVENPORT	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	EDMONDS	8	1	0	0	1	0	0	1	0	0	1	0	0	1
	ELMA	2	0	0	0	0	0	0	0	0	0	0	0	0	0

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Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	ENUMCLAW	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	EVERETT	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	FERDALE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FERNDALE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FOX ISLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	FRIDAY HARBOR	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GIG HARBOR	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	GRANITE FALLS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	KENNEWICK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	KENT	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	KIRKLAND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	KITTITAS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LAKE STEVENS	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LAKWOOD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LONG BEACH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LYNDEN	1	1	0	0	0	0	0	0	0	0	0	0	0	0
	MILL CREEK	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	MONTESANO	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOUNT VERNON	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	MT VERNON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MUKILTEO	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	OAK HARBOR	1	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(17 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	ORTING	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	PORT ANGELES	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	PORT ORCHARD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	PORT TOWNSEND	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	POULSBO	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	PROSSER	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	RAYMOND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	REARDAN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	RENTON	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	RIDGEFIELD	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEATTLE	36	1	0	0	0	0	0	0	0	0	0	0	0	0
	SEAVIEW	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEDRO WOOLEY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEDRO WOOLLEY	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEQUIM	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SHORELINE	10	0	0	0	0	0	0	0	0	0	0	0	0	0
	SILVERDALE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SNOHOMISH	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	STANWOOD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SULTAN	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SUMNER	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	VASHON	3	0	0	0	0	0	0	0	0	0	0	0	0	0

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Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2007			2008			2009			2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
	WOODINVILLE	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	WOODWAY	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	YAKIMA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER	PLAMONDON, ALBERTA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	BLANK	2	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
AK	ADAK	1	0	0.0	0.0	0.0
	AKUTAN	4	0	0.0	0.0	0.0
	ANCHOR POINT	17	0	0.0	0.0	0.0
	ANCHORAGE	39	0	0.0	0.0	0.0
	AUKE BAY	1	0	0.0	0.0	0.0
	CHIGNIK	7	0	0.0	0.0	0.0
	CHIGNIK LAGOON	17	0	0.0	0.0	0.0
	CHINIAK	1	0	0.0	0.0	0.0
	CLAM GULCH	3	0	0.0	0.0	0.0
	CORDOVA	12	0	0.0	0.0	0.0
	CRAIG	7	0	0.0	0.0	0.0
	DELTA JUNCTION	6	0	0.0	0.0	0.0
	DILLINGHAM	1	0	0.0	0.0	0.0
	DOUGLAS	13	0	0.0	0.0	0.0
	DUTCH HARBOR	6	0	0.0	0.0	0.0
	EAGLE RIVER	4	0	0.0	0.0	0.0
	ELFIN COVE	3	0	0.0	0.0	0.0
	FALSE PASS	5	0	0.0	0.0	0.0
	FRITZ CREEK	4	0	0.0	0.0	0.0
	GIRDWOOD	1	0	0.0	0.0	0.0
	GUSTAVUS	3	0	0.0	0.0	0.0
	HAINES	9	0	0.0	0.0	0.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(20 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
	HALIBUT COVE	2	0	0.0	0.0	0.0
	HOMER	116	0	0.0	0.0	0.0
	HOONAH	5	0	0.0	0.0	0.0
	JUNEAU	38	0	0.0	0.0	0.0
	KASILOF	4	0	0.0	0.0	0.0
	KENAI	6	0	0.0	0.0	0.0
	KETCHIKAN	21	0	0.0	0.0	0.0
	KING COVE	30	0	0.0	0.0	0.0
	KING SALMON	1	0	0.0	0.0	0.0
	KODIAK	281	7	0.0	0.5	1.1
	LARSEN BAY	5	0	0.0	0.0	0.0
	MEYERS CHUCK	1	0	0.0	0.0	0.0
	NELSON LAGOON	2	0	0.0	0.0	0.0
	NIKISKI	1	0	0.0	0.0	0.0
	NIKOLAEVSK	7	0	0.0	0.0	0.0
	NINILCHIK	4	0	0.0	0.0	0.0
	NOME	1	0	0.0	0.0	0.0
	OLD HARBOR	9	0	0.0	0.0	0.0
	OUZINKIE	7	0	0.0	0.0	0.0
	PALMER	2	0	0.0	0.0	0.0
	PELICAN	7	0	0.0	0.0	0.0
	PERRYVILLE	4	0	0.0	0.0	0.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
	PETERSBURG	26	0	0.0	0.0	0.0
	PORT ALEXANDER	4	0	0.0	0.0	0.0
	PORT LIONS	8	0	0.0	0.0	0.0
	SAINT PAUL ISLAND	1	0	0.0	0.0	0.0
	SAND POINT	77	1	0.0	0.0	0.1
	SELDOVIA	7	0	0.0	0.0	0.0
	SEWARD	8	0	0.0	0.0	0.0
	SITKA	166	0	0.0	0.0	0.0
	SOLDOTNA	2	0	0.0	0.0	0.0
	STERLING	1	0	0.0	0.0	0.0
	TENAKEE	3	0	0.0	0.0	0.0
	TULUKSAK	1	0	0.0	0.0	0.0
	UNALASKA	7	0	0.0	0.0	0.0
	VALDEZ	2	0	0.0	0.0	0.0
	WARD COVE	1	0	0.0	0.0	0.0
	WASILLA	13	0	0.0	0.0	0.0
	WILLOW	5	0	0.0	0.0	0.0
	WRANGELL	7	0	0.0	0.0	0.0
	YAKUTAT	2	0	0.0	0.0	0.0
AR	FA YETVILLE	1	0	0.0	0.0	0.0
AZ	MESA	1	0	0.0	0.0	0.0
CA	ALAMO	1	0	0.0	0.0	0.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(22 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
	CARMICHAEL	1	0	0.0	0.0	0.0
	FIREST HILL	1	0	0.0	0.0	0.0
	FORT BRAGG	1	0	0.0	0.0	0.0
	HAYWARD	1	0	0.0	0.0	0.0
	MOUNT AUKUM	1	0	0.0	0.0	0.0
	OAKLAND	1	0	0.0	0.0	0.0
	RICHMOND	1	0	0.0	0.0	0.0
	SAN LIANDER	1	0	0.0	0.0	0.0
	SAN PEDRO	1	0	0.0	0.0	0.0
	SANTA BARBARA	1	0	0.0	0.0	0.0
CO	STEAMBOAT	1	0	0.0	0.0	0.0
HI	KAILUA KONA	1	0	0.0	0.0	0.0
ID	BOISE	2	0	0.0	0.0	0.0
	MOUNTAIN HOME	1	0	0.0	0.0	0.0
MI	BAY CITY	1	0	0.0	0.0	0.0
	MUNGER	1	0	0.0	0.0	0.0
MN	HOVLAND	1	0	0.0	0.0	0.0
	MANKATO	1	0	0.0	0.0	0.0
MT	HUSON	1	0	0.0	0.0	0.0
	SWAN LAKE	1	0	0.0	0.0	0.0
ND	LANKIN	1	0	0.0	0.0	0.0
OR	ASTORIA	1	0	0.0	0.0	0.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(23 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003- 2010	Total Unique Flagged* Vessels 2003- 2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
	BAKER CITY	1	0	0.0	0.0	0.0
	BEND	1	0	0.0	0.0	0.0
	BROOKINGS	1	0	0.0	0.0	0.0
	CANNON BEACH	1	0	0.0	0.0	0.0
	CLATSKANIE	1	0	0.0	0.0	0.0
	DEPOE BAY	2	0	0.0	0.0	0.0
	GARIBALDI	1	0	0.0	0.0	0.0
	GEARHART	1	0	0.0	0.0	0.0
	GERVAIS	1	0	0.0	0.0	0.0
	HOOD RIVER	1	0	0.0	0.0	0.0
	MAPLETON	1	0	0.0	0.0	0.0
	MILTON FREEWATER	1	0	0.0	0.0	0.0
	MOLALLA	2	0	0.0	0.0	0.0
	NEWPORT	8	1	0.0	0.1	0.1
	PORTLAND	1	0	0.0	0.0	0.0
	REEDSPORT	3	0	0.0	0.0	0.0
	SALEM	1	0	0.0	0.0	0.0
	SILVERTON	1	0	0.0	0.0	0.0
	SISTERS	2	0	0.0	0.0	0.0
	SOUTH BEACH	1	0	0.0	0.0	0.0
	THE DALLES	1	0	0.0	0.0	0.0
	WALDPORT	1	0	0.0	0.0	0.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
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State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
	WARRENTON	1	0	0.0	0.0	0.0
	WEST LINN	1	0	0.0	0.0	0.0
	WESTFIR	1	0	0.0	0.0	0.0
	WOODBURN	1	0	0.0	0.0	0.0
SD	CLEAR LAKE	1	0	0.0	0.0	0.0
	LEMMON	1	0	0.0	0.0	0.0
VT	QUECHEE	1	0	0.0	0.0	0.0
WA	ABERDEEN	1	0	0.0	0.0	0.0
	ANACORTES	10	0	0.0	0.0	0.0
	BAINBRIDGE ISLAND	1	0	0.0	0.0	0.0
	BELLINGHAM	6	0	0.0	0.0	0.0
	BLAINE	5	0	0.0	0.0	0.0
	BOTHELL	2	0	0.0	0.0	0.0
	BOW	2	0	0.0	0.0	0.0
	CAMANO ISLAND	1	0	0.0	0.0	0.0
	CATHLAMET	2	0	0.0	0.0	0.0
	CHEWELAH	1	0	0.0	0.0	0.0
	CHINOOK	2	0	0.0	0.0	0.0
	COLVILLE	1	0	0.0	0.0	0.0
	DAVENPORT	1	0	0.0	0.0	0.0
	EDMONDS	8	1	0.0	0.0	0.5
	ELMA	2	0	0.0	0.0	0.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(25 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
	ENUMCLAW	1	0	0.0	0.0	0.0
	EVERETT	3	0	0.0	0.0	0.0
	FERDALE	1	0	0.0	0.0	0.0
	FERNDALE	1	0	0.0	0.0	0.0
	FOX ISLAND	1	0	0.0	0.0	0.0
	FRIDAY HARBOR	1	0	0.0	0.0	0.0
	GIG HARBOR	3	0	0.0	0.0	0.0
	GRANITE FALLS	1	0	0.0	0.0	0.0
	KENNEWICK	1	0	0.0	0.0	0.0
	KENT	3	0	0.0	0.0	0.0
	KIRKLAND	1	0	0.0	0.0	0.0
	KITTITAS	1	0	0.0	0.0	0.0
	LAKE STEVENS	1	0	0.0	0.0	0.0
	LAKESWOOD	1	0	0.0	0.0	0.0
	LONG BEACH	1	0	0.0	0.0	0.0
	LYNDEN	1	1	0.0	0.0	0.3
	MILL CREEK	2	0	0.0	0.0	0.0
	MONTESANO	2	0	0.0	0.0	0.0
	MOUNT VERNON	3	0	0.0	0.0	0.0
	MT VERNON	1	0	0.0	0.0	0.0
	MUKILTEO	1	0	0.0	0.0	0.0
	OAK HARBOR	1	0	0.0	0.0	0.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(26 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
	ORTING	1	0	0.0	0.0	0.0
	PORT ANGELES	5	0	0.0	0.0	0.0
	PORT ORCHARD	1	0	0.0	0.0	0.0
	PORT TOWNSEND	5	0	0.0	0.0	0.0
	POULSBO	3	0	0.0	0.0	0.0
	PROSSER	2	0	0.0	0.0	0.0
	RAYMOND	1	0	0.0	0.0	0.0
	REARDAN	1	0	0.0	0.0	0.0
	RENTON	1	0	0.0	0.0	0.0
	RIDGEFIELD	2	0	0.0	0.0	0.0
	SEATTLE	36	1	0.0	0.0	0.5
	SEAVIEW	1	0	0.0	0.0	0.0
	SEDRO WOOLEY	1	0	0.0	0.0	0.0
	SEDRO WOOLLEY	2	0	0.0	0.0	0.0
	SEQUIM	1	0	0.0	0.0	0.0
	SHORELINE	10	0	0.0	0.0	0.0
	SILVERDALE	1	0	0.0	0.0	0.0
	SNOHOMISH	1	0	0.0	0.0	0.0
	STANWOOD	1	0	0.0	0.0	0.0
	SULTAN	1	0	0.0	0.0	0.0
	SUMNER	3	0	0.0	0.0	0.0
	VASHON	3	0	0.0	0.0	0.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-7
Gulf of Alaska Groundfish Hook-and-Line Catcher Vessel Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(27 of 27)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged*	Average Annual Participation 2003-2010		
				A80	AFA	Rockfish
	WOODINVILLE	2	0	0.0	0.0	0.0
	WOODWAY	1	0	0.0	0.0	0.0
	YAKIMA	1	0	0.0	0.0	0.0
OTHER	PLAMONDON, ALBERTA	1	0	0.0	0.0	0.0
	BLANK	2	0	0.0	0.0	0.0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-8
Gulf of Alaska Groundfish Hook-and-Line Catcher Processor Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(1 of 2)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2003			2004			2005			2006			2007		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
AK	HOMER	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	KODIAK	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	PETERSBURG	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAND POINT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEWARD	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNALASKA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CA	RICHMOND	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	EDMONDS	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ELMA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	EVERETT	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LYNDEN	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MILL CREEK	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOUNTLAKE TERRACE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEATTLE	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-8
Gulf of Alaska Groundfish Hook-and-Line Catcher Processor Participation by Year and Amendment 80,
American Fisheries Act, and Rockfish Program Status, by State and Community of Vessel Owner, 2003-2010
(2 of 2)

State of Vessel Owner	Community of Vessel Owner	Total Unique Vessels 2003-2010	Total Unique Flagged* Vessels 2003-2010	2008			2009			2010			Average Annual Participation 2003-2010		
				A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish	A80	AFA	Rockfish
AK	HOMER	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	KODIAK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	PETERSBURG	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAND POINT	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEWARD	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	UNALASKA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
CA	RICHMOND	1	0	0	0	0	0	0	0	0	0	0	0	0	0
WA	EDMONDS	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	ELMA	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	EVERETT	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	LYNDEN	3	0	0	0	0	0	0	0	0	0	0	0	0	0
	MILL CREEK	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	MOUNTLAKE TERRACE	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	SEATTLE	28	0	0	0	0	0	0	0	0	0	0	0	0	0

* Denotes vessels flagged in the dataset as belonging to the Amendment 80, American Fisheries Act, and/or Rockfish Program categories.

Table A-9
Gulf of Alaska Groundfish Shore-Based Processor Participation by Year and
by Gear Category and Management Area Origin of Deliveries
(Hook-and Line or Trawl; Gulf of Alaska Management Areas), by Location of Plant, 2003-2010
(1 of 3)

Location of Plant	Total Unique GOA Groundfish Processors 2003-2010	2003						2004						2005								
		Hook-and-Line				Trawl		Hook-and-Line				Trawl		Hook-and-Line				Trawl				
		CG	SE	WG	WY	CG	WG	WY	CG	SE	WG	WY	CG	WG	WY	CG	SE	WG	WY	CG	WG	WY
Akutan	1	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0
Anchorage	2	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Chignik	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cordova	6	0	0	0	2	0	0	0	1	0	0	2	0	0	0	1	0	0	1	0	0	0
Haines	2	1	1	0	1	0	0	0	1	1	0	1	0	0	0	1	1	0	0	0	0	0
Homer	4	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
Hoonah	1	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0
Juneau	3	0	2	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0
Kenai	3	2	0	0	0	1	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0
Kenmore, WA	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ketchikan	3	0	2	0	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0
King Cove	2	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0
Kodiak	19	8	0	1	0	6	1	4	8	0	0	0	8	1	3	8	0	0	0	7	0	4
Ninilchik	1	1	0	0	0	1	0	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0
Pelican	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Petersburg	2	0	1	0	1	0	0	0	0	2	0	2	0	0	0	0	1	0	0	0	0	0
Sand Point	1	1	0	1	0	1	1	0	0	0	1	0	1	1	0	1	0	1	0	1	1	0
Seattle, WA	2	2	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seward	4	1	0	0	0	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0	0	1
Sitka	6	1	3	0	0	0	0	0	0	4	0	0	0	0	0	3	0	0	0	0	0	0
Unalaska/Dutch Harbor	6	0	0	3	0	0	1	0	0	0	1	0	0	2	0	0	0	3	0	0	1	0
Valdez	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	1	0	0	0
Wrangell	2	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0
Yakutat	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table A-9
Gulf of Alaska Groundfish Shore-Based Processor Participation by Year and
by Gear Category and Management Area Origin of Deliveries
(Hook-and Line or Trawl; Gulf of Alaska Management Areas), by Location of Plant, 2003-2010
(2 of 3)

Location of Plant	Total Unique GOA Groundfish Processors 2003-2010	2006						2007						2008								
		Hook-and-Line				Trawl		Hook-and-Line				Trawl		Hook-and-Line				Trawl				
		CG	SE	WG	WY	CG	WG	WY	CG	SE	WG	WY	CG	WG	WY	CG	SE	WG	WY	CG	WG	WY
Akutan	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	1	1	0
Anchorage	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chignik	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cordova	6	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	2	0	0	0
Haines	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Homer	4	2	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0
Hoonah	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Juneau	3	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kenai	3	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Kenmore, WA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ketchikan	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
King Cove	2	0	0	1	0	1	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0
Kodiak	19	8	0	0	0	8	0	3	8	0	1	0	9	1	3	7	0	2	0	9	0	3
Nimilchik	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pelican	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Petersburg	2	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Sand Point	1	0	0	1	0	1	1	0	1	0	1	0	1	1	0	0	0	1	0	1	1	0
Seattle, WA	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seward	4	1	0	0	0	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0
Sitka	6	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	1	0	0	0
Unalaska/Dutch Harbor	6	0	0	3	0	0	1	0	0	0	3	0	0	1	0	0	0	2	0	0	1	0
Valdez	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrangell	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yakutat	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Table A-9
Gulf of Alaska Groundfish Shore-Based Processor Participation by Year and
by Gear Category and Management Area Origin of Deliveries
(Hook-and Line or Trawl; Gulf of Alaska Management Areas), by Location of Plant, 2003-2010
(3 of 3)

Location of Plant	Total Unique GOA Groundfish Processors 2003-2010	2009						2010						Average Annual Participation 2003-2010								
		Hook-and-Line				Trawl		Hook-and-Line				Trawl		Hook-and-Line				Trawl				
		CG	SE	WG	WY	CG	WG	WY	CG	SE	WG	WY	CG	WG	WY	CG	SE	WG	WY	CG	WG	WY
Akutan	1	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0.0	0.0	0.8	0.0	0.1	1.0	0.0
Anchorage	2	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0.5	0.0	0.0	0.4	0.0	0.0	0.0
Chignik	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Cordova	6	2	0	0	2	0	0	0	1	0	0	2	0	0	0	0.6	0.0	0.0	2.0	0.0	0.0	0.0
Haines	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	0.0	0.3	0.0	0.0	0.0
Homer	4	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Hoonah	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6	0.0	0.4	0.0	0.0	0.0
Juneau	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.6	0.0	0.6	0.0	0.0	0.0
Kenai	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0.0	0.0	0.0	0.1	0.0	0.0
Kenmore, WA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Ketchikan	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.8	0.0	0.3	0.0	0.0	0.0
King Cove	2	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0.0	0.0	0.6	0.0	0.3	1.0	0.0
Kodiak	19	8	0	2	0	9	0	4	9	0	0	9	1	7	8.0	0.0	0.8	0.0	8.1	0.5	3.9	
Ninilchik	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.0	0.3	0.1	0.3	0.0	0.0
Pelican	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Petersburg	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.6	0.0	0.5	0.0	0.0	0.0
Sand Point	1	1	0	1	0	1	1	0	1	0	1	0	1	1	0	0.6	0.0	1.0	0.0	1.0	1.0	0.0
Seattle, WA	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.0	0.0	0.1	0.1	0.0	0.1
Seward	4	3	0	0	2	0	0	0	1	0	0	1	0	0	1	1.6	0.0	0.0	0.5	0.1	0.0	0.3
Sitka	6	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0.1	2.3	0.0	0.1	0.0	0.0	0.0
Unalaska/Dutch Harbor	6	0	0	1	0	0	1	0	0	0	0	0	1	0	0.0	0.0	2.0	0.0	0.0	1.1	0.0	
Valdez	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.0	0.1	0.4	0.0	0.0	0.0
Wrangell	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.6	0.0	0.1	0.0	0.0	0.0
Yakutat	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.0	0.4	0.0	0.1	0.0	0.0	0.0

Table A-10a
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(1 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Anchorage	Sablefish	1	0	0	0	0	1	1	0	0.4
	Rockfish	2	3	2	3	1	1	0	0	1.5
	Herring	0	0	0	1	0	0	0	0	0.1
	Halibut	7	6	5	6	3	4	5	3	4.9
	Rationalized Crab	0	1	2	1	0	0	0	0	0.5
	Other Shellfish	1	1	2	1	0	1	3	2	1.4
	Salmon	10	9	4	6	6	5	6	6	6.5
	Other GOA Species	12	15	10	8	8	10	12	9	10.5
	BSAI (All Species)	0	0	1	0	0	1	1	1	0.5
Total Unique Vessels	13	16	10	10	8	10	12	9	11.0	
Chignik Lagoon	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	1	0	0	0	0	0	0	0	0.1
	Halibut	2	2	3	3	2	2	2	2	2.3
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	1	1	3	3	1	1	0	1	1.4
	Salmon	2	6	7	5	6	8	6	4	5.5
	Other GOA Species	4	12	8	6	7	9	7	5	7.3
	BSAI (All Species)	0	0	0	1	0	0	0	0	0.1
Total Unique Vessels	4	12	8	6	7	9	7	5	7.3	
Homer	Sablefish	10	10	6	14	12	10	9	10	10.1
	Rockfish	4	11	5	8	1	0	0	0	3.6
	Herring	1	1	2	1	1	1	0	0	0.9
	Halibut	33	45	39	30	35	33	35	36	35.8
	Rationalized Crab	0	0	0	1	2	1	1	3	1.0
	Other Shellfish	0	0	2	3	2	0	0	5	1.5
	Salmon	36	40	41	32	35	32	36	36	36.0
	Other GOA Species	42	49	47	38	48	45	52	52	46.6
	BSAI (All Species)	6	3	1	3	6	6	5	8	4.8
Total Unique Vessels	44	54	48	41	48	45	52	52	48.0	

Table A-10a
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(2 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Juneau	Sablefish	7	6	9	4	0	0	1	1	3.5
	Rockfish	15	13	14	5	0	0	0	0	5.9
	Herring	2	1	0	0	0	0	0	0	0.4
	Halibut	16	14	17	7	0	3	3	2	7.8
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	7	6	8	4	1	3	0	1	3.8
	Salmon	11	13	10	5	0	1	0	1	5.1
	Other GOA Species	3	3	3	2	1	3	3	3	2.6
	BSAI (All Species)	1	0	1	1	1	1	2	2	1.1
	Total Unique Vessels	17	16	17	7	1	3	3	3	8.4
King Cove	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	1	1	0	0	0	0	0.3
	Halibut	5	5	5	6	5	8	6	7	5.9
	Rationalized Crab	1	1	1	2	1	1	0	0	0.9
	Other Shellfish	0	0	10	9	3	3	6	11	5.3
	Salmon	14	11	10	12	10	16	11	14	12.3
	Other GOA Species	17	15	14	15	14	18	13	16	15.3
	BSAI (All Species)	1	2	1	1	2	0	0	0	0.9
	Total Unique Vessels	17	15	14	15	14	18	13	16	15.3
Kodiak	Sablefish	21	16	11	11	10	11	11	12	12.9
	Rockfish	15	18	13	10	5	4	3	0	8.5
	Herring	8	11	12	6	2	6	10	7	7.8
	Halibut	77	80	70	63	61	63	52	45	63.9
	Rationalized Crab	16	22	11	6	5	4	3	1	8.5
	Other Shellfish	44	41	39	28	24	19	18	26	29.9
	Salmon	47	51	54	44	36	37	39	44	44.0
	Other GOA Species	135	146	145	123	110	115	111	107	124.0
	BSAI (All Species)	26	29	21	16	15	15	10	10	17.8
	Total Unique Vessels	139	149	148	123	110	116	111	107	125.4

Table A-10a
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(3 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Petersburg	Sablefish	8	9	7	5	3	2	3	3	5.0
	Rockfish	11	12	11	6	1	0	1	0	5.3
	Herring	3	2	2	2	0	0	0	0	1.1
	Halibut	13	13	12	7	3	1	5	6	7.5
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	6	8	4	5	1	0	1	0	3.1
	Salmon	10	10	8	6	2	2	2	2	5.3
	Other GOA Species	5	3	2	5	3	4	4	6	4.0
	BSAI (All Species)	3	1	2	2	1	2	2	5	2.3
	Total Unique Vessels	16	15	13	10	4	4	5	6	9.1
Sand Point	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	1	0	0	0	0	0.1
	Herring	4	1	0	0	0	0	0	0	0.6
	Halibut	22	26	26	10	11	20	17	15	18.4
	Rationalized Crab	0	1	0	0	0	0	0	0	0.1
	Other Shellfish	0	1	23	1	1	3	2	13	5.5
	Salmon	39	30	37	17	14	30	25	29	27.6
	Other GOA Species	50	45	40	18	18	38	32	36	34.6
	BSAI (All Species)	6	2	1	0	0	0	1	0	1.3
	Total Unique Vessels	50	45	40	18	18	38	32	36	34.6
Sitka	Sablefish	38	23	10	1	1	1	1	1	9.5
	Rockfish	127	72	48	17	1	2	1	1	33.6
	Herring	1	4	1	0	1	0	0	0	0.9
	Halibut	75	38	20	9	1	1	3	3	18.8
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	23	9	7	3	1	0	0	0	5.4
	Salmon	105	62	45	15	1	2	1	0	28.9
	Other GOA Species	3	2	1	1	1	0	2	2	1.5
	BSAI (All Species)	1	1	1	0	1	0	0	2	0.8
	Total Unique Vessels	129	73	49	18	2	2	3	3	34.9

Table A-10a
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(4 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
All Other Alaska	Sablefish	22	21	16	17	8	11	9	8	14.0
	Rockfish	52	44	36	14	3	2	1	0	19.0
	Herring	8	7	5	3	2	2	3	2	4.0
	Halibut	80	67	64	39	33	46	35	32	49.5
	Rationalized Crab	1	1	2	1	1	1	2	0	1.1
	Other Shellfish	23	21	21	6	5	3	6	8	11.6
	Salmon	63	69	60	32	26	32	26	29	42.1
	Other GOA Species	63	62	57	38	48	69	51	53	55.1
	BSAI (All Species)	6	3	11	6	9	16	12	11	9.3
	Total Unique Vessels	114	103	89	52	50	69	51	53	72.6
Alaska Total	Sablefish	107	85	59	52	34	36	35	35	55.4
	Rockfish	226	173	129	64	12	9	6	1	77.5
	Herring	28	27	23	14	6	9	13	9	16.1
	Halibut	330	296	261	180	154	181	163	151	214.5
	Rationalized Crab	18	26	16	11	9	7	6	4	12.1
	Other Shellfish	105	88	119	63	39	33	36	67	68.8
	Salmon	337	301	276	174	136	165	152	165	213.3
	Other GOA Species	334	352	327	254	258	311	287	289	301.5
	BSAI (All Species)	50	41	40	30	35	41	33	39	38.6
	Total Unique Vessels	543	498	436	300	262	314	289	290	366.5
Oregon Total	Sablefish	3	4	3	3	4	4	1	1	2.9
	Rockfish	4	5	5	1	0	1	0	1	2.1
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	11	14	9	10	6	8	3	2	7.9
	Rationalized Crab	8	8	1	4	2	3	0	2	3.5
	Other Shellfish	2	4	2	1	0	1	0	2	1.5
	Salmon	0	3	2	2	2	3	0	0	1.5
	Other GOA Species	9	14	5	10	8	11	5	7	8.6
	BSAI (All Species)	5	5	2	7	5	6	3	4	4.6
	Total Unique Vessels	12	17	10	11	8	11	5	7	10.1

Table A-10a
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(5 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Washington Total	Sablefish	31	30	23	21	11	14	14	12	19.5
	Rockfish	26	29	25	12	2	2	1	1	12.3
	Herring	0	0	1	0	0	0	0	0	0.1
	Halibut	48	46	36	31	22	32	28	26	33.6
	Rationalized Crab	10	14	9	7	3	7	3	2	6.9
	Other Shellfish	1	3	4	3	2	3	1	7	3.0
	Salmon	28	29	25	9	7	10	6	8	15.3
	Other GOA Species	58	55	39	46	34	50	38	35	44.4
	BSAI (All Species)	27	25	15	26	21	31	26	20	23.9
	Total Unique Vessels	79	80	58	53	35	51	39	36	53.9
All Other States Total	Sablefish	2	3	2	0	1	2	1	0	1.4
	Rockfish	2	6	2	0	0	0	0	0	1.3
	Herring	3	2	1	0	0	0	0	0	0.8
	Halibut	7	7	5	3	3	5	1	1	4.0
	Rationalized Crab	3	1	0	0	1	1	0	1	0.9
	Other Shellfish	1	2	3	0	0	0	0	1	0.9
	Salmon	7	4	4	3	3	5	4	3	4.1
	Other GOA Species	13	12	12	6	6	7	5	4	8.1
	BSAI (All Species)	8	5	4	1	2	3	0	1	3.0
	Total Unique Vessels	15	16	12	6	6	7	5	4	8.9
Total	Sablefish	143	122	87	76	50	56	51	48	79.1
	Rockfish	258	213	161	77	14	12	7	3	93.1
	Herring	31	29	25	14	6	9	13	9	17.0
	Halibut	396	363	311	224	185	226	195	180	260.0
	Rationalized Crab	39	49	26	22	15	18	9	9	23.4
	Other Shellfish	109	97	128	67	41	37	37	77	74.1
	Salmon	372	337	307	188	148	183	162	176	234.1
	Other GOA Species	414	433	383	316	306	379	335	335	362.6
	BSAI (All Species)	90	76	61	64	63	81	62	64	70.1
	Total Unique Vessels	649	611	516	370	311	383	338	337	439.4

Table A-10b
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(1 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Anchorage	Sablefish	7.7%	0.0%	0.0%	0.0%	0.0%	10.0%	8.3%	0.0%	3.4%
	Rockfish	15.4%	18.8%	20.0%	30.0%	12.5%	10.0%	0.0%	0.0%	13.6%
	Herring	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	0.0%	1.1%
	Halibut	53.8%	37.5%	50.0%	60.0%	37.5%	40.0%	41.7%	33.3%	44.3%
	Rationalized Crab	0.0%	6.3%	20.0%	10.0%	0.0%	0.0%	0.0%	0.0%	4.5%
	Other Shellfish	7.7%	6.3%	20.0%	10.0%	0.0%	10.0%	25.0%	22.2%	12.5%
	Salmon	76.9%	56.3%	40.0%	60.0%	75.0%	50.0%	50.0%	66.7%	59.1%
	Other GOA Species	92.3%	93.8%	100.0%	80.0%	100.0%	100.0%	100.0%	100.0%	95.5%
	BSAI (All Species)	0.0%	0.0%	10.0%	0.0%	0.0%	10.0%	8.3%	11.1%	4.5%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Chignik Lagoon	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%
	Halibut	50.0%	16.7%	37.5%	50.0%	28.6%	22.2%	28.6%	40.0%	31.0%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	25.0%	8.3%	37.5%	50.0%	14.3%	11.1%	0.0%	20.0%	19.0%
	Salmon	50.0%	50.0%	87.5%	83.3%	85.7%	88.9%	85.7%	80.0%	75.9%
	Other GOA Species	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	BSAI (All Species)	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%	0.0%	1.7%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Homer	Sablefish	22.7%	18.5%	12.5%	34.1%	25.0%	22.2%	17.3%	19.2%	21.1%
	Rockfish	9.1%	20.4%	10.4%	19.5%	2.1%	0.0%	0.0%	0.0%	7.6%
	Herring	2.3%	1.9%	4.2%	2.4%	2.1%	2.2%	0.0%	0.0%	1.8%
	Halibut	75.0%	83.3%	81.3%	73.2%	72.9%	73.3%	67.3%	69.2%	74.5%
	Rationalized Crab	0.0%	0.0%	0.0%	2.4%	4.2%	2.2%	1.9%	5.8%	2.1%
	Other Shellfish	0.0%	0.0%	4.2%	7.3%	4.2%	0.0%	0.0%	9.6%	3.1%
	Salmon	81.8%	74.1%	85.4%	78.0%	72.9%	71.1%	69.2%	69.2%	75.0%
	Other GOA Species	95.5%	90.7%	97.9%	92.7%	100.0%	100.0%	100.0%	100.0%	97.1%
	BSAI (All Species)	13.6%	5.6%	2.1%	7.3%	12.5%	13.3%	9.6%	15.4%	9.9%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table A-10b
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(2 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Juneau	Sablefish	41.2%	37.5%	52.9%	57.1%	0.0%	0.0%	33.3%	33.3%	41.8%
	Rockfish	88.2%	81.3%	82.4%	71.4%	0.0%	0.0%	0.0%	0.0%	70.1%
	Herring	11.8%	6.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%
	Halibut	94.1%	87.5%	100.0%	100.0%	0.0%	100.0%	100.0%	66.7%	92.5%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	41.2%	37.5%	47.1%	57.1%	100.0%	100.0%	0.0%	33.3%	44.8%
	Salmon	64.7%	81.3%	58.8%	71.4%	0.0%	33.3%	0.0%	33.3%	61.2%
	Other GOA Species	17.6%	18.8%	17.6%	28.6%	100.0%	100.0%	100.0%	100.0%	31.3%
	BSAI (All Species)	5.9%	0.0%	5.9%	14.3%	100.0%	33.3%	66.7%	66.7%	13.4%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
King Cove	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	7.1%	6.7%	0.0%	0.0%	0.0%	0.0%	1.6%
	Halibut	29.4%	33.3%	35.7%	40.0%	35.7%	44.4%	46.2%	43.8%	38.5%
	Rationalized Crab	5.9%	6.7%	7.1%	13.3%	7.1%	5.6%	0.0%	0.0%	5.7%
	Other Shellfish	0.0%	0.0%	71.4%	60.0%	21.4%	16.7%	46.2%	68.8%	34.4%
	Salmon	82.4%	73.3%	71.4%	80.0%	71.4%	88.9%	84.6%	87.5%	80.3%
	Other GOA Species	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	BSAI (All Species)	5.9%	13.3%	7.1%	6.7%	14.3%	0.0%	0.0%	0.0%	5.7%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Kodiak	Sablefish	15.1%	10.7%	7.4%	8.9%	9.1%	9.5%	9.9%	11.2%	10.3%
	Rockfish	10.8%	12.1%	8.8%	8.1%	4.5%	3.4%	2.7%	0.0%	6.8%
	Herring	5.8%	7.4%	8.1%	4.9%	1.8%	5.2%	9.0%	6.5%	6.2%
	Halibut	55.4%	53.7%	47.3%	51.2%	55.5%	54.3%	46.8%	42.1%	50.9%
	Rationalized Crab	11.5%	14.8%	7.4%	4.9%	4.5%	3.4%	2.7%	0.9%	6.8%
	Other Shellfish	31.7%	27.5%	26.4%	22.8%	21.8%	16.4%	16.2%	24.3%	23.8%
	Salmon	33.8%	34.2%	36.5%	35.8%	32.7%	31.9%	35.1%	41.1%	35.1%
	Other GOA Species	97.1%	98.0%	98.0%	100.0%	100.0%	99.1%	100.0%	100.0%	98.9%
	BSAI (All Species)	18.7%	19.5%	14.2%	13.0%	13.6%	12.9%	9.0%	9.3%	14.2%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-10b
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(3 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Petersburg	Sablefish	50.0%	60.0%	53.8%	50.0%	75.0%	50.0%	60.0%	50.0%	54.8%
	Rockfish	68.8%	80.0%	84.6%	60.0%	25.0%	0.0%	20.0%	0.0%	57.5%
	Herring	18.8%	13.3%	15.4%	20.0%	0.0%	0.0%	0.0%	0.0%	12.3%
	Halibut	81.3%	86.7%	92.3%	70.0%	75.0%	25.0%	100.0%	100.0%	82.2%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	37.5%	53.3%	30.8%	50.0%	25.0%	0.0%	20.0%	0.0%	34.2%
	Salmon	62.5%	66.7%	61.5%	60.0%	50.0%	50.0%	40.0%	33.3%	57.5%
	Other GOA Species	31.3%	20.0%	15.4%	50.0%	75.0%	100.0%	80.0%	100.0%	43.8%
	BSAI (All Species)	18.8%	6.7%	15.4%	20.0%	25.0%	50.0%	40.0%	83.3%	24.7%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Sand Point	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.4%
	Herring	8.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%
	Halibut	44.0%	57.8%	65.0%	55.6%	61.1%	52.6%	53.1%	41.7%	53.1%
	Rationalized Crab	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
	Other Shellfish	0.0%	2.2%	57.5%	5.6%	5.6%	7.9%	6.3%	36.1%	15.9%
	Salmon	78.0%	66.7%	92.5%	94.4%	77.8%	78.9%	78.1%	80.6%	79.8%
	Other GOA Species	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	BSAI (All Species)	12.0%	4.4%	2.5%	0.0%	0.0%	0.0%	3.1%	0.0%	3.6%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Sitka	Sablefish	29.5%	31.5%	20.4%	5.6%	50.0%	50.0%	33.3%	33.3%	27.2%
	Rockfish	98.4%	98.6%	98.0%	94.4%	50.0%	100.0%	33.3%	33.3%	96.4%
	Herring	0.8%	5.5%	2.0%	0.0%	50.0%	0.0%	0.0%	0.0%	2.5%
	Halibut	58.1%	52.1%	40.8%	50.0%	50.0%	50.0%	100.0%	100.0%	53.8%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	17.8%	12.3%	14.3%	16.7%	50.0%	0.0%	0.0%	0.0%	15.4%
	Salmon	81.4%	84.9%	91.8%	83.3%	50.0%	100.0%	33.3%	0.0%	82.8%
	Other GOA Species	2.3%	2.7%	2.0%	5.6%	50.0%	0.0%	66.7%	66.7%	4.3%
	BSAI (All Species)	0.8%	1.4%	2.0%	0.0%	50.0%	0.0%	0.0%	66.7%	2.2%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table A-10b
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(4 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
All Other Alaska	Sablefish	13.3%	18.8%	16.7%	0.0%	16.7%	28.6%	20.0%	0.0%	15.5%
	Rockfish	13.3%	37.5%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	14.1%
	Herring	20.0%	12.5%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	8.5%
	Halibut	46.7%	43.8%	41.7%	50.0%	50.0%	71.4%	20.0%	25.0%	45.1%
	Rationalized Crab	20.0%	6.3%	0.0%	0.0%	16.7%	14.3%	0.0%	25.0%	9.9%
	Other Shellfish	6.7%	12.5%	25.0%	0.0%	0.0%	0.0%	0.0%	25.0%	9.9%
	Salmon	46.7%	25.0%	33.3%	50.0%	50.0%	71.4%	80.0%	75.0%	46.5%
	Other GOA Species	86.7%	75.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	91.5%
	BSAI (All Species)	53.3%	31.3%	33.3%	16.7%	33.3%	42.9%	0.0%	25.0%	33.8%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Alaska Total	Sablefish	19.7%	17.1%	13.5%	17.3%	13.0%	11.5%	12.1%	12.1%	15.1%
	Rockfish	41.6%	34.7%	29.6%	21.3%	4.6%	2.9%	2.1%	0.3%	21.1%
	Herring	5.2%	5.4%	5.3%	4.7%	2.3%	2.9%	4.5%	3.1%	4.4%
	Halibut	60.8%	59.4%	59.9%	60.0%	58.8%	57.6%	56.4%	52.1%	58.5%
	Rationalized Crab	3.3%	5.2%	3.7%	3.7%	3.4%	2.2%	2.1%	1.4%	3.3%
	Other Shellfish	19.3%	17.7%	27.3%	21.0%	14.9%	10.5%	12.5%	23.1%	18.8%
	Salmon	62.1%	60.4%	63.3%	58.0%	51.9%	52.5%	52.6%	56.9%	58.2%
	Other GOA Species	61.5%	70.7%	75.0%	84.7%	98.5%	99.0%	99.3%	99.7%	82.3%
	BSAI (All Species)	9.2%	8.2%	9.2%	10.0%	13.4%	13.1%	11.4%	13.4%	10.5%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Oregon Total	Sablefish	25.0%	23.5%	30.0%	27.3%	50.0%	36.4%	20.0%	14.3%	28.4%
	Rockfish	33.3%	29.4%	50.0%	9.1%	0.0%	9.1%	0.0%	14.3%	21.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	91.7%	82.4%	90.0%	90.9%	75.0%	72.7%	60.0%	28.6%	77.8%
	Rationalized Crab	66.7%	47.1%	10.0%	36.4%	25.0%	27.3%	0.0%	28.6%	34.6%
	Other Shellfish	16.7%	23.5%	20.0%	9.1%	0.0%	9.1%	0.0%	28.6%	14.8%
	Salmon	0.0%	17.6%	20.0%	18.2%	25.0%	27.3%	0.0%	0.0%	14.8%
	Other GOA Species	75.0%	82.4%	50.0%	90.9%	100.0%	100.0%	100.0%	100.0%	85.2%
	BSAI (All Species)	41.7%	29.4%	20.0%	63.6%	62.5%	54.5%	60.0%	57.1%	45.7%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table A-10b
Fishery Participation by Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(5 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Washington Total	Sablefish	39.2%	37.5%	39.7%	39.6%	31.4%	27.5%	35.9%	33.3%	36.2%
	Rockfish	32.9%	36.3%	43.1%	22.6%	5.7%	3.9%	2.6%	2.8%	22.7%
	Herring	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
	Halibut	60.8%	57.5%	62.1%	58.5%	62.9%	62.7%	71.8%	72.2%	62.4%
	Rationalized Crab	12.7%	17.5%	15.5%	13.2%	8.6%	13.7%	7.7%	5.6%	12.8%
	Other Shellfish	1.3%	3.8%	6.9%	5.7%	5.7%	5.9%	2.6%	19.4%	5.6%
	Salmon	35.4%	36.3%	43.1%	17.0%	20.0%	19.6%	15.4%	22.2%	28.3%
	Other GOA Species	73.4%	68.8%	67.2%	86.8%	97.1%	98.0%	97.4%	97.2%	82.4%
	BSAI (All Species)	34.2%	31.3%	25.9%	49.1%	60.0%	60.8%	66.7%	55.6%	44.3%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All Other States Total	Sablefish	13.3%	18.8%	16.7%	0.0%	16.7%	28.6%	20.0%	0.0%	15.5%
	Rockfish	13.3%	37.5%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	14.1%
	Herring	20.0%	12.5%	8.3%	0.0%	0.0%	0.0%	0.0%	0.0%	8.5%
	Halibut	46.7%	43.8%	41.7%	50.0%	50.0%	71.4%	20.0%	25.0%	45.1%
	Rationalized Crab	20.0%	6.3%	0.0%	0.0%	16.7%	14.3%	0.0%	25.0%	9.9%
	Other Shellfish	6.7%	12.5%	25.0%	0.0%	0.0%	0.0%	0.0%	25.0%	9.9%
	Salmon	46.7%	25.0%	33.3%	50.0%	50.0%	71.4%	80.0%	75.0%	46.5%
	Other GOA Species	86.7%	75.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	91.5%
	BSAI (All Species)	53.3%	31.3%	33.3%	16.7%	33.3%	42.9%	0.0%	25.0%	33.8%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	Sablefish	22.0%	20.0%	16.9%	20.5%	16.1%	14.6%	15.1%	14.2%	18.0%
	Rockfish	39.8%	34.9%	31.2%	20.8%	4.5%	3.1%	2.1%	0.9%	21.2%
	Herring	4.8%	4.7%	4.8%	3.8%	1.9%	2.3%	3.8%	2.7%	3.9%
	Halibut	61.0%	59.4%	60.3%	60.5%	59.5%	59.0%	57.7%	53.4%	59.2%
	Rationalized Crab	6.0%	8.0%	5.0%	5.9%	4.8%	4.7%	2.7%	2.7%	5.3%
	Other Shellfish	16.8%	15.9%	24.8%	18.1%	13.2%	9.7%	10.9%	22.8%	16.9%
	Salmon	57.3%	55.2%	59.5%	50.8%	47.6%	47.8%	47.9%	52.2%	53.3%
	Other GOA Species	63.8%	70.9%	74.2%	85.4%	98.4%	99.0%	99.1%	99.4%	82.5%
	BSAI (All Species)	13.9%	12.4%	11.8%	17.3%	20.3%	21.1%	18.3%	19.0%	16.0%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-11a
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(1 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Anchorage	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	1	1	1	0	0	0	0	0	0.4
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	0	0	0	0	0	0	0	0.0
	Salmon	0	0	0	0	0	0	0	0	0.0
	Other GOA Species	0	0	0	0	0	0	0	0	0.0
	BSAI (All Species)	1	1	1	0	0	0	0	0	0.4
	Total Unique Vessels	1	1	1	0	0	0	0	0	0.4
Chignik Lagoon	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	0	0	0	0	0	0	0	0	0.0
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	0	0	0	0	0	0	0	0.0
	Salmon	0	0	0	0	0	0	0	0	0.0
	Other GOA Species	0	0	0	0	0	0	0	0	0.0
	BSAI (All Species)	0	0	0	0	0	0	0	0	0.0
	Total Unique Vessels	0	0	0	0	0	0	0	0	0.0
Homer	Sablefish	2	0	1	0	0	0	0	0	0.4
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	2	0	1	0	0	0	0	0	0.4
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	0	0	0	0	0	0	0	0.0
	Salmon	1	0	0	0	0	0	0	0	0.1
	Other GOA Species	1	0	0	0	0	0	0	0	0.1
	BSAI (All Species)	0	0	0	0	0	0	0	0	0.0
	Total Unique Vessels	2	0	1	1	0	0	0	0	0.5

Table A-11a
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(2 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Juneau	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	0	0	0	0	0	0	0	0	0.0
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	0	0	0	0	0	0	0	0.0
	Salmon	0	0	0	0	0	0	0	0	0.0
	Other GOA Species	0	0	0	0	0	0	0	0	0.0
	BSAI (All Species)	0	0	0	0	0	0	0	0	0.0
	Total Unique Vessels	1	0	0	0	0	0	0	0	0.1
King Cove	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	2	1	2	3	4	4	3	3	2.8
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	0	4	2	1	1	1	3	1.5
	Salmon	1	2	3	3	3	3	4	3	2.8
	Other GOA Species	2	2	4	4	4	4	5	3	3.5
	BSAI (All Species)	0	1	1	0	0	0	0	0	0.3
	Total Unique Vessels	2	2	4	4	4	4	5	3	3.5
Kodiak	Sablefish	2	2	1	0	0	0	0	0	0.6
	Rockfish	1	1	1	0	0	0	0	0	0.4
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	18	15	14	13	12	15	14	15	14.5
	Rationalized Crab	2	2	1	0	0	0	0	0	0.6
	Other Shellfish	0	1	0	2	0	0	0	1	0.5
	Salmon	0	1	0	0	0	0	0	0	0.1
	Other GOA Species	5	3	4	3	1	2	1	1	2.5
	BSAI (All Species)	10	10	6	6	6	7	5	7	7.1
	Total Unique Vessels	20	17	14	13	12	15	14	15	15.0

Table A-11a
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(3 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Petersburg	Sablefish	1	1	1	1	1	1	1	1	1.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	1	1	1	1	1	1	1	1	1.0
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	1	0	1	0	0	0	0	0.3
	Salmon	1	1	1	1	1	1	1	1	1.0
	Other GOA Species	1	1	1	1	1	0	0	1	0.8
	BSAI (All Species)	0	1	1	0	0	1	1	1	0.6
	Total Unique Vessels	1	1	1	1	1	1	1	1	1.0
Sand Point	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	1	1	0	0	0	0	0	0	0.3
	Halibut	9	11	11	11	10	7	12	8	9.9
	Rationalized Crab	1	1	0	0	0	0	0	0	0.3
	Other Shellfish	0	0	10	0	1	0	1	7	2.4
	Salmon	9	7	9	9	9	7	10	8	8.5
	Other GOA Species	10	11	9	9	9	7	9	7	8.9
	BSAI (All Species)	4	2	2	1	1	0	4	0	1.8
	Total Unique Vessels	13	11	11	11	10	8	12	9	10.6
Sitka	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	0	0	0	0	0	0	0	0	0.0
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	0	0	0	0	0	0	0	0.0
	Salmon	0	0	0	0	0	0	0	0	0.0
	Other GOA Species	0	0	0	0	0	0	0	0	0.0
	BSAI (All Species)	0	0	0	0	0	0	0	0	0.0
	Total Unique Vessels	0	0	0	0	0	0	0	0	0.0

Table A-11a
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(4 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
All Other Alaska	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	3	0	1	1	0	1	1	1	1.0
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	0	1	1	0	0	0	1	0.4
	Salmon	2	0	1	1	1	1	1	1	1.0
	Other GOA Species	2	0	0	0	1	1	0	0	0.5
	BSAI (All Species)	1	0	1	1	1	1	0	0	0.6
	Total Unique Vessels	3	0	1	1	1	1	1	1	1.1
Alaska Total	Sablefish	5	3	3	1	1	1	1	1	2.0
	Rockfish	1	1	1	0	0	0	0	0	0.4
	Herring	1	1	0	0	0	0	0	0	0.3
	Halibut	36	29	31	29	27	28	31	28	29.9
	Rationalized Crab	3	3	1	0	0	0	0	0	0.9
	Other Shellfish	0	2	15	6	2	1	2	12	5.0
	Salmon	14	11	14	14	14	12	16	13	13.5
	Other GOA Species	21	17	18	17	16	14	15	12	16.3
	BSAI (All Species)	16	15	12	8	8	9	10	8	10.8
	Total Unique Vessels	43	32	33	31	28	29	33	29	32.3
Oregon Total	Sablefish	0	0	0	0	0	0	0	0	0.0
	Rockfish	0	0	0	1	0	0	0	0	0.1
	Herring	0	0	0	0	0	0	0	0	0.0
	Halibut	20	21	19	18	16	15	14	14	17.1
	Rationalized Crab	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	0	0	0	0	0	0	0	0.0
	Salmon	0	0	0	0	0	0	0	0	0.0
	Other GOA Species	0	0	0	0	0	0	0	0	0.0
	BSAI (All Species)	13	13	12	9	7	7	8	8	9.6
	Total Unique Vessels	20	21	19	18	16	15	14	14	17.1

Table A-11a
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(5 of 5)

Geography	Fishery	Year								Average 2003-2010	
		2003	2004	2005	2006	2007	2008	2009	2010		
Washington Total	Sablefish	2	2	2	2	2	2	2	2	2	2.0
	Rockfish	1	2	1	1	0	0	0	0	0	0.6
	Herring	0	0	1	1	1	1	1	1	1	0.8
	Halibut	31	25	26	24	25	26	29	34	27.5	
	Rationalized Crab	4	6	0	0	0	0	0	0	0	1.3
	Other Shellfish	2	0	5	1	1	0	0	3	1.5	
	Salmon	3	3	6	4	5	5	5	7	4.8	
	Other GOA Species	6	4	3	5	4	4	3	4	4.1	
	BSAI (All Species)	35	32	28	27	33	31	33	29	31.0	
	Total Unique Vessels	46	38	39	37	40	41	40	39	40.0	
All Other States Total	Sablefish	2	1	1	1	1	1	1	1	1	1.1
	Rockfish	0	0	0	0	0	0	0	0	0	0.0
	Herring	0	0	0	0	0	0	0	0	0	0.0
	Halibut	2	1	3	2	2	2	2	2	2	2.0
	Rationalized Crab	0	0	0	0	0	0	0	0	0	0.0
	Other Shellfish	0	1	2	1	0	0	0	0	0	0.5
	Salmon	1	1	1	1	1	1	1	1	1	1.0
	Other GOA Species	1	2	2	0	0	1	1	0	0	0.9
	BSAI (All Species)	3	1	2	3	2	1	0	2	1.8	
	Total Unique Vessels	4	2	3	3	3	2	2	2	2	2.6
Total	Sablefish	9	6	6	4	4	4	4	4	4	5.1
	Rockfish	2	3	2	2	0	0	0	0	0	1.1
	Herring	1	1	1	1	1	1	1	1	1	1.0
	Halibut	89	76	79	73	70	71	76	78	76.5	
	Rationalized Crab	7	9	1	0	0	0	0	0	0	2.1
	Other Shellfish	2	3	22	8	3	1	2	15	7.0	
	Salmon	18	15	21	19	20	18	22	21	19.3	
	Other GOA Species	28	23	23	22	20	19	19	16	21.3	
	BSAI (All Species)	67	61	54	47	50	48	51	47	53.1	
	Total Unique Vessels	113	93	94	89	87	87	89	84	92.0	

Table A-11b
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 percentage of vessels)
(1 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Anchorage	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Salmon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other GOA Species	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	BSAI (All Species)	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Total Unique Vessels	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
Chignik Lagoon	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Salmon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other GOA Species	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	BSAI (All Species)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Unique Vessels	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Homer	Sablefish	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.0%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Salmon	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%
	Other GOA Species	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%
	BSAI (All Species)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Unique Vessels	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

Table A-11b
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 percentage of vessels)
(2 of 5)

Geography	Fishery	Year								Average 2003-2010	
		2003	2004	2005	2006	2007	2008	2009	2010		
Juneau	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Salmon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other GOA Species	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	BSAI (All Species)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Unique Vessels	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
King Cove	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	100.0%	50.0%	50.0%	75.0%	100.0%	100.0%	60.0%	100.0%	78.6%	
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Other Shellfish	0.0%	0.0%	100.0%	50.0%	25.0%	25.0%	20.0%	100.0%	42.9%	
	Salmon	50.0%	100.0%	75.0%	75.0%	75.0%	75.0%	80.0%	100.0%	78.6%	
	Other GOA Species	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	BSAI (All Species)	0.0%	50.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%	
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
Kodiak	Sablefish	10.0%	11.8%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	
	Rockfish	5.0%	5.9%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	Halibut	90.0%	88.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	96.7%	
	Rationalized Crab	10.0%	11.8%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	
	Other Shellfish	0.0%	5.9%	0.0%	15.4%	0.0%	0.0%	0.0%	6.7%	3.3%	
	Salmon	0.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	
	Other GOA Species	25.0%	17.6%	28.6%	23.1%	8.3%	13.3%	7.1%	6.7%	16.7%	
	BSAI (All Species)	50.0%	58.8%	42.9%	46.2%	50.0%	46.7%	35.7%	46.7%	47.5%	
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

Table A-11b
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 percentage of vessels)
(3 of 5)

Geography	Fishery	Year								Average 2003-2010	
		2003	2004	2005	2006	2007	2008	2009	2010		
Petersburg	Sablefish	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%
	Salmon	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Other GOA Species	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	75.0%
	BSAI (All Species)	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	62.5%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Sand Point	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	7.7%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%
	Halibut	69.2%	100.0%	100.0%	100.0%	100.0%	87.5%	100.0%	88.9%	88.9%	92.9%
	Rationalized Crab	7.7%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%
	Other Shellfish	0.0%	0.0%	90.9%	0.0%	10.0%	0.0%	8.3%	77.8%	77.8%	22.4%
	Salmon	69.2%	63.6%	81.8%	81.8%	90.0%	87.5%	83.3%	88.9%	88.9%	80.0%
	Other GOA Species	76.9%	100.0%	81.8%	81.8%	90.0%	87.5%	75.0%	77.8%	77.8%	83.5%
	BSAI (All Species)	30.8%	18.2%	18.2%	9.1%	10.0%	0.0%	33.3%	0.0%	0.0%	16.5%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Sitka	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Salmon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other GOA Species	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	BSAI (All Species)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Unique Vessels	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Table A-11b
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 percentage of vessels)
(4 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
All Other Alaska	Sablefish	50.0%	50.0%	33.3%	33.3%	33.3%	50.0%	50.0%	50.0%	42.9%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	50.0%	50.0%	100.0%	66.7%	66.7%	100.0%	100.0%	100.0%	76.2%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	0.0%	50.0%	66.7%	33.3%	0.0%	0.0%	0.0%	0.0%	19.0%
	Salmon	25.0%	50.0%	33.3%	33.3%	33.3%	50.0%	50.0%	50.0%	38.1%
	Other GOA Species	25.0%	100.0%	66.7%	0.0%	0.0%	50.0%	50.0%	0.0%	33.3%
	BSAI (All Species)	75.0%	50.0%	66.7%	100.0%	66.7%	50.0%	0.0%	100.0%	66.7%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Alaska Total	Sablefish	11.6%	9.4%	9.1%	3.2%	3.6%	3.4%	3.0%	3.4%	6.2%
	Rockfish	2.3%	3.1%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%
	Herring	2.3%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Halibut	83.7%	90.6%	93.9%	93.5%	96.4%	96.6%	93.9%	96.6%	92.6%
	Rationalized Crab	7.0%	9.4%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%
	Other Shellfish	0.0%	6.3%	45.5%	19.4%	7.1%	3.4%	6.1%	41.4%	15.5%
	Salmon	32.6%	34.4%	42.4%	45.2%	50.0%	41.4%	48.5%	44.8%	41.9%
	Other GOA Species	48.8%	53.1%	54.5%	54.8%	57.1%	48.3%	45.5%	41.4%	50.4%
	BSAI (All Species)	37.2%	46.9%	36.4%	25.8%	28.6%	31.0%	30.3%	27.6%	33.3%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Oregon Total	Sablefish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rockfish	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.0%	0.7%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Salmon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other GOA Species	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	BSAI (All Species)	65.0%	61.9%	63.2%	50.0%	43.8%	46.7%	57.1%	57.1%	56.2%
Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table A-11b
Fishery Participation by Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 percentage of vessels)
(5 of 5)

Geography	Fishery	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Washington Total	Sablefish	4.3%	5.3%	5.1%	5.4%	5.0%	4.9%	5.0%	5.1%	5.0%
	Rockfish	2.2%	5.3%	2.6%	2.7%	0.0%	0.0%	0.0%	0.0%	1.6%
	Herring	0.0%	0.0%	2.6%	2.7%	2.5%	2.4%	2.5%	2.6%	1.9%
	Halibut	67.4%	65.8%	66.7%	64.9%	62.5%	63.4%	72.5%	87.2%	68.8%
	Rationalized Crab	8.7%	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%
	Other Shellfish	4.3%	0.0%	12.8%	2.7%	2.5%	0.0%	0.0%	7.7%	3.8%
	Salmon	6.5%	7.9%	15.4%	10.8%	12.5%	12.2%	12.5%	17.9%	11.9%
	Other GOA Species	13.0%	10.5%	7.7%	13.5%	10.0%	9.8%	7.5%	10.3%	10.3%
	BSAI (All Species)	76.1%	84.2%	71.8%	73.0%	82.5%	75.6%	82.5%	74.4%	77.5%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All Other States Total	Sablefish	50.0%	50.0%	33.3%	33.3%	33.3%	50.0%	50.0%	50.0%	42.9%
	Rockfish	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Herring	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Halibut	50.0%	50.0%	100.0%	66.7%	66.7%	100.0%	100.0%	100.0%	76.2%
	Rationalized Crab	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Other Shellfish	0.0%	50.0%	66.7%	33.3%	0.0%	0.0%	0.0%	0.0%	19.0%
	Salmon	25.0%	50.0%	33.3%	33.3%	33.3%	50.0%	50.0%	50.0%	38.1%
	Other GOA Species	25.0%	100.0%	66.7%	0.0%	0.0%	50.0%	50.0%	0.0%	33.3%
	BSAI (All Species)	75.0%	50.0%	66.7%	100.0%	66.7%	50.0%	0.0%	100.0%	66.7%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total	Sablefish	8.0%	6.5%	6.4%	4.5%	4.6%	4.6%	4.5%	4.8%	5.6%
	Rockfish	1.8%	3.2%	2.1%	2.2%	0.0%	0.0%	0.0%	0.0%	1.2%
	Herring	0.9%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.2%	1.1%
	Halibut	78.8%	81.7%	84.0%	82.0%	80.5%	81.6%	85.4%	92.9%	83.2%
	Rationalized Crab	6.2%	9.7%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%
	Other Shellfish	1.8%	3.2%	23.4%	9.0%	3.4%	1.1%	2.2%	17.9%	7.6%
	Salmon	15.9%	16.1%	22.3%	21.3%	23.0%	20.7%	24.7%	25.0%	20.9%
	Other GOA Species	24.8%	24.7%	24.5%	24.7%	23.0%	21.8%	21.3%	19.0%	23.1%
	BSAI (All Species)	59.3%	65.6%	57.4%	52.8%	57.5%	55.2%	57.3%	56.0%	57.7%
	Total Unique Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-12a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(1 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Anchorage	January	2	4	5	3	2	3	5	3	3.4
	February	2	4	6	4	2	5	5	4	4.0
	March	6	11	6	5	4	4	7	4	5.9
	April	6	9	6	6	3	5	3	3	5.1
	May	6	4	1	5	3	3	1	3	3.3
	June	0	1	0	3	3	3	0	0	1.3
	July	1	2	1	2	2	2	0	0	1.3
	August	3	2	1	1	1	1	0	0	1.1
	September	2	4	3	1	2	2	0	4	2.3
	October	0	2	2	2	2	2	1	4	1.9
	November	0	2	1	2	1	1	1	0	1.0
	December	0	0	1	1	1	0	1	0	0.5
	Total Individual Vessels		13	16	10	10	8	10	12	9	11.0
Chignik Lagoon	January	0	1	0	0	0	1	1	1	0.5
	February	1	1	1	1	1	1	1	1	1.0
	March	4	7	4	4	5	7	5	5	5.1
	April	4	9	8	5	7	8	6	5	6.5
	May	0	11	7	5	7	1	0	0	3.9
	June	0	0	0	0	0	1	0	0	0.1
	July	0	0	0	0	0	0	0	0	0.0
	August	0	0	0	0	0	0	0	0	0.0
	September	0	0	0	0	0	0	0	0	0.0
	October	0	0	0	0	0	0	0	0	0.0
	November	0	0	0	0	0	0	1	0	0.1
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels		4	12	8	6	7	9	7	5	7.3

Table A-12a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(2 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Homer	January	30	28	27	21	30	29	42	38	30.6
	February	31	11	9	22	35	28	17	26	22.4
	March	16	17	13	5	17	19	28	17	16.5
	April	18	11	10	4	8	11	14	14	11.3
	May	12	9	5	3	4	3	10	12	7.3
	June	4	5	2	3	3	1	1	1	2.5
	July	2	5	3	2	1	1	0	0	1.8
	August	2	4	2	2	0	1	1	0	1.5
	September	17	16	18	20	20	24	26	17	19.8
	October	2	15	8	10	9	8	17	6	9.4
	November	1	5	0	7	10	3	5	2	4.1
	December	0	4	9	23	20	5	3	5	8.6
	Total Individual Vessels	44	54	48	41	48	45	52	52	48.0
Juneau	January	1	0	0	0	0	0	3	2	0.8
	February	0	2	2	1	1	1	3	3	1.6
	March	2	4	2	3	1	2	1	1	2.0
	April	7	2	1	4	1	1	1	0	2.1
	May	5	5	4	1	0	0	0	0	1.9
	June	4	5	7	0	0	0	0	0	2.0
	July	3	6	1	1	0	0	0	0	1.4
	August	2	1	4	0	0	0	0	0	0.9
	September	0	0	4	0	0	1	0	1	0.8
	October	0	2	3	0	0	1	1	1	1.0
	November	0	0	0	0	0	1	0	0	0.1
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels	17	16	17	7	1	3	3	3	8.4

Table A-12a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(3 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
King Cove	January	7	14	3	4	10	7	3	6	6.8
	February	8	13	11	10	11	5	4	10	9.0
	March	13	13	11	12	13	12	11	11	12.0
	April	8	3	5	12	10	8	9	3	7.3
	May	0	0	0	1	0	1	0	2	0.5
	June	0	0	0	0	0	1	0	0	0.1
	July	0	0	0	0	0	6	0	0	0.8
	August	0	0	0	0	0	4	0	0	0.5
	September	10	2	3	2	5	2	3	11	4.8
	October	0	0	2	0	4	2	2	9	2.4
	November	0	0	0	1	0	1	0	0	0.3
	December	0	0	0	1	0	0	0	0	0.1
	Total Individual Vessels	17	15	14	15	14	18	13	16	15.3
Kodiak	January	29	53	61	52	46	56	51	49	49.6
	February	55	85	82	55	58	59	55	43	61.5
	March	77	79	52	60	58	60	31	28	55.6
	April	64	77	85	62	61	47	40	50	60.8
	May	68	19	10	35	30	37	53	54	38.3
	June	6	9	5	18	25	24	26	10	15.4
	July	4	6	5	11	13	17	7	2	8.1
	August	5	8	2	1	5	9	5	1	4.5
	September	20	30	34	19	20	23	22	36	25.5
	October	3	26	23	15	21	25	20	4	17.1
	November	1	14	13	18	21	21	5	2	11.9
	December	0	1	16	21	23	0	0	0	7.6
	Total Individual Vessels	139	149	148	123	110	116	111	107	125.4

Table A-12a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(4 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Petersburg	January	2	1	0	0	1	0	1	0	0.6
	February	0	0	0	1	2	3	4	4	1.8
	March	3	2	3	4	3	3	1	1	2.5
	April	2	3	5	4	2	1	1	0	2.3
	May	3	5	0	2	0	0	0	0	1.3
	June	2	0	0	2	1	0	0	0	0.6
	July	1	3	3	0	0	1	0	0	1.0
	August	2	1	3	0	0	0	1	0	0.9
	September	3	2	2	1	1	0	0	2	1.4
	October	0	1	2	1	1	0	0	4	1.1
	November	0	1	1	1	1	0	0	0	0.5
	December	0	0	0	1	1	0	0	0	0.3
	Total Individual Vessels	16	15	13	10	4	4	5	6	9.1
Sand Point	January	16	27	6	10	7	6	11	9	11.5
	February	17	31	22	11	8	8	6	14	14.6
	March	35	33	34	17	13	14	13	23	22.8
	April	33	26	23	17	13	12	16	18	19.8
	May	1	5	7	3	6	10	14	19	8.1
	June	0	1	0	0	3	18	6	0	3.5
	July	2	0	0	0	1	16	5	0	3.0
	August	1	0	0	0	0	7	2	0	1.3
	September	11	3	1	1	0	3	5	21	5.6
	October	0	3	4	4	5	1	10	19	5.8
	November	0	2	3	4	3	2	9	0	2.9
	December	0	0	0	1	2	0	0	0	0.4
	Total Individual Vessels	50	45	40	18	18	38	32	36	34.6

Table A-12a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(5 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Sitka	January	16	16	4	1	1	0	1	2	5.1
	February	12	4	1	1	1	0	0	0	2.4
	March	27	15	8	7	1	1	0	0	7.4
	April	38	16	14	9	2	0	1	0	10.0
	May	44	16	9	4	1	1	0	1	9.5
	June	39	9	6	1	0	0	0	0	6.9
	July	47	33	20	3	0	0	0	0	12.9
	August	41	17	14	1	0	0	0	0	9.1
	September	6	3	6	1	0	0	1	0	2.1
	October	11	11	6	1	0	0	0	0	3.6
	November	23	2	2	2	0	0	0	0	3.6
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels		129	73	49	18	2	2	3	3	34.9
All Other Alaska	January	21	26	22	15	20	21	25	26	22.0
	February	27	22	19	18	22	28	20	24	22.5
	March	32	32	22	18	17	23	23	19	23.3
	April	41	33	28	17	11	22	20	15	23.4
	May	31	29	18	10	13	19	16	15	18.9
	June	17	9	12	10	4	7	4	4	8.4
	July	17	14	12	3	1	6	1	0	6.8
	August	20	6	5	2	0	9	3	0	5.6
	September	15	15	14	11	11	21	16	14	14.6
	October	3	9	7	5	9	14	13	5	8.1
	November	3	5	3	5	6	4	0	1	3.4
	December	0	2	7	8	12	1	0	1	3.9
	Total Individual Vessels		114	103	89	52	50	69	51	53	72.6

Table A-12a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(6 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Alaska Total	January	124	170	128	106	117	123	143	136	130.9
	February	153	173	153	124	141	138	115	129	140.8
	March	215	213	155	135	132	145	120	109	153.0
	April	221	189	185	140	118	115	111	108	148.4
	May	170	103	61	69	64	75	94	106	92.8
	June	72	39	32	37	39	55	37	15	40.8
	July	77	69	45	22	18	49	13	2	36.9
	August	76	39	31	7	6	31	12	1	25.4
	September	84	75	85	56	59	76	73	106	76.8
	October	19	69	57	38	51	53	64	52	50.4
	November	28	31	23	40	42	33	21	5	27.9
	December	0	7	33	56	59	6	4	6	21.4
	Total Individual Vessels		543	498	436	300	262	314	289	290	366.5
Oregon Total	January	1	4	3	3	2	7	2	3	3.1
	February	2	6	4	7	4	5	2	5	4.4
	March	7	2	1	7	4	3	2	3	3.6
	April	3	2	0	3	2	1	4	2	2.1
	May	1	2	2	0	0	0	3	3	1.4
	June	1	1	2	0	0	1	2	1	1.0
	July	0	1	1	1	0	0	2	0	0.6
	August	4	0	1	0	0	0	2	0	0.9
	September	4	5	4	4	3	5	3	3	3.9
	October	0	0	2	3	3	4	3	3	2.3
	November	0	0	2	2	3	2	3	0	1.5
	December	0	0	2	2	5	0	1	0	1.3
	Total Individual Vessels		12	17	10	11	8	11	5	7	10.1

Table A-12a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(7 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Washington Total	January	11	22	10	10	7	19	15	11	13.1
	February	18	16	16	20	22	31	24	21	21.0
	March	16	23	19	22	16	26	9	10	17.6
	April	22	22	18	14	9	14	9	6	14.3
	May	15	10	5	11	2	4	5	6	7.3
	June	12	11	6	7	2	4	1	0	5.4
	July	11	11	8	2	0	2	0	0	4.3
	August	14	4	5	0	1	1	2	1	3.5
	September	17	12	13	4	3	10	4	16	9.9
	October	1	10	5	13	8	8	10	6	7.6
	November	2	1	2	13	5	3	5	0	3.9
	December	0	0	2	1	7	0	0	0	1.3
	Total Individual Vessels		79	80	58	53	35	51	39	36	53.9
All Other States Total	January	1	5	3	2	3	3	1	1	2.4
	February	2	5	4	1	4	2	2	1	2.6
	March	2	5	5	3	2	1	4	0	2.8
	April	4	5	8	3	2	2	3	1	3.5
	May	2	3	1	4	3	3	3	1	2.5
	June	1	1	1	3	2	3	3	0	1.8
	July	2	2	1	2	1	0	0	0	1.0
	August	3	2	0	0	0	2	0	0	0.9
	September	3	3	2	1	3	3	0	2	2.1
	October	0	1	1	0	2	2	0	0	0.8
	November	0	0	0	1	1	0	0	0	0.3
	December	0	0	0	0	1	0	0	0	0.1
	Total Individual Vessels		15	16	12	6	6	7	5	4	8.9

Table A-12a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(8 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Total	January	137	201	144	121	129	152	161	151	149.5
	February	175	200	177	152	171	176	143	156	168.8
	March	240	243	180	167	154	175	135	122	177.0
	April	250	218	211	160	131	132	127	117	168.3
	May	188	118	69	84	69	82	105	116	103.9
	June	86	52	41	47	43	63	43	16	48.9
	July	90	83	55	27	19	51	15	2	42.8
	August	97	45	37	7	7	34	16	2	30.6
	September	108	95	104	65	68	94	80	127	92.6
	October	20	80	65	54	64	67	77	61	61.0
	November	30	32	27	56	51	38	29	5	33.5
	December	0	7	37	59	72	6	5	6	24.0
	Total Individual Vessels		649	611	516	370	311	383	338	337	439.4

Table A-12b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(1 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Anchorage	January	15.4%	25.0%	50.0%	30.0%	25.0%	30.0%	41.7%	33.3%	30.7%
	February	15.4%	25.0%	60.0%	40.0%	25.0%	50.0%	41.7%	44.4%	36.4%
	March	46.2%	68.8%	60.0%	50.0%	50.0%	40.0%	58.3%	44.4%	53.4%
	April	46.2%	56.3%	60.0%	60.0%	37.5%	50.0%	25.0%	33.3%	46.6%
	May	46.2%	25.0%	10.0%	50.0%	37.5%	30.0%	8.3%	33.3%	29.5%
	June	0.0%	6.3%	0.0%	30.0%	37.5%	30.0%	0.0%	0.0%	11.4%
	July	7.7%	12.5%	10.0%	20.0%	25.0%	20.0%	0.0%	0.0%	11.4%
	August	23.1%	12.5%	10.0%	10.0%	12.5%	10.0%	0.0%	0.0%	10.2%
	September	15.4%	25.0%	30.0%	10.0%	25.0%	20.0%	0.0%	44.4%	20.5%
	October	0.0%	12.5%	20.0%	20.0%	25.0%	20.0%	8.3%	44.4%	17.0%
	November	0.0%	12.5%	10.0%	20.0%	12.5%	10.0%	8.3%	0.0%	9.1%
	December	0.0%	0.0%	10.0%	10.0%	12.5%	0.0%	8.3%	0.0%	4.5%
	Total Individual Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Chignik Lagoon	January	0.0%	8.3%	0.0%	0.0%	0.0%	11.1%	14.3%	20.0%	6.9%
	February	25.0%	8.3%	12.5%	16.7%	14.3%	11.1%	14.3%	20.0%	13.8%
	March	100.0%	58.3%	50.0%	66.7%	71.4%	77.8%	71.4%	100.0%	70.7%
	April	100.0%	75.0%	100.0%	83.3%	100.0%	88.9%	85.7%	100.0%	89.7%
	May	0.0%	91.7%	87.5%	83.3%	100.0%	11.1%	0.0%	0.0%	53.4%
	June	0.0%	0.0%	0.0%	0.0%	0.0%	11.1%	0.0%	0.0%	1.7%
	July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	August	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	September	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	October	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	November	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	0.0%	1.7%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Individual Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-12b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(2 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Homer	January	68.2%	51.9%	56.3%	51.2%	62.5%	64.4%	80.8%	73.1%	63.8%
	February	70.5%	20.4%	18.8%	53.7%	72.9%	62.2%	32.7%	50.0%	46.6%
	March	36.4%	31.5%	27.1%	12.2%	35.4%	42.2%	53.8%	32.7%	34.4%
	April	40.9%	20.4%	20.8%	9.8%	16.7%	24.4%	26.9%	26.9%	23.4%
	May	27.3%	16.7%	10.4%	7.3%	8.3%	6.7%	19.2%	23.1%	15.1%
	June	9.1%	9.3%	4.2%	7.3%	6.3%	2.2%	1.9%	1.9%	5.2%
	July	4.5%	9.3%	6.3%	4.9%	2.1%	2.2%	0.0%	0.0%	3.6%
	August	4.5%	7.4%	4.2%	4.9%	0.0%	2.2%	1.9%	0.0%	3.1%
	September	38.6%	29.6%	37.5%	48.8%	41.7%	53.3%	50.0%	32.7%	41.1%
	October	4.5%	27.8%	16.7%	24.4%	18.8%	17.8%	32.7%	11.5%	19.5%
	November	2.3%	9.3%	0.0%	17.1%	20.8%	6.7%	9.6%	3.8%	8.6%
	December	0.0%	7.4%	18.8%	56.1%	41.7%	11.1%	5.8%	9.6%	18.0%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Juneau	January	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	66.7%	9.0%
	February	0.0%	12.5%	11.8%	14.3%	100.0%	33.3%	100.0%	100.0%	19.4%
	March	11.8%	25.0%	11.8%	42.9%	100.0%	66.7%	33.3%	33.3%	23.9%
	April	41.2%	12.5%	5.9%	57.1%	100.0%	33.3%	33.3%	0.0%	25.4%
	May	29.4%	31.3%	23.5%	14.3%	0.0%	0.0%	0.0%	0.0%	22.4%
	June	23.5%	31.3%	41.2%	0.0%	0.0%	0.0%	0.0%	0.0%	23.9%
	July	17.6%	37.5%	5.9%	14.3%	0.0%	0.0%	0.0%	0.0%	16.4%
	August	11.8%	6.3%	23.5%	0.0%	0.0%	0.0%	0.0%	0.0%	10.4%
	September	0.0%	0.0%	23.5%	0.0%	0.0%	33.3%	0.0%	33.3%	9.0%
	October	0.0%	12.5%	17.6%	0.0%	0.0%	33.3%	33.3%	33.3%	11.9%
	November	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	1.5%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-12b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(3 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
King Cove	January	41.2%	93.3%	21.4%	26.7%	71.4%	38.9%	23.1%	37.5%	44.3%
	February	47.1%	86.7%	78.6%	66.7%	78.6%	27.8%	30.8%	62.5%	59.0%
	March	76.5%	86.7%	78.6%	80.0%	92.9%	66.7%	84.6%	68.8%	78.7%
	April	47.1%	20.0%	35.7%	80.0%	71.4%	44.4%	69.2%	18.8%	47.5%
	May	0.0%	0.0%	0.0%	6.7%	0.0%	5.6%	0.0%	12.5%	3.3%
	June	0.0%	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.8%
	July	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	4.9%
	August	0.0%	0.0%	0.0%	0.0%	0.0%	22.2%	0.0%	0.0%	3.3%
	September	58.8%	13.3%	21.4%	13.3%	35.7%	11.1%	23.1%	68.8%	31.1%
	October	0.0%	0.0%	14.3%	0.0%	28.6%	11.1%	15.4%	56.3%	15.6%
	November	0.0%	0.0%	0.0%	6.7%	0.0%	5.6%	0.0%	0.0%	1.6%
	December	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	0.0%	0.0%	0.8%
Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Kodiak	January	20.9%	35.6%	41.2%	42.3%	41.8%	48.3%	45.9%	45.8%	39.6%
	February	39.6%	57.0%	55.4%	44.7%	52.7%	50.9%	49.5%	40.2%	49.1%
	March	55.4%	53.0%	35.1%	48.8%	52.7%	51.7%	27.9%	26.2%	44.4%
	April	46.0%	51.7%	57.4%	50.4%	55.5%	40.5%	36.0%	46.7%	48.5%
	May	48.9%	12.8%	6.8%	28.5%	27.3%	31.9%	47.7%	50.5%	30.5%
	June	4.3%	6.0%	3.4%	14.6%	22.7%	20.7%	23.4%	9.3%	12.3%
	July	2.9%	4.0%	3.4%	8.9%	11.8%	14.7%	6.3%	1.9%	6.5%
	August	3.6%	5.4%	1.4%	0.8%	4.5%	7.8%	4.5%	0.9%	3.6%
	September	14.4%	20.1%	23.0%	15.4%	18.2%	19.8%	19.8%	33.6%	20.3%
	October	2.2%	17.4%	15.5%	12.2%	19.1%	21.6%	18.0%	3.7%	13.7%
	November	0.7%	9.4%	8.8%	14.6%	19.1%	18.1%	4.5%	1.9%	9.5%
	December	0.0%	0.7%	10.8%	17.1%	20.9%	0.0%	0.0%	0.0%	6.1%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-12b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(4 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Petersburg	January	12.5%	6.7%	0.0%	0.0%	25.0%	0.0%	20.0%	0.0%	6.8%
	February	0.0%	0.0%	0.0%	10.0%	50.0%	75.0%	80.0%	66.7%	19.2%
	March	18.8%	13.3%	23.1%	40.0%	75.0%	75.0%	20.0%	16.7%	27.4%
	April	12.5%	20.0%	38.5%	40.0%	50.0%	25.0%	20.0%	0.0%	24.7%
	May	18.8%	33.3%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	13.7%
	June	12.5%	0.0%	0.0%	20.0%	25.0%	0.0%	0.0%	0.0%	6.8%
	July	6.3%	20.0%	23.1%	0.0%	0.0%	25.0%	0.0%	0.0%	11.0%
	August	12.5%	6.7%	23.1%	0.0%	0.0%	0.0%	20.0%	0.0%	9.6%
	September	18.8%	13.3%	15.4%	10.0%	25.0%	0.0%	0.0%	33.3%	15.1%
	October	0.0%	6.7%	15.4%	10.0%	25.0%	0.0%	0.0%	66.7%	12.3%
	November	0.0%	6.7%	7.7%	10.0%	25.0%	0.0%	0.0%	0.0%	5.5%
	December	0.0%	0.0%	0.0%	10.0%	25.0%	0.0%	0.0%	0.0%	2.7%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Sand Point	January	32.0%	60.0%	15.0%	55.6%	38.9%	15.8%	34.4%	25.0%	33.2%
	February	34.0%	68.9%	55.0%	61.1%	44.4%	21.1%	18.8%	38.9%	42.2%
	March	70.0%	73.3%	85.0%	94.4%	72.2%	36.8%	40.6%	63.9%	65.7%
	April	66.0%	57.8%	57.5%	94.4%	72.2%	31.6%	50.0%	50.0%	57.0%
	May	2.0%	11.1%	17.5%	16.7%	33.3%	26.3%	43.8%	52.8%	23.5%
	June	0.0%	2.2%	0.0%	0.0%	16.7%	47.4%	18.8%	0.0%	10.1%
	July	4.0%	0.0%	0.0%	0.0%	5.6%	42.1%	15.6%	0.0%	8.7%
	August	2.0%	0.0%	0.0%	0.0%	0.0%	18.4%	6.3%	0.0%	3.6%
	September	22.0%	6.7%	2.5%	5.6%	0.0%	7.9%	15.6%	58.3%	16.2%
	October	0.0%	6.7%	10.0%	22.2%	27.8%	2.6%	31.3%	52.8%	16.6%
	November	0.0%	4.4%	7.5%	22.2%	16.7%	5.3%	28.1%	0.0%	8.3%
	December	0.0%	0.0%	0.0%	5.6%	11.1%	0.0%	0.0%	0.0%	1.1%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-12b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(5 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Sitka	January	12.4%	21.9%	8.2%	5.6%	50.0%	0.0%	33.3%	66.7%	14.7%
	February	9.3%	5.5%	2.0%	5.6%	50.0%	0.0%	0.0%	0.0%	6.8%
	March	20.9%	20.5%	16.3%	38.9%	50.0%	50.0%	0.0%	0.0%	21.1%
	April	29.5%	21.9%	28.6%	50.0%	100.0%	0.0%	33.3%	0.0%	28.7%
	May	34.1%	21.9%	18.4%	22.2%	50.0%	50.0%	0.0%	33.3%	27.2%
	June	30.2%	12.3%	12.2%	5.6%	0.0%	0.0%	0.0%	0.0%	19.7%
	July	36.4%	45.2%	40.8%	16.7%	0.0%	0.0%	0.0%	0.0%	36.9%
	August	31.8%	23.3%	28.6%	5.6%	0.0%	0.0%	0.0%	0.0%	26.2%
	September	4.7%	4.1%	12.2%	5.6%	0.0%	0.0%	33.3%	0.0%	6.1%
	October	8.5%	15.1%	12.2%	5.6%	0.0%	0.0%	0.0%	0.0%	10.4%
	November	17.8%	2.7%	4.1%	11.1%	0.0%	0.0%	0.0%	0.0%	10.4%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Individual Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All Other Alaska	January	18.4%	25.2%	24.7%	28.8%	40.0%	30.4%	49.0%	49.1%	30.3%
	February	23.7%	21.4%	21.3%	34.6%	44.0%	40.6%	39.2%	45.3%	31.0%
	March	28.1%	31.1%	24.7%	34.6%	34.0%	33.3%	45.1%	35.8%	32.0%
	April	36.0%	32.0%	31.5%	32.7%	22.0%	31.9%	39.2%	28.3%	32.2%
	May	27.2%	28.2%	20.2%	19.2%	26.0%	27.5%	31.4%	28.3%	26.0%
	June	14.9%	8.7%	13.5%	19.2%	8.0%	10.1%	7.8%	7.5%	11.5%
	July	14.9%	13.6%	13.5%	5.8%	2.0%	8.7%	2.0%	0.0%	9.3%
	August	17.5%	5.8%	5.6%	3.8%	0.0%	13.0%	5.9%	0.0%	7.7%
	September	13.2%	14.6%	15.7%	21.2%	22.0%	30.4%	31.4%	26.4%	20.1%
	October	2.6%	8.7%	7.9%	9.6%	18.0%	20.3%	25.5%	9.4%	11.2%
	November	2.6%	4.9%	3.4%	9.6%	12.0%	5.8%	0.0%	1.9%	4.6%
	December	0.0%	1.9%	7.9%	15.4%	24.0%	1.4%	0.0%	1.9%	5.3%
		Total Individual Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-12b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(6 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Alaska Total	January	22.8%	34.1%	29.4%	35.3%	44.7%	39.2%	49.5%	46.9%	35.7%
	February	28.2%	34.7%	35.1%	41.3%	53.8%	43.9%	39.8%	44.5%	38.4%
	March	39.6%	42.8%	35.6%	45.0%	50.4%	46.2%	41.5%	37.6%	41.7%
	April	40.7%	38.0%	42.4%	46.7%	45.0%	36.6%	38.4%	37.2%	40.5%
	May	31.3%	20.7%	14.0%	23.0%	24.4%	23.9%	32.5%	36.6%	25.3%
	June	13.3%	7.8%	7.3%	12.3%	14.9%	17.5%	12.8%	5.2%	11.1%
	July	14.2%	13.9%	10.3%	7.3%	6.9%	15.6%	4.5%	0.7%	10.1%
	August	14.0%	7.8%	7.1%	2.3%	2.3%	9.9%	4.2%	0.3%	6.9%
	September	15.5%	15.1%	19.5%	18.7%	22.5%	24.2%	25.3%	36.6%	20.9%
	October	3.5%	13.9%	13.1%	12.7%	19.5%	16.9%	22.1%	17.9%	13.7%
	November	5.2%	6.2%	5.3%	13.3%	16.0%	10.5%	7.3%	1.7%	7.6%
	December	0.0%	1.4%	7.6%	18.7%	22.5%	1.9%	1.4%	2.1%	5.8%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oregon Total	January	8.3%	23.5%	30.0%	27.3%	25.0%	63.6%	40.0%	42.9%	30.9%
	February	16.7%	35.3%	40.0%	63.6%	50.0%	45.5%	40.0%	71.4%	43.2%
	March	58.3%	11.8%	10.0%	63.6%	50.0%	27.3%	40.0%	42.9%	35.8%
	April	25.0%	11.8%	0.0%	27.3%	25.0%	9.1%	80.0%	28.6%	21.0%
	May	8.3%	11.8%	20.0%	0.0%	0.0%	0.0%	60.0%	42.9%	13.6%
	June	8.3%	5.9%	20.0%	0.0%	0.0%	9.1%	40.0%	14.3%	9.9%
	July	0.0%	5.9%	10.0%	9.1%	0.0%	0.0%	40.0%	0.0%	6.2%
	August	33.3%	0.0%	10.0%	0.0%	0.0%	0.0%	40.0%	0.0%	8.6%
	September	33.3%	29.4%	40.0%	36.4%	37.5%	45.5%	60.0%	42.9%	38.3%
	October	0.0%	0.0%	20.0%	27.3%	37.5%	36.4%	60.0%	42.9%	22.2%
	November	0.0%	0.0%	20.0%	18.2%	37.5%	18.2%	60.0%	0.0%	14.8%
	December	0.0%	0.0%	20.0%	18.2%	62.5%	0.0%	20.0%	0.0%	12.3%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-12b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(7 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Washington Total	January	13.9%	27.5%	17.2%	18.9%	20.0%	37.3%	38.5%	30.6%	24.4%
	February	22.8%	20.0%	27.6%	37.7%	62.9%	60.8%	61.5%	58.3%	39.0%
	March	20.3%	28.8%	32.8%	41.5%	45.7%	51.0%	23.1%	27.8%	32.7%
	April	27.8%	27.5%	31.0%	26.4%	25.7%	27.5%	23.1%	16.7%	26.5%
	May	19.0%	12.5%	8.6%	20.8%	5.7%	7.8%	12.8%	16.7%	13.5%
	June	15.2%	13.8%	10.3%	13.2%	5.7%	7.8%	2.6%	0.0%	10.0%
	July	13.9%	13.8%	13.8%	3.8%	0.0%	3.9%	0.0%	0.0%	7.9%
	August	17.7%	5.0%	8.6%	0.0%	2.9%	2.0%	5.1%	2.8%	6.5%
	September	21.5%	15.0%	22.4%	7.5%	8.6%	19.6%	10.3%	44.4%	18.3%
	October	1.3%	12.5%	8.6%	24.5%	22.9%	15.7%	25.6%	16.7%	14.2%
	November	2.5%	1.3%	3.4%	24.5%	14.3%	5.9%	12.8%	0.0%	7.2%
	December	0.0%	0.0%	3.4%	1.9%	20.0%	0.0%	0.0%	0.0%	2.3%
Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All Other States Total	January	6.7%	31.3%	25.0%	33.3%	50.0%	42.9%	20.0%	25.0%	26.8%
	February	13.3%	31.3%	33.3%	16.7%	66.7%	28.6%	40.0%	25.0%	29.6%
	March	13.3%	31.3%	41.7%	50.0%	33.3%	14.3%	80.0%	0.0%	31.0%
	April	26.7%	31.3%	66.7%	50.0%	33.3%	28.6%	60.0%	25.0%	39.4%
	May	13.3%	18.8%	8.3%	66.7%	50.0%	42.9%	60.0%	25.0%	28.2%
	June	6.7%	6.3%	8.3%	50.0%	33.3%	42.9%	60.0%	0.0%	19.7%
	July	13.3%	12.5%	8.3%	33.3%	16.7%	0.0%	0.0%	0.0%	11.3%
	August	20.0%	12.5%	0.0%	0.0%	0.0%	28.6%	0.0%	0.0%	9.9%
	September	20.0%	18.8%	16.7%	16.7%	50.0%	42.9%	0.0%	50.0%	23.9%
	October	0.0%	6.3%	8.3%	0.0%	33.3%	28.6%	0.0%	0.0%	8.5%
	November	0.0%	0.0%	0.0%	16.7%	16.7%	0.0%	0.0%	0.0%	2.8%
	December	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%	1.4%
Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-12b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Hook-and-Line Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(8 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Total	January	21.1%	32.9%	27.9%	32.7%	41.5%	39.7%	47.6%	44.8%	34.0%
	February	27.0%	32.7%	34.3%	41.1%	55.0%	46.0%	42.3%	46.3%	38.4%
	March	37.0%	39.8%	34.9%	45.1%	49.5%	45.7%	39.9%	36.2%	40.3%
	April	38.5%	35.7%	40.9%	43.2%	42.1%	34.5%	37.6%	34.7%	38.3%
	May	29.0%	19.3%	13.4%	22.7%	22.2%	21.4%	31.1%	34.4%	23.6%
	June	13.3%	8.5%	7.9%	12.7%	13.8%	16.4%	12.7%	4.7%	11.1%
	July	13.9%	13.6%	10.7%	7.3%	6.1%	13.3%	4.4%	0.6%	9.7%
	August	14.9%	7.4%	7.2%	1.9%	2.3%	8.9%	4.7%	0.6%	7.0%
	September	16.6%	15.5%	20.2%	17.6%	21.9%	24.5%	23.7%	37.7%	21.1%
	October	3.1%	13.1%	12.6%	14.6%	20.6%	17.5%	22.8%	18.1%	13.9%
	November	4.6%	5.2%	5.2%	15.1%	16.4%	9.9%	8.6%	1.5%	7.6%
	December	0.0%	1.1%	7.2%	15.9%	23.2%	1.6%	1.5%	1.8%	5.5%
	Total Individual Vessels	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-13a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(1 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Anchorage	January	1	1	0	0	0	0	0	0	0.3
	February	1	1	1	0	0	0	0	0	0.4
	March	0	1	1	0	0	0	0	0	0.3
	April	0	1	0	0	0	0	0	0	0.1
	May	1	0	0	0	0	0	0	0	0.1
	June	1	0	0	0	0	0	0	0	0.1
	July	1	1	1	0	0	0	0	0	0.4
	August	1	1	1	0	0	0	0	0	0.4
	September	0	1	1	0	0	0	0	0	0.3
	October	1	0	0	0	0	0	0	0	0.1
	November	0	0	0	0	0	0	0	0	0.0
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels	1	1	1	0	0	0	0	0	0.4
Chignik Lagoon	January	0	0	0	0	0	0	0	0	0.0
	February	0	0	0	0	0	0	0	0	0.0
	March	0	0	0	0	0	0	0	0	0.0
	April	0	0	0	0	0	0	0	0	0.0
	May	0	0	0	0	0	0	0	0	0.0
	June	0	0	0	0	0	0	0	0	0.0
	July	0	0	0	0	0	0	0	0	0.0
	August	0	0	0	0	0	0	0	0	0.0
	September	0	0	0	0	0	0	0	0	0.0
	October	0	0	0	0	0	0	0	0	0.0
	November	0	0	0	0	0	0	0	0	0.0
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels	0	0	0	0	0	0	0	0	0.0

Table A-13a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(2 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Homer	January	1	0	0	1	0	0	0	0	0.3
	February	1	0	0	1	0	0	0	0	0.3
	March	1	0	0	1	0	0	0	0	0.3
	April	1	0	0	0	0	0	0	0	0.1
	May	0	0	0	0	0	0	0	0	0.0
	June	0	0	0	0	0	0	0	0	0.0
	July	0	0	0	0	0	0	0	0	0.0
	August	0	0	0	0	0	0	0	0	0.0
	September	1	0	0	0	0	0	0	0	0.1
	October	0	0	1	0	0	0	0	0	0.1
	November	0	0	0	0	0	0	0	0	0.0
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels	2	0	1	1	0	0	0	0	0.5
Juneau	January	0	0	0	0	0	0	0	0	0.0
	February	0	0	0	0	0	0	0	0	0.0
	March	0	0	0	0	0	0	0	0	0.0
	April	0	0	0	0	0	0	0	0	0.0
	May	0	0	0	0	0	0	0	0	0.0
	June	0	0	0	0	0	0	0	0	0.0
	July	0	0	0	0	0	0	0	0	0.0
	August	1	0	0	0	0	0	0	0	0.1
	September	0	0	0	0	0	0	0	0	0.0
	October	0	0	0	0	0	0	0	0	0.0
	November	0	0	0	0	0	0	0	0	0.0
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels	1	0	0	0	0	0	0	0	0.1

Table A-13a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(3 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
King Cove	January	0	0	1	2	1	3	1	1	1.1
	February	2	2	4	4	4	4	5	1	3.3
	March	0	0	0	4	4	4	0	2	1.8
	April	0	1	0	0	0	0	0	2	0.4
	May	0	0	0	0	0	0	0	0	0.0
	June	0	0	0	0	0	0	0	0	0.0
	July	0	0	0	0	0	0	0	0	0.0
	August	0	0	0	0	0	0	0	1	0.1
	September	0	0	0	0	0	0	0	2	0.3
	October	0	0	0	0	0	0	0	2	0.3
	November	0	0	0	0	0	0	0	0	0.0
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels		2	2	4	4	4	4	5	3	3.5
Kodiak	January	13	14	12	12	12	11	14	15	12.9
	February	15	9	10	13	11	13	11	14	12.0
	March	13	15	12	12	11	13	13	14	12.9
	April	14	9	6	9	6	12	9	10	9.4
	May	6	5	3	4	8	9	9	9	6.6
	June	3	4	2	3	6	6	10	8	5.3
	July	16	14	9	10	10	9	7	9	10.5
	August	11	10	5	5	7	9	7	9	7.9
	September	14	14	10	9	9	11	12	13	11.5
	October	13	8	10	10	8	11	12	13	10.6
	November	0	0	0	4	6	10	5	5	3.8
	December	0	0	0	0	1	3	4	2	1.3
	Total Individual Vessels		20	17	14	13	12	15	14	15	15.0

Table A-13a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(4 of 8)

Community	Month	Year								Average 2003-2010	
		2003	2004	2005	2006	2007	2008	2009	2010		
Petersburg	January	1	1	1	0	1	1	1	1	1	0.9
	February	1	1	1	1	1	1	1	1	1	1.0
	March	0	0	0	1	1	1	0	0	0	0.4
	April	0	0	0	0	0	0	0	0	0	0.0
	May	0	0	0	0	0	0	0	0	0	0.0
	June	0	0	0	0	0	0	0	0	0	0.0
	July	0	0	0	0	0	0	0	0	0	0.0
	August	0	0	0	0	0	0	0	0	0	0.0
	September	0	0	0	0	0	0	0	0	0	0.0
	October	0	0	0	0	0	0	0	0	0	0.0
	November	0	0	0	0	0	0	0	0	0	0.0
	December	0	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels	1	1	1	1	1	1	1	1	1	1.0
Sand Point	January	13	9	10	11	9	2	6	2	7.8	
	February	3	6	10	10	10	6	10	8	7.9	
	March	3	8	9	11	10	8	8	6	7.9	
	April	0	0	0	0	0	5	0	7	1.5	
	May	0	0	0	0	0	0	0	0	0.0	
	June	0	0	0	0	0	0	0	0	0.0	
	July	0	0	0	0	0	0	0	0	0.0	
	August	10	11	11	10	5	4	10	8	8.6	
	September	0	10	11	8	2	4	7	8	6.3	
	October	9	11	10	8	5	6	10	7	8.3	
	November	0	0	0	0	1	0	0	0	0.1	
	December	0	0	0	0	0	0	0	0	0.0	
	Total Individual Vessels	13	11	11	11	10	8	12	9	10.6	

Table A-13a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(5 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Sitka	January	0	0	0	0	0	0	0	0	0.0
	February	0	0	0	0	0	0	0	0	0.0
	March	0	0	0	0	0	0	0	0	0.0
	April	0	0	0	0	0	0	0	0	0.0
	May	0	0	0	0	0	0	0	0	0.0
	June	0	0	0	0	0	0	0	0	0.0
	July	0	0	0	0	0	0	0	0	0.0
	August	0	0	0	0	0	0	0	0	0.0
	September	0	0	0	0	0	0	0	0	0.0
	October	0	0	0	0	0	0	0	0	0.0
	November	0	0	0	0	0	0	0	0	0.0
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels	0	0	0	0	0	0	0	0	0.0
All Other Alaska	January	1	0	1	1	1	0	1	1	0.8
	February	1	0	1	1	1	0	1	1	0.8
	March	0	0	0	1	1	0	1	1	0.5
	April	0	0	0	0	0	0	0	1	0.1
	May	0	0	0	0	0	0	0	0	0.0
	June	0	0	0	0	0	0	0	0	0.0
	July	0	0	0	0	0	0	0	0	0.0
	August	0	0	1	0	0	1	1	1	0.5
	September	2	0	1	1	0	0	1	1	0.8
	October	0	0	1	1	0	1	1	1	0.6
	November	0	0	0	0	0	0	0	0	0.0
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels	3	0	1	1	1	1	1	1	1.1

Table A-13a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(6 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Alaska Total	January	30	25	25	27	24	17	23	20	23.9
	February	24	19	27	30	27	24	28	25	25.5
	March	17	24	22	30	27	26	22	23	23.9
	April	15	11	6	9	6	17	9	20	11.6
	May	7	5	3	4	8	9	9	9	6.8
	June	4	4	2	3	6	6	10	8	5.4
	July	17	15	10	10	10	9	7	9	10.9
	August	23	22	18	15	12	14	18	19	17.6
	September	17	25	23	18	11	15	20	24	19.1
	October	23	19	22	19	13	18	23	23	20.0
	November	0	0	0	4	7	10	5	5	3.9
	December	0	0	0	0	1	3	4	2	1.3
	Total Individual Vessels		43	32	33	31	28	29	33	29	32.3
Oregon Total	January	14	17	16	14	11	11	10	13	13.3
	February	16	12	12	12	9	12	8	13	11.8
	March	13	18	18	18	15	14	13	14	15.4
	April	13	11	11	13	11	12	8	8	10.9
	May	5	4	3	3	5	8	6	10	5.5
	June	3	4	2	2	6	3	3	5	3.5
	July	12	10	7	7	5	3	2	2	6.0
	August	14	16	1	4	5	5	5	5	6.9
	September	14	16	14	11	10	9	10	13	12.1
	October	12	13	9	10	10	9	10	11	10.5
	November	0	0	0	2	1	5	2	4	1.8
	December	0	0	0	0	0	0	0	0	0.0
	Total Individual Vessels		20	21	19	18	16	15	14	14	17.1

Table A-13a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(7 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Washington Total	January	18	17	15	14	15	12	11	18	15.0
	February	20	11	13	13	17	15	13	15	14.6
	March	9	13	21	19	23	23	13	15	17.0
	April	18	11	10	9	6	13	9	14	11.3
	May	12	5	8	4	13	6	5	7	7.5
	June	1	3	3	1	5	1	4	3	2.6
	July	17	22	22	19	13	19	17	18	18.4
	August	16	14	12	10	18	16	13	12	13.9
	September	11	20	19	19	16	16	10	16	15.9
	October	22	12	12	17	12	17	18	17	15.9
	November	0	0	0	1	7	7	6	5	3.3
	December	0	0	0	0	0	1	2	3	0.8
	Total Individual Vessels		46	38	39	37	40	41	40	39	40.0
All Other States Total	January	2	2	2	2	2	2	2	1	1.9
	February	2	1	3	2	2	2	2	1	1.9
	March	0	1	1	2	2	2	2	0	1.3
	April	0	0	0	1	1	1	1	0	0.5
	May	0	0	0	1	2	1	1	0	0.6
	June	0	0	0	0	1	1	1	0	0.4
	July	0	0	1	1	1	1	1	1	0.8
	August	1	1	2	2	2	2	2	1	1.6
	September	1	1	2	3	1	2	2	1	1.6
	October	3	1	2	2	1	2	2	1	1.8
	November	0	0	0	1	1	0	1	0	0.4
	December	0	0	0	0	1	0	1	0	0.3
	Total Individual Vessels		4	2	3	3	3	2	2	2	2.6

Table A-13a
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (number of vessels)
(8 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Total	January	64	61	58	57	52	42	46	52	54.0
	February	62	43	55	57	55	53	51	54	53.8
	March	39	56	62	69	67	65	50	52	57.5
	April	46	33	27	32	24	43	27	42	34.3
	May	24	14	14	12	28	24	21	26	20.4
	June	8	11	7	6	18	11	18	16	11.9
	July	46	47	40	37	29	32	27	30	36.0
	August	54	53	33	31	37	37	38	37	40.0
	September	43	62	58	51	38	42	42	54	48.8
	October	60	45	45	48	36	46	53	52	48.1
	November	0	0	0	8	16	22	14	14	9.3
	December	0	0	0	0	2	4	7	5	2.3
	Total Individual Vessels		113	93	94	89	87	87	89	84	92.0

Table A-13b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(1 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Anchorage	January	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%
	February	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	March	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%
	April	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%
	May	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%
	June	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%
	July	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	August	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	September	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%
	October	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%
	November	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Individual Vessels	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Chignik Lagoon	January	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	February	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	March	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	April	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	May	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	June	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	August	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	September	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	October	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	November	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Individual Vessels	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table A-13b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(2 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Homer	January	50.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	50.0%
	February	50.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	50.0%
	March	50.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	50.0%
	April	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%
	May	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	June	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	August	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	September	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%
	October	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%
	November	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Individual Vessels		100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Juneau	January	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	February	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	March	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	April	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	May	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	June	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	August	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	September	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	October	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	November	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Individual Vessels		100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table A-13b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(3 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
King Cove	January	0.0%	0.0%	25.0%	50.0%	25.0%	75.0%	20.0%	33.3%	32.1%
	February	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	33.3%	92.9%
	March	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	0.0%	66.7%	50.0%
	April	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	10.7%
	May	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	June	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	August	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	3.6%
	September	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	7.1%
	October	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	7.1%
	November	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Kodiak	January	65.0%	82.4%	85.7%	92.3%	100.0%	73.3%	100.0%	100.0%	85.8%
	February	75.0%	52.9%	71.4%	100.0%	91.7%	86.7%	78.6%	93.3%	80.0%
	March	65.0%	88.2%	85.7%	92.3%	91.7%	86.7%	92.9%	93.3%	85.8%
	April	70.0%	52.9%	42.9%	69.2%	50.0%	80.0%	64.3%	66.7%	62.5%
	May	30.0%	29.4%	21.4%	30.8%	66.7%	60.0%	64.3%	60.0%	44.2%
	June	15.0%	23.5%	14.3%	23.1%	50.0%	40.0%	71.4%	53.3%	35.0%
	July	80.0%	82.4%	64.3%	76.9%	83.3%	60.0%	50.0%	60.0%	70.0%
	August	55.0%	58.8%	35.7%	38.5%	58.3%	60.0%	50.0%	60.0%	52.5%
	September	70.0%	82.4%	71.4%	69.2%	75.0%	73.3%	85.7%	86.7%	76.7%
	October	65.0%	47.1%	71.4%	76.9%	66.7%	73.3%	85.7%	86.7%	70.8%
	November	0.0%	0.0%	0.0%	30.8%	50.0%	66.7%	35.7%	33.3%	25.0%
	December	0.0%	0.0%	0.0%	0.0%	8.3%	20.0%	28.6%	13.3%	8.3%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-13b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(4 of 8)

Community	Month	Year								Average 2003-2010	
		2003	2004	2005	2006	2007	2008	2009	2010		
Petersburg	January	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	87.5%
	February	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	March	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	37.5%
	April	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	May	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	June	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	August	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	September	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	October	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	November	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Sand Point	January	100.0%	81.8%	90.9%	100.0%	90.0%	25.0%	50.0%	22.2%	72.9%	
	February	23.1%	54.5%	90.9%	90.9%	100.0%	75.0%	83.3%	88.9%	74.1%	
	March	23.1%	72.7%	81.8%	100.0%	100.0%	100.0%	66.7%	66.7%	74.1%	
	April	0.0%	0.0%	0.0%	0.0%	0.0%	62.5%	0.0%	77.8%	14.1%	
	May	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	June	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	August	76.9%	100.0%	100.0%	90.9%	50.0%	50.0%	83.3%	88.9%	81.2%	
	September	0.0%	90.9%	100.0%	72.7%	20.0%	50.0%	58.3%	88.9%	58.8%	
	October	69.2%	100.0%	90.9%	72.7%	50.0%	75.0%	83.3%	77.8%	77.6%	
	November	0.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	1.2%	
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Table A-13b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(5 of 8)

Community	Month	Year								Average 2003-2010	
		2003	2004	2005	2006	2007	2008	2009	2010		
Sitka	January	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	February	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	March	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	April	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	May	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	June	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	August	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	September	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	October	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	November	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Individual Vessels	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
All Other Alaska	January	33.3%	0.0%	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	66.7%	
	February	33.3%	0.0%	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	66.7%	
	March	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%	100.0%	44.4%	
	April	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	11.1%	
	May	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	June	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	July	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	August	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	44.4%	
	September	66.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	66.7%	
	October	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%	100.0%	100.0%	55.6%	
	November	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Total Individual Vessels	100.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		

Table A-13b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
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Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Alaska Total	January	69.8%	78.1%	75.8%	87.1%	85.7%	58.6%	69.7%	69.0%	74.0%
	February	55.8%	59.4%	81.8%	96.8%	96.4%	82.8%	84.8%	86.2%	79.1%
	March	39.5%	75.0%	66.7%	96.8%	96.4%	89.7%	66.7%	79.3%	74.0%
	April	34.9%	34.4%	18.2%	29.0%	21.4%	58.6%	27.3%	69.0%	36.0%
	May	16.3%	15.6%	9.1%	12.9%	28.6%	31.0%	27.3%	31.0%	20.9%
	June	9.3%	12.5%	6.1%	9.7%	21.4%	20.7%	30.3%	27.6%	16.7%
	July	39.5%	46.9%	30.3%	32.3%	35.7%	31.0%	21.2%	31.0%	33.7%
	August	53.5%	68.8%	54.5%	48.4%	42.9%	48.3%	54.5%	65.5%	54.7%
	September	39.5%	78.1%	69.7%	58.1%	39.3%	51.7%	60.6%	82.8%	59.3%
	October	53.5%	59.4%	66.7%	61.3%	46.4%	62.1%	69.7%	79.3%	62.0%
	November	0.0%	0.0%	0.0%	12.9%	25.0%	34.5%	15.2%	17.2%	12.0%
	December	0.0%	0.0%	0.0%	0.0%	3.6%	10.3%	12.1%	6.9%	3.9%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Oregon Total	January	70.0%	81.0%	84.2%	77.8%	68.8%	73.3%	71.4%	92.9%	77.4%
	February	80.0%	57.1%	63.2%	66.7%	56.3%	80.0%	57.1%	92.9%	68.6%
	March	65.0%	85.7%	94.7%	100.0%	93.8%	93.3%	92.9%	100.0%	89.8%
	April	65.0%	52.4%	57.9%	72.2%	68.8%	80.0%	57.1%	57.1%	63.5%
	May	25.0%	19.0%	15.8%	16.7%	31.3%	53.3%	42.9%	71.4%	32.1%
	June	15.0%	19.0%	10.5%	11.1%	37.5%	20.0%	21.4%	35.7%	20.4%
	July	60.0%	47.6%	36.8%	38.9%	31.3%	20.0%	14.3%	14.3%	35.0%
	August	70.0%	76.2%	5.3%	22.2%	31.3%	33.3%	35.7%	35.7%	40.1%
	September	70.0%	76.2%	73.7%	61.1%	62.5%	60.0%	71.4%	92.9%	70.8%
	October	60.0%	61.9%	47.4%	55.6%	62.5%	60.0%	71.4%	78.6%	61.3%
	November	0.0%	0.0%	0.0%	11.1%	6.3%	33.3%	14.3%	28.6%	10.2%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

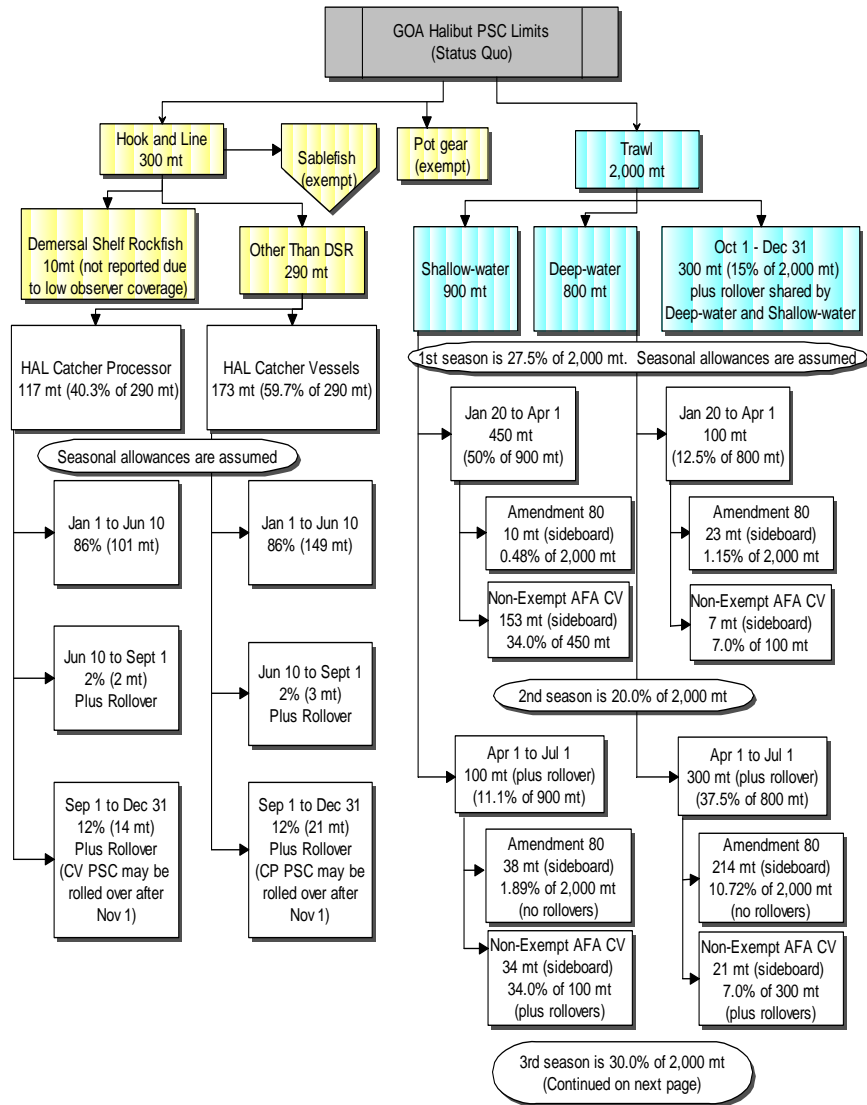
Table A-13b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(7 of 8)

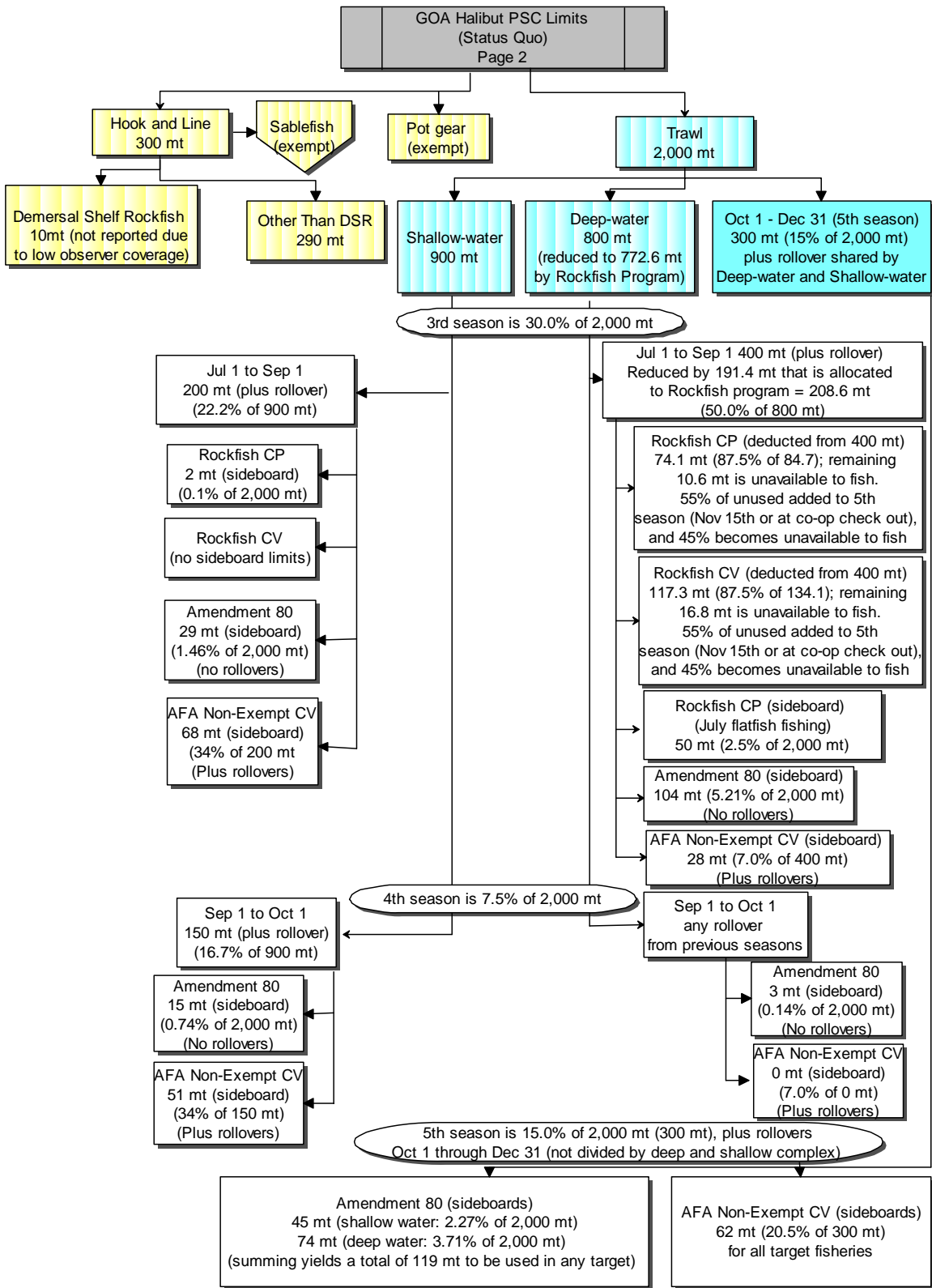
Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Washington Total	January	39.1%	44.7%	38.5%	37.8%	37.5%	29.3%	27.5%	46.2%	37.5%
	February	43.5%	28.9%	33.3%	35.1%	42.5%	36.6%	32.5%	38.5%	36.6%
	March	19.6%	34.2%	53.8%	51.4%	57.5%	56.1%	32.5%	38.5%	42.5%
	April	39.1%	28.9%	25.6%	24.3%	15.0%	31.7%	22.5%	35.9%	28.1%
	May	26.1%	13.2%	20.5%	10.8%	32.5%	14.6%	12.5%	17.9%	18.8%
	June	2.2%	7.9%	7.7%	2.7%	12.5%	2.4%	10.0%	7.7%	6.6%
	July	37.0%	57.9%	56.4%	51.4%	32.5%	46.3%	42.5%	46.2%	45.9%
	August	34.8%	36.8%	30.8%	27.0%	45.0%	39.0%	32.5%	30.8%	34.7%
	September	23.9%	52.6%	48.7%	51.4%	40.0%	39.0%	25.0%	41.0%	39.7%
	October	47.8%	31.6%	30.8%	45.9%	30.0%	41.5%	45.0%	43.6%	39.7%
	November	0.0%	0.0%	0.0%	2.7%	17.5%	17.1%	15.0%	12.8%	8.1%
	December	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	5.0%	7.7%	1.9%
Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
All Other States Total	January	50.0%	100.0%	66.7%	66.7%	66.7%	100.0%	100.0%	50.0%	71.4%
	February	50.0%	50.0%	100.0%	66.7%	66.7%	100.0%	100.0%	50.0%	71.4%
	March	0.0%	50.0%	33.3%	66.7%	66.7%	100.0%	100.0%	0.0%	47.6%
	April	0.0%	0.0%	0.0%	33.3%	33.3%	50.0%	50.0%	0.0%	19.0%
	May	0.0%	0.0%	0.0%	33.3%	66.7%	50.0%	50.0%	0.0%	23.8%
	June	0.0%	0.0%	0.0%	0.0%	33.3%	50.0%	50.0%	0.0%	14.3%
	July	0.0%	0.0%	33.3%	33.3%	33.3%	50.0%	50.0%	50.0%	28.6%
	August	25.0%	50.0%	66.7%	66.7%	66.7%	100.0%	100.0%	50.0%	61.9%
	September	25.0%	50.0%	66.7%	100.0%	33.3%	100.0%	100.0%	50.0%	61.9%
	October	75.0%	50.0%	66.7%	66.7%	33.3%	100.0%	100.0%	50.0%	66.7%
	November	0.0%	0.0%	0.0%	33.3%	33.3%	0.0%	50.0%	0.0%	14.3%
	December	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	50.0%	0.0%	9.5%
Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table A-13b
Monthly Participation in the Groundfish Fishery, Individual GOA Groundfish Trawl Vessels
by Community of Vessel Owner, 2003-2010 (percentage of vessels)
(8 of 8)

Community	Month	Year								Average 2003-2010
		2003	2004	2005	2006	2007	2008	2009	2010	
Total	January	56.6%	65.6%	61.7%	64.0%	59.8%	48.3%	51.7%	61.9%	58.7%
	February	54.9%	46.2%	58.5%	64.0%	63.2%	60.9%	57.3%	64.3%	58.4%
	March	34.5%	60.2%	66.0%	77.5%	77.0%	74.7%	56.2%	61.9%	62.5%
	April	40.7%	35.5%	28.7%	36.0%	27.6%	49.4%	30.3%	50.0%	37.2%
	May	21.2%	15.1%	14.9%	13.5%	32.2%	27.6%	23.6%	31.0%	22.1%
	June	7.1%	11.8%	7.4%	6.7%	20.7%	12.6%	20.2%	19.0%	12.9%
	July	40.7%	50.5%	42.6%	41.6%	33.3%	36.8%	30.3%	35.7%	39.1%
	August	47.8%	57.0%	35.1%	34.8%	42.5%	42.5%	42.7%	44.0%	43.5%
	September	38.1%	66.7%	61.7%	57.3%	43.7%	48.3%	47.2%	64.3%	53.0%
	October	53.1%	48.4%	47.9%	53.9%	41.4%	52.9%	59.6%	61.9%	52.3%
	November	0.0%	0.0%	0.0%	9.0%	18.4%	25.3%	15.7%	16.7%	10.1%
	December	0.0%	0.0%	0.0%	0.0%	2.3%	4.6%	7.9%	6.0%	2.4%
Total Individual Vessels		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

APPENDIX 8. Flow Chart of the Status Quo Halibut PSC Limits





Appendix 9: Estimated changes in ex-vessel IFQ revenue

The Council requested that to the extent possible the analysts provide information on the gross revenue changes at the ex-vessel level. Information on gross ex-vessel revenue increases, based on charter management assumptions and ex-vessel prices, are included in this appendix. Changes are reported when all the increase in halibut (O26" fish in the year PSC reductions occur) are taken by the IFQ sector (GHL) and Step 1 and Step 2 of the CSP that the Council is currently reconsidering. Based on charter management alternatives currently being considered by the Council, the actual future distribution of O26" PSC savings to the IFQ sector may be bounded by the GHL and CSP methods. Low and high prices were selected based on RAM prices from 2003 through 2010.

Changes using assumed distribution under the GHL

Table 1 Increase in IFQ harvest (1,000 lbs) in the first year as a result of over 26" halibut PSC reductions (based on distribution under GHL where all savings are projected to go to the IFQ fishery).

		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
GOA		3307	3142	2976	2811	3A		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	0.0	103.4	206.7	310.1	HAL PSC (1000 lbs)	496	0.0	76.7	153.4	230.0
	471	18.6	122.0	225.4	328.7		471	6.9	83.6	160.2	236.9
	446	37.3	140.7	244.0	347.4		446	13.8	90.4	167.1	243.8
	422	55.9	159.3	262.7	366.0		422	20.6	97.3	174.0	250.7
		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
2C		3307	3142	2976	2811	3B		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	0.0	0.0	0.0	0.0	HAL PSC (1000 lbs)	496	0.0	26.7	53.4	80.1
	471	0.1	0.1	0.1	0.1		471	11.6	38.3	65.0	91.7
	446	0.3	0.3	0.3	0.3		446	23.2	49.9	76.6	103.3
	422	0.4	0.4	0.4	0.4		422	34.8	61.5	88.2	114.9

Source: IPHC staff estimates of O26" halibut savings under each PSC option

Table 2 High and low ex-vessel prices used to generate estimates of revenue gained by IFQ sector.

Area	High	Low
2C	\$ 6.75	\$ 2.95
3A	\$ 6.71	\$ 2.89
3B	\$ 6.58	\$ 2.87

Source: RAM 2003 through 2010

Table 3 Increase in gross ex-vessel revenue¹ (in \$1,000) to IFQ sector under current GHL using low ex-vessel prices

		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
GOA		3307	3142	2976	2811	3A		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ 298	\$ 597	\$ 895	HAL PSC (1000 lbs)	496	\$ -	\$ 222	\$ 444	\$ 666
	471	\$ 54	\$ 352	\$ 651	\$ 949		471	\$ 20	\$ 242	\$ 464	\$ 686
	446	\$ 107	\$ 406	\$ 704	\$ 1,003		446	\$ 40	\$ 262	\$ 484	\$ 706
	422	\$ 161	\$ 459	\$ 758	\$ 1,056		422	\$ 60	\$ 282	\$ 504	\$ 726
		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
2C		3307	3142	2976	2811	3B		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ -	\$ -	\$ -	HAL PSC (1000 lbs)	496	\$ -	\$ 77	\$ 153	\$ 230
	471	\$ 0	\$ 0	\$ 0	\$ 0		471	\$ 33	\$ 110	\$ 186	\$ 263
	446	\$ 1	\$ 1	\$ 1	\$ 1		446	\$ 67	\$ 143	\$ 220	\$ 296
	422	\$ 1	\$ 1	\$ 1	\$ 1		422	\$ 100	\$ 176	\$ 253	\$ 330

Table 4 Increase in gross ex-vessel revenue (in \$1,000) to IFQ sector under current GHL using high ex-vessel prices

		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
GOA		3307	3142	2976	2811	3A		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ 690	\$ 1,380	\$ 2,070	HAL PSC (1000 lbs)	496	\$ -	\$ 515	\$ 1,029	\$ 1,544
	471	\$ 124	\$ 814	\$ 1,504	\$ 2,194		471	\$ 46	\$ 561	\$ 1,075	\$ 1,590
	446	\$ 247	\$ 937	\$ 1,627	\$ 2,318		446	\$ 92	\$ 607	\$ 1,121	\$ 1,636
	422	\$ 371	\$ 1,061	\$ 1,751	\$ 2,441		422	\$ 139	\$ 653	\$ 1,168	\$ 1,682
		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
2C		3307	3142	2976	2811	3B		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ -	\$ -	\$ -	HAL PSC (1000 lbs)	496	\$ -	\$ 176	\$ 351	\$ 527
	471	\$ 1	\$ 1	\$ 1	\$ 1		471	\$ 76	\$ 252	\$ 428	\$ 603
	446	\$ 2	\$ 2	\$ 2	\$ 2		446	\$ 153	\$ 328	\$ 504	\$ 680
	422	\$ 3	\$ 3	\$ 3	\$ 3		422	\$ 229	\$ 405	\$ 580	\$ 756

¹ Increases in gross ex-vessel revenue in this appendix are calculated by multiplying the increase in O26” halibut available to the IFQ sector by the assumed ex-vessel price.

Changes using assumed distribution under step 1 of the CSP

Table 5 Increase in IFQ harvest (1,000 lbs) in the first year as a result of over 26” halibut PSC reductions (based on distribution under step 1 of CSP approved by Council in 2008).

		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
GOA		3307	3142	2976	2811	3A		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	0.0	91.6	183.1	274.7	HAL PSC (1000 lbs)	496	0.0	64.9	129.7	194.6
	471	17.6	109.1	200.7	292.2		471	5.8	70.7	135.6	200.4
	446	35.1	126.7	218.2	309.8		446	11.6	76.5	141.4	206.3
	422	52.7	144.2	235.8	327.3		422	17.5	82.3	147.2	212.1
		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
2C		3307	3142	2976	2811	3B		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	0.0	0.0	0.0	0.0	HAL PSC (1000 lbs)	496	0.0	26.7	53.4	80.1
	471	0.1	0.1	0.1	0.1		471	11.6	38.3	65.0	91.7
	446	0.2	0.2	0.2	0.2		446	23.2	49.9	76.6	103.3
	422	0.4	0.4	0.4	0.4		422	34.8	61.5	88.2	114.9

Table 6 Increase in gross ex-vessel revenue (in \$1,000) to IFQ sector under step 1 of CSP using low ex-vessel prices

		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
GOA		3307	3142	2976	2811	3A		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ 264	\$ 529	\$ 793	HAL PSC (1000 lbs)	496	\$ -	\$ 188	\$ 375	\$ 563
	471	\$ 51	\$ 315	\$ 579	\$ 843		471	\$ 17	\$ 205	\$ 392	\$ 580
	446	\$ 101	\$ 365	\$ 630	\$ 894		446	\$ 34	\$ 221	\$ 409	\$ 597
	422	\$ 152	\$ 416	\$ 680	\$ 944		422	\$ 51	\$ 238	\$ 426	\$ 614
		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
2C		3307	3142	2976	2811	3B		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ -	\$ -	\$ -	HAL PSC (1000 lbs)	496	\$ -	\$ 77	\$ 153	\$ 230
	471	\$ 0	\$ 0	\$ 0	\$ 0		471	\$ 33	\$ 110	\$ 186	\$ 263
	446	\$ 1	\$ 1	\$ 1	\$ 1		446	\$ 67	\$ 143	\$ 220	\$ 296
	422	\$ 1	\$ 1	\$ 1	\$ 1		422	\$ 100	\$ 176	\$ 253	\$ 330

Table 7 Increase in gross ex-vessel revenue (in \$1,000) to IFQ sector under step 1 of CSP using high ex-vessel prices

		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
GOA		3307	3142	2976	2811	3A		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ 611	\$ 1,222	\$ 1,833	HAL PSC (1000 lbs)	496	\$ -	\$ 435	\$ 871	\$ 1,306
	471	\$ 116	\$ 727	\$ 1,338	\$ 1,949		471	\$ 39	\$ 474	\$ 910	\$ 1,345
	446	\$ 233	\$ 843	\$ 1,454	\$ 2,065		446	\$ 78	\$ 513	\$ 949	\$ 1,384
	422	\$ 349	\$ 960	\$ 1,571	\$ 2,182		422	\$ 117	\$ 553	\$ 988	\$ 1,423
		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
2C		3307	3142	2976	2811	3B		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ -	\$ -	\$ -	HAL PSC (1000 lbs)	496	\$ -	\$ 176	\$ 351	\$ 527
	471	\$ 1	\$ 1	\$ 1	\$ 1		471	\$ 76	\$ 252	\$ 428	\$ 603
	446	\$ 2	\$ 2	\$ 2	\$ 2		446	\$ 153	\$ 328	\$ 504	\$ 680
	422	\$ 3	\$ 3	\$ 3	\$ 3		422	\$ 229	\$ 405	\$ 580	\$ 756

Changes using assumed distribution under step 2 of the CSP

Table 8 Increase in IFQ harvest (1,000 lbs) in the first year as a result of over 26” halibut PSC reductions (based on distribution under step 2 of CSP approved by Council in 2008).

		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
GOA		3307	3142	2976	2811	3A		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	0.0	92.6	185.3	277.9	HAL PSC (1000 lbs)	496	0.0	65.9	131.9	197.8
	471	17.7	110.3	202.9	295.5		471	5.9	71.9	137.8	203.8
	446	35.3	127.9	220.6	313.2		446	11.8	77.8	143.7	209.7
	422	53.0	145.6	238.2	330.9		422	17.8	83.7	149.6	215.6
		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
2C		3307	3142	2976	2811	3B		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	0.0	0.0	0.0	0.0	HAL PSC (1000 lbs)	496	0.0	26.7	53.4	80.1
	471	0.1	0.1	0.1	0.1		471	11.6	38.3	65.0	91.7
	446	0.3	0.3	0.3	0.3		446	23.2	49.9	76.6	103.3
	422	0.4	0.4	0.4	0.4		422	34.8	61.5	88.2	114.9

Table 9 Increase in gross ex-vessel revenue (in \$1,000) to IFQ sector under step 2 of CSP using low ex-vessel prices

		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
GOA		3307	3142	2976	2811	3A		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ 267	\$ 535	\$ 802	HAL PSC (1000 lbs)	496	\$ -	\$ 191	\$ 382	\$ 573
	471	\$ 51	\$ 318	\$ 586	\$ 853		471	\$ 17	\$ 208	\$ 399	\$ 590
	446	\$ 102	\$ 369	\$ 636	\$ 904		446	\$ 34	\$ 225	\$ 416	\$ 607
	422	\$ 152	\$ 420	\$ 687	\$ 955		422	\$ 51	\$ 242	\$ 433	\$ 624
		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
2C		3307	3142	2976	2811	3B		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$ -	\$ -	\$ -	\$ -	HAL PSC (1000 lbs)	496	\$ -	\$ 77	\$ 153	\$ 230
	471	\$ 0	\$ 0	\$ 0	\$ 0		471	\$ 33	\$ 110	\$ 186	\$ 263
	446	\$ 1	\$ 1	\$ 1	\$ 1		446	\$ 67	\$ 143	\$ 220	\$ 296
	422	\$ 1	\$ 1	\$ 1	\$ 1		422	\$ 100	\$ 176	\$ 253	\$ 330

Table 10 Increase in gross ex-vessel revenue (in \$1,000) to IFQ sector under step 2 of CSP using high ex-vessel prices

		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
GOA		3307	3142	2976	2811	3A		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$0	\$618	\$1,236	\$1,854	HAL PSC (1000 lbs)	496	\$0	\$442	\$885	\$1,327
	471	\$117	\$735	\$1,353	\$1,971		471	\$40	\$482	\$925	\$1,367
	446	\$234	\$852	\$1,470	\$2,088		446	\$79	\$522	\$964	\$1,407
	422	\$351	\$969	\$1,587	\$2,205		422	\$119	\$562	\$1,004	\$1,447
		Trawl PSC (1000 lbs)						Trawl PSC (1000 lbs)			
2C		3307	3142	2976	2811	3B		3307	3142	2976	2811
HAL PSC (1000 lbs)	496	\$0.0	\$0.0	\$0.0	\$0.0	HAL PSC (1000 lbs)	496	\$0	\$176	\$351	\$527
	471	\$0.9	\$0.9	\$0.9	\$0.9		471	\$76	\$252	\$428	\$603
	446	\$1.7	\$1.7	\$1.7	\$1.7		446	\$153	\$328	\$504	\$680
	422	\$2.6	\$2.6	\$2.6	\$2.6		422	\$229	\$405	\$580	\$756