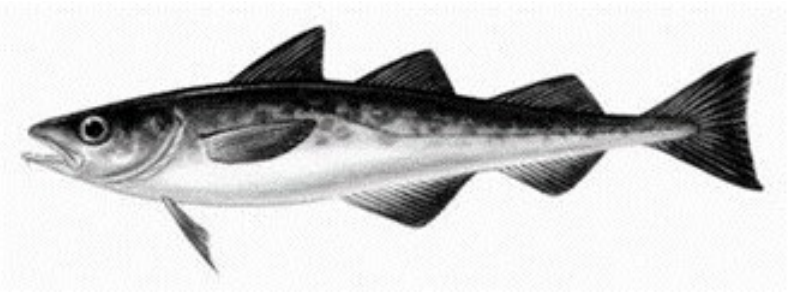
AMERICAN FISHERIES ACT PROGRAM REVIEW

May 16, 2025



For further information contact: Kate Haapala, North Pacific Fishery Management Council
1007 West Third Avenue, Suite 400, Anchorage, AK 99501
(907) 271-2809

Abstract: The American Fisheries Act (AFA) was signed into law in October of 1998. At that time, it was anticipated that the AFA would result in substantial changes to the businesses and communities that rely on the Bering Sea Aleutian Island pollock fisheries, as well as the natural resources that support those fisheries. To provide a better understanding of the impacts resulting from the AFA, the Magnuson-Stevens Fishery Management and Conservation Act of 2006 included Section 303A(c)(1)(G) which requires a formal and detailed program review every 7 years after the initial 5-year review. To satisfy this requirement, the document describes changes in the Bering Sea pollock fishery under the AFA since the program was last reviewed in 2017.

For definition of acronyms and abbreviations, see online list: https://www.npfmc.org/library/acronyms

Table of Contents

Summary of Key Findings

This document describes changes in the Bering Sea (BS) pollock fishery under the American Fisheries Act (AFA). The AFA was signed into law in October of 1998. At that time, it was anticipated that the AFA would result in substantial changes to the businesses and communities that rely on the pollock fisheries, as well as the natural resources that support those fisheries. Section 303A(c)(1)(G) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires that each Limited Access Privilege Program (LAPP) undergoes a formal review every 7 years after the initial 5-year review. This document serves as the required program review that meets the MSA requirements. It also serves as the Allocation Review required under the National Oceanic and Atmospheric Administration (NOAA) Fisheries Allocation Policy Directive 01-119 established in 20167 and the two associated Procedural Directives.

Prior to the current review, the AFA Program was last reviewed in 2017, and the North Pacific Fishery Management Council received a review of the AFA Program in 2002. **After receiving the AFA program review, the Council may consider taking any necessary and appropriate action to modify the program.** However, it is important to note that many of the challenges the BS pollock fishery is currently facing, such as increased costs, weak markets, surplus inventories, among others, are outside of the direct control of the AFA. The key findings are summarized below by topic area.

AFA Cooperatives

A purpose of the AFA was to alleviate the race-for-fish in the BS pollock fishery through the establishment of fishing cooperatives. The cooperatives further subdivide each sector or inshore cooperative's pollock quota allocation among participants in the sector or cooperative through private contractual agreements. The catcher/processor (C/P) sector has formed the Pollock Conservation Cooperative and the High Seas Catchers' Cooperative; the mothership sector formed the Mothership Fleet Cooperative; the inshore sector has historically been characterized by seven cooperatives but six have been active since 2008. The current review captures trends and impacts from 2015–2023, and cooperative participation in the fishery was stable during this period. However, it is important to note that the Peter Pan Fleet Cooperative did not apply for an inshore cooperative permit in 2024 and again in 2025.

Harvest and Participation

The AFA effectively ended the race-for-fish, allowing the AFA sectors to harvest all or nearly all of the pollock directed fishing allowance (DFA) during the review period of 2015–2023.

AFA C/P sector: The Pollock Conservation Cooperative has generally harvested 99 percent of its annual allocation of BS pollock and remained relatively stable in the number of C/Ps actively harvesting BS pollock allocations (see Table 4-1). In 2020, the C/P sector harvested 94.1 percent of its allocation due to COVID-19 disruptions and challenging fishing conditions. From 2015–2018, 14 C/Ps were active while 13 C/Ps were active from 2019–2023 (see Table 4-2). Compared to the previous review period (2000–2015), the number of active C/Ps this review period has declined and has remained relatively constant.

AFA Mothership Sector: The Mothership Fleet Cooperative has generally harvested 99 percent of its annual allocation while the number of active mothership eligible CVs declined from a high of 15 vessels to a low of 11 vessels in 2023 (see Tables 4-3 and 4-4). The number of active mothership eligible CV during the 2000 through 2015 period ranged from a high of 19 vessels to a low of 14 vessels. The number of active AFA eligible motherships, of which three are AFA eligible, ranged from three from 2015 through 2018, but then dropped to two starting in 2019 and remained at two throughout the rest of the review period.

AFA Inshore Sector: The inshore sector cooperatives collectively generally harvested 99 percent of their

allocation (2015–2023). An exception to this was the 2021 fishing year when the sector harvested 96.1 percent of its allocation due to some inshore processing plant closures during the early part of the A season because of COVID-19. In some years, the Peter Pan Fleet Cooperative harvested less than 90 percent of their allocation from 2015–2023, and similar trends were reported in the 2017 AFA review. number of active vessels has trended down from a high of 83 vessels in 2015 to a low 69 vessels in 2023 (see Table 4-7).

Value

From 2015–2023, gross ex-vessel revenue declined during the first few years, increased in 2018, and decreased the remaining years (see Figure 4-2). Overall, ex-vessel revenue earned by at-sea CVs ranged between $42 million in 2022 and $60 million in 2018. Revenue earned by inshore CVs ranged between $208 million in 2017 and $234 million in 2018. Ex-vessel prices remained relatively stable, ranging from $0.16 per pound (2016 and 2017) and $0.20 per pound (2022). Similarly, gross first wholesale value and prices have remained relatively stable (see Figure 4-3). First wholesale revenue has ranged from a low of $1.3 billion in 2022 to a high of $1.5 billion in 2019. First wholesale price ranged from a high of $0.63 per pound to a low of $0.54 pound in 2021.

Excessive Harvesting and Processing Limits

Many AFA entities have complex ownership structures including trusts, annuities, and other financial instruments. Assessing these complicated ownership structures requires expertise in financial management and regulation, and detailed ownership information. Based on a review of publicly available information, and some confidential information submitted to the National Marine Fisheries Service (NMFS), there are some entities close to the excessive harvesting and processing limits, but do not appear to be exceeding them. The current ownership relationships under the AFA Program appear to be generally stable.

Prohibited Species Catch

Since 2011, Chinook salmon prohibited species catch (PSC) in the BS pollock fishery has been managed under a hard cap in combination with incentive measures to avoid PSC (see Amendment 91 to the BSAI groundfish FMP). From 2000–2014, the annual average level of Chinook salmon PSC in the AFA sectors was 35,428 compared to an average of 17,711 from 2015–2023. The hard cap has never been met. In addition to the hard caps and incentive programs, other factors contributing to the reduction in Chinook salmon PSC include changes in abundance and distribution of Chinook salmon and pollock, as well as changes in fleet behavior to avoid salmon bycatch (Stram and Ianelli 2014).

The “non-Chinook” PSC category in the Catch Accounting System (CAS) includes sockeye, coho, pink, and chum salmon but the vast majority of these fish are chum salmon and primarily taken during the B season. At present, chum salmon bycatch is managed under a Rolling Hot Spot (RHS) avoidance program that identifies discrete areas on the pollock fishing grounds with higher chum salmon bycatch rates, closes those areas for a period of time, and moves vessels to other grounds. Chum salmon PSC reached a historical high in 2005 at 703,094 fish and exhibited a general downward trend through 2012. Since 2015, chum salmon PSC has been variable, showing a general increasing trend from 2015–2021 when the AFA sector’s bycatch peaked in 2021 at 490,365 fish. The overall level of chum salmon PSC has decreased in subsequent years to 236,006 fish (2022) and 108,864 fish (2023).

Since 2012, the BS pollock fishery has made voluntary changes to various aspects of its fishing behavior to reduce halibut PSC. Since that time, the AFA fleet has not exceeded the halibut PSC limits. An indication of effort to reduce halibut PSC by the AFA fleet is the general declining trend in the fleet’s halibut PSC rate in the BS pollock target fishery (see Figure 6-6). No AFA sector exceeded the annual PSC limits for red king crab, *C. opilio* crab, or *C. bairdi* crab from 2000–2023. The BS pollock fishery attained its apportionment of the annual herring PSC limit in 2012 and 2020. Prior to 2012, the pollock fishery last met the herring PSC limit in the early 1990s.

CDQ Program and Fishing Community Impacts

The Community Development Quota (CDQ) Program was implemented in 1992 to provide coastal Western Alaska communities with an opportunity to participate and invest in federally managed BSAI fisheries. As of 2023, 5 of 6 CDQ groups had ownership interests in AFA vessels. Three CDQ groups currently have full or partial ownership in three C/Ps (BBEDC, CVRF and NSEDC), five CDQ groups have full or partial ownership in 30 of the AFA CVs that actively fish pollock (BBEDC, CBSFA, CVRF, NSEDC, and YDFDA). Two CDQ groups also have an ownership interest in motherships that are eligible to process pollock (CVRF and YDFDA). While there are differences in performance across the CDQ groups because of the diverse decisions the groups have made, the opportunities that accrued to CDQ groups as a result of the BS pollock fishery brought about by the AFA have continued to further the economic and social goals of the CDQ Program.

In addition to the CDQ groups' investments into the BS pollock fishery, the CDQ Program is allocated 10% of the BS pollock TAC annually. The CDQ groups use different strategies to harvest their pollock allocation. For instance, CVRF has recently harvested the majority of its CDQ pollock on a vessel it fully owns, while other CDQ groups have leased their pollock to independent or partner companies to be harvested and processed on C/Ps. In recent years, the revenues earned from the pollock fishery have played an increasingly important role for the groups as other species (e.g., snow crab and red king crab) have declined. As a recent example, in 2023, the relative proportion of first wholesale revenues derived from BS pollock increased with the decrease in crab revenues, as well as revenues from halibut and Pacific cod. In 2023, CDQ pollock accounted for ~70 percent (or $162 million) in the CDQ group's total revenues from all BSAI fisheries allocations compared to crab CDQ revenues which represented ~5 percent in that same year.

In addition to the CDQ Program, several other communities are engaged in or dependent upon the BS pollock fishery by way of vessel's registered ownership address, shore-based processor location, the location of support sector businesses, among other ties. Across all AFA sectors, vessel ownership was concentrated in Seattle, consistent with the 2017 AFA Program Review. However, the communities of Kodiak (Alaska) and Newport (Oregon) are also substantially engaged in the pollock fishery by way of CV ownership address. Since 2015, six physical shore-based processors—UniSea, Westward Seafoods, and Alyeska Seafoods and the Northern Victor in Unalaska/Dutch Harbor; Trident Seafoods in Akutan and Sand Point; and Peter Pan Seafoods in King Cove—have participated in the BS pollock fishery. On average, these processors earned ~$643 million in gross first wholesale revenue from the pollock fishery from 2015–2023 (see Table 7-17).

There have been some changes in fishery participation in recent years which are not currently captured in the data provided for this review but are important to note. The Alaska community of King Cove's participation in the pollock fishery has changed since the Peter Pan Fleet Cooperative has not filed an inshore AFA cooperative permit in recent years. This change has resulted in a loss of fishery-related tax revenue, direct and indirect expenditures from processing pollock in the community, among others. This transition is meaningful for the fishery, community, and the Aleutians East Borough, but it is not a result of the AFA Program.

Retention and Utilization

Discard rates in the BS pollock fishery are very low due to Amendment 49 to the BSAI groundfish FMP, which required all vessels fishing for groundfish in the BSAI management area to retain all pollock and Pacific cod beginning January 3, 1998. Slowing down the rate at which BS pollock is harvested and processed was one of the results of the AFA, especially during the non-roe seasons. In turn, slower fishing resulted in fishing practices that further helped reduce discard rates. Discard rates of groundfish across all sectors have held at less than two percent during the 2002 through 2023 period.

Amendment 49 also established a 15 percent minimum utilization rate with no restriction on product type beginning January 3, 1998, for pollock. However, a much higher utilization rate has been attained under

the AFA ranging from a low of 33 percent in 2002 to a high of 49 percent in 2010. During the 2002 through 2015 review period, the utilization rate followed an increasing trend for several years after AFA implementation. Yields increased significantly from 2008 through 2010 as the DFA for the BS pollock fishery was cut back and processors attempted to maximize recovery rates from a smaller harvest (Figure 8-2). Utilization rates declined after 2010 or 2011 as the DFA rebounded but are substantially higher than levels seen before 2009. From 2015–2023, the utilization rates, in general, remained relatively stable with a slight decrease in all three sectors during the 2019 through 2021 period followed by an increase during the last two years.

Pollock Product and Markets

Under the AFA, pollock value has been distributed across a diverse set of product forms enabling processors to make marginal changes in production mix based on market prices and demand. The production of more valuable product forms, together with increased utilization rates, has contributed to the economic performance of the BS pollock fishery. Moreover, the flexibility in product choices provides a buffer against adverse shocks in any one product type.

The ability to diversify products and markets helps explain why the wholesale value of the BS pollock fishery has become less vulnerable to year-to-year changes in the BS pollock DFA—as the DFA changes, AFA processors respond by reallocating production to take advantage of products that result in higher rates of return.

Of the BS pollock product forms produced, fillets and surimi/minced make up the largest share of total production (see Table 9-1 and Table 9-2, and Figure 9-1 through Figure 9-6). From 2000–2015, 41 percent of average total production and 35 percent of the total average value was surimi/minced while fillets averaged 31 percent of average total production and 36 percent of the average total value. By comparison, from 2015–2023, fillet production captured the largest portion of total average production at 43 percent and the largest portion of total average value at 42 percent, while surimi/minced average total production was 32 percent and average total value was 38 percent.

Sideboard Limits

AFA Non-Exempt CVs

The AFA established CV sideboards for all BSAI groundfish species (except pollock). For the BSAI, NMFS issued sideboard limits on 16 different groundfish species or species groups. Of these, AFA CVs have historically only targeted two species—Pacific cod and yellowfin sole—fisheries for the remaining sideboard species were generally closed to directed fishing by AFA CVs at the beginning of the year. However, since March 11, 2019, regulations were published under 84 FR 2723, that prohibit directed fishing for several BSAI and GOA sideboard fisheries.

BSAI Pacific cod sideboard limits

The BSAI Pacific cod sideboard limit for AFA CVs was 86.09 percent of the trawl CV apportionment of the BSAI Pacific cod initial TAC. The number of non-exempt AFA CVs participating in the BSAI Pacific cod fishery reached a high of 55 in 2004 and has since shown a decreasing trend. Between 2001 and 2015, an average of 68 percent of the initial sideboard limit was annually harvested in aggregate. During these years, directed fishing harvest by non-exempt vessels account for an average of 76 percent of the aggregate catch—or 52 percent of the sideboard limit, while the remainder of the harvests are considered incidental catch in pollock and other non-pollock target fisheries. During the 2015 through 2023 period, the number of non-exempt AFA CVs participating in the BSAI Pacific cod fishery ranged from a low of 32 in 2015 to a high of 42 in 2018 while the percent of the harvest ranged from 51 percent to 71 percent.

BSAI yellowfin sole sideboard limits

For yellowfin sole, Amendment 80 regulations suspend the AFA sideboard limits for BSAI yellowfin sole when the initial TAC is equal to or greater than 125,000 mt to allow AFA sectors the opportunity to expand their harvest of yellowfin sole during periods of diminished availability of pollock. Since implementation of Amendment 80, the AFA non-exempt CVs have not had sideboard limit for yellowfin sole since the initial TAC has been set higher than the 125,000 mt.

BSAI PSC sideboard limits

The AFA also included PSC limits for BSAI sideboard fisheries. Overall, the non-exempt AFA CVs did not exceed the halibut or crab sideboard limits during the 2015 through 2023 review period except for 2018 when the halibut PSC in the pollock/Atka mackerel/other species target exceeded the 5 mt limit.

GOA groundfish and halibut PSC sideboard limits

The AFA CVs are also restricted by GOA groundfish and halibut PSC sideboard limits. Of the 82 AFA non-exempt vessels that are sideboarded in the GOA groundfish fisheries, currently only 12 non-exempt vessels have an LLP license that are endorsed in the GOA. At a sub-area level, 10 AFA non-exempt vessels are endorsed for the Central GOA and six AFA non-exempt vessels are endorsed for the Western GOA. Overall, none of the GOA groundfish sideboard limits were exceeded during the 2015 through 2023 review period. As for the GOA halibut sideboard limits, except for 4th season shallow-water targets in 2019 and 2nd season deep-water targets in 2017, no other GOA halibut PSC limits during the 2015 through 2023 review period were exceeded.

AFA C/Ps

The AFA mandated that sideboards be established for AFA C/Ps participating in other BSAI groundfish fisheries and completely prohibited these vessels from fishing in the GOA. These sideboards only apply to C/Ps listed in the AFA, i.e. the sideboard limits do not apply to the F/V *Ocean Peace* which was not listed, but which qualified to harvest limited amounts of BS pollock in targeted fisheries. To streamline and simplify NMFS's management of AFA groundfish sideboard limits, regulations were published under 84 FR 2723, which became effective on March 11, 2019, that prohibited directed fishing for several BSAI sideboard fisheries for C/Ps. The BSAI non-pollock fisheries in which at least one AFA C/P engaged in directed fishing are the yellowfin sole, Pacific cod, and Atka mackerel fisheries.

BSAI non-pollock sideboard limits (yellowfin sole, Pacific cod, and Atka mackerel)

Among the three non-pollock fisheries, the BSAI yellowfin sole fishery is the primary fishery. Between 2015 and 2023, the number of AFA C/Ps participating in the BSAI yellowfin sole fishery ranged from a low of two vessels to a high of seven vessels. AFA C/Ps have not been sideboarded for participation in the yellowfin sole directed fishery since 2008 because the initial TAC has been greater than 125,000 mt.

For BSAI Pacific cod, only one AFA C/P has actively fished this fishery since 2002. Under Amendment 85 to the BSAI groundfish FMP, which was implemented in 2008, AFA C/Ps are allocated 2.3 percent of the BSAI Pacific cod TAC. The amendment removed the sideboard limit for BSAI Pacific cod for the AFA C/Ps. The establishment of a separate BSAI Pacific cod allocation to this sector negated the need for the BSAI Pacific cod sideboard which protects the historic share of the non-AFA trawl C/P sector (Amendment 80 sector) from being eroded by AFA C/Ps. Upon implementation of Amendment 85, the Pollock Conservation Cooperative coordinated its 2.3 percent allocation of BSAI Pacific cod. As for Atka mackerel directed fishing activity by AFA C/Ps, fishery participation has been consistently low, with only one vessel targeting the fishery from 2015 through 2023.

BSAI PSC sideboard limits

The AFA C/Ps also have BSAI PSC limits—halibut, red king crab (Zone 1), *C. opilio* (COBLZ), and *C. bairdi* (Zone 1 and 2)—for AFA C/Ps. AFA C/P PSC sideboard limits extend to all listed C/Ps and do not include unlisted AFA C/Ps that qualify to fish for pollock under section 208(e)(21) of the AFA (C/V *Ocean Peace*). Overall, the AFA C/Ps did not exceed their PSC sideboard limits during the 2015 through

2023 review period. The one exception was red king crab (Zone 1) in 2016 when C/Ps PSC was 698 crabs for a limit of 606 crabs.

Fishing Vessel Safety

With the establishment of cooperatives under the AFA and subsequent lessening of the race-for-fish, AFA vessels can better choose when to fish during the longer fishing season, thereby maximizing safe weather and sea conditions. The extended fishing season has also led to more stable employment, which results in better trained and more experienced crews. Further, to the extent that the AFA has helped improve the profitability of fishing operations, vessel owners can perform additional preventive and corrective vessel maintenance that will enhance safety at sea.

From 2015–2023, no fatalities were reported for the BS pollock fishery. By comparison, the 2017 review reported five fishing fatalities for the BS pollock fishery between 2002–2014. Nevertheless, there were two major safety incidents in the current review period, one in 2016 when a crewmember suffered an injury falling from the dock while returning to the vessel and the second in 2017 when a crewmember fell asleep at the helm and the vessel was grounded; all crew were evacuated.

Cost Recovery

On January 5, 2016, NMFS published a final rule to implement cost recovery for the AFA program (81 FR 150, January 5, 2016). The AFA allocates the BS directed pollock fishery TAC to three sectors: inshore, catcher/processor, and mothership. Each sector has established cooperatives to harvest their pollock allocation. Currently, only the inshore cooperative is responsible for paying a fee for that sector's BS pollock landed under the AFA. In 2017 and 2018, NMFS suspended the collection of cost recovery fees from the C/P sector and mothership sector under the AFA program. These actions were taken due to the decision in the C/P Salmon Corporation, et al., v. Ross and the filing of the Mothership Fleet Cooperative v. Ross cases. Therefore, only the inshore cooperative is responsible for paying a fee for that sector's BS pollock landed under the AFA, which is due on December 31 of the year in which the landings were made.

Overall, direct program costs increased between FY 2022 and FY 2023 (NOAA Fisheries, 2023). Table 12-1 displays the AFA inshore sector direct program costs for FY 2023. Table 12-2 compares direct program costs between FY 2020, FY 2021, FY 2022, and FY 2023.

Higher overall direct program costs were offset by an overall increased value, which decreased the fee percentage from 0.32% to 0.26% between FY 2022 and FY 2023. The highest direct program costs were attributed to OLE. Costs accrue to support personnel engaged in enforcing fines, investigation, and outreach efforts. OLE officers and agents have dynamic and unpredicted work schedules so labor costs associated with OLE will vary from one fiscal year to the next. Increased costs were attributed to personnel and benefits of filled vacancies, in addition to increased rent and security costs.

1 Introduction

The American Fisheries Act (AFA) was signed into law by Congress in October of 1998 and substantially modified the management framework for the pollock fishery in the Bering Sea Aleutian Island (BSAI) Management Area (hereafter Bering Sea [BS][1] pollock fishery). The purpose of the AFA was to tighten U.S. ownership standards for fishing vessels that had been exploited under the Anti-reflagging Act, significantly decapitalize the fishery and provide the fleet the opportunity to conduct their fishery in a more rational manner while protecting non-AFA participants in other fisheries and enhance stability and efficiency among harvesters and processors.

The AFA Program is a Limited Access Privilege Program (LAPP) as defined in the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Section 303A(c)(1)(G) of the MSA requires a formal and detailed program review every 7 years after the initial 5-year review. This document satisfies the requirements of Section 303A(c)(1)(G), and it also serve as the allocation review for BS and AI pollock required under National Marine Fisheries Service (NMFS) 2016 Fisheries Allocation Policy Directive 01-119 and two associated Procedural Directives.

1.1 Policy Guidance for Conducting Catch Share Program Reviews

NMFS policy guidance describes the information that should be included in Catch Share Program (CSP) reviews. Based on that guidance, CSP reviews should contain the following eight elements. If an element is determined not applicable for a specific review, the Council should document in its final plan for the review its rationale for not conducting a more formalized analysis of that element. The eight elements are listed directly below.

1. Purpose and need of the review;

2. Goals and objectives of the program, the Fishery Management Plan (FMP), and the MSA;

3. History of management, including a description of management prior to the program's implementation, a description of the program at the time of implementation (including enforcement, data collection, and monitoring), and any changes made since the program's implementation or the previous review (including an explanation of why those changes were made);

4. A description of biological, ecological/environmental, economic, social, and administrative environments before and since the program's implementation;

5. An analysis of the program's biological, ecological/environmental, economic, social, and administrative effects;

6. An evaluation of those effects with respect to meeting the goals and objectives (i.e., program performance), including a summary of the conclusions arising from the evaluation;

7. A summary of any unexpected effects (positive or negative) which do not fall under the program's goals and objectives;

8. Identification of issues associated with the program's structure or function and the potential need for additional data collection and/or research.

[1] Although the AFA provided management directives for the pollock fisheries in both the Bering Sea and Aleutian Island subareas, there was no directed pollock fishery in the Aleutian Islands from 1999–2004 due to Stellar sea lion protection measures. In 2005, Amendment 82 to the BSAI groundfish fishery management plan allocated the AI directed fishing allowance to the Aleut Corporation.

Along with these eight elements, NMFS's policy guidance indicates the review should contain an assessment of the program's effects on net benefits to the Nation, including net benefits that are not exclusively economic in nature. It is worth noting that changes in employment and tax revenues are not economic benefits within a cost-benefit analysis. The latter is a transfer of money within the economy and the former is an example of an economic impact. Both of these issues are important to policy makers, stakeholders, and the public and are considered as part of this AFA Program review. However, the data and discussion provided in this document suggests that net National benefits are greater under the AFA Program that would have been realized without the AFA Program in most years.

Unlike the forward-looking analytical documents that are required to implement regulatory or FMP amendments, the CSP reviews are inherently retrospective. The purpose of these reviews is to describe how the program has met its original goals and objectives (and current as the program matures). As such, CSP reviews compare the fishery prior to implementation against what has occurred since implementation. After considering the information presented in a CSP review, the NPFMC may determine whether modifications to the AFA Program should be considered. Those program modifications would be analyzed using the standard forward-looking analytical document development process.

1.2 Allocation Review Requirements

NMFS created the allocation review process to ensure fisheries allocations are periodically evaluated to remain relevant to current conditions and that fisheries are managed to achieve National Standard 1 (prevent overfishing and achieve optimum yield). The allocation review policy and complementary procedural directives provide guidance for the periodic assessment of fishery allocations. The Council has defined the primary trigger for determining when the AFA allocation review should take place as a time-based trigger every 7 years, corresponding with the program review.

1.3 Previous AFA Program Reviews

When Congress passed the AFA, it anticipated it would result in substantial changes to the businesses and communities that rely on pollock fishing, as well as the natural resources that support those fisheries. To provide a better understanding of the impacts resulting from the Act, Congress requested that the Council develop a report on specific changes brought about by the AFA, which was completed in 2002. The 2002 AFA report to Congress was required to describe the impacts on fishery conservation and management, bycatch levels, fishing communities, business and employment practices of participants in any fishery cooperatives, the western Alaska Community Development Quota (CDQ) Program, any fisheries outside of the authority of the Council, and such other matters as the Council deemed appropriate.

Since completion of the 2002 AFA report, the AFA Program underwent its first CSP review in 2017. The 2017 review addressed a wide range of topics, largely using data from 2000–2015, such as the volume and value of the BS pollock fishery, AFA entity participation levels, prohibited species catch (PSC) in the BS pollock fishery, excessive harvesting and process shares, CDQ Program groups and fishing communities, retention and utilization, product markets and prices, sideboard protections, fishing vessel safety, and management costs and cost recovery. These topics provide the basis for the current program review.

1.4 Scope of the Current AFA Program Review and Allocation Review

1.4.1 Program Review

The purpose of the current review is to describe the changing conditions of the BS pollock fishery under the AFA Program since the last program review completed in 2017. For this reason, the review largely

relies on data from 2015–2023 which are then compared to prior years.[2] The review begins with a brief description of the evolution of the management of the BS pollock fishery, including a summary of the pre-AFA management, major provisions of the AFA, and amendments to the AFA. Next, an overview of AFA cooperatives is provided including a description of their contractual structure and annual reporting requirements. The remainder of the review provides indicators of changing conditions in the BS pollock fishery, including volume and value of harvest, AFA sector participation levels, excessive harvesting and processing limits, prohibited species catch, engagement of fishing communities, catch retention and utilization, pollock product markets and prices, sideboard protections, fishing vessel safety, cost recovery, adaptive and maladaptive features of the AFA Program, and net benefits to the Nation.

1.4.2 Allocation Review

This allocation review is designed to provide information to assist the Council in determining whether the development of an FMP amendment to consider alternative allocations is necessary. The review should consider the FMP objectives along with other relevant factors that have changed and may be important to the fisheries' allocation. The BSAI Groundfish FMP includes the consideration of economic benefits that are broadly defined to include, but are not limited to: profits, income, employment, benefits to consumers, and less tangible or less quantifiable social benefits such as the economic stability of coastal communities. Allocation reviews do not require in-depth analyses but do require a discussion of how the AFA Program objectives are or are not being met and the factors considered.

[2] Note, this approach aligns with the Scientific and Statistical Committee's recommendations on the AFA Program Review Workplan contained in its February 2024 Minutes.

2 Evolution of Bering Sea Pollock Fishery Management

This section describes the management elements implemented at the creation of the AFA program as well as subsequent changes. The information in this section includes a summary of FMP amendments that impact AFA participants.

2.1 Overview of Pre-AFA Management

Prior to the AFA, the BS pollock fishery was managed under the inshore/offshore regime. This management framework allocated 7.5 percent of the BS pollock fishery's annual total allowable catch (TAC) to the CDQ Program. The remaining TAC, which is referred to as the BS pollock directed fishery allocation (DFA), was then allocated among the inshore sector that received 35 percent of the TAC and the offshore sector that received 65 percent of the TAC. The inshore sector included shoreside processors, stationary floating processors, and catcher vessels (CVs) delivering to these inshore processors. The offshore sector included catcher/processors (C/Ps), motherships, and CVs delivering to the at-sea processors.

Vessel participation in the fishery was restricted by the existing license limitation program, which endorsed BSAI groundfish licenses by gear type, but not species. Any trawl vessel owner that held a BSAI groundfish license could potentially enter the BS pollock fishery even if they had never had a history of participating in the fishery. In addition, there were no access restrictions in place for inshore processors and motherships. These conditions led to an Olympic-style "race-for-fish" wherein vessels competed to catch as many fish as possible before the BS pollock DFA was attained. As a result, both the A and B season fisheries became progressively shorter (Strong and Criddle 2013).[3] Below are extended quotes from the 2017 AFA review which are incorporated here for additional context.

Brent Paine, former Executive Director of United Catcher Vessels, summarized fishing conditions during the pre-AFA inshore/offshore regime as follows:

> *Prior to the enactment of the AFA in fall of 1998, the BS pollock industry was in fairly poor condition. Up to 15 pollock catcher/processors had entered into bankruptcy proceedings and exited the fishery, the shore-based pollock trawl catcher vessels were at extreme odds with the processor plants and went on strike once or twice a year to seek a fair price for their fish and the ex-vessel value of pollock was hovering around six cents a pound. The Asian pollock market was in the toilet. In 1998, the pollock A-season lasted just 37 days for the inshore sector and 25 days for the offshore sector. The B-season length was less than two months for the inshore sector and just 49 days for the offshore sector. The race for fish was in full throttle and the fleet owners were stuffing capital into their operations just to stay in the game (North Pacific Fishery Management Council 2016a).*

Jim Gilmore, former Director of Public Affairs for the At-Sea Processors Association, further described the fishing conditions for C/Ps:

> *The 1990s were a difficult time for the Alaska pollock catcher/processor sector. The chronic overcapitalization that resulted from "Americanization" of the North Pacific groundfish fishery resulted in numerous bankruptcies among catcher/processor companies. The quota available to the at-sea processing sector was harvested in a few short months, and the "race for fish" created a disincentive to optimize fishing and processing to derive the most value from the landed catch (Gilmore 2017).*

[3] To help ensure the sustainability of the BS pollock fishery, the Council allocates the TAC between two seasons to protect the pollock stock during the spawning season (A season) (Strong and Criddle 2013).

John Iani, former Vice President and General Counsel at Unisea, Inc., provided an inshore sector perspective of the BS pollock fishery that period:

> *The inshore/offshore allocation battles before the North Pacific Fishery Management Council were very difficult, time consuming, and hard on Council staff and the participants in the fishery. The early allocation decisions were not decisive, were temporary, and invited each side of the controversy to continue the battle. Council time was dominated by these battles and other fishery management issues had to suffer by waiting (Iani 2017).*

As suggested in the extended quotes provided above, the AFA allowed members of the BS pollock industry to improve their fishing practices and operate their businesses in a more rational manner. Reduced bycatch, higher utilization rates, increased economic returns, and improved safety are among the direct benefits of AFA. The 2017 AFA review also captured the perspectives of industry members that certain flexibilities in the program, such as the establishment of fishing cooperatives and individual vessel allocations of pollock and other species, has allowed the AFA fleet the ability to spread their effort in time and space to accommodate Stellar sea lion (SSL) conservation measures. They also indicated that the pollock industry was able to work more closely together to operate in an efficient manner. Finally, the cooperative management structure has shifted more of the monitoring and enforcement burden to the cooperative and their members.

2.2 Major Provisions of the AFA

Directly below is a summary of the AFA's major provisions. Some of the provisions of the AFA cannot be altered by the Council, while others required Council actions to be implemented.

Ownership Requirements

The AFA requires a 75 percent minimum U.S. ownership for a vessel to be eligible to participate in the fisheries off Alaska, with certain exemptions for processing vessels already in operation. It also establishes maximum length, tonnage, and horsepower limits for replacement vessels eligible to participate in the BS pollock fishery.

Allocation Percentages by Sector

The AFA specifies the allocation of the BS pollock TAC among the CDQ Program, an incidental catch allowance for BS pollock taken in other fisheries, and the various AFA sectors. The inshore sector was retained as defined by the inshore/offshore regime, but the offshore sector was divided into the C/P sector and mothership sector. Under the AFA, 10 percent of the annual BS pollock TAC is allocated to the CDQ Program, while the incidental catch allowance has varied.[4] The BS pollock DFA is divided among the inshore sector, C/P sector, and mothership sector at 50 percent, 40 percent, and 10 percent, respectively.

Eligible Participants and Buyout Provisions

The AFA specifies by name 20 C/Ps that are eligible to participate in the C/P sector.[5] Additionally, the Act lists seven CVs eligible to participate in this sector. Not less than 8.5 percent of the C/P sector allocation is available for harvest only by these CVs. The Act also specifies three motherships that are eligible to process the mothership sector allocation and lists 19 CVs that are eligible to fish and deliver that sector's allocation.[6]

[4] In 1999, the incidental catch allowance was effectively 4.68 percent of the TAC. The incidental allowance is 3.84 percent of the 2024 TAC.
[5] In addition, one C/P, the F/V *Ocean Peace*, met the minimum historic harvest level to qualify under the AFA. The Act also retires nine C/Ps from further participation in the BS pollock fishery or any other U.S. fishery.
[6] In addition, one CV that was not listed in the AFA (F/V *Vanguard*) met the minimum historic delivery level to qualify as a CV for delivery to motherships under the AFA.

For the inshore sector, the AFA does not list the eligible shoreside processors, stationary floating processors, and CVs by name. Instead, the AFA stipulates the landing/processing history necessary for eligibility. Eight inshore processors met the AFA eligibility criteria to participate in the inshore sector, of which six are shore-based processors: Unisea Seafoods, Westward Seafoods, Alyeska Seafoods in Unalaska/Dutch Harbor, Trident Seafoods in Akutan, Trident Seafoods in Sand Point[7], and Peter Pan Seafoods in King Cove. Two are floating processors: *Arctic Enterprise* (Trident Seafoods) and *Northern Victor* (Westward Seafoods).

Fishery Cooperatives

The AFA set up a structure for the formation of fishing cooperatives to help eliminate the race-for-fish. The AFA authorized fishery cooperatives in the C/P sector beginning in 1999 but did not provide for the formation of fishery cooperatives in the mothership and inshore sectors until 2000.

Excessive Shares

The Act specifies that no particular individual, corporation, or other entity may harvest, through a fishery cooperative or otherwise, a total of more than 17.5 percent of the BS pollock DFA. However, it does not specify the limits for other species, or for pollock processing; rather, it mandates that the Council establish such caps.

Sideboard Provisions

The AFA provides generic direction to the Council to develop "measures it deems necessary" to protect other fisheries from adverse impacts of the Act, including the formation of fishery cooperatives. This includes harvesters and processors of BS non-pollock groundfish and crab,
as well as non-pollock groundfish and pollock harvested or processed in the Gulf of Alaska (GOA).

2.3 AFA Management Changes

The following sections describe the FMP amendments that are related to the AFA.

Amendments 61/61/13/8

After the passage of the AFA, NMFS and the Council incorporated the relevant provisions of the AFA into various FMPs and established a comprehensive management program under the new management regime. These steps included development of Amendment 61 to the Fishery Management Plan for Groundfish of the BSAI Management Area (BSAI groundfish FMP), Amendment 61 to the Fishery Management Plan for Groundfish of the Gulf of Alaska (GOA groundfish FMP), Amendment 13 to the Fishery Management Plan for the King and Tanner Crab Fisheries in the Bering Sea/Aleutian Islands, and Amendment 8 to the Fishery Management Plan for the Scallop Fishery off Alaska (collectively referred to as Amendments 61/61/13/8).

In February 2002, NMFS partially approved Amendments 61/61/13/8—it disapproved the December 31 sunset date originally contained in section 213 of the AFA authorizing the Council to review and extend the AFA management program in 2004. The removal of the sunset date aligned Amendments 61/61/13/8 with legislation enacted in 2002 that eliminated the sunset date and replaced it with a

[7] Although Trident's Sand Point facility qualified as an AFA inshore processor, it is not partnered with a cooperative. Trident Seafoods' Sand Point Plant has been characterized as more of a "relief valve" for the company's plant in Akutan during the pre-AFA race-for-fish years than as a primary delivery destination for Bering Sea pollock. Despite not being partnered with a cooperative, the plant still has access to up to 10% of the Bering Sea pollock allocated to individual cooperatives, along with Bering Sea pollock harvested in the inshore open access fishery.

reauthorization date. Amendments 61/61/13/8 became effective in January 2003.[8]

Amendments 61/61/13/8 included restrictions on the formation and operation of cooperatives under the AFA (including the formula for determining the allocation of pollock to each inshore cooperative and the qualifications for a CV to join such a cooperative), harvesting sideboards for C/Ps, catch weighing and monitoring requirements, crab and groundfish processing sideboard limits, and excessive processing share caps. A complete discussion of these recommendations and the two-year public process through which NMFS and the Council developed Amendments 61/61/13/8 is available in North Pacific Fishery Management Council (2002). The final rule implementing Amendments 61/61/13/8 was published in December 2002, and became effective in January 2003.

Amendment 69

The AFA established a system of inshore cooperatives whereby owners of CVs that deliver to a particular processor may form a cooperative and receive an exclusive allocation of BS pollock. The Council developed Amendment 69 to the BSAI groundfish FMP to provide each inshore cooperative an opportunity to lease a portion of its pollock allocation to a non-member AFA inshore CV. This leasing does not imply that quota is transferred from one cooperative to another, but rather that the non-member AFA CV becomes a de facto member of the cooperative to which the quota is allocated. The intent of Amendment 69 is to provide greater flexibility to inshore cooperatives to arrange for the harvest of their pollock allocation, and to address potential emergency situations, such as vessel breakdowns, that would prevent a cooperative from harvesting its entire allocation. The final rule implementing Amendment 69 was published in February 2003 and became effective in March 2003.

Amendment 82

The AFA allocated the AI subarea directed pollock fishery to eligible harvesters and processors specified in the Act. The AFA was amended by the Consolidated Appropriations Act of 2004, which reallocated the Aleutian Islands directed pollock fishery to the Aleut Corporation, an Alaska Native Claims Settlement Act (ANCSA) regional corporation, for the purpose of economic development of the coastal community of Adak, Alaska. The legislation further specified that the Aleut Corporation could only contract either with vessels under 60 feet in length or with AFA vessels to harvest their allowance in the area. Amendment 82 revised the BSAI groundfish FMP to establish a management framework for the Aleutian Islands directed pollock fishery consistent with the requirements of the AFA as amended by the Consolidated Appropriations Act of 2004. The final rule implementing Amendment 82 was published in March 2005, and became effective in February 2005. In the ensuing years, NMFS has reallocated the projected unused amounts of the Aleut Corporation pollock directed fishing allowance from the Aleutian Islands subarea to the BS subarea.

Amendment 91

This amendment addressed Chinook salmon bycatch in the BS pollock fishery and revised BSAI Amendment 84 (implemented on June 22, 2007), which established the salmon bycatch intercooperative agreement allowing the directed fisheries to utilize their internal cooperative structure to reduce salmon bycatch. Amendment 91 regulations included a hard cap (PSC limit) on Chinook salmon bycatch that would close the pollock fishery if met, in combination with incentive-based measures to encourage

[8] While the permanent management program proposed under Amendments 61/61/13/8 was under analysis and development by the Council and NMFS, the statutory deadlines in the AFA were met on an interim basis through several emergency interim rules.

cooperation among the fleet at keeping Chinook salmon PSC below the hard cap. The incentive measures are managed under private contractual agreements called Incentive Plan Agreements (IPAs).[9]

Under Amendment 91, the Chinook salmon PSC limit was set at 60,000 fish if sectors agreed to voluntary participate in the IPAs. If no IPA is approved by NMFS, the PSC limit in effect would be 47,591 fish. The lower PSC limit of 47,591 is also a performance threshold, and a performance standard requires all sectors to not exceed the threshold amount in any 3 of 7 years. If a sector exceeds the performance standard, they would be apportioned an amount of the lower limit in perpetuity. Since Chinook salmon PSC is encountered in the A and B seasons, the Chinook hard cap is split among the fishing seasons. Seventy percent of the PSC limit is allocated for season A, and 30 percent is allocated for season B, with further apportionments among the four AFA sectors.

Amendment 106

The AFA prohibited the replacement of AFA vessels except under conditions specified in the Act. The most stringent restriction was that an owner of an AFA vessel could only replace an AFA vessel in the event of an ''actual total loss or a constructive total loss'' of the vessel. Thus, a vessel owner could not replace an AFA vessel until the vessel sank or was so damaged that it could not economically be repaired. If an AFA vessel was lost, the Act limited the length, tonnage, and horsepower of a replacement vessel to statutory thresholds set out in the Act. If the lost AFA vessel exceeded the thresholds, the replacement vessel could not exceed the length, tonnage, or horsepower of the AFA vessel; if the lost AFA vessel was less than any of the thresholds, the replacement vessel could exceed the length, weight, or horsepower of the lost AFA vessel by ten percent, but only up to the statutory limits. As for rebuilding or removing an AFA vessel, the AFA has no explicit provisions that allowed the owner of an AFA vessel to rebuild the vessel and maintain the vessel's AFA permit and the vessel's federal fishery endorsement, nor did the AFA provide a mechanism for the removal of an AFA CV from an inshore cooperative, even if the CV was doing no or little actual fishing for the cooperative.

In 2010, the AFA was amended by the Coast Guard Authorization Act of 2010, which addressed issues pertaining to the replacement, rebuilding, and retiring of AFA vessels. Amendment 106 to the BSAI groundfish FMP was developed by the Council to bring the BSAI groundfish FMP into conformity with the AFA as amended by the Coast Guard Authorization Act. Amendment 106 allows the owner of an AFA vessel to rebuild or replace the vessel without limitation on the length, weight, or horsepower of the rebuilt or replacement vessel when the vessel is operating in the BS pollock fishery. The amendment also allows the owner of an AFA CV that is a member of an inshore cooperative to remove the vessel from the BS pollock fishery and assign the pollock catch history of the removed vessel to one or more vessels in the inshore cooperative to which the removed vessel belonged. The final rule implementing Amendment 106 was published in September 2014 and became effective in October 2014.

Amendment 110

This amendment created a comprehensive Chinook and chum salmon bycatch avoidance program and revised language in the chum salmon and Chinook salmon entries in the PSC limits section of the FMP. Specifically, the term inter-cooperative agreement was replaced with IPA. Both Chinook and chum salmon are managed under IPAs. The regulation also clarified that Chinook salmon abundance would be considered low when abundance was less than or equal to the 250,000 Chinook salmon threshold, based on the State of Alaska's post-season inriver Chinook salmon run size index.

[9] Three IPAs have been in place since 2010 and all vessels and CDQ groups have participated in the agreements: the Catcher Processor IPA, Inshore Salmon Savings Incentive Program (Inshore SSIP); and Mothership Salmon Savings Incentive Program (MSSIP).

2.4 Current AFA Management

Each year, the BS pollock TAC is set through the Council's harvest specifications process and NMFS allocates the BS pollock TAC among the sectors. However, before the pollock TAC and subsequent allocations among the sectors are established, the Council and NMFS consider social and economic factors, management uncertainty, and the overall 2 million mt optimum yield limit on the maximum amount of TAC that can be specified for all BSAI groundfish.

The allocations among the BS pollock sectors works as follows. First, 10% of the TAC is allocated to the CDQ Program. After the CDQ pollock allocation is subtracted from the TAC, an amount determined by the Regional Administrator is subtracted from the pollock TAC for the incidental catch of pollock in other groundfish fisheries (this amount is typically around 4% of the TAC). The DFA is then allocated to the inshore CV sector (50%), the C/P sector (40%), and the mothership sector (10%). The CDQ sector's allocation is further apportioned among the CDQ groups and the inshore sector's allocation is further apportioned among the cooperatives and the inshore open access fishery in applicable years (see also Figure 2-1).

NMFS will close the C/P or mothership sectors with an inseason management action to ensure sector allocations of pollock are not exceeded. NMFS has not needed to take inseason action to close these sectors, however, as the cooperatives manage their respective allocations and stop fishing before an allocation is reached. Regulations prohibit the CDQ and inshore sector from exceeding their pollock allocation (see 50 CFR 679.7(d)(3)).

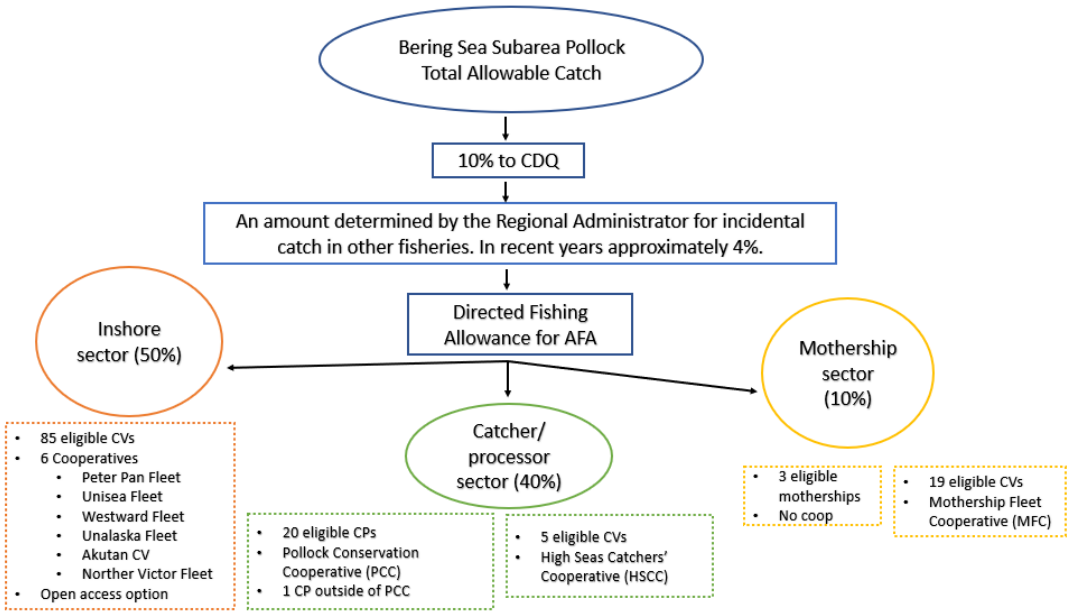


Figure 2-1 Allocations of BS pollock TAC among fishery sectors including the incidental catch allowance
Notes: Vessel counts are based on 2023 data on AFA vessel eligibility from NMFS Restricted Access Management. This aligns with the SSC's recommended approach and the approved year set for the program review. However, in 2024 and 2025, Peter Pan did not file a cooperative application.

The BS pollock TAC is also apportioned seasonally: 45 percent to the A season and 55 percent to the B season. The A season has regulatory dates from January 20 to June 10 whereas the B season has

regulatory dates from June 10 to November 1.[10] Although regulations prohibit reallocation of pollock among the sectors, NMFS may add any remaining portion of a sector's A season allowance to its B season allowance (see 50 CFR 679.20(a)(5)(i)(B)), typically referred to as a "rollover." Additionally, regulations at 50 CFR 629.20(4) allow for the Regional Administrator to reallocate some or all of the projected unused AI directed pollock fishery allocation or AI CDQ pollock to the BS subarea directed pollock fishery.

Section 210(e)(1) of the AFA restricts an individual, corporation, or other entity from harvesting more than 17.5% of the pollock available in the directed fishing allowance. This limit is codified at 50 CFR 679.20(5)(i)(A)(6). Each year, NMFS publishes the limit in the annual harvest specifications. The limit is subject to revision on an in-season basis if NMFS reallocates unharvested amounts of the BS incidental catch allowance or Aleutian Islands pollock to the directed fishing allowance in the BS.

As of January 1, 2000, all vessels and processors aiming to participate in the non-CDQ BS pollock fishery are required to have valid AFA permits on board the vessel or at the processing plant. AFA permits are required even for vessels and processors specifically named in the AFA and are required in addition to any other Federal or State permits. With the exceptions of applications for inshore vessel cooperatives and for replacement vessels, the AFA permit program had a one-time application deadline of December 1, 2000, for AFA vessel and processor permits. Applications for AFA vessel or processor permits were not accepted after this date, and any vessels or processors for which an application had not been received by this date became permanently ineligible to receive AFA permits.

[10] Note, prior to Amendment 110 (2017), 40 percent of the BS pollock TAC was apportioned in the A season and 60 percent was apportioned in the B season. This action was intended to provide additional flexibility in the seasonal apportionments of the BS pollock TAC to allow for more pollock to be harvested if desirable in the A season when Chinook salmon bycatch rates have historically been lower.

3 AFA Cooperative Contracts and Reports

A primary goal of the AFA was to alleviate the race-for-fish in the BS pollock fishery through the establishment of fishery cooperatives. Consequently, this AFA review describes the effects of this goal (and others) on various aspects of fishing operations, including PSC (see Section 6), retention and utilization rates (see Section 8), product mix and markets (see Section 9), spillover of excess harvesting capacity into other fisheries (see Section 10), and fishing vessel safety (see Section 11). The current section prefaces these effects discussions with a brief overview of the development of AFA cooperatives and a description of their contractual structure and annual reporting requirements.

3.1 Overview of the Cooperatives

As described in Section 2.1, the AFA allows for the formation of fishery cooperatives within each AFA sector. A purpose of these cooperatives is to further subdivide each sector or inshore cooperative's pollock allocation among participants in the sector or cooperative through private contractual agreements. The cooperatives manage these allocations to ensure that individual vessels and companies do not harvest more than their agreed-upon share. The cooperatives also facilitate the transfer of BS pollock among cooperative members and enforce contract provisions.

The cooperatives developed under the AFA comply with the requirements of the Fishermen's Collective Marketing Act of 1934. For a fishermen's association to receive the limited antitrust exemption provided by the Fishermen's Collective Marketing Act, it must consist of persons who are engaged in the catching (as opposed to processing) of fish or other aquatic products. Because the membership of AFA cooperatives includes vessels that are also processors and pressor-affiliated vessels, the activities that these cooperatives are allowed to engage in are limited by antitrust laws.

The cooperatives may only coordinate the use of their pollock quota allocation among their members—no joint discussions of purchasing, processing, marketing, or sales are allowed. To ensure that this requirement is met, section 210(a) of the AFA stipulates that any contract implementing an AFA cooperative, or any material modifications to any such contract, must be reviewed the Council, NMFS, and U.S. Department of Justice. Notwithstanding this limitation places on cooperative activities, the AFA provides a powerful incentive for the creation of cooperatives—it reserves a certain percentage of the BS pollock DFA for the members of each cooperative, thereby guaranteeing them a share of the fish that they can harvest at their own pace.

Pollock Conservation Cooperative and High Seas Catchers' Cooperative

Under the AFA, the C/P sector was allowed to choose one of two cooperative options. Either all participants could form a single cooperative that includes both C/Ps and CVs delivering to C/Ps, or C/Ps and CVs could form separate cooperatives and enter into an intercooperative agreement. The latter structure was adopted in 1998.

The Pollock Conservation Cooperative (PCC) contains all eligible C/Ps in the BS pollock fishery, and the High Seas Catchers' Cooperative (HSCC) contains all CVs eligible to delivery pollock to C/Ps. In 1999, the PCC and HSCC completed an inter-cooperative agreement to facilitate efficient management and accurate accounting between the two cooperatives, which remains in force and has not changed since. Although the AFA requires NMFS to make a separate allocation of no less than 8.5 percent of the C/P sector's allocation available to CVs delivering to C/Ps, it has generally been more profitable for members of the HSCC to lease or sell their pollock quota to the PCC and its members (Strong and Criddle 2013).

Mothership Fleet Cooperative

All CVs delivering to AFA motherships have formed a cooperative called the Mothership Fleet Cooperative (MFC). All nineteen of the CVs qualified to participate in the mothership sector are members

of the MFC and bound by the terms of the cooperative membership agreement. Only thirteen of the nineteen CV belonging to the MFS participated in the Alaska groundfish fisheries since 2019. The three AFA motherships have elected not to participate as members of this cooperative despite an exemption to the Sherman Antitrust Act contained within the AFA that allowed them to participate if at least 80 percent of the eligible CVs are members of the cooperative. Under the contractual terms of the MFC, CVs are free to deliver their share to any of the eligible motherships, although CV ownership in a particular mothership often dictates where they deliver their harvests (Strong and Criddle 2013).

Inshore Cooperatives

Under the AFA, CVs delivering BS pollock to AFA-qualified inshore processors are authorized to form a cooperative around each processor. An inshore cooperative is authorized to form if an annual contract is signed by the owners of 80 percent or more of the CVs that delivered the majority of their pollock for processing to an inshore processor in the prior year (see section 210(b) of the AFA). Inshore processors must agree to process the pollock of the members of the cooperative with which they have partnered. In return, cooperative members must deliver at least 90 percent of their allocation to the inshore processor tied to the cooperative. The intent of allowing inshore processors to partner with a cooperative was to provide a structure for processors to share in the expected economic benefits of the AFA, including shifts in higher value products and improved utilization.

The amount of pollock allocated to each inshore cooperative is based on the historical pollock catch of member vessels during the AFA base years. Under 50 CFR 679.2(a), an inshore cooperative that applies for and receives an AFA inshore cooperative fishing permit under 50 CFR 679.4(1)(6) receives an annual pollock allocation amount based on the two years with the highest levels of non-CDQ pollock landings from 1995 through 1997. Since the inshore sector began operating under the cooperative system in 2000, there have been seven inshore cooperatives formed by eligible inshore CVs and their partner inshore processors: Northern Victor Fleet Cooperative, Peter Pan Fleet Cooperative, Unalaska Fleet Cooperative, UniSea Fleet Cooperative, Akutan Catcher Vessel Association, Arctic Enterprise Association, and Westward Fleet Cooperative.

The Arctic Enterprise Association has not been active since 2008. For the first time since the start of AFA in 2000, the Peter Pan Fleet Cooperative did not apply for an AFA Inshore Cooperative Permit for the 2024 BS pollock fishery. Peter Pan Seafoods noted the seafood industry is facing a challenging environment with inflation, interest rate hikes, financing challenges, and high fuel costs. As a result, vessels that were in the Peter Pan Fleet Cooperative had to participate in the inshore open access fishery but were free to deliver their pollock harvest to any inshore processor of their choice including Peter Pan Seafood if they reopen during the B season.

Inshore CVs are not required to join an inshore cooperative. Those vessels that do not join a cooperative are managed by NMFS under the “inshore open access fishery.” Inshore CVs entering open access are free to deliver to the inshore processor of their choice, but they are exposed to the hazards of the race-for-fish both for target catches of pollock and small PSC allocations (Strong and Criddle 2013). Inshore CVs are also free to change cooperatives, but a vessel that wishes to do so must fish in the inshore open access fishery for one year before it can join a new cooperative. The rules also permit other approaches to switching cooperatives. For example, a cooperative (as a whole) can deliver up to 10 percent of its pollock to another processor in any year. If the cooperative designates a single CV to make those deliveries, it is possible that the CV could deliver most of its product to another processor and could switch processors in the following year without having to first participate in the open-access fishery (NMFS 2002).

3.2 Cooperative Contracts

All AFA cooperatives must comply with regulations governing filing deadlines, representative designation, agent appointments, and contract elements, but depending on the sector and type of cooperative, cooperatives may have slightly different stipulations. For instance, cooperatives operating in the C/P or mothership sectors have a deadline to file as a cooperative 30 days before the start of any fishing activity. However, cooperatives operating in the inshore sector are required to file December 1 of the year prior in which fishing under the contract will occur. The December 1 deadline is necessary because inshore sector cooperatives allocations must be included in the BSAI interim harvest specifications that are usually published before January 1 of each year.

Cooperative contracts are binding agreements among members that govern harvest share allocations, harvest share and vessel/license use and transfers, and sideboard compliance. Harvest share allocations are generally consistent with catch history proportions during the AFA base years. They are subject to negotiation, and equitable adjustments are made in some cases. Harvest shares are typically freely transferable among cooperative members. Harvest share enforcement is typically based on liquidated damages for overharvest, with damage amounts set at a multiple of ex-vessel value of product and adjusted as necessary to provide adequate disincentive (Sullivan 2007).

All AFA cooperative contracts must:

- List parties to the contract;
- List all vessels and processors that will harvest and process pollock harvested under the cooperative;
- Specify the amount or percentage of pollock allocated to each party to the contract; and
- Include a contract clause under which the parties to the contract agree to make payments to the State of Alaska for any pollock harvested in the BS pollock fishery which is not landed in the state subject to any landing taxes established under Alaska law.

If a cooperative contains AFA CVs, additional regulations mandate the contract include adequate provisions to prevent each non-exempt member CV from exceeding an individual vessel's sideboard limit for each BSAI or GOA sideboard species or species group that are issued to the vessel by the cooperative.

3.3 Cooperative Reporting Requirements

Section 210(a)(1)(B) of the AFA requires the Council and NMFS to "make available to the public in such manner as the Council and NMFS deem appropriate information about the harvest by vessels under a fishery cooperative of all species (including prohibited species) in the BS directed pollock fishery on a vessel-by-vessel basis." This section summarizes the AFA cooperative reporting requirements; more detailed information is available on the Council website.

All cooperatives are required to provide annual written reports on fishing activity to the Council. These reports must contain at a minimum:

- The cooperative's allocated catch of pollock and sideboard species, and any sub-allocation of pollock and sideboard species made by the cooperative to individual vessels on a vessel basis;
- The cooperative's actual retained and discarded catch of pollock, sideboard species, and PSC on an area and vessel basis;
- A description of the method used by the cooperative to monitor fisheries in which cooperative vessels participate;

- A description of any actions taken by the cooperative to monitor fisheries in which cooperatives vessels participated; and
- A total weight of pollock landed outside the State of Alaska on a vessel basis.

While not a reporting requirement under the AFA, the United Catcher Boats Association is a trade association of trawl CV owners that annually prepares the AFA CV intercooperative report which summarizes the CV cooperative reports. While the individual cooperative reports track the annual activities of each cooperative at the vessel level, a summary of AFA CV harvests in the BSAI and GOA fisheries is useful, as NMFS allocates CV sideboard limits and PSC limits in the aggregate, not by individual cooperatives. The CV intercooperative report provides the Council, and the public, with a simple means of evaluating the AFA CV fleets' aggregate fishing performance under the AFA regulations. Additionally, this report provides information beyond the required regulatory elements of the individual cooperative reports to provide a broader understanding of CV cooperative activities.

The IPAs established under Amendment 91 are not AFA cooperatives. However, federal regulations specify 13 provisions for salmon bycatch avoidance that the IPAs must respond to. As an accountability measure, regulations at 50 CFR 679.21(f)(13) require IPA entities to annually report on their efforts to reduce Chinook and chum salmon bycatch, the effect of incentive measures at the individual vessel-level, how incentive measures impact salmon savings beyond current levels, and more. The written annual reports are made available to the Council, NMFS, and the public prior to March 15 each year.[11]

[11] IPA annual reports are available on the Council's website.

4 Allocation, Harvest, and Value and Participation

This section summarizes the distribution of the annual BS pollock DFA among the cooperatives in each AFA sector and the amount of BS pollock harvested by each cooperative, vessel participation, and ex-vessel and wholesale revenue estimates.

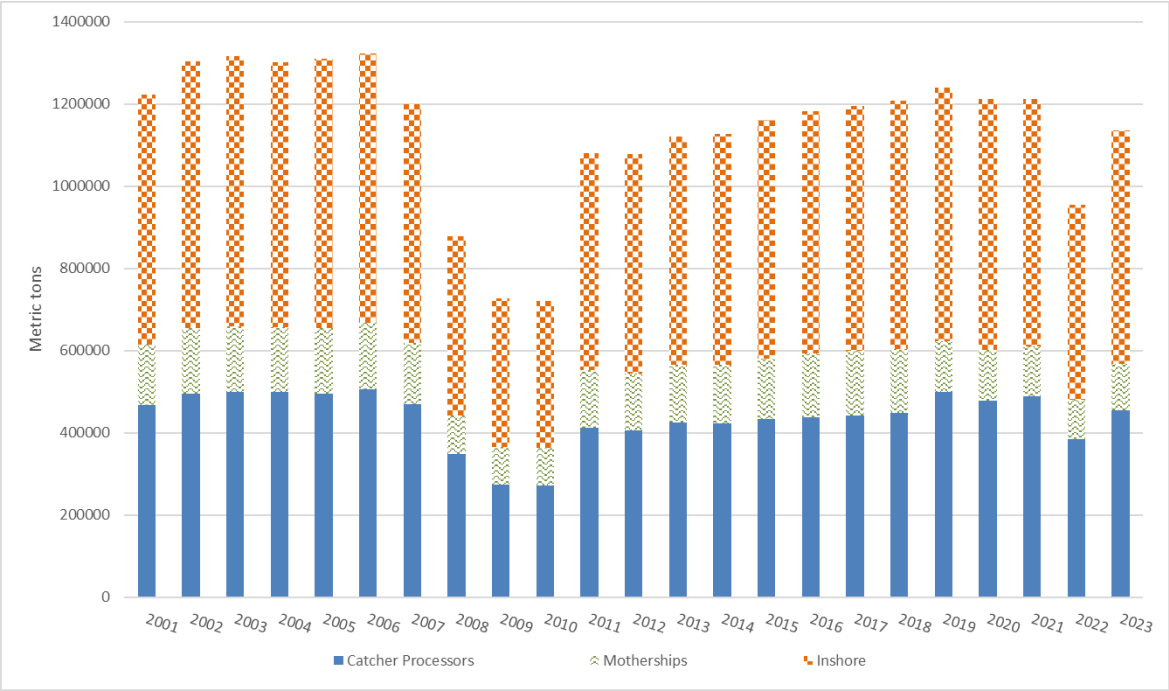
Pollock Harvest

As noted in the 2017 AFA Program Review, the AFA sectors have been able to harvest all or nearly all of the BS pollock DFA since implementation. From 2008–2010, the DFA for BS pollock declined due to a substantial reduction in the BS pollock acceptable biological catch that the Council and NMFS implemented over that timeframe as a precautionary measure to protect the fishery. Stock assessments conducted by NMFS at that time showed a decline in the pollock biomass in the eastern BS. The TAC increased significantly in 2011, reflecting strong growth in the fish population, and the DFA rebounded in turn. In that year, however, a relatively high percentage of the DFA was not harvested due to multiple factors, including poor pollock catch rates and high encounters with Chinook and chum salmon as effort extended deeper into the B season. Salmon PSC rates tend to increase substantially in the latter part of the B season while pollock catches are typically low.

A retrospective evaluation of the AFA fleet's pollock harvest from 2015–2023 shows the sectors have been able to harvest all or nearly all of the BS pollock DFA every year during the review period with the exception of 2020 for C/P sector and 2021 for the inshore sector (see Table 4-1, Table 4-4, and Table 4-6). BS pollock harvest was relatively stable for the first five years (2015–2019). Since 2020, however, the fleet has faced some challenging years due to the COVID-19 pandemic, fishing conditions, and a decline in stock biomass in 2022 (see Figure 4-1). The relevant conditions affecting each recent year are summarized directly below.

- In 2020, reduced harvests of pollock allocations for the C/P and mothership sectors (see Table 4-1 and Table 4-4) were largely related to COVID-19 disruptions. In addition, the pollock stock was widely dispersed which created difficult fishing conditions, coupled with small fish size that generated lower returns (NMFS 2023).
- In 2021, COVID-19 also disrupted the processing activities of inshore facilities which resulted in some processing plant closures during the early part of the A season (although the plants reopened by mid-March). As a result, the inshore sector was unable to fully utilize its pollock allocation in 2021 (see Table 4-6).
- In 2022, the pollock DFA decreased due to a reduction in the BS pollock biomass. The following year, the DFA for BS pollock rebounded along with harvest of BS pollock by the AFA sectors.

Figure 4-1 BS pollock harvest by AFA sectors from 2001 through 2023



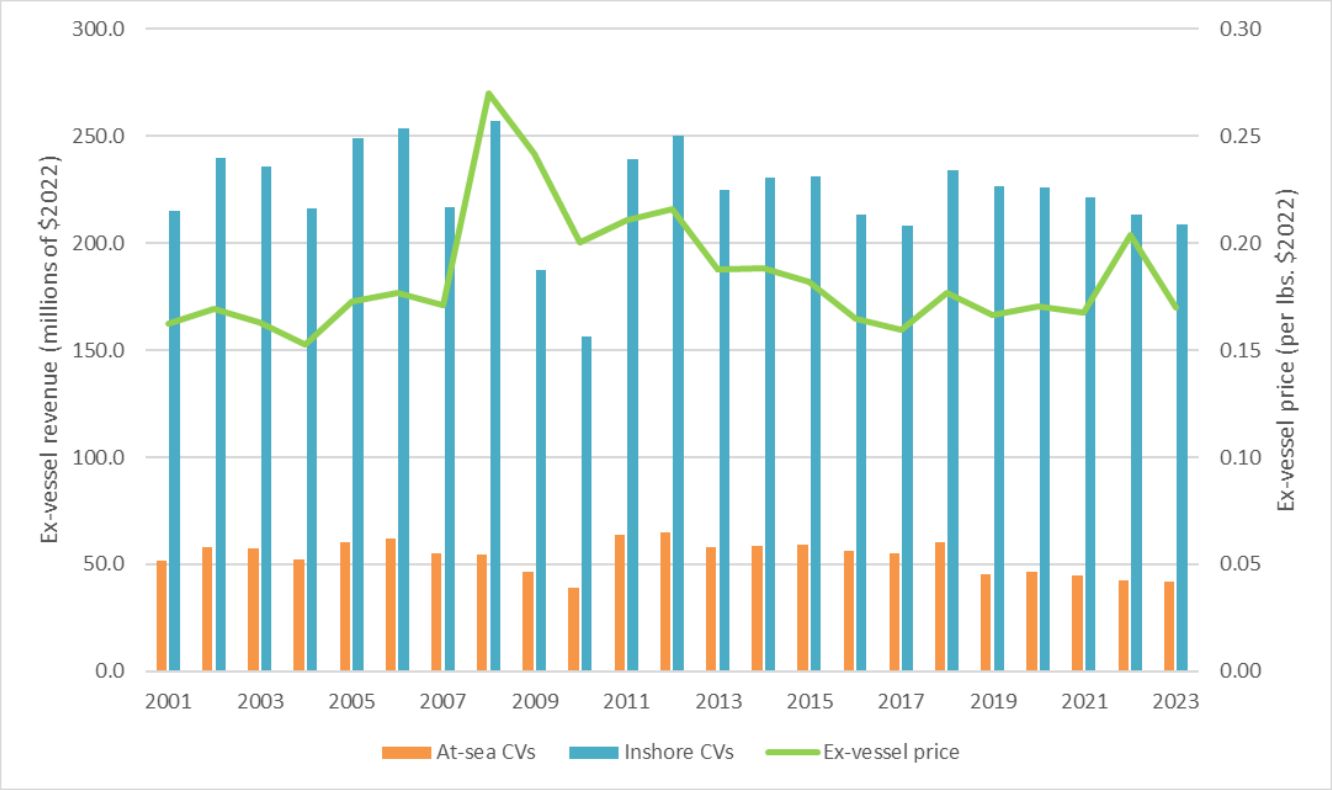
Source: AKFIN; file name is AFA_Landings_1998+(2-16-24)

Ex-Vessel Revenue and Prices

For the first eight years after AFA implementation, ex-vessel revenue earned from the BS pollock fishery by at-sea (mothership CVs and CVs delivering to C/Ps) and inshore CVs varied annually and ranged between $39 million and $156 million in 2010 to a high of over $65 million in 2012 for at-sea CVs and $257 million for inshore CVs in 2008, respectively. The decrease in the DFA from 2008–2010 described above, was also reflected in the decrease in CVs' reported ex-vessel revenue during this period (see Figure 4-2). Ex-vessel prices for BS pollock remained relatively stable from 2001–2007 ranging between $0.15 and $0.18 per pound. Prices noticably increased from 2008–2010, however, to a high of $0.27 per pound due to supply shortages caused by the lower DFA in those years. In the years immediately following the sharp uptick in ex-vessel prices, prices moderated slightly to below $0.18 per pound in 2015. Estimated ex-vessel prices during this same review period were similar for both inshore and offshore vessels.

By comparison, over the current review period of 2015–2023, ex-vessel revenue declined during the first few years, increased in 2018, and decreased over the remaining years. Overall, the revenue earned by at-sea CVs ranged between $42 million in 2022 and $60 million in 2018 whereas the revenue earned by inshore CVs ranged between $208 million in 2017 and $234 million in 2018. Ex-vessel prices remained relatively stable, ranging between $0.16 per pound (2016 and 2017) and $0.20 per pound (2022) (see Figure 4-2). The relative stability in ex-vessel prices since 2020, despite challenges related to COVID-19, were likely due to limited supplies of pollock while at the same time pollock demand has remained strong (McKinley Research, 2021).

Figure 4-2 Ex-vessel revenue of AFA CVs in the BS pollock fishery and ex-vessel price for BS pollock from 2001 through 2023



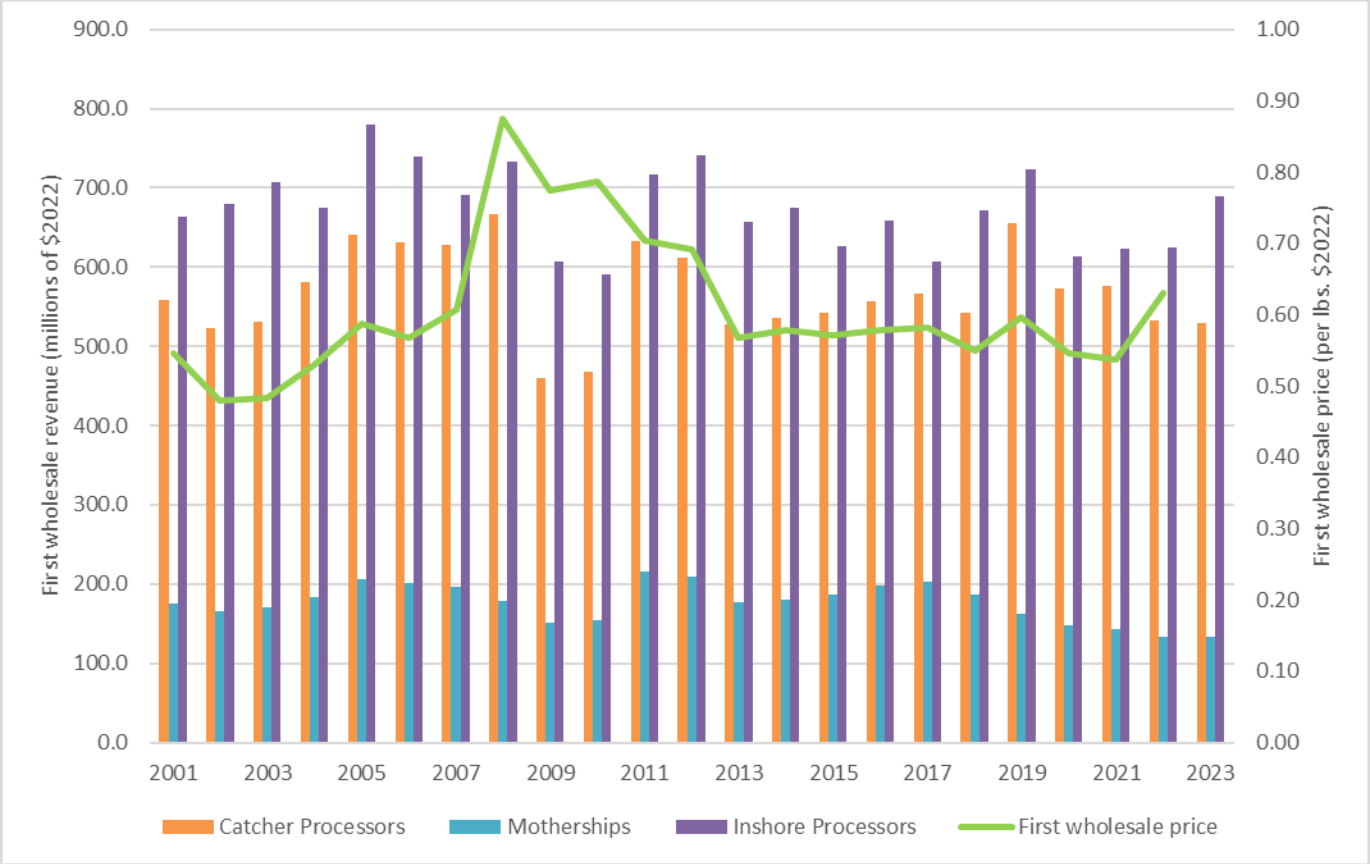
Source: AKFIN data; file name is AFA_Landings_1998+(4-8-25)

First Wholesale Revenue and Prices

As noted in the 2017 Program Review, from 2001–2015, total first wholesale revenue and prices in BS pollock fishery trended upward from a low of combined $1.37 billion in 2002 to a high of slightly over a combined $1.63 billion in 2005 followed by a gradual decline to a combined $1.36 billion over the next 10 years (Figure 4-3). Like BS pollock harvest and ex-vessel revenue, first wholesale revenue also declined from 2008–2010 period due to the decrease in the DFA. Again, from 2001–2015, first wholesale prices tended to fluctuate between $0.48 and $0.88. Following a peak in the first wholesale price in 2008, prices trended downward ranging from a low $0.57 per pound in 2015 to a high of $0.79 per pound in 2010.

In contrast to the prior review period, from 2015–2023, wholesale revenue and prices for BS pollock remained relatively stable with gradual fluctuations (see Figure 4-3). Total first wholesale revenue for BS pollock ranged between a low of $1.29 billion in 2022 to a high of $1.54 billion in 2019. First wholesale prices ranged from a high of $0.63 per pound of BS pollock to a low of $0.54 per pound in 2021.

Figure 4-3 First wholesale revenue for AFA processors in the BS pollock fishery and first wholesale price for BS pollock from 2001 through 2023



Source: AKFIN data; file name is AFA_Landings_1998+(4-8-25)

4.1 Catcher/Processor Sector Participation

AFA C/P Sector Participation from 2000–2015

During the prior review periods, the PCC harvested greater than 99 percent of its annual allocation of BS pollock from 2000–2014, except 2011 when 95.8 percent of the allocation was harvested (see Table 4-1). In terms of vessel activity, between one and five C/Ps did not participate in the BS pollock fishery in a given year during that period, either because the vessels chose to lease their allocation and not fish or the companies chose to fish with fewer vessels (Table 4-1). According to PCC reports, two vessels did not actively participate in the BS pollock fishery during most years from 2000–2015, both of which have limited processing capacity in comparison to other AFA C/Ps and participated in non-pollock sideboard fisheries. AFA CVs eligible to deliver BS pollock to C/Ps were typically inactive in the fishery, usually finding it more profitable to lease or sell the pollock quota to the PCC and its members (Table 4-1). Five of the seven HSCC vessels were active in other non-pollock fisheries.

AFA C/P Sector Participation from 2015–2023

Except for 2020 when 94.1 percent of the allocation was harvested, the PCC has harvested greater than 99 percent of its annual allocation of BS pollock while remaining relatively stable in the number of C/Ps actively harvesting their BS pollock allocations during the 2015–2023 period (see Table 4-1). During the 2020 fishing season, the PCC harvested 94 percent of the BS pollock allocation.

Compared to the prior review period, the number of active C/Ps has declined (see Table 4-2). From 2015–2018, 14 C/Ps participated in the BS pollock fishery; 13 C/Ps have been active since 2019. Similar to the prior review period, and as discussed in PCC reports, two C/Ps did not actively participate in the BS pollock fishery during the 2015–2023 period. These two vessels, both of which have limited processing capacity in comparison to other AFA C/Ps, participated in non-pollock sideboard fisheries.

As for the HSCC, as noted in Table 4-1 and Table 4-3, all of the HSCC allocation was transferred to the PCC each year and there were no active vessels in the BS pollock fishery. The one exception was 2008, when one CV harvest a portion of the sector's allocation. In 2022, Trident Seafoods purchased the F/V *Starbound* from Aleutian Spray Fisheries and the Aleutian Pribilof Island Community Development Association. This purchase is reflected in Table 4-3 as the F/V *Starbound* quota is now included with Trident Seafoods quota.

Table 4-1 AFA C/P pollock allocation and harvest from 2000 through 2023

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pollock Conservation Cooperative																								
Percent CP sector allocation	91.1	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.1	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5
Cooperative allocation (1,000 mt)	356.5	444.7	471.3	478	475.5	478.6	483.4	445.4	317.2	256.9	258.7	404.6	387.3	401	403.7	418.8	429.5	432.6	437.3	448.5	455.7	439.4	347.8	414.5
Transfers from HSCC (1,000 mt)	34.7	41.5	43.9	44.4	44.2	44.5	44.9	43.2	28.1	23.9	24	37.6	36	37.5	39.4	38.9	38.8	40.2	40.6	41.7	42.3	40.8	32.3	38.5
Final allocation (1,000 mt)	391.2	486.2	515.2	522.4	519.7	523.1	528.3	488.6	345.3	280.8	282.7	442.2	423.3	438.5	443.1	457.7	468.3	472.8	477.9	490.2	498	480.2	380.1	453
Percent harvested	100.0	99.4	100.0	100.0	99.4	100.0	100.0	100.0	99.9	100.0	100.0	95.8	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	94.1	100.0	100.0	100.0
High Seas Catchers' Cooperative																								
Percent CP sector allocation	8.9	8.5	8.5	8.5	8.5	8.5	8.5	8.8	8.5	8.5	8.5	8.5	8.5	8.5	8.9	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Cooperative allocation (1,000 mt)	34.7	41.5	43.9	44.4	44.2	44.5	44.9	43.2	29.5	23.9	24.0	37.6	36.0	37.5	39.4	38.9	38.8	40.2	40.6	41.7	42.3	40.8	32.3	38.5
Transfers from PCC (1,000 mt)	-34.7	-41.5	-43.9	-44.4	-44.2	-44.5	-44.9	-43.2	-28.1	-23.9	-24.0	-37.6	-36.0	-37.5	-39.4	-38.9	-38.8	-40.2	-40.6	-41.7	-42.3	-40.8	-32.3	-38.5
Final allocation (1,000 mt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent harvested	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Cooperative Reports; Source file is Allocation and harvest tables.

Table 4-2 AFA C/P activity in the BS pollock fishery from 2000 through 2023

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	2020	2021	2022	2023
Number of vessels	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Number of active vessels	14	15	16	16	17	16	16	16	18	14	14	15	14	14	15	14	14	14	14	13	13	13	13	13

Source: Cooperative reports; Source file is Consolidation and Participation

*Glacier Fish Company starting in 2019 consolidated its harvest of its allocation from two vessels to one vessel

Table 4-3 AFA C/P companies and their pollock directed fishery allocation and Pollock Conservation Cooperative shares, 2000, 2015, and 2023

	2000		2015		2023	
	BS pollock DFA share (%)	PCC share (%)	BS pollock DFA share (%)	PCC share (%)	BS pollock DFA share (%)	PCC share (%)
PCC Catcher Processors						
Alaska Ocean Seafood LLP	2.99	7.47	-	-	-	-
Highland Light	1.75	4.39	-	-	-	-
C/P Northern Hawk, LLC	0.00	0.00	1.00	2.73	1.00	2.73
Starbound, LLC[1]	1.58	3.94	1.59	4.33	-	-
Arctic Fjord, Inc.	1.78	4.46	1.79	4.90	1.79	4.90
Arctic Storm, Inc.	1.83	4.58	1.84	5.03	1.84	5.03
Glacier Fish Company, LLC	3.20	8.00	6.22	17.00	6.22	17.00
Trident Seafoods Corp.	6.79	16.96	6.82	18.64	8.41	22.97
American Seafoods, LLC	16.48	41.20	17.34	47.37	17.34	47.37
PCC total	**36.40**	**91.00**	**36.6**	**100**	**36.6**	**100**
Other vessels in the Catcher Processor Sector						
HSCC vessels	3.4	8.5	3.4	8.5	3.4	8.5
F/V Ocean Peace	0.2	0.5	0.2	0.5	0.2	0.5
Catcher processor sector total	**40**	**100**	**40**	**100**	**40**	**100**

Source: Cooperative reports; Source file is Consolidation and Participation

[1] Starting in 2022, the F/V Starboard is included with Trident Seafood Corporation's totals.

4.2 Mothership Sector Participation

There are 19 CVs eligible to deliver pollock to three eligible motherships under the AFA and have formed a cooperative called the Mothership Fleet Cooperative.[12] Thirteen CVs are "dual qualified" for both the mothership and inshore sector pollock fisheries. These CVs can deliver their pollock to an inshore processor or a mothership. The Mothership Fleet Cooperative does not include the owners of the three AFA eligible motherships. Under the contractual terms of the Mothership Fleet Cooperative, CVs can deliver their pollock to any of the eligible motherships, although CV ownership in a particular mothership often dictates where they deliver their harvests.

Like the C/P sector, the Mothership Fleet Cooperative subdivides their respective pollock allocations among members, but NMFS monitors the pollock harvest and retains the authority to close directed fishing for pollock by the sector if vessels in that sector continue to fish once the sector's seasonal allocation of pollock has been harvested.

AFA Mothership Sector Participation 2000–2015

From 2000–2015, the mothership sector harvested nearly 100 percent of their allocation (Table 4-4) while experiencing a shift in participation. Initially, all 19 CVs eligible under the AFA were active in the fishery but participation declined to 14 in some years, although 15 CVs were active in 2015 (Table 4-5). The number of active vessels consistently surpassing 105 percent of their original allocations has ranged between 9 vessels and 12 vessels, suggesting a slight redistribution of shares from vessels exiting the fishery throughout the period reviewed. Of the 19 CVs eligible under the AFA program, six are exclusively mothership-qualified CVs. Of these six CVs, three remained active throughout 2000–2015, one dropped out after 2004, one after 2012, and one was inactive. Dual-qualified vessels often landed catches in both sectors during their active years, illustrating the complex dynamics of participation in the AFA mothership sector.

AFA Mothership Sector Participation 2015–2023

As shown in Table 4-4 and Table 4-5, from 2015–2023, the mothership sector harvested greater than 99 percent of its BS pollock every year except in 2020 when the cooperative harvested 98.3 percent. The number of AFA-affiliated CVs has remained unchanged at 19. Mothership CV participation has continued to decline to a degree, given 13 CVs were active in 2022 and 11 CVs were active in 2023. Of those active CVs in the BS pollock fishery, the number of CVs that have harvested greater than 105 percent of their initial allocation of BS pollock has fluctuated between 8 CVs in 2023 to a high of 12 CVs in 2021.

[12] Vessel count of active motherships is included in Table 7-8.

Table 4-4 AFA mothership sector allocation and harvest from 2000 through 2023

	Mothership Fleet Cooperative																							
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Percent of AFA allocation	N/A	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Cooperative allocation (mt)	N/A	122.2	129.2	130.6	129.9	130.8	132.1	122.1	86.8	70.4	70.7	110.6	105.8	110.2	111.3	114.4	117.1	118.2	119.5	122.5	124.5	120.1	95.0	113
Percent harvested	N/A	99.3	100.0	100.0	99.5	99.9	99.5	99.5	98.3	99.8	99.8	99.4	99.6	99.9	99.7	100.0	100.0	100.0	99.9	100.0	98.3	100.0	100.0	99.50

Source: Cooperative Reports; Source file is Allocation and harvest tables.

NA indicates that data are unavailable

Table 4-5 Mothership Fleet Cooperative CV activity in the BS pollock fishery from 2000 through 2023

	Mothership Fleet Cooperative																							
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of affiliated vessels	N/A	20	20	20	20	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Number of active vessels in the directed pollock fishery	N/A	19	17	17	18	17	17	17	17	17	14	14	15	14	15	15	15	14	14	15	15	14	13	11
Number of vessels harvesting greater than 105% of their allocation	N/A	11	10	10	9	12	12	12	11	10	12	11	12	10	11	9	10	11	9	10	10	12	11	8

Source: Cooperative reports; Source file is Consolidation and Participation

NA indicates that data are unavailable

4.3 Inshore Sector Participation

AFA Inshore Sector Participation from 2000–2015

As described in Section 3.1, the inshore sector cooperatives are formed among an inshore processor and the CVs delivering to it. The inshore sector originally included the Northern Victor Fleet Cooperative, Peter Pan Fleet Cooperative, Unalaska Fleet Cooperative, UniSea Fleet Cooperative, Akutan Catcher Vessel Association, Arctic Enterprise Association, and Westward Fleet Cooperative.

The Akutan Catcher Vessel Cooperative harvested 33 percent of the inshore sector allocation in 2015. Three shoreside processors in King Cove and Unalaska/Dutch Harbor, utilized the Peter Pan Fleet Cooperative, Westward Fleet Cooperative, and Unalaska Cooperative to secure around 33 percent of the sector allocation in that same year. Similarly, the shoreside processor in Unalaska/Dutch Harbor, participated in the UniSea Fleet Cooperative, harvesting 25 percent of the sector allocation in 2015. The floating processor *Northern Victor* participated in the Northern Victor Fleet Cooperative harvesting approximately 11 percent of the inshore allocation in 2015.

In analyzing the performance of active vessels in the inshore fishing sector, the 2017 program review noted that roughly one-third of the inshore CVs consistently harvested more than 105 percent of their allocations, while the remaining two-thirds harvested less than their initial allocation. Nevertheless, it was noted by the authors that the relative stability of these numbers indicates that consolidation levels have stabilized. It was also noted that cooperative dynamics also likely played a role in the distribution of catch, with the phasing out of the Arctic Enterprise Association and shifts in vessel affiliations within cooperatives like the Akutan Catcher Vessel Association and changes in the Westward Fleet Cooperative and Northern Victor Fleet Cooperative. Notably, catch concentration varied among cooperatives, with some exhibiting a more even distribution, as seen in the UniSea Fleet Cooperative.

The leasing of pollock allocation to non-member AFA CVs, allowed by Amendment 69, has been generally limited, averaging around 2 percent annually since 2003. However, exceptions include instances where the Arctic Enterprise Association and Peter Pan Fleet Cooperative leased significant portions of their allocations in certain years. The entry of inshore CVs into the open access fishery, allowing for cooperative switching, has been consistently small, exposing participants to the challenges of the race-for-fish and small PSC allocations.

AFA Inshore Sector Participation from 2015–2023

As shown in Table 4-6, the inshore sector has generally succeeded in harvesting nearly all its annual allocation of BS pollock from 2015–2023. Only in 2021 did the percent of harvested allocation fall below 99 percent when 96.2 percent of the sector's allocation was harvested. During this period, the number of affiliated and active vessels has declined slightly, while the number of vessels harvesting greater than 105 percent of their initial allocation of BS pollock has continued to be approximately one-third of the active vessels (see Table 4-8). The number of affiliated CVs has trended down from a high of 91 vessels in 2015 to a low of 84 vessels in 2023. The number of active vessels has also trended down from a high of 83 vessels in 2016 to a low of 69 vessels in 2023. Of those active CVs, the number of CVs that have harvested greater than 105 percent of their initial allocation of BS pollock has fluctuated of high of 38 CVs in 2019 to a low of 25 CVs in 2020. In 2023, 36 vessels harvested greater than 105 percent of their initial allocation.

Amendment 69 provided each inshore cooperative flexibility to lease a portion of its pollock allocation to non-member AFA CVs to ensure that the cooperative was able to harvest its entire allocation. Overall, the leasing of BS pollock allocation has not been significant during this review period, averaging 1.95 percent annually since 2015. The Peter Pan Fleet Cooperative was an exception to this trend and continued to lease a large portion of their allocation. (Note, as discussed previously, the Peter Pan Fleet Cooperative did not file an AFA cooperative application in either the 2024 or 2025 fishing years.)

Table 4-6 AFA Inshore Cooperatives BS pollock allocation and harvest from 2000 through 2023

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
All Inshore Cooperatives Combined																								
Percent inshore sector allocation	N/A	N/A	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	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cooperative allocation (1,000 mt)	N/A	N/A	643.8	651.9	649.3	653.8	659.9	610.4	434.2	352.1	351	552.7	529.1	550.8	556.6	560.9	571.2	591.0	597.4	612.5	622.4	600.3	475.2	560.5
Harvest (1,000 mt)	N/A		643.8	651.2	636.3	646.6	644.1	571.9	427.7	350.7	348.6	519.5	525.4	549.1	555.5	559.2	569.9	590.2	596.1	612.2	620.8	577.7	472.8	558.5
Percent leased	N/A	N/A	0	0.2	1.3	3	1.8	2.2	2.1	3.3	2.7	1.2	1.2	2.3	2.4	2.6	2.2	1.0	1.1	2.0	1.3	1.4	1.1	2.0
Percent harvested	N/A	N/A	100	99.9	98	98.9	97.6	93.7	98.5	99.6	99.4	94	99.3	99.7	99.8	99.7	99.8	99.9	99.8	99.9	99.7	96.2	99.5	99.71
Akutan Catcher Vessel Association																								
Percent inshore sector allocation	N/A	29.4	28.2	28.1	28.1	28.1	31.2	31.1	31.1	32.8	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	33.2	33.8	33.8	33.8	33.8	33.8
Cooperative allocation (1,000 mt)	N/A	175.2	181	183.4	182.4	183.9	205.7	189.9	135.2	115.5	113	178.3	170.7	177.7	179.6	184.6	188.9	190.7	198.6	207.0	210.3	202.8	160.6	191.3
Harvest (1,000 mt)	N/A	174.8	181.2	183.2	178.6	181.3	197.1	178.7	133.8	115.2	112.1	172.2	167.6	177.0	179.4	184.5	188.7	190.4	198.5	206.9	197.4	202.5	160.3	191.2
Percent leased	N/A	0	0	0.9	2.3	5.2	0.3	0.1	0.4	2	1	0.1	0.1	2.2	2	1.4	2.4	2.6	1.3	2.0	1.5	2.4	2.8	0
Percent harvested	N/A	99.8	99.9	99.9	97.9	98.6	95.8	94.1	99	99.7	99	96.6	98.2	99.6	99.9	99.9	99.9	99.9	100.0	99.9	93.8	99.8	99.8	99.9
Arctic Enterprise Assocation																								
Percent inshore sector allocation	N/A	6.0	4.2	4.2	4.2	4.2	1.1	1.1	1.1															
Cooperative allocation (1,000 mt)	N/A	35.8	27.2	27.5	27.3	27.5	7.6	7.0	5.0															
Harvest (1,000 mt)	N/A	35.8	27.1	27.5	27.2	27.5	7.6	6.5	5.0								**Inactive**							
Percent leased	N/A	0.0	0.0	0.0	3.5	3.0	99.9	93.0	92.7															
Percent harvested	N/A	99.9	99.8	99.9	99.8	99.9	99.9	93.0	99.9															
Peter Pan Fleet Cooperative																								
Percent inshore sector allocation	1.6	N/A	2.1	2.1	2.1	2.7	2.8	2.9	2.9	2.9	2.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.7	2.7	2.7	2.7	2.5	1.5
Cooperative allocation (1,000 mt)	3.5	N/A	13.7	13.8	13.9	17.8	18.8	17.6	12.5	10.2	10.2	13	12.4	12.9	13	13.4	13.7	13.9	9.9	16.2	16.6	16.1	11.9	8.4
Harvest (1,000 mt)	3.5	N/A	13.6	13.8	13.9	17.2	17.0	16.9	9.6	9.9	9.5	11.8	11.7	12.4	12.4	12.7	13.1	13.7	9.7	15.3	14.3	14.0	10.8	7.3
Percent leased	0	N/A	0	0	7.4	0	10.3	23.3	28.2	44.6	23.6	13.3	5	39.6	41	36.8	44.3	7.8	6.5	25.9	16.2	18.6	6.1	2.9
Percent harvested	100.1	N/A	99.4	99.7	99.7	96.9	90.5	96.1	76.9	97.4	92.8	90.8	94	95.8	95.7	94.4	95.7	98.6	98.5	94.4	86.4	86.7	90.8	86.9

Source: Cooperative reports; Source file is Allocation and harvest tables

NA indicates that data are unavailable

Table 4-7 AFA Inshore Cooperatives BS pollock allocation and harvest from 2000 through 2023 (continued)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Northern Victor Fleet Cooperative																								
Percent inshore sector allocation	15.8	8.5	8.5	8.4	8.4	8.4	8.4	8.4	9.5	9	9.5	9.4	9.7	9.7	10.7	10.7	11.9	10.6	10.6	10.6	10.6	10.6	10.8	10.8
Cooperative allocation (1,000 mt)	33.6	50.9	54.5	55	54.7	55.1	55.3	51.4	41.2	31.5	33.1	51.8	51.2	53.3	59.5	61.2	69.7	62.7	63.4	65.0	66.0	63.7	51.2	61
Harvest (1,000 mt)	33.3	50.7	54.3	54.9	54.1	54.6	53.2	49.3	40.6	31.1	33.1	51.7	51.0	53.2	59.5	60.8	69.7	61.9	63.4	64.5	61.0	63.2	51.2	60.3
Percent leased	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.6	0.2	0.0	0.0	1.2	0.0	0.0	0.1	0.0	0.2
Percent harvested	99.1	99.7	99.7	99.9	98.9	99.1	96.2	96	98.6	98.6	99.9	99.9	99.7	99.8	100	99.3	99.9	98.8	100.0	99.3	92.4	99.3	100.0	98.9
UniSea Fleet Cooperative																								
Percent inshore sector allocation	55.6	24.7	23	23.1	23.2	24.4	25.3	25.3	24.3	24.3	26.2	26.5	26.5	26.5	26.5	25.0	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1
Cooperative allocation (1,000 mt)	118.4	147.6	148	150.6	150.4	159.7	167.2	154.7	105.3	85.4	91.7	146.4	140.1	145.9	147.7	140.2	129.3	130.6	132.0	135.4	137.5	132.6	105.0	125.1
Harvest (1,000 mt)	118.4	148.9	148.9	150.4	150.1	158.6	166.7	148.7	104.7	85.4	91.7	133.4	140.1	145.9	147.7	140.2	126.3	130.6	132.0	135.4	137.5	132.6	105.0	125.1
Percent leased	0	0	0	0	0	0	4.3	0	0	0	0	0	0	0.1	0.2	0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Percent harvested	100	100.9	101	99.9	99.8	99.3	99.7	96.1	99.4	100	100	91.1	100	100	100	100.0	97.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Westward Fleet Cooperative																								
Percent inshore sector allocation	N/A	18.8	21.8	21.8	21.7	19.9	18.9	18.9	18.9	18.9	18.6	18.5	18.2	18.2	18.2	18.2	18.9	19.4	19.4	19.4	19.4	19.4	19.4	19.4
Cooperative allocation (1,000 mt)	N/A	112.4	140	141.9	141.1	129.9	124.8	115.5	82.1	66.5	65.3	102.2	96.2	100.2	101.2	104.0	110.8	114.5	115.8	118.7	120.6	116.3	92.1	109.7
Harvest (1,000 mt)	N/A	111.8	140.0	141.8	137.0	127.3	121.9	102.4	81.1	66.1	65.3	90.7	96.2	100.2	101.2	104.0	110.8	114.5	115.8	118.7	117.7	116.3	92.1	109.7
Percent leased	N/A	0	0	0	0	0	0.8	1.7	0.4	6.9	8.8	4.6	5.9	3.4	3.3	6.3	3.2	3.1	2.9	3.3	3.1	2.9	3.8	3.2
Percent harvested	N/A	99.5	99.9	99.9	97.1	98	97.7	88.7	98.8	99.4	100	88.7	100	100	100	100.0	100.0	100.0	100.0	100.0	97.6	100.0	100.0	100.0
Unalaska Cooperative																								
Percent inshore sector allocation	26.9	12.5	12.3	12.2	12.2	12.2	12.2	12.2	12.2	12.2	10.6	11	11	11	10	10.2	10.0	12.0	11.5	11.5	11.5	11.5	11.5	11.5
Cooperative allocation (1,000 mt)	57.3	74.9	78.9	79.7	79.3	79.8	80.5	74.5	52.9	42.9	37.1	61	58.4	60.8	55.8	57.4	58.7	70.9	68.4	70.2	71.3	68.8	54.4	6.5
Harvest (1,000 mt)	57.1	74.8	78.9	79.7	75.5	79.8	80.5	69.4	52.9	42.9	37.1	59.7	58.4	60.5	55.6	57.3	58.7	70.9	68.4	70.1	71.1	68.7	0.0	6.5
Percent leased	0	0	0	0	3.2	3.1	0.7	0.4	0.4	0	0.7	0	0	0.1	0.4	0.0	0.0	0.0	0.7	1.9	0.2	0.0	0.0	7.1
Percent harvested	99.7	99.9	100	100	95.2	100	100	93.1	100	100	100	97.9	100	99.5	99.6	99.8	100.0	100.0	100.0	99.9	99.8	99.9	0.0	100.0

Source: Cooperative reports; Source file is Allocation and harvest tables

NA indicates that data are unavailable

Table 4-8 Inshore cooperative CV activity in the BS pollock fishery, by cooperative from 2000 through 2023

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Akutan Catcher Vessel Association																								
Number of affiliated vessels	N/A	33	33	33	33	34	36	36	36	38	36	37	37	37	34	34	34	34	34	34	34	34	34	34
Number of active vessels in the directed pollock fishery	N/A	31	30	29	29	30	31	33	32	34	32	33	33	32	33	33	32	31	29	27	30	31	30	29
Number of vessels harvesting greater than 105% of their allocation	N/A	9	11	6	10	9	13	10	13	18	13	12	17	14	16	13	8	10	9	16	7	11	10	17
Arctic Enterprise Association																								
Number of affiliated vessels	N/A	4	3	3	3	3	1	1	1															
Number of active vessels in the directed pollock fishery	N/A	4	3	3	3	3	0	0	0							**Inactive**								
Number of vessels harvesting greater than 105% of their allocation	N/A	0	0	0	1	1	0	0	0															
Peter Pan Fleet Cooperative																								
Number of affiliated vessels	5	N/A	9	9	9	11	10	10	10	10	10	9	9	9	9	9	9	9	8	9	9	9	8	7
Number of active vessels in the directed pollock fishery	5	N/A	6	6	6	7	7	5	5	6	5	6	5	5	4	8	8	6	5	5	6	8	4	3
Number of vessels harvesting greater than 105% of their allocation	1	N/A	3	6	6	5	3	4	2	2	3	3	1	3	2	0	0	3	1	2	1	0	2	1
Northern Victor Fleet Cooperative																								
Number of affiliated vessels	10	12	13	13	13	13	13	14	14	13	14	14	15	15	16	16	17	16	16	16	15	15	16	15
Number of active vessels in the directed pollock fishery	10	10	12	12	12	12	11	11	11	9	12	11	13	12	13	13	15	13	12	12	12	12	13	12
Number of vessels harvesting greater than 105% of their allocation	5	5	5	4	4	3	3	4	4	5	6	5	6	6	5	7	11	9	10	9	7	7	6	10
Unisea Fleet Cooperative																								
Number of affiliated vessels	14	12	11	11	12	13	14	14	13	13	14	15	15	15	15	14	13	13	13	13	13	12	12	12
Number of active vessels in the directed pollock fishery	13	12	11	11	12	12	13	14	13	13	13	13	13	13	13	12	13	11	11	11	11	11	11	11
Number of vessels harvesting greater than 105% of their allocation	10	0	0	0	1	3	5	3	1	2	1	1	4	3	1	2	1	2	2	2	2	2	2	0
Westward Fleet Cooperative																								
Number of affiliated vessels	N/A	14	15	16	16	13	12	12	12	12	11	11	10	8	8	8	8	8	8	8	8	8	8	8
Number of active vessels in the directed pollock fishery	N/A	10	11	13	14	11	9	9	9	9	8	8	8	7	6	8	7	8	8	8	8	8	7	8
Number of vessels harvesting greater than 105% of their allocation	N/A	3	8	9	9	5	6	5	6	4	4	3	6	5	4	4	5	4	4	4	4	5	5	5
Unalaska Fleet Cooperative																								
Number of affiliated vessels	11	11	11	11	11	11	11	11	11	11	10	11	11	11	10	10	9	10	9	9	9	9	9	8
Number of active vessels in the directed pollock fishery	9	9	9	9	9	9	9	8	8	8	9	9	9	8	8	8	8	8	7	8	8	8	6	6
Number of vessels harvesting greater than 105% of their allocation	6	6	3	4	3	5	3	3	6	5	5	6	6	5	4	4	5	6	5	5	4	4	3	3
Total Inshore Cooperatives																								
Number of affiliated vessels	N/A	N/A	95	96	97	98	97	98	97	97	95	97	97	95	92	91	90	90	88	89	88	87	87	84
Number of active vessels in the directed pollock fishery	N/A	N/A	82	83	85	84	80	81	79	79	78	80	81	78	77	82	83	77	72	71	75	78	71	69
Number of vessels harvesting greater than 105% of their allocation	N/A	N/A	30	29	34	31	33	29	32	36	32	30	40	36	32	30	30	34	31	38	25	29	28	36

Source: Inshore Cooperative reports; Source file is Consolidation and Participation

NA indicates that data are unavailable

4.4 Effects of Participation on Employment

This portion of the review briefly examines how changes in the level of participation of the AFA sectors in the BS pollock fishery affected crew positions aboard AFA C/Ps, CVs, and motherships. NMFS observer records report the number of crew positions is estimated over the course of each year for each vessel, and then the averages are summed over all vessels by sector.

Employment trends from the previous AFA Program Review trended upward during the 2000 through 2015 period for AFA shoreside processing plants, while crew positions increased early in the program but then exhibited a slight downward trend over the remaining review period due to a decline in the number of active vessels.

Table 4-9 and Figure 4-4 provides a breakdown of positions by C/Ps, motherships, and CVs and average employment at AFA inshore processors from 2015 through 2023. From 2015–2023, crew positions for C/Ps generally fluctuated between 1,558 positions and 1,665. AFA CV crew position numbers were generally flat or increasing slightly during the 2015 through 2023 period ranging from a low of 386 positions to high of 452 positions. Mothership positions increased slightly during the 2015 through 2023 ranging from 258 positions to 369 positions. For AFA inshore processors employment, average employment during 2015 through 2017 hovered around 1,800 positions, but starting in 2018, employment declined for several years to a low of 1,331 positions in 2020. Following this dip in average annual employment in 2020, average employment at AFA inshore processors increased to levels seen prior to the decline in 2018 (1,761).

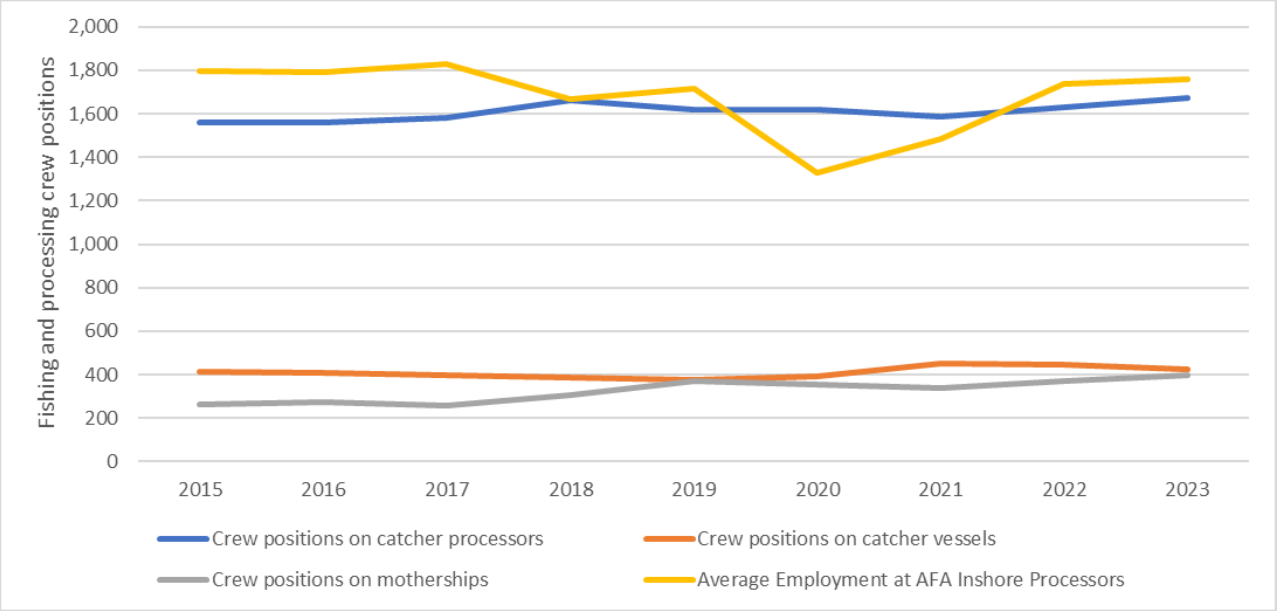
Table 4-9 Annual crew positions for AFA C/Ps, motherships, and CVs, and average employment at AFA inshore processors for 2015 through 2023

Year	Crew positions on catcher processors	Crew positions on catcher vessels	Crew positions on motherships	Average Employment at AFA Inshore Processors
2015	1,558	412	262	1,797
2016	1,561	410	275	1,793
2017	1,580	398	258	1,827
2018	1,665	389	304	1,668
2019	1,620	374	371	1,716
2020	1,619	393	352	1,331
2021	1,585	452	337	1,485
2022	1,631	448	369	1,740
2023	1,674	425	399	1,761

Source: AKFIN for crew positions and Alaska Department of Labor and Workforce Development for inshore processor positions

Source file is afa_employment(2-15-24)

Figure 4-4 Annual crew positions for AFA C/Ps, motherships, and CVs from 2015 through 2023



Source: AKFIN for crew positions and Alaska Department of Labor and Workforce Development for inshore processor positions.

5 Excessive Harvesting and Processing Limits

Section 210(e) of the AFA sets out excessive harvesting and processing limits for participants to prevent the excessive consolidation of participants and privileges in the AFA Program. This section also established that any entity in which 10 percent or more of the interest is owned or controlled by another individual or entity shall be considered to be the same entity as the other individual or entity. This is referred to as the "AFA 10 percent rule."

To implement the "AFA 10 percent rule," in § 679.2, NMFS defines an ''AFA entity'' as a group of affiliated individuals, corporations, or other business concerns that harvest or process pollock in the BS directed pollock fishery. The proposed rule for the AFA Program states that the concept of ''affiliation'' is central to the definition of ''AFA entity'' (66 FR 65049; December 17, 2001). Simply stated, ''affiliation'' means a relationship between two or more individuals, corporations, or other business concerns in which one concern directly or indirectly owns a 10 percent or greater interest in the other, exerts 10 percent or greater control over the other, or has the power to exert 10 percent or greater control over the other; or a third individual, corporation, or other business concern directly or indirectly owns a 10 percent or greater interest in both, exerts 10 percent or greater control over both, or has the power to exert 10 percent or greater control over both. The proposed rule for the AFA Program also states that ownership and control are overlapping concepts that may arise through a wide variety of relationships between two or more individuals, corporations, or other business concerns. Affiliation may arise through various relationships, such as: ownership, stock ownership, management control, or control over operations and manning (personnel).

The harvesting activity and processing activity of AFA participants is determined by adding up an entity's direct harvest or processing along with the harvest or processing of any other affiliated entities as determined by the 10 percent threshold. CDQ groups are not held to the "AFA 10 percent rule" and are instead held to the individual and collective rule, which attributes ownership proportionally[13] as directed by the MSA (Section 305(i)(1)(F)(i)). Section 210(e)(3) of the AFA directs the Maritime Administration (MARAD) (under the Department of Transportation) to review claims submitted by NMFS or the Council about individuals or entities believed to be in violation of the excessive harvesting or excessive processing caps established for the BS pollock fishery. For the purposes of determining ownership for the BS pollock fishery, MARAD also extends the individual and collective rule to subsidiaries of CDQ groups.

5.1 Excessive Harvesting Limits

Section 210(e)(1) of the AFA restricts an individual, corporation, or other entity from harvesting more than 17.5 percent of the pollock available to be harvested in the BS directed pollock fishery. This limit is codified at § 679.20(5)(i)(A)(*6*). Every year, NMFS publishes the limit in the annual harvest specifications. For 2023, the limit was 196,000 metric tons of BS pollock (Table 4, 88 FR 14926; March 10, 2023). The limit is subject to revision on an in-season basis if NMFS reallocates unharvested amounts of the BS incidental catch allowance or Aleutian Islands pollock to the directed fishing allowance.

5.2 Excessive Processing Limits

Section 210(e)(2) of the AFA directed the Council to create management measures to prevent any particular individual or entity from processing an excessive share of pollock available in the directed BS fishery. The Council and NMFS established the limit at 30 percent of the sum of the BS pollock directed fishing allowances. This processing limit is codified at § 679.20(5)(i)(A)(*7*). Every year, NMFS publishes

[13] The individual and collective rule stipulates that, for example, if entity "A" owns or controls 15 percent of entity "B", then entity "A" is attributed 15 percent of the harvesting or processing activity of entity "B".

this limit in the annual harvest specifications. For 2023, the limit was 336,000 metric tons (Table 4, 88 FR 14926; March 10, 2023). The limit is subject to revision on an in-season basis if NMFS reallocates unharvested amounts of the BS incidental catch allowance or Aleutian Islands pollock to the directed fishing allowance.

5.3 Management of Limits

NMFS and MARAD receive limited ownership information for AFA entities for the purposes of managing and enforcing the excessive harvesting and processing limits. Many AFA entities have complex ownership structures including trusts, annuities, and other financial instruments. Assessing these complicated ownership structures requires expertise in financial management and regulation; and detailed ownership information. Based on our available expertise, a review of publicly available and other confidential information submitted to NMFS indicates that some entities are close to the limits, but do not appear to be exceeding the limits. The current ownership relationships under the AFA Program are thought to be generally stable.

6 Prohibited Species Catch

The AFA does not mandate specific changes in fishing behavior among affiliated vessels to reduce incidental catches of PSC species. However, by slowing down the rate pollock is harvested and processed, implementation of the AFA potentially provided a degree of flexibility that allows vessels to spend more time avoiding PSC. As such, this section reviews each AFA sector's PSC while participating in the BS pollock fishery, and PSC encountered by AFA sectors in fisheries other than pollock is described in Section 10.

Prohibited species in the BSAI Management Area include all five species of Pacific salmon (accounted for in NMFS Alaska Region's CAS under either the "Chinook" and "non-Chinook" category), Pacific halibut, Pacific herring, red king crab (in Zone 1), golden king crab, blue king crab, *Chionoecetes opilio* (in the *C. opilio* bycatch limitation zone or COBLZ), other *C. opilio*, and *Chionoecetes bairdi* (in Zone 1 and 2) caught by a vessel issued a federal fisheries permit under 50 CFR § 679.4(b) while fishing for groundfish in the BSAI. Prohibited species must be avoided to the extent practicable and returned to the sea as soon as possible after they are caught unless retention is authorized by other applicable laws.

Prohibited species are managed using different approaches in the BSAI groundfish fisheries. Some species are managed under PSC limits, but others are not. PSC limits in the BSAI groundfish fisheries are assigned to individual target fishery categories. In general, the management structure for PSC limits and their apportionment among groundfish fisheries in the BSAI changed in 2008 when Amendment 80 to the BSAI groundfish FMP was implemented. *Prior to Amendment 80*, PSC limits for prohibited species other than Chinook and non-Chinook salmon were apportioned first to the trawl and non-trawl sectors, and then to each target fishery category. For instance, crab, halibut, and herring PSC caught by any AFA sector while directed fishing for BS pollock accrues against the fishery's annual PSC allowance. *After implementation of Amendment 80*, the PSC apportionment to the trawl sector were further divided between the Amendment 80 sector (non-pollock trawl C/Ps) and the BSAI trawl limited access sector (all non-Amendment 80 trawl fishery participants, including AFA C/Ps, AFA CVs, and non-AFA trawl CVs) before being apportioned among individual trawl fishery sectors. An exception is the herring PSC limit, which is not further divided.

Table 6-1 shows the annual PSC limits that apply to the BS pollock fishery, and the PSC caught by the AFA fleet in each year from 2000 through 2023.

Table 6-1 PSC limits and annual PSC by AFA vessels in the BS pollock fishery from 2000 through 2023

PSC species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Chinook Salmon	AFA fleet limit	29,000 (Chinook salmon savings area closure limit)											60,000 (PSC limit) 47,591 (performance standard)												
	PSC (# of salmon)	4,881	32,746	33,688	43,082	48,781	66,322	80,915	116,324	20,591	12,127	9,405	24,735	11,002	12,516	14,309	17,298	20,329	27,572	12,440	22,605	29,954	12,607	5,908	10,684
Non-Chinook Salmon	Trawl sector limit	42,000 (Non-Chinook salmon savings area closure limit)																							
	PSC (# of salmon)	55,322	55,573	78,610	138,199	441,074	703,094	305,793	86,378	14,967	45,445	12,757	187,670	21,982	124,747	217,008	232,762	326,244	380,382	268,452	332,250	334,989	490,365	236,006	108,864
Pacific halibut	Trawl sector limit (mt)	238	232	232	232	232	232	232	232																
	Trawl limited access sector limit (mt)									125	175	250	250	250	250	250	250	200	200	200	200	200	175	175	175
	PSC (mt)	85	165	125	75	82	100	109	261	271	393	197	284	344	199	136	104	83	74	42	82	76	96	110	33
Red king crab Zone 1	Trawl sector limit (# of crab)	1,711	1,615	1,615	200	406	406	406	406																
	Trawl limited access sector limit (# of crab)									400	400	400	400	197	197	197	197	197	197	197	197	197	197	197	65
	PSC (# of crab)	0	106	20	32	15	0	26	8	34	43	23	0	3	0	0	0	6	23	14	18	10	17	14	15
C. opilio COBLZ	Trawl sector limit (1,000 crab)	74.1	72.4	72.4	72.4	72.4	80.9	106.6	80.5																
	Trawl limited access sector limit (1,000 crab)									20.0	20.0	20.0	38.2	32.3	48.3	50.0	49.2	21.0	40.7	40.8	53.3	38.4	32.1	5.0	5.0
	PSC (# of crab)	0	0	0	388	336	1,532	2,199	2,213	4,105	2,776	4,774	4,296	2,321	3,299	2,399	2,277	664	239	237	48	1,359	332	18	41
C. bairdi Zone 1	Trawl sector limit (1,000 crab)	15.2	12.8	17.2	17.2	17.2	17.2	17.2	17.2																
	Trawl limited access sector limit (1,000 crab)									5.0	5.0	4.2	4.2	5.0	5.0	5.0	5.0	4.2	4.0	4.0	5.0	5.0	4.0	4.2	4.2
C. bairdi Zone 2	Trawl sector limit (1,000 crab)	25.9	19.1	27.5	27.5	27.5	27.5	27.5	27.5																
	Trawl limited access sector limit (1,000 crab)									5.0	5.0	4.2	4.2	5.0	5.0	5.0	5.0	4.2	3.5	4.2	5.0	5.0	5.0	4.2	4.2
	PSC caught in Zone 1 & 2 (# of crab)	786	453	717	782	1,080	601	1,004	894	878	1,212	1,252	4,935	1,012	1,640	922	1,142	438	266	850	118	1,431	391	92	780
Pacific herring	Trawl limit (mt)	1,616	1,184	1,184	1,184	1,635	1,754	1,542	1,558	1,505	1,480	1,722	1,984	1,827	2,365	1,940	2,449	2,151	2,013	1,830	2,547	2,532	2,723	3,819	3,444
	PSC (mt)	464	220	107	967	963	586	429	341	111	65	340	365	2,250	958	146	1,482	1,284	955	470	1,087	3,715	1,671	1,690	3,033

Source: NMFS and AKFIN; Source file is AFA_PSC(2-21-24)

6.1 Chinook and Chum Salmon Prohibited Species Catch

Pacific salmon are caught incidentally in the pollock fishery. Of the five species of Pacific salmon found in Alaska's waters, Chinook salmon and chum salmon are most often encountered as bycatch. NMFS manages all species of salmon as prohibited species in the BSAI groundfish fisheries because they are not the target species and fully allocated for other uses including subsistence, commercial, and recreational fisheries in and off Alaska and Canada. As prohibited species catch, salmon must be avoided. NMFS-certified observers are onboard pollock vessels or stationed at shore-based processing plants accepting Bering Sea pollock deliveries. After an observer has identified the species of salmon and collected any scientific data or biological samples, the salmon must be discarded or donated to the Prohibited Species Donation Program (see 50 CFR 679.21(a)(2)(ii)).

The Council and NMFS have managed salmon bycatch in the BSAI groundfish fisheries since the early 1990s using a variety of approaches, including PSC limits, triggered time/area closures, and incentive programs. A brief summary of the current management program that is designed to minimize salmon bycatch at all levels of salmon and pollock abundance is described below.

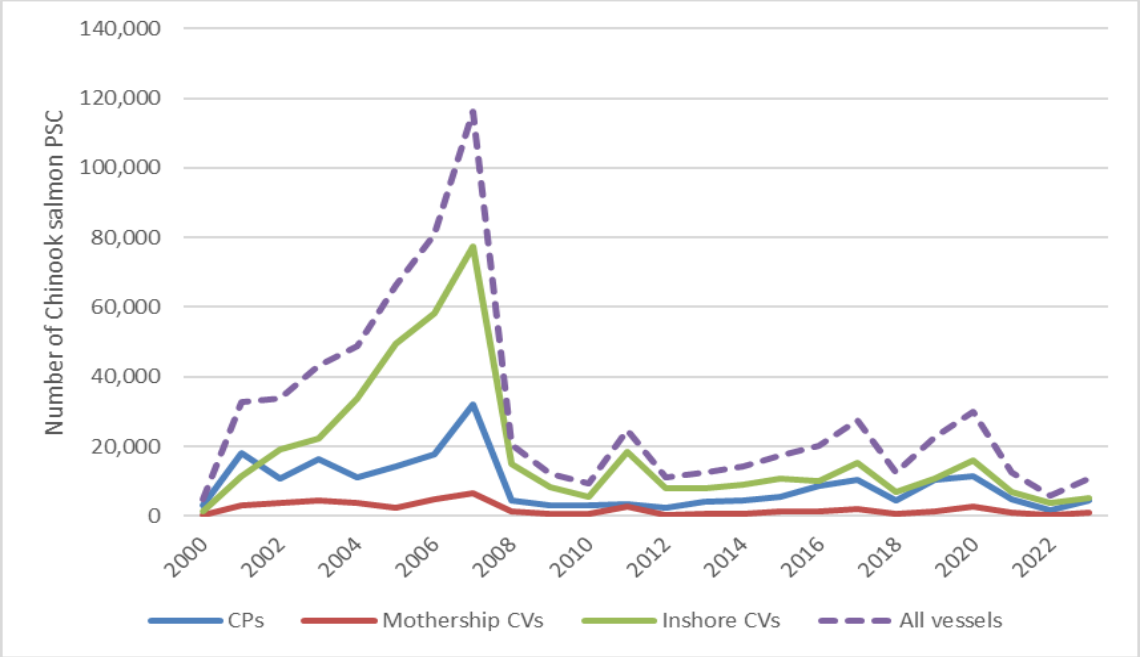
Amendment 91 to the BSAI groundfish FMP was implemented in 2011. These regulations include a hard cap on Chinook salmon bycatch that would close the pollock fishery if met, so the hard cap was implemented in combination with incentive-based measures. The incentive measures are intended to encourage cooperation among the fleet at keeping Chinook salmon PSC below the hard cap and managed under the IPAs. The Chinook salmon PSC limit was set at 60,000 fish if sectors agreed to voluntary participate in the IPAs. If no IPA is approved by NMFS, the PSC limit in effect would be 47,591 fish. Amendment 110 to the BSAI groundfish FMP was implemented in 2017. Among other elements, this amendment included a 3-River Index for Chinook salmon that lowers the hard caps in times of low Western Alaska Chinook abundance. When Chinook returns to the Yukon, Kuskokwim, and Unalakleet Rivers fall below 250,000 fish, the hard caps decrease to 45,000 and 33,318 Chinook salmon, respectively.

The fleet also operates under a Rolling Hotspot (RHS) program for Chinook and chum salmon avoidance. The RHS program was voluntarily developed in the early 2000s when the salmon bycatch rates were observed to be higher outside of the Chinook and Chum Salmon Savings Areas compared to within them (Amendments 21b and 35 to the BSAI groundfish FMP, respectively). At that time, the program was managed under an Intercooperative Agreement. The RHS program operates in the A and B seasons for Chinook salmon avoidance and only in the B season for chum salmon avoidance. Under this program, discrete areas with high bycatch rates (i.e., "hot spots") are identified and closed by a third-party entity, Sea State, for a period of time and vessels are moved to new fishing grounds. The program is intended to increase the ability of fishery participants to minimize salmon bycatch by giving them more flexibility to move fishing operations to avoid areas where they experience high rates of salmon bycatch. Since 2017, the RHS program has been managed under the IPAs.

Chinook Salmon PSC Trends

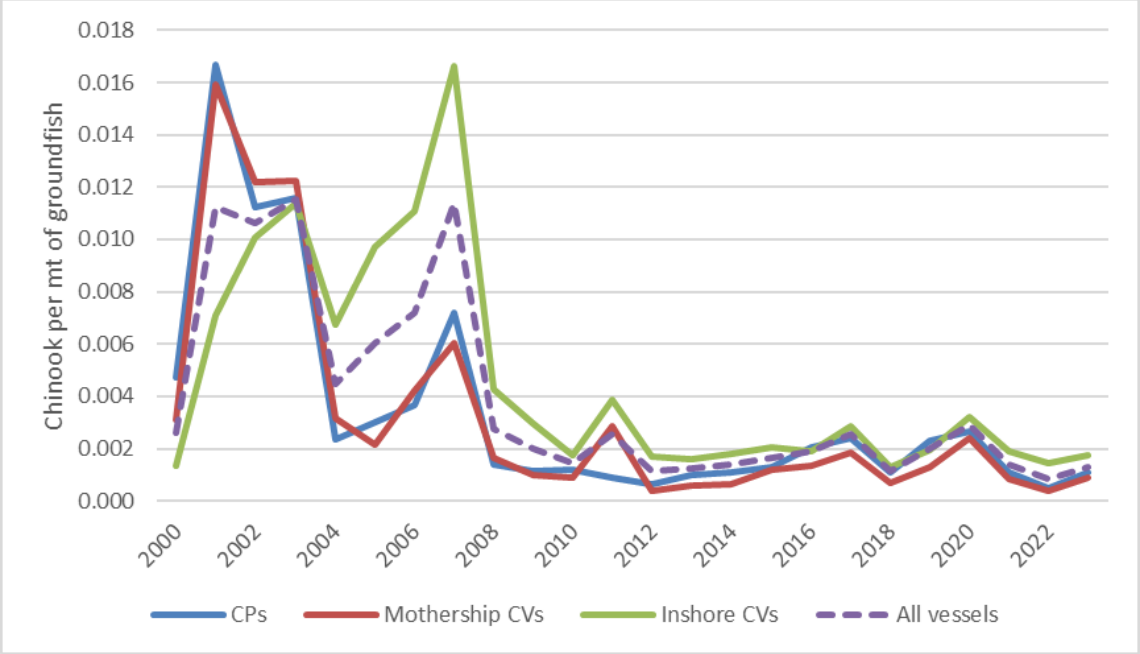
The annual Chinook salmon bycatch levels have decreased since the historical high in 2007 and remained relatively low since 2011 when the hard cap took effect (see Figure 6-1). As shown in Figure 6-2, all AFA sectors exhibited lower bycatch rates during the analyzed period (2015–2023), compared to prior years. The decline is most likely due to a combination of factors in addition to the regulatory measures, including changes in abundance and distribution of Chinook salmon and pollock, as well as changes in fleet behavior to avoid salmon bycatch (Stram and Ianelli 2014).

Figure 6-1 Chinook salmon PSC amount in the BS pollock fishery, by AFA Sector from 2000 through 2023



Source: AKFIN

Figure 6-2 Chinook salmon PSC rate in the BS pollock fishery, by AFA Sector from 2000 through 2023

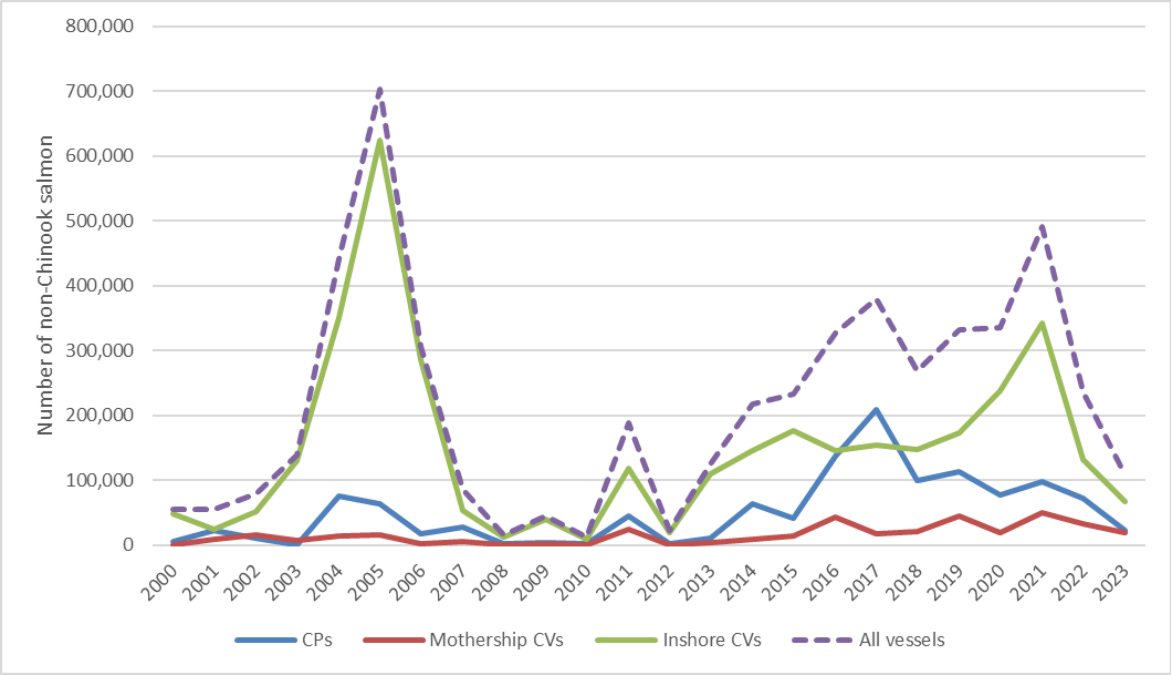


Source: AKFIN

Non-Chinook Salmon PSC Trends

The non-Chinook catch accounting category includes chum, sockeye, pink and coho salmon. The majority of these fish are chum salmon. Chum salmon are overwhelmingly encountered in the B season fishery compared to the A season. Following implementation of the AFA, chum salmon bycatch and bycatch rate increased starting in 2003 and reached a historical peak in 2005 (see Figure 6-3 and Figure 6-4). Following the high bycatch year in 2005, chum salmon bycatch and bycatch rate decreased from 2006–2008. Since 2011, the total bycatch and bycatch rate has been variable and shown a general increasing trend from 2015–2021 but bycatch and the bycatch rate decreased in 2022 and 2023.[14]

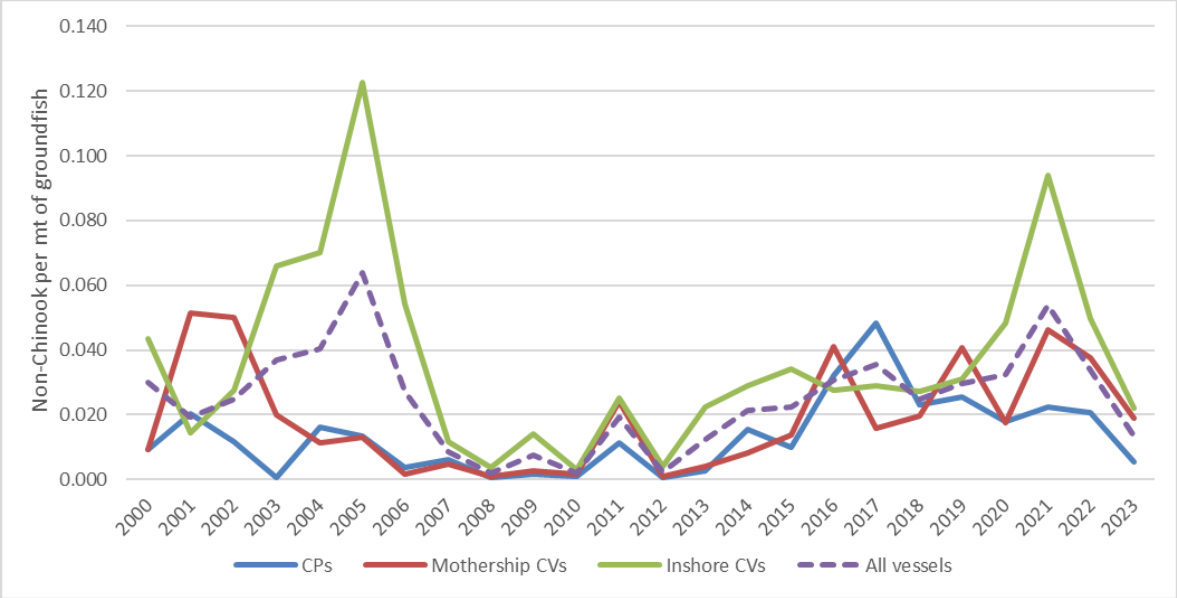
Figure 6-3 Non-Chinook salmon PSC amount in the BS pollock fishery, by AFA sector from 2000 through 2023



Source: AKFIN

[14] As a point of reference, the Council is considering new management measures to reduce chum salmon bycatch, and especially western Alaska chum salmon, in the pollock fishery. The consideration of these new measures began in 2022, following low returns to western Alaska rivers and the higher bycatch year in 2021.

Figure 6-4 Non-Chinook salmon PSC rate in the BS pollock fishery, by AFA sector from 2000 through 2023



Source: AKFIN

6.2 Halibut Prohibited Species Catch

Currently, 50 CFR §679.21(b)(2) and (e)(5) authorizes NMFS, based on Council recommendations, to establish seasonal apportionments of the halibut and crab PSC limits for the BSAI trawl limited access fisheries to maximize the fleet's ability to harvest the available groundfish TAC and minimize PSC.

Several different factors are annually considered, including the (1) seasonal distribution of prohibited species, (2) seasonal distribution of target groundfish species relative to prohibited species distribution, (3) PSC needs on a seasonal basis relevant to prohibited species biomass and expected catches of target groundfish species, (4) expected variations in PSC rates throughout the year, (5) expected changes in directed groundfish fishing seasons, (6) expected start of fishing effort, and (7) economic effects of establishing seasonal prohibited species apportionments on segments of the target groundfish industry. Based on these criteria, the Council recommends, and NMFS approves the seasonal PSC limit apportionments to maximize harvest among fisheries and seasons while minimizing PSC.

The halibut PSC limit is a non-binding constraint for the BS pollock fishery, meaning attainment of the PSC limit would not close the fishery nor are there time/area closures associated with the limit (Amendment 21 in combination with Amendment 57 results in no regulatory constraints on the pollock fishery if halibut PSC exceeds the "pollock, Atka mackerel, other species" limit for halibut PSC).

Amendment 111 to the BSAI Groundfish FMP became effective in 2016 and reduced the halibut PSC limits in the BSAI groundfish fisheries to 3,515 mt, a 21 percent reduction from the previous limit (50 CFR §679.21(b)(1)). That halibut PSC limit is further apportioned among the following BSAI fishing sectors based on regulations in 50 CFR §679.21(b)(1):

- 315 mt (9.0 percent) as the prohibited species quota reserve for use by the groundfish CDQ program
- 1,745 mt (49.6 percent) to the Amendment 80 sector
- 745 mt (21.2 percent) to the BSAI Trawl Limited Access Sector (TLAS), and
- 710 mt (20.2 percent) to the BSAI non-trawl sector

The halibut PSC limits assigned to the BSAI TLAS, which is composed of the trawl CV sector (AFA and non-AFA CVs) and the AFA C/P sector, is further divided by fishery, with 175 mt (52.5 percent) of the sector limit designated for use in the BSAI pollock/Atka mackerel/other species fisheries for 2023 and 2024 (Table 6-2). The apportionment of the BSAI TLAS halibut PSC limit between the different fisheries is determined during the harvest specification process. The halibut PSC limit for the trawl BSAI TLAS is an annual limit that is not apportioned by season.

Table 6-2 Final 2023 and 2024 halibut PSC allowances (mt) for the BSAI TLAS fisheries

BSAI trawl limited access fisheries	Halibut (mt)
Yellowfin sole	265
Rockfish (April 15-Dec 31)	5
Pacific cod	300
Pollock/Atka mackerel/other species	175

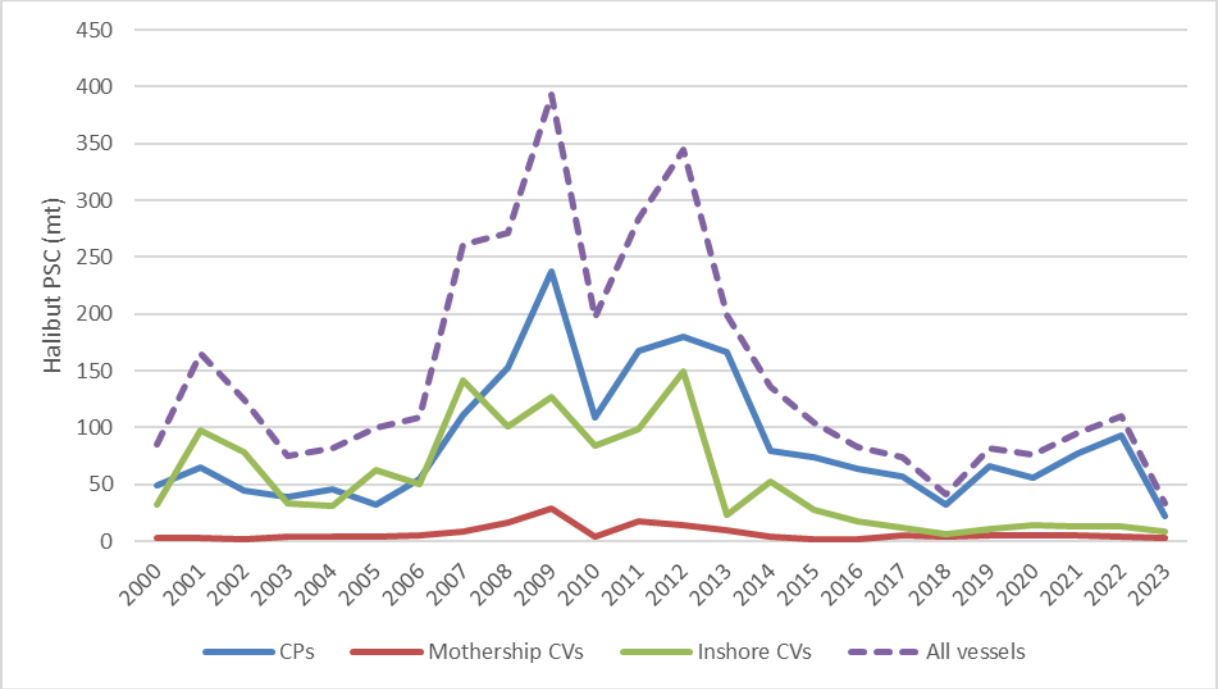
Source: Annual specifications (2023)

In addition to the halibut PSC limits, both AFA CVs and AFA C/Ps sectors that share the TLAS PSC limits, also have PSC sideboard limits established by the AFA Program (see Chapter 10 for description of these PSC sideboard limits).

Figure 6-5 shows the BS pollock fishery taken by AFA vessels, which increased steadily from 2000 – 2009. Halibut PSC limits in the BS pollock fishery were exceeded in the 2007–2012 period except for 2010. A possible explanation for the increase in halibut PSC during this timeframe may have been the operational choices to prioritize Chinook salmon avoidance rather than halibut PSC. As discussed above, the Chinook salmon PSC limits associated with the Chinook Salmon Savings Areas were exceeded from 2003–2007. In response to heightened concerns over all sources of Chinook salmon mortality, the AFA fleet was under increased pressure to lower salmon PSC. However, after 2012, the AFA fleet made voluntary changes to various aspects of their fishing behavior to reduce halibut PSC, and halibut PSC limits have not been exceeded since then. An indication of effort to reduce halibut PSC by the AFA fleet is the declining trend in the fleet's halibut PSC rate in the BS pollock target fishery.

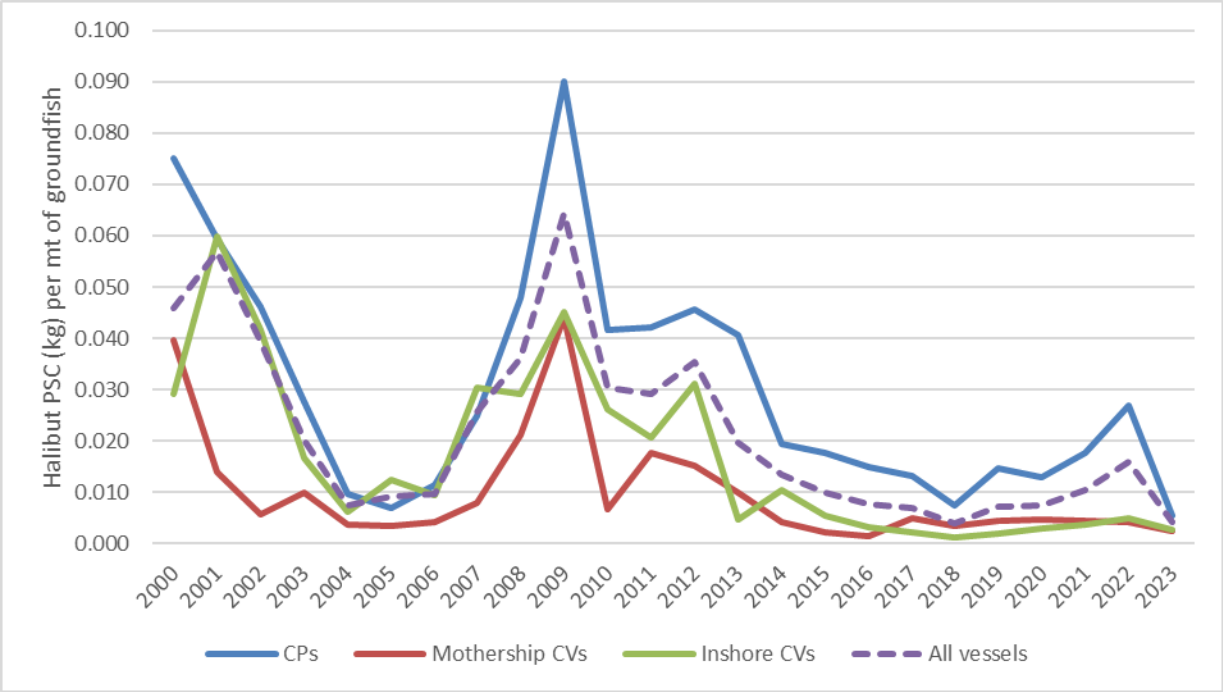
Figure 6-6 provides the AFA fleet's annual PSC rates from 2000 through 2023. The PSC rate is in kilograms of halibut PSC per ton of groundfish in the BS pollock target fishery. Following the high halibut PSC rates during the 2007 through 2013 period, rates have declined significantly.

Figure 6-5 Halibut PSC in the BS pollock fishery, by AFA sector from 2000 through 2023



Source: AKFIN

Figure 6-6 Halibut PSC rate in the BS pollock fishery, by AFA sector from 2000 through 2023



Source: AKFIN

6.3 Crab Prohibited Species Catch

The Crab PSC limits relevant to the BS pollock fishery include red king crab (Zone 1), *C. opilio* (COBLZ), and *C. bairdi* (Zone 1 and Zone 2), that are specified annually based on abundance and spawning biomass. The crab PSC limits are established by regulation for the CDQ Program, Amendment 80, and the BSAI TLAS fisheries composed of the trawl CV and the AFA C/P sectors (679.21(e)(3)(iv)). Figure 6-7 and Figure 6-8 provide maps of Zones 1 and 2 Bristol Bay red king crab and Eastern BS tanner crab savings areas and the COBLZ. Like halibut, crab PSC limits are further apportioned by trawl fishery categories during the harvest specification process. Of the BSAI TLAS crab PSC limits, the yellowfin sole fishery receives the largest portion of the crab PSC limits followed by the Pacific cod fishery. If a specific crab PSC limit is reached by the BSAI TLAS in any trawl fishery category, the TLAS vessels subject to the limit would be required to move out of the applicable crab savings area when directed fishing in a fishery subject to that PSC limit.

Both AFA CV and AFA C/P sectors are also restricted by AFA crab PSC sideboard limits (see Chapter 9 for description of these PSC sideboard limits). In general, the AFA CV crab PSC sideboard limits, which are not apportioned at the trawl fishery category, are established as 29.9 percent for red king crab Zone 1, 16.8 percent of the *C. opilio* in the COBLZ, 33 percent of the *C. bairdi* in Zone 1, and 18.6 percent of the Zone 2 *C. bairdi* each year. The AFA C/Ps crab sideboard limits, which are also not apportioned at the trawl fishery category level, are 0.7 percent for red king crab Zone 1, 15.3 percent of the *C. opilio* in the COBLZ, 14 percent of the *C. bairdi* in Zone 1, and 5 percent of the Zone 2 *C. bairdi*.

Figure 6-7 Zone 1 and 2 area for closures (red king crab and EBS Tanner crab)

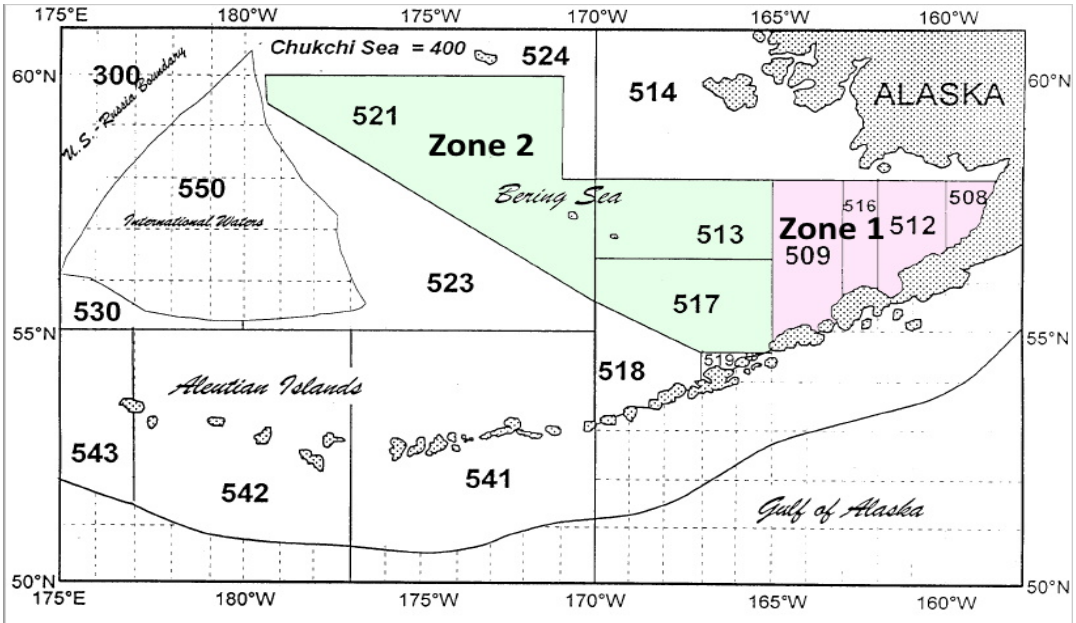
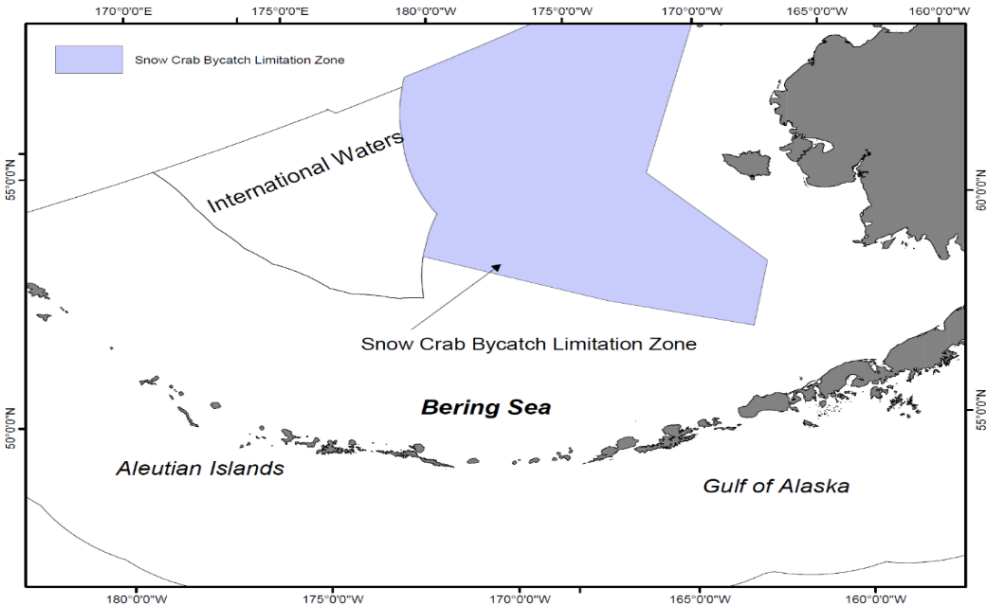


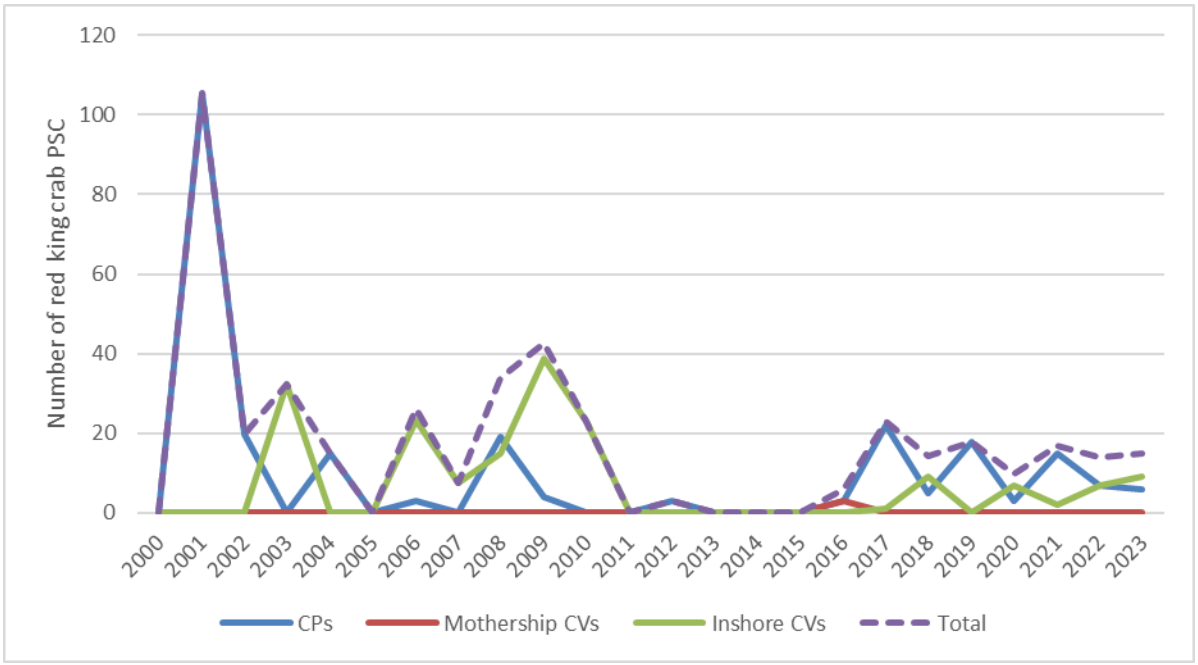
Figure 1 to Part 679. Bering Sea and Aleutian Islands statistical and reporting areas
a. Map

Figure 6-8 *C. opilio* Bycatch Limitation Zone (COBLZ)



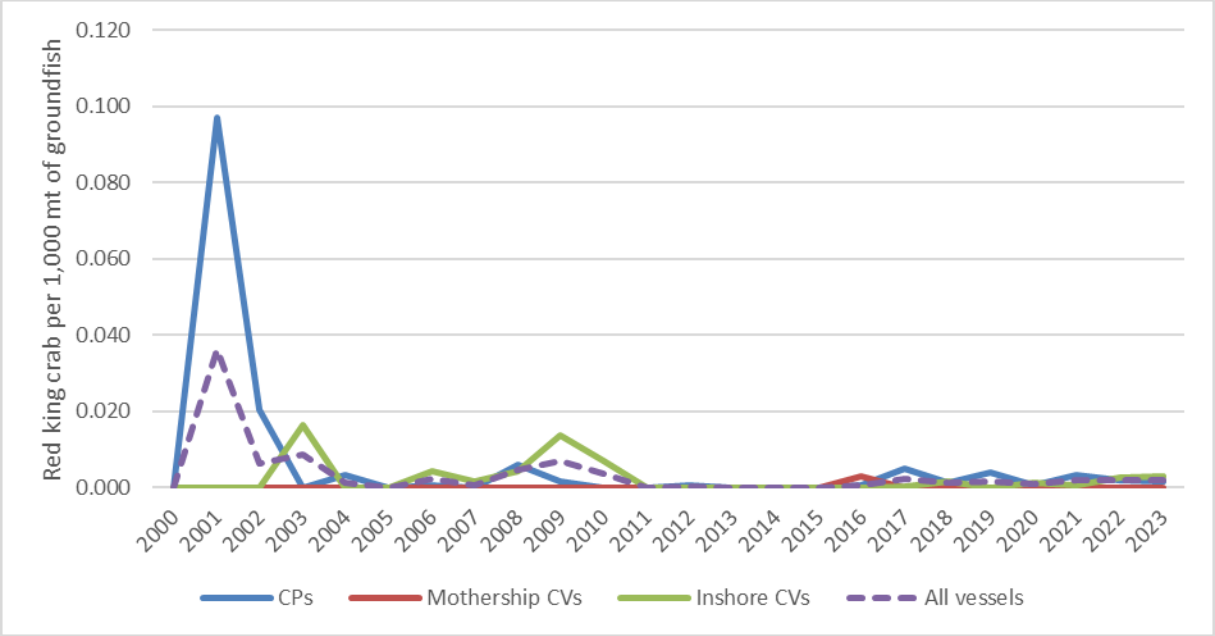
As noted in Table 6-1 none of the AFA sectors exceeded the annual PSC limits for red king crab (Zone 1), *C. opilio* crab (COBLZ), or *C. bairdi (Zones 1 and 2)* crab during the 2000 through 2023 period. Nevertheless, a series of figures showing annual crab PSC and crab PSC rates for red king crab (Zone 1), *C. opilio* (COBLZ), and *C. bairdi* (Zones 1 and 2) are included to illustrate the limited crab PSC by the AFA sectors from 2000 through 2023.

Figure 6-9 Red king crab (Zone 1) PSC in the BS pollock fishery by AFA sector from 2000 through 2023



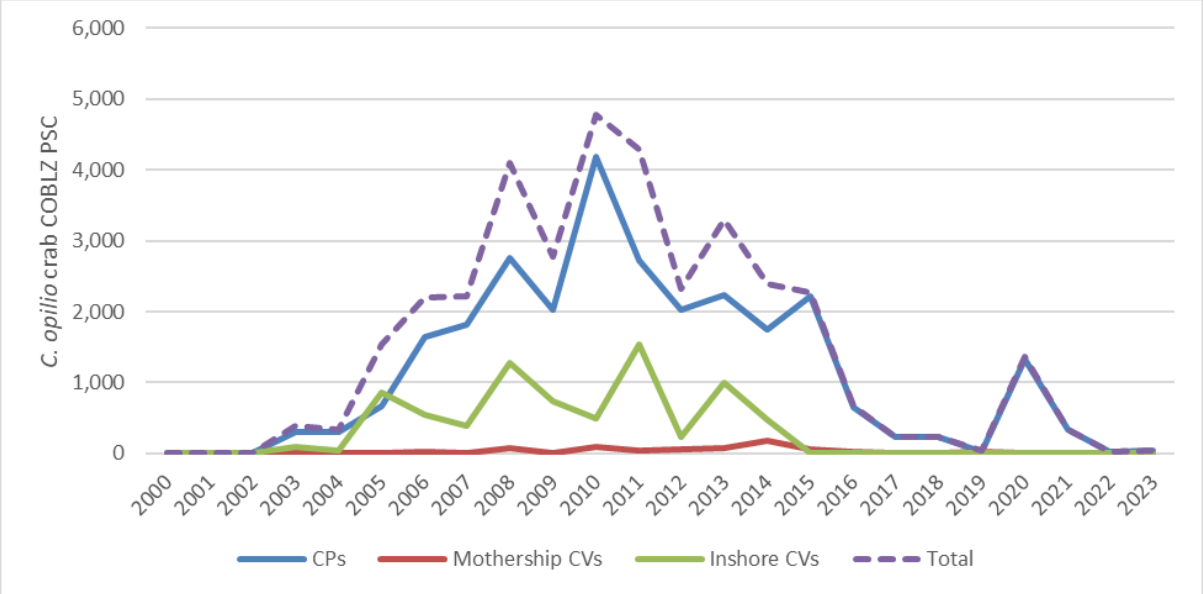
Source: AKFIN

Figure 6-10 Red king crab (Zone 1) PSC rate in the BS pollock fishery, by AFA sector from 2000 through 2023



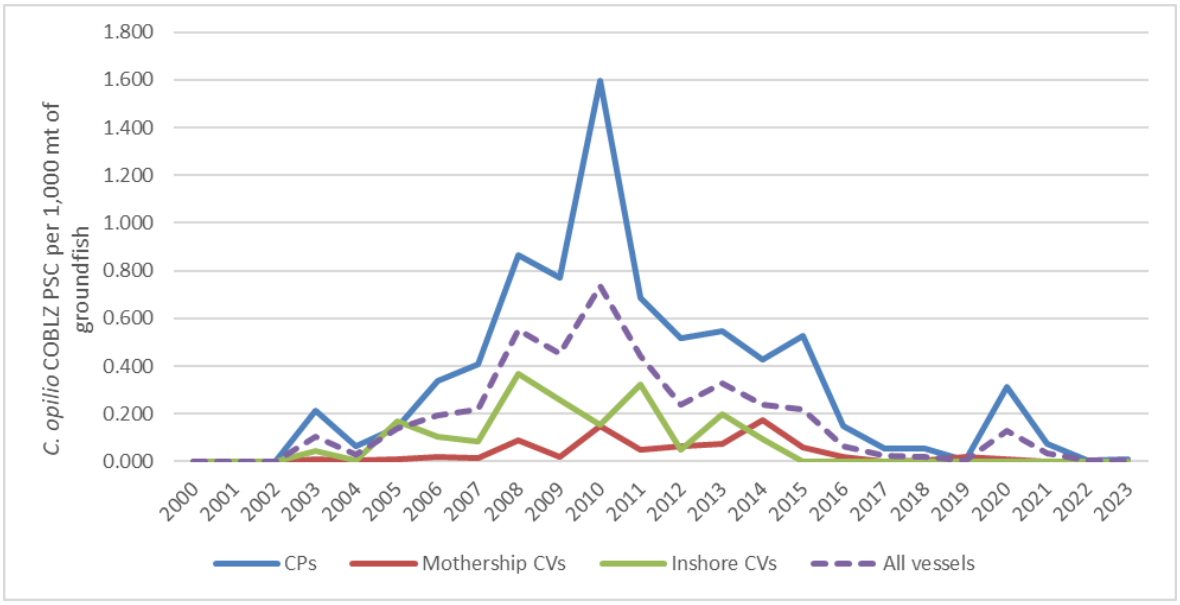
Source: AKFIN

Figure 6-11 *C. opilio* (COBLZ) PSC in the BS pollock fishery by AFA sector from 2000 through 2023



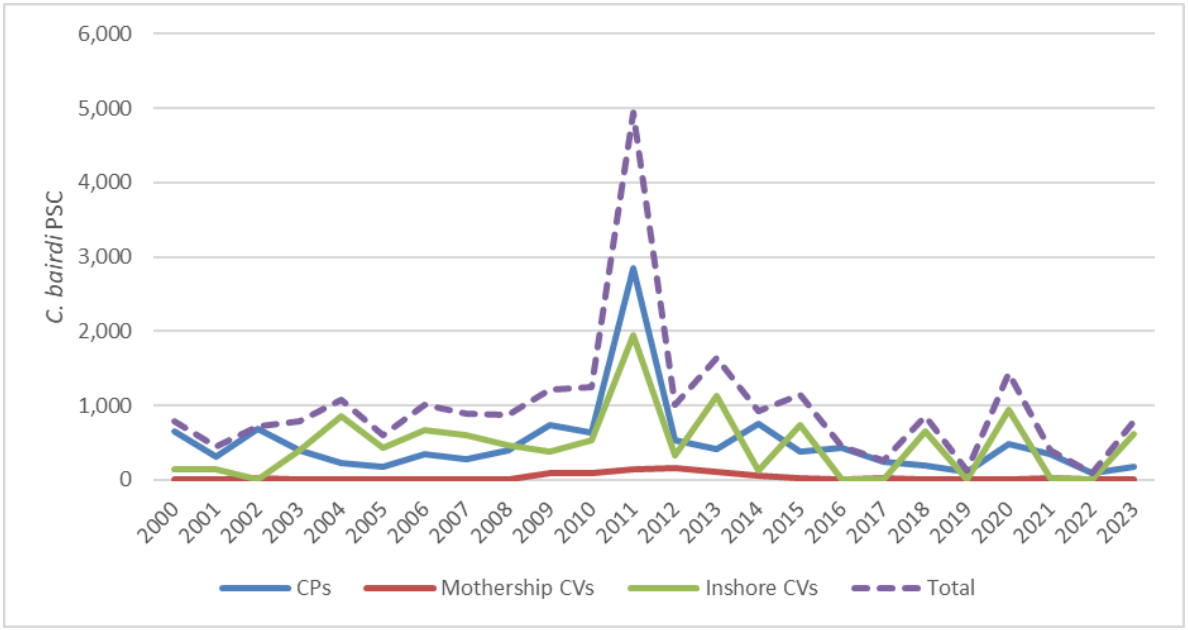
Source: AKFIN

Figure 6-12 *C. opilio* (COBLZ) crab PSC rate in the BS pollock fishery, by AFA sector from 2000 through 2023



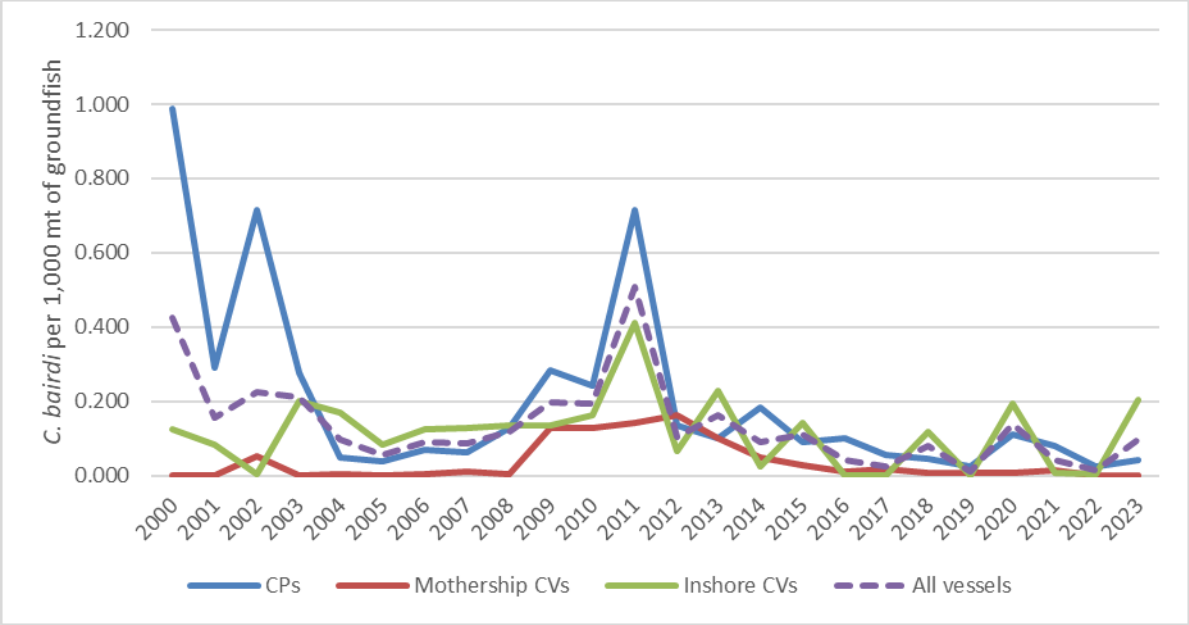
Source: AKFIN

Figure 6-13 *C. bairdi* (Zones 1 and 2) PSC in the BS pollock fishery by AFA sector from 2000 through 2023



Source: AKFIN

Figure 6-14 ***C. bairdi*** **crab (Zones 1 and 2) PSC rate in the BS pollock fishery, by AFA sector from 2000 through 2023**



Source: AKFIN

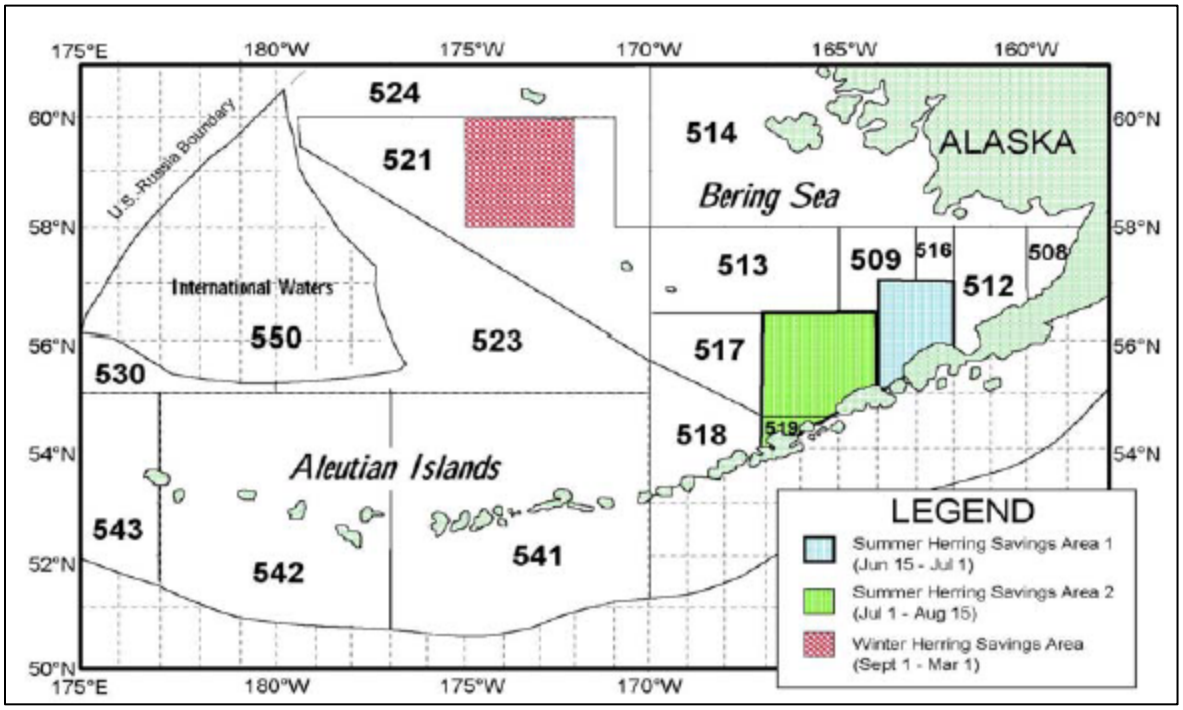
6.4 Herring Prohibited Species Catch

Pacific herring PSC is managed in the BSAI groundfish trawl fisheries with an annual PSC limit set at 1% of the herring spawning biomass and a series of three Herring Savings Areas (HSAs) that close for a period of time if a fishery attains the limit (see 50 CFR 679.21(e)(3)(iv)(B) through (F)). ADF&G manages herring fisheries as separate stocks and uses a combination of different types of surveys and population modeling to set catch limits. As an example, the 2023 herring biomass was estimated at 381,876 mt, so the herring PSC limit was set at 3,819 mt for all trawl fisheries. In 2023, the herring PSC apportionment for the midwater trawl pollock was 3,400 mt.

The herring PSC limit is published in the annual harvest specifications and apportioned among the trawl directed fishing categories (see 50 CFR 679.21(e)(3)(iv)(B) through (F)). Attainment of any apportionment triggers the HSA to close to that fishery based upon the timing of each area closure. A fishery is accountable for its herring PSC on the basis of a fishing year (January 1 to December 31). The herring PSC limit is not further apportioned among individual sectors. The three HAS are the Summer HSA1 that closes from June 15- July 1, the Summer HSA2 that closes from Juny 1-August 15, and the Winter HSA that closes from September-March 1 the following year (Figure 6-15). Since the AFA was implemented, the pollock fishery attained the herring PSC limit in 2012 and 2020.

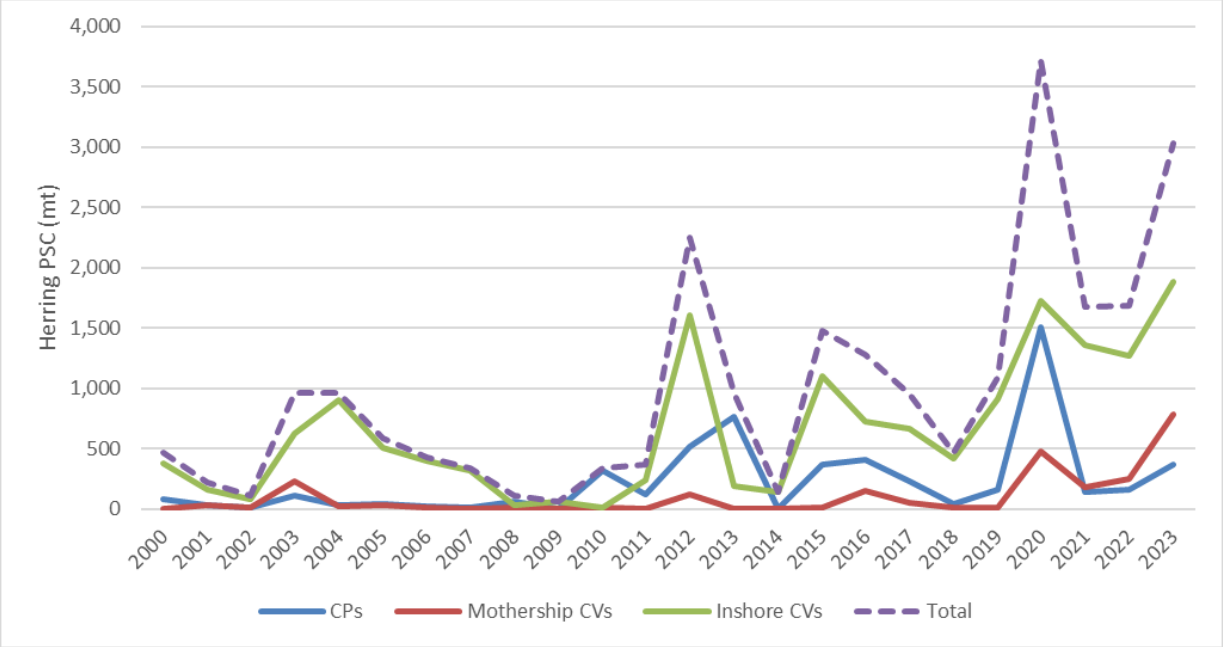
Figure 6-16 shows the pollock fishery's herring PSC (mt) from 2000–2023. Herring PSC has three distinct peaks in 2012, 2020, and 2023. Typically, the majority of PSC was encountered by the inshore sector, although PSC rates were more variable among the sectors (see Figure 6-17).

Figure 6-15 Herring Savings Areas



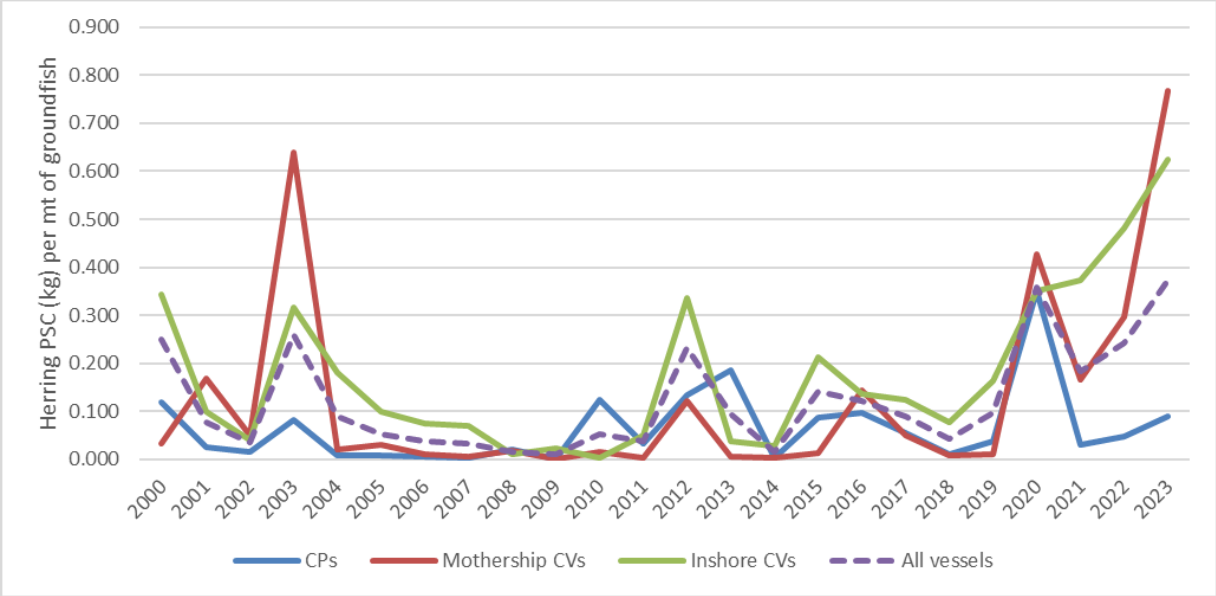
Note: The locations of the HSAs were based upon available herring migration data in the 1980s.

Figure 6-16 Herring PSC in the BS pollock fishery by AFA sector from 2000 through 2023



Source: AKFIN

Figure 6-17 Herring PSC rate in the BS pollock fishery by AFA sector from 2000 through 2023



Source: AKFIN

7 Community Development Quota Program and Community Impacts

This section of the Program Review describes the effect the AFA has had on two sets of communities engaged in the BS pollock fishery. One set of communities participate in the BS pollock fishery via the CDQ Program while the other includes communities that are engaged in the fishery by way of vessel's registered ownership address, shore-based processor location, among other factors.

7.1 Community Development Quota Program

The CDQ program was implemented in 1992 to provide coastal Western Alaska communities with an opportunity to participate and invest in federally managed BSAI fisheries. In doing so, the program was intended to promote economic development in eligible communities, alleviate poverty, and provide other social benefits. The CDQ program allocates a portion of the quota for federally managed fisheries in the BSAI region to six entities known as CDQ groups. The six CDQ groups represent 65 communities, all of which are engaged in and dependent upon the BS pollock fishery to some degree managed under the AFA Program.

To meet its purpose, the CDQ Program is allocated a portion of federally managed species throughout the BSAI region (including pollock, Pacific cod, Atka mackerel, flatfish, and rockfish as well as prohibited species catch allowances for salmon, halibut, and crab). The CDQ Program receives 10 percent of the BS pollock TAC which is sub-allocated among the CDQ groups. BS pollock is a high volume and high value fishery, and the revenue earned from this allocation has been a large source of each group's revenue.

7.1.1 Impacts of the AFA on the CDQ Program Documented in the Council's 2017 AFA Program Review

As captured in the 2017 AFA Program Review, from 2000–2005, total royalty payment paid to the CDQ groups ranged between $42.6 and $60.5 million per year, with increases in each successive year after 2000. BS pollock accounted for 79 to 86 percent of these royalties. While no data were available for 2006, estimates of royalty payments in annual Western Alaska Community Development Association reports indicate that total annual royalties from 2007–2013 ranged between $59.9 and $79.5 million per year. BS pollock accounted for 57 and 79 percent of the total from 2006–2010, the most recent years for which these estimates are available. In 2013, the aggregate revenue for all CDQ groups, including royalties, investments, and other sources of direct income, was $248.7 million, of which approximately 23 percent was derived directly from royalty payments.

The 2017 Program Review noted the CDQ groups had obtained direct ownership interest in several AFA vessels (see Table 7-1). As of 2015, all six CDQ groups had ownership interests in inshore CVs; all but one CDQ group (the Yukon Delta Fisheries Development Association) had ownership interests in C/Ps; and one CDQ group (Yukon Delta Fisheries Development Association) had an ownership interest in a mothership. CDQ ownership percentages increased compared to what was reported in the Council's 2002 Report to Congress with two exceptions. In one case, the ownership percentage in a C/P did not change and, in the other case, Norton Sound Economic Development Corporation ownership interest in two C/Ps decreased from 50 percent to 37.5 percent (but their ownership interest in the AFA inshore CV sector increased during the same period).

Table 7-1 Community Development Quota Group Ownership of Inshore CVs, 2015

CDQ Group	Company (% Ownership)	Vessels
Aleutian-Pribilof Islands Community Development Association	Golden Dawn, LLC (25%)	*Golden Dawn*
Bristol Bay Economic Development Corporation	Dona Marita, LLC (50%)	*Defender, Gun-Mar, Bering Defender, Morning Star*
Central Bering Sea Fishermen's Association	St. Paul Fishing Company, LLC (ownership % varies by vessel)	*Starlite* (75%), *Starward* (75%), *Early Dawn* (50%), *Fierce Allegiance* (30%)
	American Seafoods (9.9%)	*Aleutian Challenger, Forum Star*
Coastal Villages Region Fund	BSAI Partners, LLC (37.5%)	*Bering Rose, Alaska Rose, Destination, Great Pacific, Messiah, Ms. Amy, Sea Wolf*
Norton Sound Economic Development Corporation	BSAI Partners, LLC (37.5%)	*Bering Rose, Alaska Rose, Destination, Great Pacific, Messiah, Ms. Amy, Sea Wolf*
Yukon Delta Fisheries Development Association	Alakanuk Beauty, LLC (75%) Emmonak Leader, LLC (75%)	*American Beauty Ocean Leader*

Source: Developed by Northern Economics using data from National Marine Fisheries Service, key informant interviews, and CDQ group reports and web pages.

7.1.2 Continuing Impacts of the AFA on the CDQ Program

Note, the following section is based on the preliminary Draft Environmental Impact Statement prepared for the Proposed Amendment to the Fishery Management Plan for Groundfish of the Bering Sea/Aleutian Islands Area Bering Sea Chum Salmon Bycatch Management (December 2024 and February 2025).

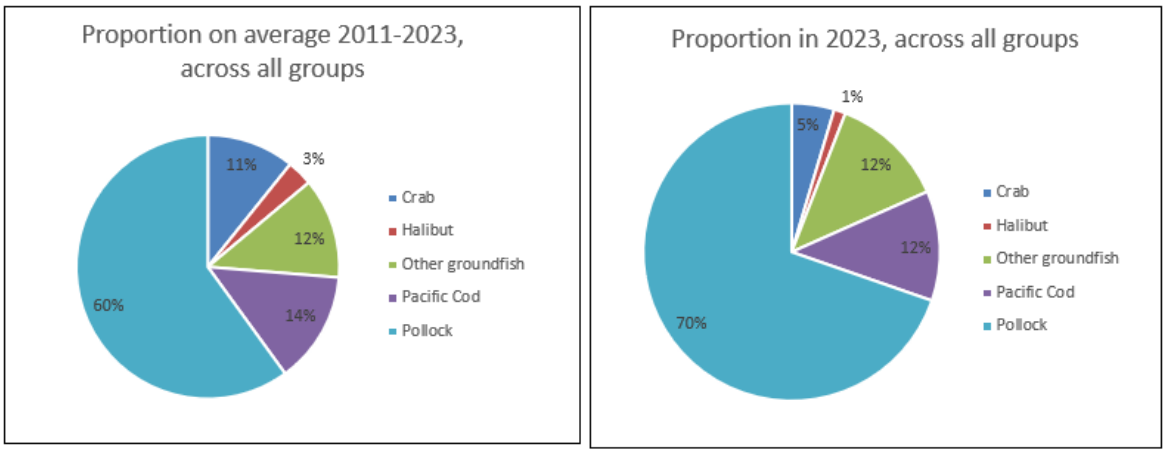
Figure 7-1 shows the gross first wholesale revenue associated with CDQ allocations of BS pollock compared with CDQ allocations of BSAI crab, halibut, Pacific cod, and other groundfish. Due to confidentiality restrictions, quantitative information for individual CDQ groups cannot be provided thus these figures are aggregated across all groups. The left-hand figure demonstrates the proportions of gross first wholesale revenue averaged across 2011–2023, whereas the right-hand figure demonstrates the proportions of gross first wholesale revenue for 2023 only. From 2011–2023, CDQ pollock generated an average of $149 million in gross first wholesale revenues annually, across all CDQ groups. As shown in Figure 7-1, this represented 60% of the total gross first wholesale revenues derived from CDQ allocations of species in the BSAI.

The revenues earned from the pollock fishery have played an increasingly important role in recent years as other species, such as snow crab and red king crab have declined. This trend can be observed in the revenue data from 2023 which included crab fishery closures and low crab TACs. In 2023, the relative proportion of first wholesale revenues derived from BS pollock increased with the decrease in crab revenues, as well as revenues from halibut and Pacific cod. In this year, pollock CDQ accounted for over $162 million and represented 70% of the total revenues from BSAI allocations. Crab CDQ revenues represented 5% of the total gross first wholesale revenues in that year.

One caveat to Figure 7-1 is that the first wholesale values used do not account for the proportion of the wholesale value that may be realized by the groups based on the way in which the CDQ species were harvested. The CDQ groups use different approaches to harvesting their CDQ pollock allocations. One group (i.e., CVRF), has recently harvested the majority of its pollock CDQ on a vessel it fully owns.

However, most pollock CDQ is leased to independent or partner companies to be harvested and processed on C/Ps. In these instances, multi-year contracts are often agreed to in which C/P companies will pay a lease fee for the additional pounds of pollock to harvest, process, and market. Compared to the types of direct investments described below, revenue from the leased CDQ allocations are relatively stable and predictable sources of revenue. The CDQ group may be more disconnected from the fluctuations in direct operational costs and market dynamics through leasing arrangements. However, in leasing the quota the group may receive a fraction of the royalties, not the full value of the harvested species. Note that many of the other species' represented in Figure 7-1 are also leased, therefore the CDQ groups would also only receive a fraction of the gross wholesale values from these species as well.

Figure 7-1 Annual average gross first wholesale revenues (millions of $) associated with CDQ allocations by species, 2011–2023



Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; Cdq_activity(11-30-23).

All CDQ groups are engaged in the BS pollock fishery through their direct allocation; however, most of the groups are also engaged through other investments into the BS pollock fishery. The AFA requirement that vessel-owning entities be at least 75 percent owned and controlled by U.S. citizens resulted in foreign-owned companies divesting majority ownership interests in vessels engaged in BSAI fisheries, which, in turn, provided CDQ groups greater opportunities to acquire equity interests in those entities than would have otherwise not been the case. CDQ groups became sought-after business partners for their CDQ quota, resulting in financing arrangements being extended to CDQ groups that were not previously available to them.

Expanding ownership interests in AFA vessels is one-way CDQ groups have worked to meet the economic and social goals of the CDQ Program.[15] Investments in subsidiaries, such as limited liability corporations (LLCs), allow CDQ groups to wholly or partially own vessels directly related to fisheries. Ownership of AFA vessels increases the CDQ group/ subsidiary's holdings of quota in the AFA fishery by providing revenue through the direct catch and sale of pollock.

As of July 2024, 5 of the 6 CDQ groups had ownership interests in AFA vessels (Table 7-2). These ownership interests are often highlighted in CDQ groups' Annual Reports but are not systematically updated in aggregate through a data source accessible to analysts. These ownership interests were updated with direct input from CDQ representatives and vary considerably from ownership reported in NMFS

[15] This type of CDQ group ownership investment growth is not unique to the BS pollock fishery managed under the AFA program. For example, it has also been seen in the context of the BSAI crab rationalization program, where CDQ groups have come to have substantial ownership interest in the non-CDQ portion of the fishery, both in terms of crab vessels and crab quota shares, including processor quota shares, with those types of ownership interests increasing over the course of that program. In addition, investments in harvesting and processing capacity provide revenue stream through contractual agreements to harvest other CDQ group's quota, profit sharing, and chartering commercial fishing vessels to government agencies conducting stock assessment surveys.

CDQ report in 2018. The table demonstrates that three CDQ groups (BBEDC, CVRF, and NSEDC) [16] currently have full or part ownership in three C/Ps, five CDQ groups (BBEDC, CBSFA, CVRF, NSEDC, and YDFDA) have full or part ownership in 30 of the AFA CVs that actively fish pollock. Two CDQ groups (CVRF and YDFDA) also have an ownership interest in motherships that can process AFA pollock.

Using the ownership percentages from this table and applying it to the pollock allocations associated with each entity, analysts estimated that 28.7% of the total Directed Pollock Fishery (i.e., CDQ + additional AFA pollock quota) is associated with CDQ groups. There are several important caveats to this calculation. These ownership relationships are more nuanced than conveyed in Table 7-2. In some cases, the CDQ ownership connection is more direct, which can also mean more direct connections to the gross revenue produced by the vessel as well as the fixed and variable costs of pollock fishing. Conversely, some investments are more indirect, in which case royalties and operational decisions may not be as direct. In addition, as described above, CDQ pollock as well as some AFA pollock is typically leased. Therefore, it may not be the case that the CDQ groups receive 28.7% of the total net revenues from the pollock fishery due to these additional factors. However, this estimate demonstrates the additional CDQ groups' investments in and reliance on the AFA fishery above the CDQ allocations.

[16] Additionally, CBSFA has indirect interest in American Seafoods, which owns several C/Ps. Given the indirect nature of this ownership structure, it was not included in Table 7-2.

Table 7-2 CDQ investments in fishery companies and AFA vessels as of July 2024

CDQ Group	Name of Company	CDQ Ownership	Vessel Name	Vessel Type	Recent Coop
BBEDC	Dona Martita	50.0%	Defender (new vessel)	CV	Westward
			Defender (old vessel)	CV	Unisea
			Alaskan Defender	CV	Westward
			Bering Defender	CV	Westward
			Northern Defender	CV	Unalaska
	Arctic Storm Holding Company	18.3%	Arctic Fjord	C/P	PCC
			Neahkahnie	CV	HSCC
			Arctic Storm	C/P	PCC
			Sea Storm	CV	HSCC
CBSFA	St. Paul Fishing Company	75.0%	Starlite	CV	Unisea
			Starward	CV	Unisea
		30.0%	Fierce Allegiance	CV	Unisea
CVRF	Coastal Alaska Premier Seafoods	100.0%	Northern Hawk	C/P	PCC
	Excellence Seafood LLC	100.0%	California Horizon	CV	Mothership CVs
			Misty Dawn	CV	Mothership CVs
			Morning Star	CV	Mothership CVs
			Papado II	CV	Mothership CVs
	Phoenix Processor LP	7.6%	Excellence	MS	Mothership
			Tenacious	MS	Mothership permit
CVRF (50%) / NSEDC (50%)	BSAI Partners	75.0%	Alaska Rose	CV	Unalaska
		75.0%	Bering Rose	CV	Unalaska
		78.9%	Destination	CV	Unalaska
		51.0%	Great Pacific	CV	Unalaska
		75.0%	Sea Wolf	CV	Unalaska
		75.0%	Ms. Amy & Messiah	CV	Unalaska
	Bering North	75.0%	Progress	CV	Northern Victor
			Sunset Bay	CV	Northern Victor
			Half Moon Bay	CV	Northern Victor
			American Eagle	CV	Northern Victor
			Commodore	CV	Northern Victor
			Hickory Wind	CV	Northern Victor
			Patricia Lee	CV	Northern Victor
			Storm Petrel	CV	Northern Victor
			Ocean Hope 3	CV	CV permit
NSEDC	Glacier Fish Company	71.9%	Alaska Ocean	C/P	PCC
YDFDA	Nunam Iqua Harvester	100.0%	Aleutian Challenger	CV	Mothership CVs
	Kotlik Challenger	100.0%	Pacific Challenger	CV	Mothership CVs
	Alakanuk Beauty	75.0%	American Beauty	CV	Mothership CVs
	Emmonak Leader	76.8%	Ocean Leader	CV	Mothership CVs
	Golden Alaska	58.3%	Golden Alaska	MS	Mothership

Source: Initial Review Environmental Impact Statement for Proposed Amendment to the Fishery Management Plan for Groundfish of the Bering Sea/Aleutian Islands Area Bering Sea Chum Salmon Bycatch Management, December 20, 2024.

Note there are some AFA vessels with CDQ ownership that do not actively fish, but the AFA permits are retained and fished on other vessels. This is the case for the Ocean Hope 3 (Bering North; CVRF/NSEDC) as well as Ms. Amy & Messiah and the Destination (BSAIP; CVRF/NSEDC ownership in the associated AFA permits). This is also the case for the mothership permit assigned to Tenacious. Ownership of these AFA permits and access to their associated pollock continues to provide benefits to these CDQ groups. Additionally, CBSFA has indirect interest in American Seafoods, which owns several C/Ps. Given the indirect nature of this ownership structure, it was not included in this table.

7.2 Community Impacts

7.2.1 Overview of 2017 AFA Program Review Fishing Community Impacts

With respect to coastal communities, the types of direct impacts to these communities resulting from the implementation of the AFA were largely realized in the first few years of the program and documented in

the Council's 2002 Report to Congress. These impacts were largely beneficial, but some adverse impacts were also incurred, such as loss of employment and income opportunities resulting from consolidation within the AFA CV and C/P fleets, as well as associated impacts to support service businesses in a limited number of communities. Other changes were seen with the transition away from race-for-fish conditions toward a slower, longer fishery with less distinct peaks and valleys of activity which, in turn, had secondary impacts to other parts of local economies and patterns of engagement of BS pollock fishery participants in other fisheries.

The 2017 Program Review concluded that the AFA has contributed to cumulative community impacts resulting from a larger move toward catch share type of management in general and generated at least some ongoing level of impact with the continuing consolidation of the AFA CV fleet. Overall, no new types of impacts to fishing communities resulting from the AFA were identified in the 2017 AFA Program Review. The available data suggested that the conclusion reached in the Council's 2002 Report to Congress that the impacts of the AFA on fishing communities participating in the fisheries managed under the AFA have been largely beneficial remains accurate. Additionally, the sideboard limits incorporated into the AFA appear to have continued to work well in avoiding adverse AFA-related impacts to other fisheries and, by extension, the communities reliant on those fisheries.

7.2.2 Continue Impacts of AFA Program Review Fishing Community Impacts

A series of tables based on existing quantitative fishery information from 2015 through 2023 were developed to identify patterns of engagement (or participation) in the BS pollock fishery – vessels harvesting CDQ pollock as well as vessels participating in the C/P sector, mothership sector, and the inshore sector. The distribution and relative magnitude of community engagement in the BS pollock fishery for vessels was measured by an AFA permitted vessel's ownership address information, which is listed in the Alaska Commercial Fisheries Entry Commission (CFEC) vessel registration files.

Some caution in how this information is interpreted is warranted because it is not unusual for vessels to have complex ownership structures that involve more than one entity in more than one community or region. Additionally, the community identified by ownership address may not directly indicate where a vessel spends most of its time, purchases services, or hires its crew from. However, what community ownership address information does provide is an approximate indicator of the distribution and magnitude of ownership ties to a particular community and region. In this way, it is a proxy for some economic activity in the community that is associated with the fishery. The listed ownership address was also used in this section as a way to connect vessels to communities rather than other indicators, such as vessel homeport information, because other SIAs conducted for FMP amendment analysis for the Council have indicated the problematic nature of the existing vessel homeport data.

To understand the distribution and relative magnitude of community engagement in the BS pollock fishery through the shorebased processing component, shorebased processors were identified in data provided by the Alaska Fisheries Information Network (AFKIN) using the intent to operate, shorebased processor, and floating processor codes. This approach provides information based on the operating location of the plant, rather than other indicators such as company ownership address, a relative indicator of the local volume of fishery-related activity, and a rough proxy for the relative level of associated employment and local government revenues.

It is important to note, however, that there are some considerable limitations on the scope of quantitative information that can be provided for the shorebased processing component because of confidentiality restrictions. For example, Akutan and King Cove are each the site of one shorebased processor that accepts pollock deliveries. As such, information about the volume and value of pollock landings for these individual communities cannot be disclosed. This limits the quantitative information that can be provided.

The portion of the review also includes a series of tables based on existing quantitative fishery information to identify patterns of dependence on the BS pollock fishery for communities affiliated with

the various sectors by ownership address and those Alaska communities where shorebased processing occurs. “Dependence” is a complex concept with economic and social dimensions, and it can be measured in multiple ways. This portion of the section addresses the economic dimension of communities’ dependence on BS pollock. For communities affiliated with the fishery by vessel ownership address, dependence is characterized by comparing the gross ex-vessel or first wholesale revenues earned from the pollock fishery to the total revenues generated by the same vessels in all other fisheries (species, gear, and areas). The same general procedure is used for the shorebased processing component.

7.2.3 Catcher Processor Sector

Table 7-3 provides the count of C/Ps harvesting AFA pollock by the community listed as the vessel’s ownership address. During the most recent review period (2015–2023), 14 unique C/Ps harvested AFA pollock. All C/Ps harvesting AFA pollock in the fishery have a registered ownership address in either Seattle or Anchorage, and the largest component of C/P ownership is concentrated in Seattle (annually averaging over 93 percent).

Table 7-4 provides information on the estimated gross first wholesale revenues for C/Ps that harvested AFA pollock. The annual average first wholesale revenue while harvesting AFA pollock during the 2015–2023 revenue period was $606 million dollars.

Table 7-5 provides information on the relative value of the pollock fishery for C/Ps. The gross first wholesale revenues C/Ps earned from BS pollock is compared to the gross first wholesale revenues these same vessels earned from all other fisheries (areas, species, gear types) by those same vessels. As shown, these C/Ps are highly dependent on AFA harvests of BS pollock. On average, BS pollock accounted for over 72 percent of the gross first wholesale revenues from all fisheries for these C/Ps for the most recent review period (2015–2023).

Table 7-6 provides information on the relative value of the BS pollock fishery for the communities (Seattle and Anchorage) affiliated with the ownership address of these C/Ps. The gross first wholesale revenues these C/Ps earned from the pollock fishery is compared to the gross first wholesale revenues earned by the “the community fleet” in all other fisheries. The “community fleet” is defined as all commercial vessels with an ownership address in the same communities identified by C/P ownership address. As shown, the revenues earned by C/Ps participating in the pollock fishery during the 2015 through 2023 review period accounted for ~20 percent of the total revenues earned by vessels in these same communities on average.

Table 7-7 provides information on annual AFA pollock CV dependence on the AFA pollock fishery relative to the total revenue from all other areas, gear types, and species fished by these vessels. In general, the distribution of AFA pollock vessels receiving approximately the same proportion of total revenue from the AFA pollock has changed little during 1998 through 2023 period.

Table 7-3 Number of C/Ps harvesting AFA pollock by community of vessel ownership address annually from 2015 through 2023 compared to recent period averages encompassing prior AFA Program Reviews, 1998 through 2014

Community	1998-1999 Avg	2000-2004 Avg	2005-2009 Avg	2010-2014 Avg	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023 (number)	Annual Average 2015-2023 (percent)	Unique Vessels 2015-2023 (number)
Anchorage Alaska	1	0.4	0	0.8	1	1	1	1	1	1	1	1	1	1	7.44%	1
Kodiak Alaska	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0
Anacortes Washington	1	1	0.8	0	0	0	0	0	0	0	0	0	0	0	0.00%	0
Seattle Washington	15.5	15.4	15	14.2	13	13	13	13	12	12	12	12	12	12.4	92.56%	13
Grand Total	**17.5**	**16.8**	**15.8**	**15**	**14**	**14**	**14**	**14**	**13**	**13**	**13**	**13**	**13**	13.4	**100.00%**	**14**

Source: NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive_BLEND_CA; source file is AFA_Review_SIA(4-16-25)

*Includes 1 Vessel in Anacortez from

Table 7-4 Gross first wholesale revenues for C/Ps harvesting BS pollock annually from 2015 through 2023 compared to recent period averages encompassing prior AFA Program Reviews, 1998 through 2014 (millions of real 2023 dollars)

	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023 (number)
Total	396.0	564.2	652.9	613.4	604.8	627.2	638.7	606.0	680.3	594.0	596.0	552.5	550.9	605.6

Source: NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive_BLEND_CA; source file is AFA_Review_SIA(4-16-25)

Table 7-5 Gross first wholesale revenue diversification for C/Ps harvesting AFA pollock, 1998 through 2023 (percent of total revenue)

Community	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015-2023 Annual Average
Total	77.21%	77.60%	75.30%	70.89%	71.84%

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-16-25)

Table 7-6 Gross first wholesale revenue diversification for communities listed as the registered ownership address of C/Ps harvesting AFA or CDQ pollock, 1998 through 2023 (millions of 2023 real dollars)

Community	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015-2023 Annual Average
Total	30.54%	41.64%	26.10%	24.04%	20.02%

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-16-25)

Table 7-7 C/Ps harvesting AFA pollock by AFA pollock total revenue as percent of total revenue from all other areas, gear types, and species 1998-2023 (number of vessels)

AFA Rev as a % of Total	1998-1999 Avg	2000-2004 Avg	2005-2009 Avg	2010-2014 Avg	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023
0-10%	0.5	1.4	2.0	2.6	3	3	3	3	3	3	3	3	3	3.0
10-20%	0.5	0.4	0.0	0.2	0	0	0	0	0	0	0	0	0	0.0
20-30%	0.0	0.0	0.0	0.0	0	0	1	1	1	0	0	0	0	0.3
30-40%	0.5	0.0	0.0	0.2	0	0	0	0	0	3	0	2	0	0.6
40-50%	0.0	0.2	0.2	0.0	0	0	0	0	0	1	0	1	1	0.3
50-60%	2.5	2.8	1.8	1.4	2	2	1	0	0	0	1	0	0	0.7
60-70%	2.0	1.0	2.6	2.0	0	1	1	2	1	3	3	1	2	1.6
70-80%	2.0	2.2	3.2	3.2	3	3	1	2	7	2	5	6	5	3.8
80-90%	3.0	4.6	3.0	3.4	8	8	6	6	0	3	1	4	2	4.2
90-100%	6.0	4.8	4.8	3.8	1	0	4	3	4	4	3	1	3	2.6
Grand Total	17.5	16.8	15.8	15.0	14	14	14	14	13	13	13	13	13	13.4

Source: NMFS Alaska Region Catch Accounting System, data compiled by AKFIN in Comprehensive_BLEND_CA; source file is AFA_Review_SIA(4-16-25)

7.2.4 Floating Processors and Motherships

The following section provides quantitative information on community engagement and dependence for those communities identified as the ownership address of floating processors or motherships. This includes floating processors that operated outside of city limits and accepted deliveries from inshore CVs and the motherships operating at-sea accepting deliveries from CVs participating in the mothership sector.

Table 7-8 provides the number floating processors/motherships that received deliveries of BS pollock during the fishery by the community listed as the processing vessel's ownership address. As shown, four unique floating processor/motherships operated during the analyzed period, all of which have a registered ownership address in Seattle and Dutch Harbor.

Table 7-9 provides the gross first wholesale revenues for floating processors/motherships by community of the processing vessel's ownership address. During 2015–2023, the annual average gross first wholesale revenue for the four floating processors/motherships was approximately $171 million.

Table 7-10 provides information on floating processor/motherships' revenue diversification. The gross first wholesale revenues earned from the pollock fishery are compared to the revenues earned from all other areas, species, and gear types processed by those same operations. The BS pollock fishery accounts for approximately 99 percent of these floating processor/motherships' total gross first wholesale revenues on average.

Table 7-8 Number of floating processors/motherships accepting AFA pollock deliveries by community of ownership address annually from 2015 through 2023 compared to recent period averages encompassing prior AFA Program Reviews, 1998 through 2014

Community	1998-1999 Avg	2000-2004 Avg	2005-2009 Avg	2010-2014 Avg	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023 (number)	Annual Average 2015-2023 (percent)	Unique Processors 2015-2023 (number)
Dutch Harbor	1.0	1.0	1.0	1.8	2	2	1	2	2	2	2	2	2	1.9	56.67%	2
Seattle	3.0	3.0	3.0	2.4	2	2	2	2	1	1	1	1	1	1.4	43.33%	3
Grand Total	4.0	4.0	4.0	4.2	4	4	3	4	3	3	3	3	3	3.3	100.00%	4

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_FLOATER_SIA(4-25-25)

Table 7-9 Gross first wholesale revenues for floating processors/motherships accepting AFA pollock deliveries by community of ownership address annually from 2015 through 2023 compared to recent period averages encompassing prior AFA Program Reviews, 1998 through 2014 (millions of real 2023 dollars)

Community	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023 (dollars)
Dutch Harbor/Seattle	$85.10	$189.43	$211.23	$214.14	$200.37	$219.40	$192.98	$215.11	$151.02	$134.11	$139.59	$133.33	$151.33	$170.80

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_FLOATER_SIA(4-25-25)

Table 7-10 Gross first wholesale revenue diversification for floating processors/motherships accepting deliveries of AFA pollock, 1998 through 2023 (percent of total revenue)

Community	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015-2023 Annual Average
Dutch Harbor/Seattle	93.74%	91.51%	94.08%	99.19%	99.27%

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_FLOATER_SIA(4-25-25)

7.2.5 Catcher Vessels

The following section provides information on community engagement and participation for CVs harvesting AFA pollock during the BS pollock fishery. This information combines both inshore and mothership CVs to streamline the information for the reader, but it is important to note these vessels have operational differences. For example, mothership CVs harvest BS pollock and deliver full codends directly to the mothership for processing at sea. Mothership CVs operate as distinct fleets because they must cooperate with each other and coordinate their deliveries to the mothership to efficiently prosecute the fishery. Inshore CVs harvest pollock at sea and deliver to shorebased processing facilities in Alaska communities.

Table 7-11 provides the number of CVs that harvested BS pollock by community of vessel ownership address. Prior to the implementation of the AFA Program (1998–1999), an average of ~94 CVs participated in this fishery, but the annual average number of participating CVs decreased to ~88 in the first five years (2000–2004). This level of participation was maintained from 2005–2009, but the annual average level of participation decreased slightly again from 2010–2014 period to ~87 CVs. During the most recent period (2015–2023), the annual average number of AFA CVs declined to ~83. Of these 83 vessels, 81 percent reported ownership address in a community in Washington State with the majority of ownership being concentrated in Seattle MSA. More broadly among the Pacific Northwest, 13 percent of the AFA CVs had a ownership address in communities based in Oregon or California (identified as "Oregon/Other States" in Table 7-11). Among the Alaska communities connected to CV ownership, Kodiak had the largest number of participating vessels, averaging four CVs from 2015–2023.

Table 7-12 provides the percent of total gross ex-vessel revenues earned from AFA pollock harvested during the pollock fishery by community of vessel ownership address, within the bounds of confidentiality. As shown, the gross ex-vessel revenues (on average) earned from CVs participating in the pollock fishery are concentrated in CVs with a reported ownership address in the Seattle MSA which was ~92 percent during the most recent period (2015–2023). CVs with reported ownership address in Oregon/Other States captured 5 percent of total ex-vessel value from the harvesting of AFA pollock during the review period (2015–2023). The annual average percentage of total ex-vessel value for those AFA CVs participating in the BS pollock fishery with reported ownership address of Alaska communities was ~2 percent from 2015–2023.

Table 7-13 provides information on the relative value of the pollock fishery for CVs. The gross ex-vessel revenues these CVs earned from the pollock fishery are compared to the revenues earned by these same vessels in all other fisheries. As shown, ex-vessel revenues earned from pollock harvests accounted for approximately 81 percent of the total revenue earned by these vessels across all fisheries.

Table 7-14 provides information on the relative value of the pollock fishery for communities affiliated with the ownership address of these CVs. The gross ex-vessel revenues these CVs earned from the pollock fishery is compared to the gross ex-vessel revenues earned by "the community fleet" in all other commercial fisheries. The "community fleet" is defined as all commercial vessels with an ownership address in the same communities identified by CV ownership address. The Seattle MSA, Newport, and Kodiak "community fleets" are large and diverse. As such, the relative dependence of these communities on the revenues earned by these CVs from the pollock fishery varies. For example, the gross ex-vessel revenues earned from the pollock fishery accounted for approximately four percent of the total gross ex-vessel revenues earned from the Kodiak community fleet compared to approximately 18 percent and 18 percent of the Seattle MSA and Newport community fleets, respectively.

Table 7-15 provides information on annual AFA pollock CV dependence on the AFA pollock fishery relative to the total gross ex-vessel revenue from all other areas, gear types, and species fished by these vessels. In general, the distribution of AFA pollock vessels between 1998 through 2023 has shifted from vessels that received a smaller proportion of their total revenue from AFA pollock (pre-AFA) to a gradual increase in the number of CVs receiving a greater share of their total revenue from the AFA pollock fishery.

Table 7-11 Number of CVs harvesting AFA pollock by community of vessel ownership address annually from 2015 through 2023 compared to recent period averages encompassing prior AFA Program Reviews from 1998 through 2014

Community	1998-1999 Avg	2000-2004 Avg	2005-2009 Avg	2010-2014 Avg	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023 (number)	Annual Average 2015-2023 (percent)	Unique Vessels 2015-2023 (number)
Anchorage/Wasilla	0.5	1	0.2	0	0	0	0	0	0	0	0	3	3	0.7	0.81%	3
Kodiak	4.5	5.8	4.8	5	4	4	5	5	4	5	4	3	3	4.1	4.97%	5
Alaska	5	6.8	5	5	4	4	5	5	4	5	4	6	6	4.8	5.77%	8
Seattle	60.5	56.2	61	62.6	66	68	69	64	64	66	63	61	57	64.2	77.58%	71
Other WA*	6.5	4	3.8	3	4	4	2	3	3	3	4	2	3	3.1	3.76%	7
Washington	67	60.2	64.8	65.6	70	72	71	67	67	69	67	63	60	67.3	81.34%	75
Newport	13	12.8	12.6	11	9	10	9	9	8	8	8	9	7	8.6	10.34%	11
Other OR/Other States**	8.5	8.4	6	5.2	2	2	1	2	2	3	3	2	2	2.1	2.55%	4
Oregon/Other States	21.5	21.2	18.6	16.2	11	12	10	11	10	11	11	11	9	10.7	12.89%	12
Grand Total	93.5	88.2	88.4	86.8	85	88	86	83	81	85	82	80	75	82.8	100.00%	90

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-16-25)

* Other WA includes: Anacortes, Chinook, Mount Vernon, Neah Bay and Vancouver

**Other OR/Other States includes: (Depoe Bay, Eddyville, Florence, Independence, Keizer, Philomath, Port Ortford, Portland, Siletz, South Beach)Oregon and Half Moon Bay California

Table 7-12 Gross ex-vessel revenues for CVs harvesting AFA pollock by community of vessel ownership address annually from 2015 through 2023 compared to recent period averages encompassing prior AFA Program Reviews, 1998 through 2014 (millions of real 2023 dollars)

Community	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023 (dollars)	Annual Average 2015-2023 (percent)
Anchorage/Wasilla	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	11.4	11.7	2.6	0.34%
Kodiak	*	*	*	6.2	5.2	5.9	6.9	5.0	6.1	5.7	7.1	2.1	2.3	5.1	2.05%
Alaska Total	.8	6.4	6.5	6.2	5.2	5.9	6.9	5.0	6.1	5.7	7.1	13.5	14.0	7.7	2.39%
Seattle	93.7	198.3	249.5	244.9	263.1	241.4	*	270.9	269.6	242.1	236.7	*	221.7	249.3	85.35%
Other WA*	12.7	19.8	18.7	17.6	24.4	21.8	*	18.7	20.5	17.0	22.3	*	15.9	20.1	6.81%
Washington	106.4	218.1	268.2	262.5	287.4	263.2	255.8	289.6	290.1	259.1	259.0	238.0	237.6	264.4	92.16%
Newport	6.5	16.1	16.8	13.3	*	*	*	*	*	9.8	9.4	*	*	9.6	4.21%
Other OR/Other States**	7.1	15.6	13.4	7.8	*	*	*	*	*	2.7	1.9	*	*	2.3	1.24%
Oregon/Other States	13.6	31.7	30.2	21.1	11.1	13.0	11.5	13.3	12.9	12.4	12.4	14.5	11.3	12.5	5.45%
Total	120.7	256.2	305.0	289.7	303.8	282.1	274.3	307.9	309.1	277.2	277.5	266.0	262.8	284.5	100.00%

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-16-25)

* Other WA includes: Anacortes, Chinook, Mount Vernon, Neah Bay and Vancouver

**Other OR/Other States includes: (Depoe Bay, Eddyville, Florence, Independence, Keizer, Philomath, Port Ortford, Portland, Siletz, South Beach)Oregon and Half Moon Bay California

Table 7-13 Gross ex-vessel revenue diversification for CVs harvesting AFA pollock, 2015 through 2023 (percent of total revenue)

Community	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015-2023 Annual Average
Anchorage/Wasilla	*	*	*	0.00%	79.14%
Kodiak	*	*	*	36.95%	46.67%
Alaska Total	11.01%	45.23%	45.88%	36.95%	50.99%
Seattle	68.11%	87.98%	86.97%	86.95%	87.14%
Other WA*	79.03%	95.19%	87.75%	95.69%	99.82%
Washington	69.25%	88.62%	87.03%	87.52%	87.97%
Newport	31.47%	52.19%	49.80%	36.07%	24.82%
Other OR/Other States**	42.19%	66.75%	64.98%	45.04%	37.79%
Oregon/Other States	36.29%	58.46%	55.55%	38.94%	35.68%
Total	61.02%	81.24%	80.60%	77.65%	81.17%

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-16-25)

Table 7-14 Community percent of revenue from CVs harvesting AFA pollock, from 1998 through 2023 (percent of total revenue)

Community	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015-2023 Annual Average
Anchorage/Wasilla	*	*	*	0.00%	2.80%
Kodiak	*	*	*	3.65%	4.29%
Alaska Total	0.40%	4.03%	3.28%	3.65%	3.65%
Seattle	18.08%	38.39%	28.46%	26.09%	17.93%
Other WA*	26.09%	44.26%	33.02%	36.39%	48.92%
Washington	18.76%	38.86%	28.73%	26.60%	18.47%
Newport	20.39%	44.40%	39.85%	31.96%	17.53%
Other OR/Other States**	32.72%	58.20%	48.14%	31.80%	12.45%
Oregon/Other States	25.39%	50.26%	43.14%	31.90%	17.08%
Total	14.96%	32.71%	25.35%	21.64%	15.70%

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-16-25)

* Other WA includes: Anacortes, Chinook, Mount Vernon, Neah Bay and Vancouver

**Other OR/Other States includes: (Depoe Bay, Eddyville, Florence, Independence, Keizer, Philomath, Port Ortford, Portland, Siletz, South Beach)Oregon and Half Moon Bay California

Table 7-15 Number of CVs harvesting AFA pollock by AFA pollock ex-vessel revenue as a percent of total ex-vessel revenue from all other areas, gear types, and species annually from 2015 through 2023 compared to recent period averages encompassing prior AFA Program Reviews, 1998 through 2014

AFA Rev as a % of Total	1998-1999 Avg	2000-2004 Avg	2005-2009 Avg	2010-2014 Avg	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023
0-10%	17.0	3.8	1.8	3.0	2	0	1	1	0	1	0	1	0	0.7
10-20%	9.0	4.2	4.2	6.2	4	5	7	4	5	0	6	5	2	4.2
20-30%	10.0	2.2	4.6	5.4	3	6	6	6	5	7	5	3	3	4.9
30-40%	4.5	6.8	5.2	5.2	6	7	4	4	4	4	4	7	6	5.1
40-50%	5.0	5.2	7.2	4.8	8	3	6	3	0	4	0	3	7	3.8
50-60%	2.0	5.0	5.2	1.8	2	7	3	6	8	5	3	1	1	4.0
60-70%	10.0	5.8	5.4	3.2	2	3	4	5	2	1	1	4	2	2.7
70-80%	13.5	8.8	7.2	7.0	4	6	6	5	5	7	5	5	5	5.3
80-90%	14.0	17.6	9.6	11.6	7	11	15	13	11	17	10	9	11	11.6
90-100%	8.5	28.8	38.0	38.6	47	40	34	37	41	39	48	42	38	40.7
Grand Total	93.5	88.2	88.4	86.8	85	88	86	83	81	85	82	80	75	82.8

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-16-25)

7.2.6 Shorebased Processing Component

This section provides information on community engagement and dependence on the BS pollock fishery for those Alaska communities with an AFA qualified shorebased processing plant that accepted BS pollock deliveries during the review period.

Table 7-16 provides the information on the number of shorebased processors that accepted deliveries of BS pollock by community of operation. As shown, four Alaska communities and eight unique shorebased processors accepted deliveries of BS pollock from 2015–2023. This count is based on company ownership of physical facilities. During the review period, there have been six physical facilities and seven companies affiliated with these plants. UniSea Seafoods, Westward Seafoods, and Alyeska Seafoods in Unalaska/Dutch Harbor; Trident Seafoods in Akutan; Peter Pan Seafoods in King Cove; and the *Northern Victor*. The *Northern Victor* was owned by Icicle Seafoods, but the company sold the *Northern Victor* to Westward Seafoods in 2022.

Table 7-17 provides information on the gross first wholesale revenue shorebased processing facilities earned from pollock deliveries by community of operation within the bounds of confidentiality restrictions. On average, these processors earned approximately $643 million in revenues from this fishery (2015–2023). The tables showing the value of AFA pollock deliveries by community are reported as gross wholesale values converted from the ex-vessel price estimates of landed catch. (Note, this is a fairly new algorithmic process for AKFIN which has been implemented at the request of the Council.)

Table 7-18 provides information on these processors' relative dependence on AFA pollock deliveries by comparing the gross first wholesale revenue earned from AFA pollock deliveries to all revenue earned by these same entities earned from all other fisheries (area, species, and gear types). As shown, BS pollock deliveries accounted for approximately 74 percent of the total wholesale revenues earned by these processors on average.

Table 7-16 Number of shorebased processors in Alaska communities accepting deliveries of AFA pollock by community of operation annually from 2015 through 2023 compared to recent period averages encompassing prior AFA Program Reviews, 1998 through 2014

Community	1998-1999 Avg	2000-2004 Avg	2005-2009 Avg	2010-2014 Avg	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023 (number)	Annual Average 2015-2023 (percent)	Unique Processors 2015-2023 (number)
Akutan/King Cove/Sand Point	3.0	3.0	2.8	2.6	3	3	2	3	3	2	3	2	2	2.6	41.82%	3
Akutan	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	16.36%	1
King Cove	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	16.36%	1
Sand Point	1	1	0.8	0.6	1	1	0	1	1	0	1	0	0	0.6	9.09%	1
Dutch Harbor*	3.5	3.2	3	3.2	3	3	3	3	4	4	4	4	4	3.6	58.18%	5
Grand Total	6.5	6.2	5.8	5.8	6	6	5	6	7	6	7	6	6	6.1	100.00%	8

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-22-25)
*Includes Inshore Floating Processor that operated in Dutch Harbor

Table 7-17 First wholesale revenues for shorebased processors in Alaska communities accepting AFA pollock deliveries by community of operation annually from 2015 through 2023 compared to recent period averages encompassing prior AFA Program Reviews, 1998 through 2014

(millions of real 2023 dollars)

Community	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Average 2015-2023 (dollars)	Annual Average 2015-2023 (percent)
Dutch Harbor	$171.23	$386.12	$413.38	$383.80	$356.24	$364.22	*	$367.83	$476.96	*	$415.03	*	$465.33	$400.75	62.4%
Akutan/King Cove/Sand Point	$82.90	$202.59	$251.77	$246.30	$224.35	$238.89	*	$255.95	$278.16	*	$233.04	*	$253.33	$241.82	37.6%
Grand Total	$254.13	$588.71	$665.14	$630.10	$580.59	$603.11	$565.64	$623.78	$755.12	$639.05	$648.08	$649.10	$718.66	$642.57	

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-22-25)

Table 7-18 Annual average gross first wholesale revenue diversification for shorebased processors accepting BS pollock deliveries, 1998 through 2023 (percent of total revenue)

Community	1998-1999 Annual Average	2000-2004 Annual Average	2005-2009 Annual Average	2010-2014 Annual Average	2015-2023 Annual Average
Dutch Harbor	62.5%	80.3%	83.2%	82.0%	84.0%
Akutan/King Cove/Sand Point	50.1%	72.9%	69.7%	60.8%	62.2%
Total	57.82%	77.59%	77.50%	72.17%	74.24%

Source: ADFG/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive_FT; source file is AFA_Review_SIA(4-22-25)

7.3 Alaska Community Fishery Tax Information

A relatively straightforward economic benefit to the State of Alaska and communities related to the BS pollock fishery are the revenues derived from taxes levied on this fishery. This section provides information on fishery-related tax revenues within the bounds of confidentiality restrictions.[17] The State of Alaska levies two fishery resource taxes and shares a portion of these tax revenues with qualified local governments in Alaska. The State's **Fisheries Business Tax (FBT)** is typically paid by the first processor of fish, or the exporter of unprocessed fish, on the raw fish landed in the state. The current tax rates are 3 percent for fishery resources processed at shoreside plants and 5 percent for those processed at floating processors. The State's **Fishery Resource Landing Tax (FRLT)** is levied at a 3 percent rate on fishery resources that are processed outside the 3-mile limit but, within the U.S. EEZ, and first landed in Alaska.[18] This tax is levied whether the product is destined for local consumption or shipment abroad. Under Alaska Statute (AS) 43.77, C/Ps and motherships are required to pay this tax at a rate that is equivalent to rates paid by CVs and shore-based processors under the FBT (AS 43.75).

The first step to calculating estimates of the FBT and FRLT levied on the BS pollock fishery was to derive the "estimated taxable value" of the fishery. These values were provided by AKFIN and are based on the value of unprocessed landings. The State determines the unprocessed value for C/P production by multiplying a statewide average price per pound of unprocessed fish (derived from ADFG data) by the unprocessed weight. Next, a 3 percent tax rate representing the FBT was applied to the estimated taxable value of BS pollock from inshore cooperatives and the inshore open access fishery in applicable years. A 3 percent tax rate representing the FRLT was applied to the estimated taxable value of BS pollock for the CDQ, C/P, and mothership sectors. As described previously, CDQ pollock has historically been harvested by AFA affiliated C/Ps except for 2016 when one mothership CV harvested a relatively small amount of CDQ pollock.

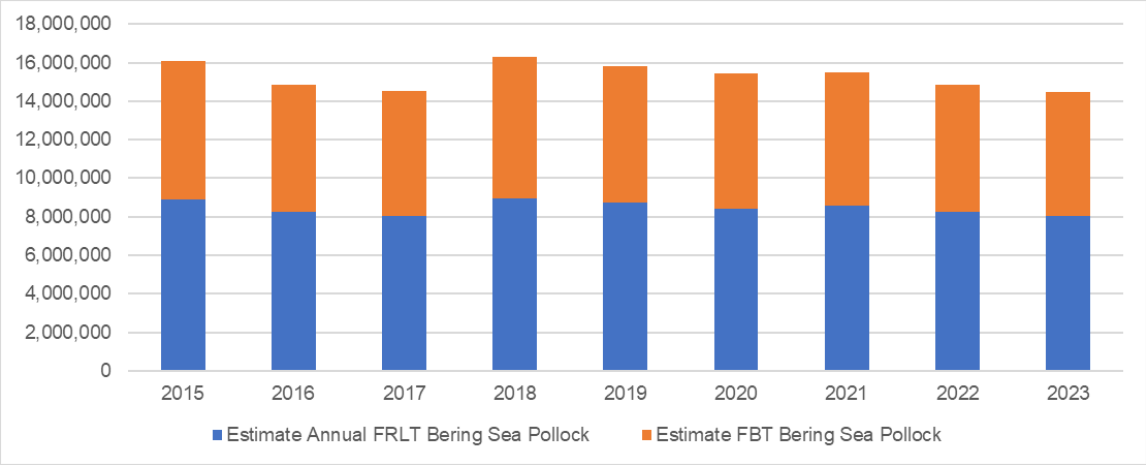
As noted in the July 2017 AFA Program Review, total FBT liability ranged between $4.4 million (2010) and $8.2 million (2003), while FRLT liability ranged between $6.2 million (2015) and $9.1 million (2006). Combined, total state tax liability ranged between $10.9 million in 2010 and $16.8 million in 2006.

Estimates of the FBT and FRLT levied on BS pollock from 2015–2023 are provided in Table 7-19. The total FBT liability ranged between $6.4 million (2017 & 2023) and $7.3 million (2018), and total FRLT liability ranged between $8.0 million (2017 & 2023) and $8.9 million (2018). Combined, total state tax liability ranged between $14.5 million (2017 & 2023) and $16.3 million (2018).

[17] The Alaska community of Kodiak was excluded from this portion of the review because a) there is no AFA qualified processing plant in the community of Kodiak, and b) it is not a common practice for C/Ps to offload or transfer Bering Sea pollock products processed at-sea in Kodiak *(Initial Review Social Impact Assessment for Bering Sea Chum Salmon Bycatch, March 2024*). As such, it is not anticipated the City of Kodiak, or the Kodiak Island Borough, would generate a significant amount of fishery-related tax revenue from the Bering Sea pollock fishery.

[18] Additionally, section 210(f) of the AFA requires a fishery cooperative to execute a contract with each cooperative member that obligates the member to make a payment to the state for pollock harvested in the Alaska pollock fishery that is not landed in Alaska. The required payment is equal to the amount that would have been due under the state landing tax had the product been landed in Alaska. AS 4377.015 requires that these payments be treated as if they are landing taxes, thereby imposing a filing and payment requirement and otherwise provides that the shared tax provisions apply to the payments.

Table 7-19 Estimate of Fishery Resource Tax including AFA and CDQ landings of BS pollock, 2015 through 2023 (millions of 2023 real $)



Source: AKFIN; source file is City Tax Tables.

The Alaska Department of Revenue (DOR) deposits all revenue from the FBT and the FRLT into the State's General Fund, and 50 percent of those shared revenues are subject to revenue sharing with local governments in the following way:

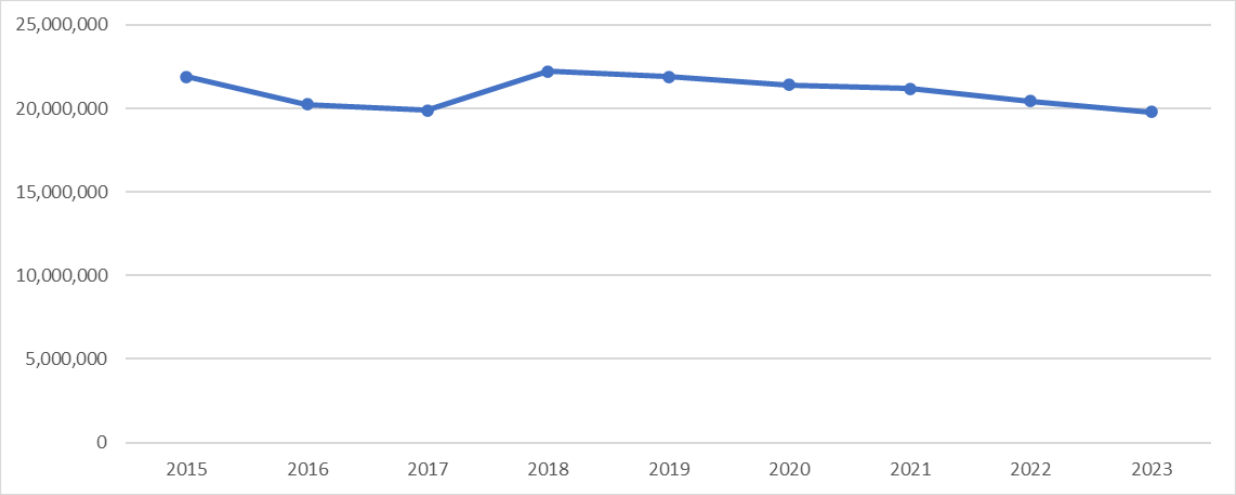
1. If the landings occur in an incorporated city within an organized borough, the 50% shareable amount is divided between the city and the borough.
2. If the landings occur outside of an incorporated city but still within an organized borough, the entire 50% shareable amount accrues to the borough.
3. If the landings occur in an incorporated city within an unorganized borough, the 50% shareable amount accrues to the city.
4. If the landings occur in neither an incorporated city nor an organized borough, the 50% shareable amount is distributed through an allocation program administered by the Alaska Department of Commerce, Community, and Economic Development (DCCED).[19]

Incorporated cities and organized boroughs may also levy their own taxes on fish landings. These local fish taxes are based on the unprocessed value of the fishery resources with the rate varying by municipality. The municipalities in which an AFA inshore processor is located and accepted BS pollock deliveries during the review period include the Cities of Unalaska/Dutch Harbor (2 percent), King Cove (2 percent), Sand Point (2 percent), and Akutan (1.0 percent in 2011-2012 and 1.5 percent from 2013 on). The Aleutians East Borough in which Akutan, King Cove, and Sand Point are located also levies a local fish tax of 2 percent.

The total estimated State and local taxes levied on the BS pollock are depicted in Table 7-20. As shown, the total estimated State and local taxes levied on BS pollock from 2015 through 2023 are estimated between $19.8 million (2023) and $22.2 million (2018).

[19] DCCED first allocates the revenues raised statewide in proportion to the share of statewide pounds of fish and shellfish processed in each of the 19 fisheries management areas (FMA) during the preceding calendar year, and then within an FMA by a formula that may vary by FMA (NMFS 2014).

Table 7-20 Total estimated State and local tax revenues (FBT, FRLT, and City Raw Seafood) for the BS pollock fishery, 2015 through 2023 (millions of 2023 real $)



Source: AKFIN; source file is City Tax Tables

Source: AKFIN

To calculate estimates for the total State and local taxes levied on the BS pollock fishery by community for those inshore processors that partner with AFA inshore cooperatives and for CDQ, AFA C/P and mothership sectors, the following procedure was applied:

- The estimated taxable value of BS pollock was calculated for inshore cooperatives partnered with inshore processors in Unalaska/Dutch Harbor (i.e., multiplying the annual average gross ex-vessel price by the weight of unprocessed landings). Next, a 5 percent tax rate was applied to the estimated taxable value for BS pollock. The 5 percent tax rate is the sum of the State's 3 percent FBT and the City's 2 percent Raw Seafood Tax. Unalaska is an incorporated city in an unorganized borough. Thus, of this amount, 3.5 percent is accrued to the City of Unalaska and 1.5 percent to the State.[20]
- The estimated taxable value of BS pollock was calculated for the inshore cooperative partnered with the inshore processor in Akutan. A 6.5 percent tax rate was applied to the estimated taxable value for BS pollock for the cooperative partnered with the shorebased plant in Akutan. The 6.5 percent tax rate is the sum of the State's 3 percent FBT, the City's 1.5 percent Raw Seafood Tax, and the Aleutians East Borough's 2 percent Raw Seafood Tax. Akutan is an incorporated city in an organized borough. Of this amount, 3 percent is accrued to the City of Akutan, 2 percent to the Aleutians East Borough, and 1.5 percent to the State.
- The estimated taxable value of BS pollock was calculated for the inshore cooperative partnered with the shorebased processing plant in King Cove. A 7 percent tax rate was applied to the estimated value of the BS pollock fishery. The 7 percent tax rate is the sum of the state's 3 percent FBT, the City's 2 percent Raw Seafood Tax, and the AEB's 2 percent Raw Seafood Tax. King Cove is an incorporated city in an organized borough. Of this amount, 3.5 percent is accrued to the City of King Cove, 2 percent to the Aleutians East Borough, and 1.5 percent to the State.
- The estimated taxable value of BS pollock was calculated for the shorebased processing plant located in Sand Point that is not partnered with an inshore cooperative. A 7 percent tax rate was applied to the estimated value of the BS pollock fishery. The 7 percent tax rate is the sum of the state's 3 percent FBT, and the City's 2 percent Raw Seafood Tax, and the AEB's 2 percent Raw

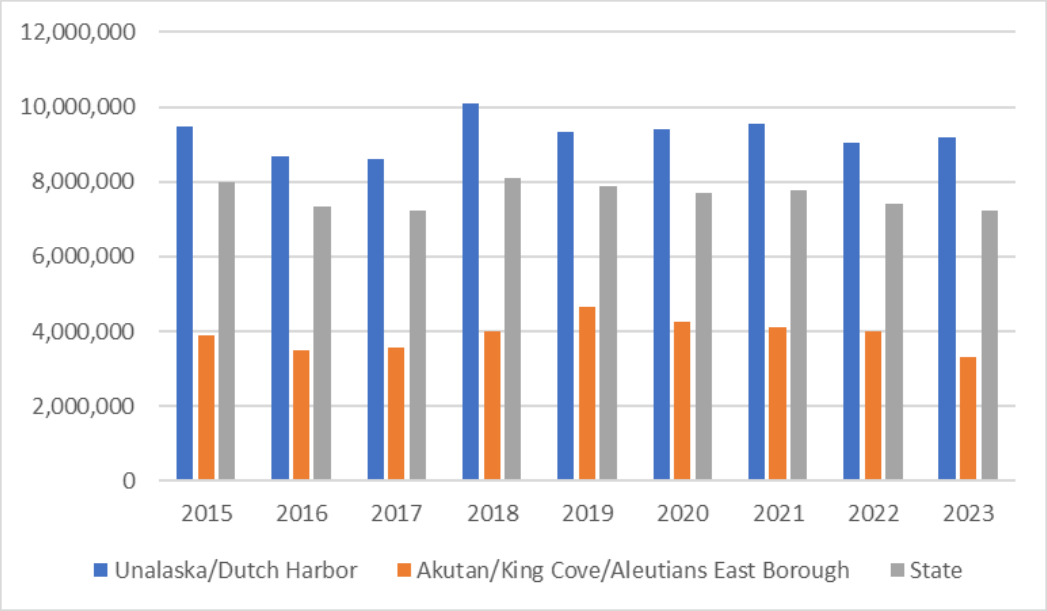
[20] The *Northern Victor* is a floating processor that operated in Beaver Inlet in FMA 2 for a portion of the analyzed period and as a stationary floating processor in Unalaska/Dutch Harbor in recent years (2018–2023). There is uncertainty in the formula the State used while the *Northern Victor* operated as a floating processor in Beaver Inlet. As such, the analysis attributes all taxable revenue to the State (2015-2017) in line with prior approaches used for a similar analysis (NPFMC 2017). Taxable revenues for the *Northern Victor* are split between the City of Unalaska and the State from 2018-2023.

Seafood Tax. Sand Point is an incorporated city in an organized borough. Of this amount, 3.5 percent is accrued to the City of Sand Point, 2 percent to the Aleutians East Borough, and 1.5 percent to the State.

- It was assumed that all product transfers for the C/P and mothership cooperatives occurred in Unalaska/Dutch Harbor. The estimated taxable value of BS pollock was calculated for the C/P, CDQ, and mothership sectors, and a 3 percent tax rate was applied. Unalaska is an incorporated city in an unorganized borough. Of this amount, 1.5 percent is accrued to the City of Unalaska and 1.5 percent to the State.[21]

Table 7-21 shows the estimated amount of State and local taxes levied on BS pollock (using the procedure described above) that have accrued to the City of Unalaska and the City of Akutan, City of King Cove, and Aleutians East Borough as a group. This information is provided within the bounds of confidentiality restrictions. While the volume of landings made by each cooperative is available in the annual cooperative reports, the value of these landings is not. As such, the review treats these data as confidential for communities with a single processing entity.

Table 7-21 Total estimated State and local tax revenues for the BS pollock fishery from 2015 through 2023 (millions of 2023 real $)



Akutan, King Cove, and the Aleutians East Borough each derive tax revenues from the BS pollock fishery ranging between $3.37 million (2016) and $4.49 million (2019). These tax revenues are derived from the local seafood taxes and FBT levied on deliveries made by the Akutan Catcher Vessel Association/Trident Seafoods and the Peter Pan Fleet Cooperative/Peter Pan Seafoods.

Unalaska/Dutch Harbor derives revenues from the City's Raw Seafood Tax and the FBT are levied on BS pollock landings at three local shoreside processing facilities Alyeska Seafoods/Unalaska Fleet Cooperative, UniSea Plant/Unisea Fleet Cooperative, Westward Seafoods/Westward Fleet Cooperative in all years and the *Northern Victor*/Northern Victor Fleet Cooperative in recent years (2018-2022). As shown in Table 7-22, the revenue from these sources ranged between $4.02 million (2016) and $5.42 million (2018). The City of Unalaska also derives substantial public revenues from the FRLT levied on C/Ps and motherships. These revenues range between $3.87 million (2017) and $4.32 (2018).

[21] C/Ps and motherships do not pay a local raw seafood tax to the City of Unalaska. This is because the products are frozen and processed. These vessels pay the FRLT as well as any other applicable State shared tax (e.g., sales, fuel, etc.).

To put these values into perspective the City of Unalaska general fund revenues are also provided in Table 7-22. The total estimated tax revenues derived from the BS pollock fishery account for 28.8% of the City's total general fund revenues, on average from 2015 through 2023. General fund revenues are used to finance the basic operations of a community or borough (e.g., public safety, community development, among others) and thus have a direct effect on public welfare in these communities.

While not shown quantitatively, it is important to note that Unalaska is unique compared to other locales in terms of the tax revenues it derives from the FRLT. Unalaska/Dutch Harbor has the most developed support service sector capacity in the broader BSAI region as the community has multiple marine fueling and provisioning options, substantial cold storage capacity, administrative support services, and multiple electrical, hydraulics, welding, and mechanical service providers. While the level of economic activity (or spending) in a community during a C/P port call is not available, AFA C/P port calls in Unalaska may foster other economic activities in the community related to these services.

Table 7-22 City of Unalaska BS pollock fishery tax estimates compared to all general fund revenue, 2015 through 2023 (millions of real 2022 $)

Year	Estimated Revenues from City Raw Seafood Tax Levied on BS Pollock	Estimated Revenues from FBT Levied on BS Pollock	Estimated Revenues from FRLT Levied on BS Pollock	Total Estimated Revenues from BS Pollock	City of Unalaska General Fund Revenues	Total BS Pollock Tax Revenues as a % of Total General Fund Revenues
2015	$2,680,333	$2,371,297	$4,436,621	$9,488,252	$29,152,912	32.5%
2016	$2,384,126	$2,188,754	$4,116,169	$8,689,049	$31,634,417	27.5%
2017	$2,441,035	$2,135,801	$4,020,593	$8,597,429	$32,609,892	26.4%
2018	$3,209,740	$2,407,305	$4,482,980	$10,100,025	$34,376,971	29.4%
2019	$2,833,933	$2,125,450	$4,378,656	$9,338,039	$34,525,170	27.0%
2020	$2,976,794	$2,232,596	$4,209,665	$9,419,055	$30,723,626	30.7%
2021	$3,002,739	$2,252,055	$4,276,835	$9,531,628	$34,371,441	27.7%
2022	$2,813,497	$2,110,122	$4,115,996	$9,039,615	$30,300,957	29.8%
2023	$2,949,872	$2,212,404	$4,007,913	$9,170,189	$36,419,248	25.2%

8 Retention and Utilization of Harvest Resources

The following section summarizes total, retained, and discarded catch in the BS pollock target fishery by year and sector. An overview of production by product type and first wholesale values as a means of measuring the utilization of harvested resources are also provided. The overall value generated per ton of BS pollock harvest provides a measure of the "efficient use of fishery resources" relative to National Standard 5.

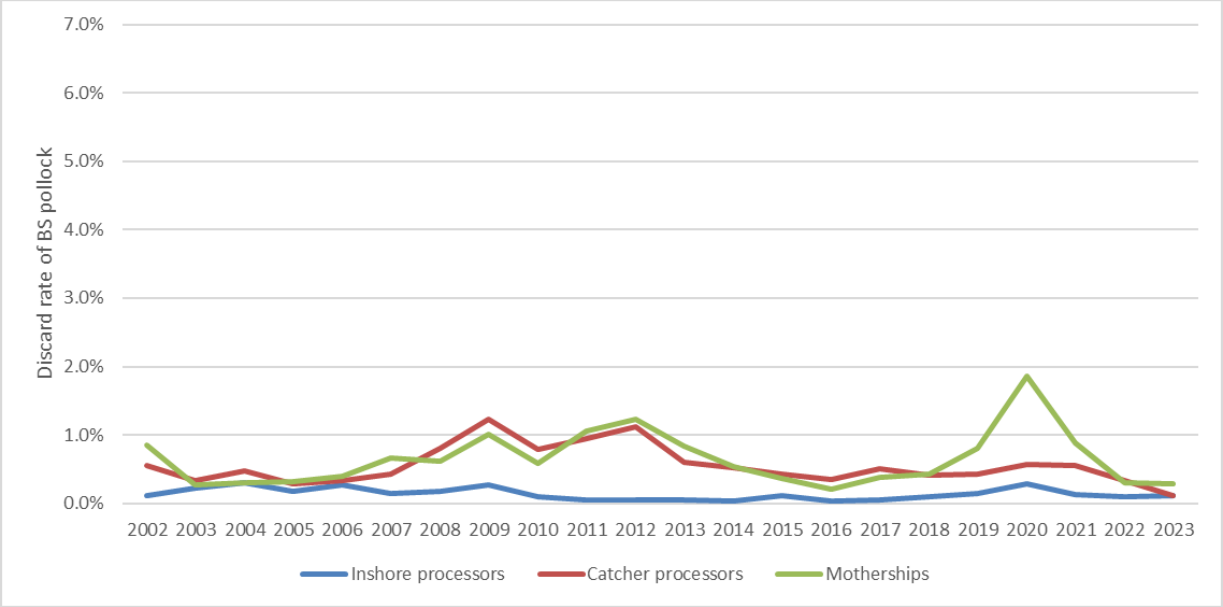
8.1 Discard Rate

Discard rate refers to the percentage of the groundfish catch that is not retained because the fish are unwanted for economic reasons (undesirable size, sex, quality, among others), or because the fish are required by regulation to be discarded. Discards of prohibited species are not included in this discussion.

Discard rates in the BS pollock fishery are very low due to Amendment 49 to the BSAI groundfish FMP, which required all vessels fishing for groundfish in the BSAI management area to retain all pollock and Pacific cod beginning January 3, 1998. The adoption of Amendment 49 coincided with passage of the AFA. Slowing down the rate at which BS pollock is harvested and processed was one of the results of the AFA, especially during the non-roe seasons. In turn, slower fishing resulted in fishing practices that further helped reduce discard rates. For example, vessels could spend more time searching for pollock of the preferred size and avoiding undesired fish species, including prohibited species.

The 2017 Program Review found that groundfish discard rates across all AFA sectors held at less than one percent since 2003. From 2015–2023, the discard rates of groundfish generally held steady, except for 2020. From 2002–2023, the discard rates of groundfish across all AFA sectors have held at less than two percent during the 2002 through 2023 period (Figure 8-1).

Figure 8-1 Discard rates in the BS pollock fishery, by AFA sector, 2002-2023



Source: AKFIN; source file AFA_Landings_1998+(4-9-25)

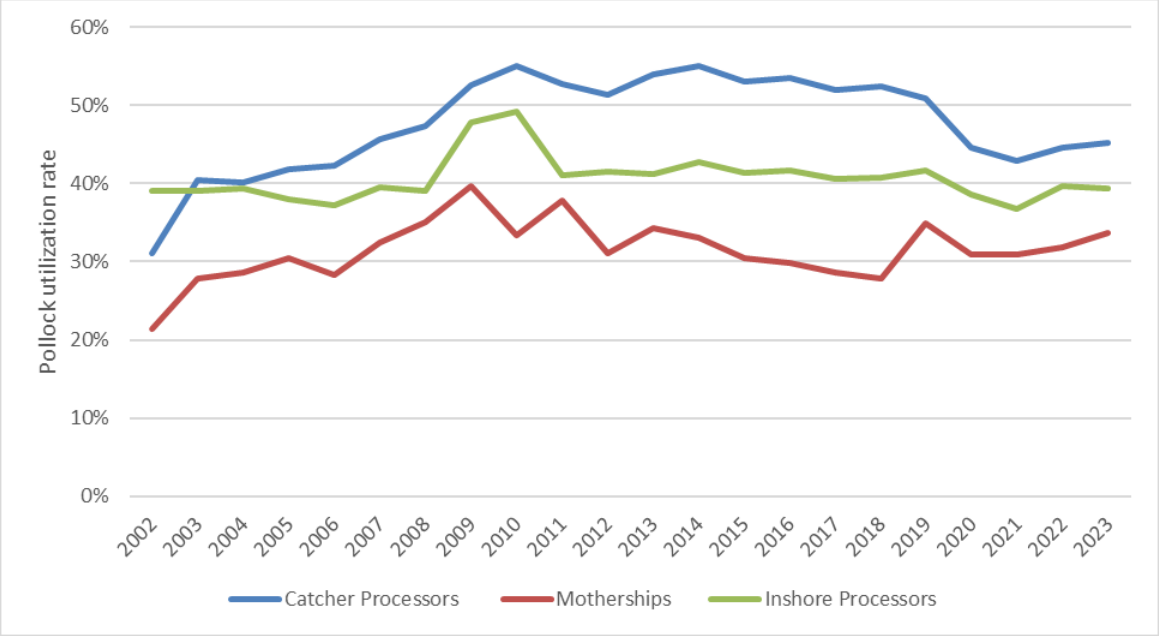
8.2 Utilization Rate

Utilization rate refers to the percentage of retained groundfish processed into some time of product. Amendment 49 also established a 15 percent minimum utilization rate with no restriction on product type

beginning January 3, 1998 for pollock. However, a much higher utilization rate has been attained under the AFA. As noted above, slowing down the rate at which BS pollock is harvested was one of the results of the AFA. Slowing down harvesting allowed vessels to be more size selective, with larger-sized fish providing higher yields. In addition, slowing the rate of throughput from harvesting activities permitted slower processing rates and more processing precision. The overall result is that processors are able to extract more useable products from the fish thereby increasing the utilization rate.

In 1999, the utilization rate was 36 percent in the inshore sector; 26 percent in the C/P sector, and 21 percent in the mothership sector (NPFMC 2002). As shown in Figure 8-2, the utilization rate showed an increasing trend for several years after implementation (2002–2015). Notably, from 2008–2010, yields increased significantly as the DFA for BS pollock was reduced and processors attempted to maximize recovery rates from a smaller harvest (NMFS 2016a). The DFA for BS pollock rebounded after 2010 and 2011 and utilization rates declined slightly from those high years. From 2015–2023, the utilization rates have generally remained relatively stable, with a slight decrease among all AFA sectors from 2019–2021, followed by an increase during the last two years.

Figure 8-2 Utilization rate in the BS pollock fishery, by AFA sector, 2002-2023



Source: AKFIN; source file AFA_Utilization(4-9-25)

9 Pollock Products, Markets, and Product Branding

This section examines the effects of the AFA on pollock products, including product types, product branding, and product markets. The cooperatives created by the AFA are harvest-only agreements among fishermen. Cooperative members are prohibited by federal antitrust laws from coordinating processing, marketing, or sales activities (Sullivan 2007). However, by giving cooperative members more certainty about a share of the BS pollock quota, the cooperative agreements largely stopped the competition for fish. Rather than attempting to maximize catch and throughput, fishing companies could focus on maximizing revenues through optimizing the product mix, capitalizing on the marketing value of being a well-managed fishery, increasing global markets, and increasing utilization of fish (Strong and Criddle 2013).

Note, Chapter 11 of the 2017 AFA Program Review contains an extended discussion on pollock products and prices because the Council's 2002 report on AFA impacts provided a limited scope of information on these topics. That information is not repeated at length in the current review because the primary product and product forms have not substantially changed since 2015.

9.1 Pollock Products and Markets

Alaskan pollock is primarily processed into fillets, surimi and roe, as well as fishmeal and head & gutted fish. At the time the AFA was implemented, each sector (i.e., C/Ps, motherships, and inshore) focused on producing a different array of pollock products. For instance, motherships only produced surimi, roe, fish meal, mince and fish oil (NMFS 2002). Similar to C/Ps, motherships can move with schools of pollock, so CVs that deliver to motherships deliver fresher fish compared to CVs delivering to inshore processors. Access to fresh fish helps motherships to produce high quality roe and surimi that command premium prices (Strong and Criddle 2013; NPFMC 2017). Inshore processors have historically produced relatively few fillets, focusing instead on surimi, together with roe, fish meal, and mince. C/Ps had two fairly distinct components: the surimi C/Ps that produced a combination of surimi and fillets, and the fillet C/Ps that concentrated on fillet products. Both components also produced roe, while the ability to process secondary products like fish meal varied from vessel to vessel (NMFS 2002).

As noted in Table 9-1 and Table 9-2, and Figure 9-1 through Figure 9-6, there have been changes in the magnitude of production of various product types (e.g., increased production of H&G pollock by all three sectors) since the AFA's inception, total production has been relatively stable. Of the product forms produced, fillets and surimi/minced make up the largest share of total production. From 2000–2015, 41 percent of average total production and 35 percent of the total average value was surimi/minced while fillets averaged 31 percent of average total production and 36 percent of the average total value. By comparison, from 2015–2023, fillet production captured the largest portion of total average production at 43 percent and the largest portion of total average value at 42 percent, while surimi/minced average total production was 32 percent and average total value was 38 percent.

The focus on fillets and surimi/minced production is also apparent in Figure 9-1, Figure 9-3, Figure 9-5 which show product mix by year for shoreside, offshore, and mothership sectors. Also noted in these production volume figures is the sharp decline in surimi/minced and fillets production for shoreside and offshore sectors and surimi/minced for mothership sector from 2007–2010 when BS pollock DFA was significantly reduced (see Section 4) and to a lesser degree from 2019–2022 due to the national and global market challenges the pollock industry is facing (see Section 9.1.1). Finally, Figure 9-2 and Figure 9-4 depict increasing value of fillets and surimi/minced product forms despite annual fluctuations while roe product has decline in value from 2000–2023.

Table 9-1 Average pounds and percent of total pounds and average value and percent of total average value for Alaska pollock, 2000 through 2015

Product Group	Average pounds	Percent of average total pounds	Average value ($)	Percent of total average value
Fillets	308,449,415	31%	406,375,111	36%
Surimi/Minced	407,964,274	41%	396,870,413	35%
Roe	45,463,512	5%	222,515,178	20%
Meal	125,746,907	13%	62,083,983	5%
Head and Gut	34,113,830	3%	24,748,331	2%
Oil	42,972,207	4%	15,020,806	1%
Other	19,734,335	2%	7,710,228	1%
Total	**984,444,480**	**100%**	**1,135,324,049**	**100%**

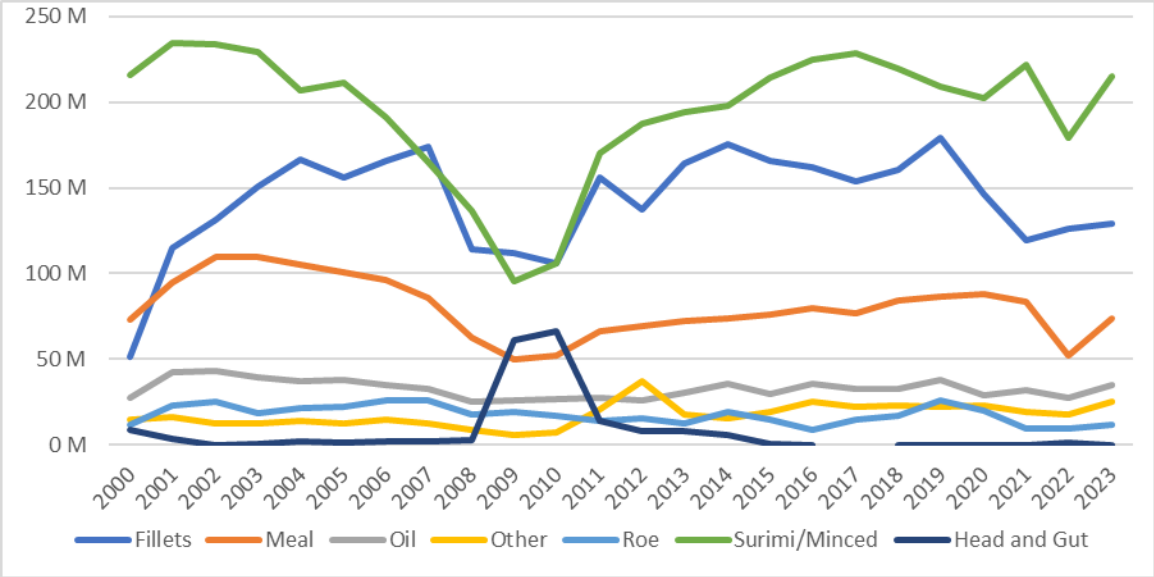
Source: AKFIN; source file is AFA_Products_MM(5-5-25)

Table 9-2 Average pounds and percent of total average pounds and average value and percent of total average value for Alaska pollock, 2015 through 2023

Product Group	Average pounds	Percent of average total pounds	Average value ($)	Percent of total average value
Fillets	459,644,751	43%	585,209,480	42%
Surimi/Minced	339,462,989	32%	533,060,041	38%
Roe	41,263,689	4%	106,516,880	8%
Meal	138,918,758	13%	116,546,274	8%
Head and Gut	12,725,227	1%	8,273,246	1%
Oil	56,500,345	5%	36,111,058	3%
Other	26,606,118	2%	9,155,965	1%
Total	**1,075,121,878**	**100%**	**1,394,872,944**	**100%**

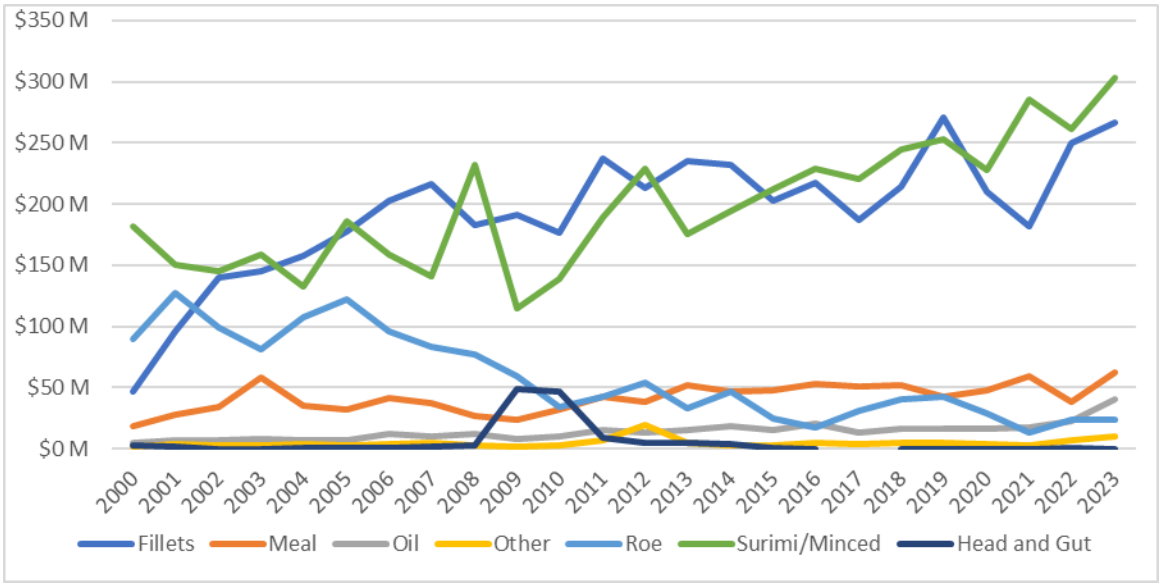
Source: AKFIN; source file is AFA_Products_MM(5-5-25)

Figure 9-1 Product mix of the AFA inshore sector in terms of wholesale volume (millions of pounds), 2000 through 2023



Source: AKFIN

Figure 9-2 Product mix of the AFA inshore sector in terms of wholesale value (millions of $), 2000 through 2023



Source: AKFIN

Figure 9-3 Product mix of the AFA offshore sector in terms of wholesale volume (millions of pounds), 2000 through 2023

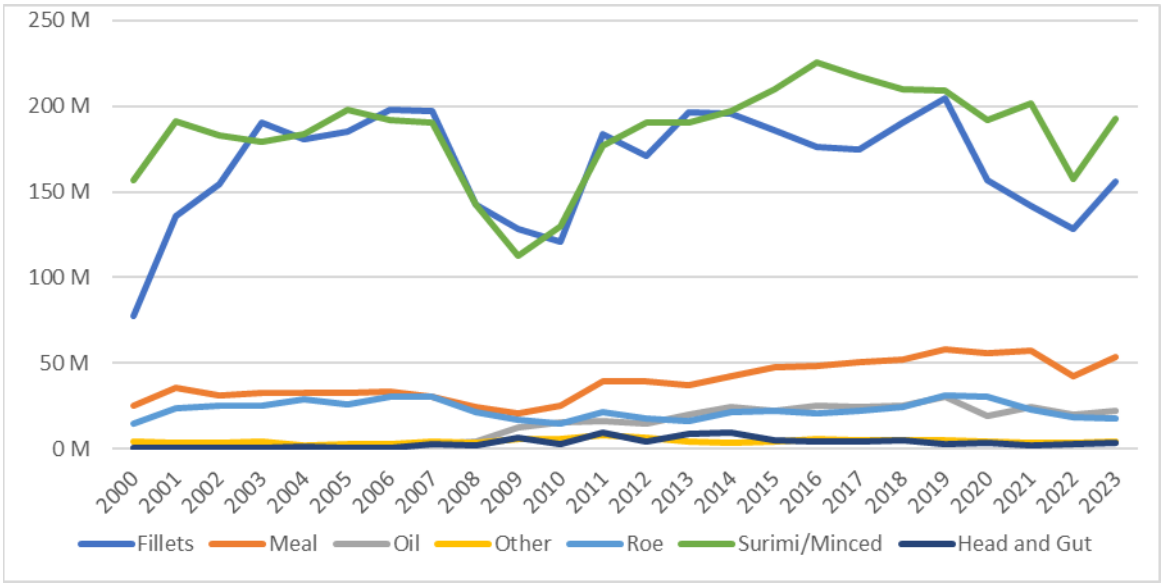


Figure 9-4 Product mix of the AFA offshore sector in terms of wholesale value (millions of $), 2000 through 2023

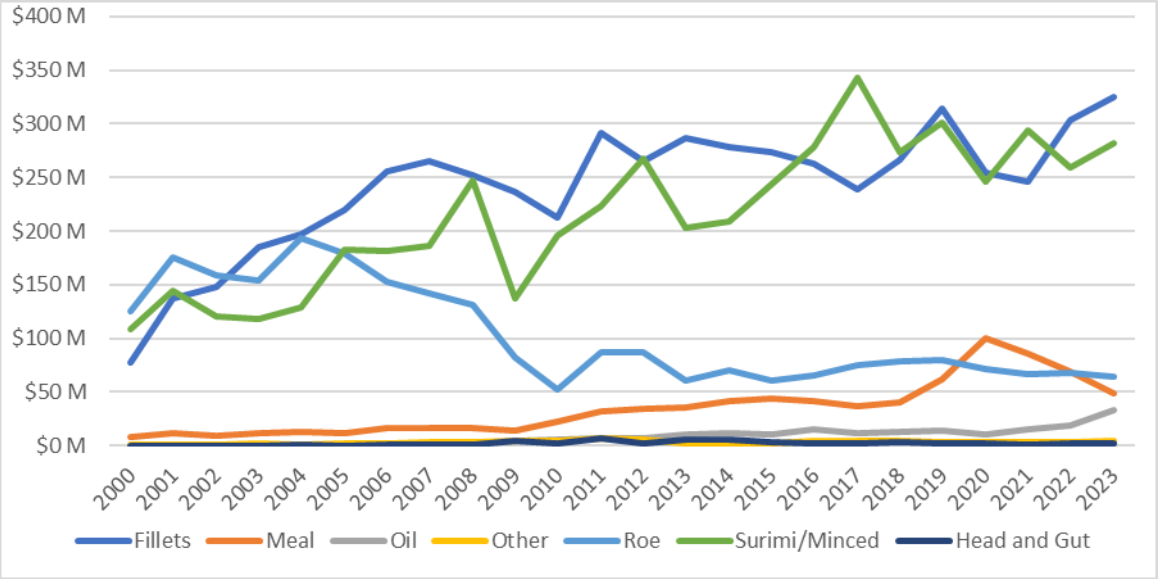


Figure 9-5 Product mix of the AFA mothership sector in terms of wholesale volume (millions of pounds), 2000 through 2023

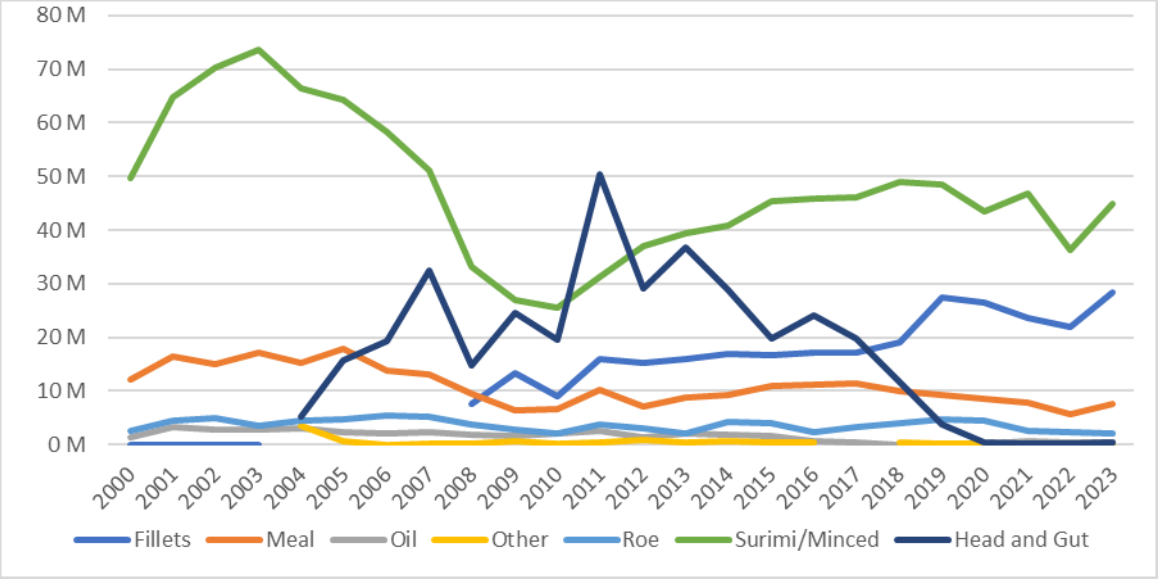
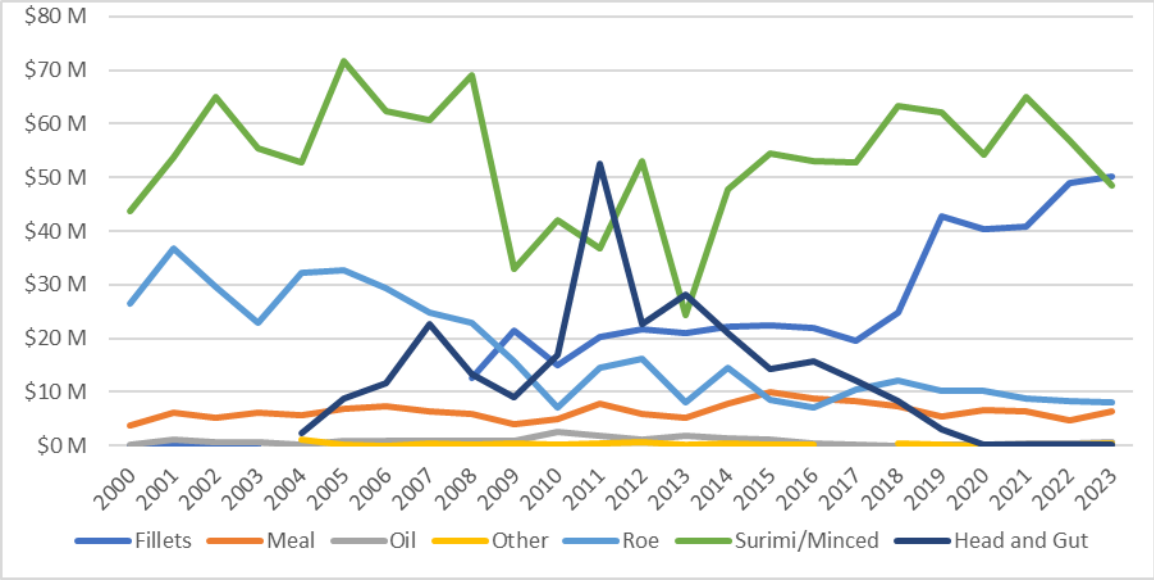


Figure 9-6 Product me of the AFA mothership sector in terms of wholesale value (millions of $), 2000 through 2023



Role of Alaskan Pollock in Global Markets

Pollock is currently the largest groundfish fishery in the world by volume harvested, with stocks concentrated in the North Pacific Ocean. Pollock are commercially harvested by several countries, but U.S. (Alaska) and Russia are the largest producers by a wide margin. Since 2014, the proportion of the global pollock supply represented by Alaskan pollock has remained relatively stable at ~40% (Abelman et al. 2024).

Processed products are typically delivered to Dutch Harbor, then shipped via cargo vessel to Asia, Europe, and North America for secondary processing or distribution. Europe, Japan, and the U.S. are the primary consumer markets for Alaska pollock. Alaska pollock was among the top five seafoods consumed in the U.S. in 2020. Approximately 21% of Alaska pollock supply goes directly to the domestic market, with the remaining 79% exported for reprocessing or final consumption in other countries (McKinley Research Group 2023). Almost 90% of Alaska pollock surimi is sold to export markets. In 2020, Japan and South Korea imported just under 70% of all Alaska pollock surimi production. The remaining markets for surimi included Europe, U.S., Thailand, and China. For Alaska pollock fillets, more than half of production have recently been sold directly to European markets and about 28% have been sold into domestic markets in that timeframe (Abelman et al. 2024).

Competing supply also exists from other whitefish. Whitefish generally refers to non-oily species, such as cod, pollock, haddock, hake, whiting, and benthic flatfish, such as sole, plaice, flounder, and halibut. Though all whitefish may compete with pollock, farmed whitefish, such as tilapia and pangenesis, are perhaps the most direct competitors to pollock since aquaculture production can be scaled to meet the needs of consumers in a way that wild caught harvests cannot. Though different perceptions of quality and price premiums exist for this range of species, all whitefish are competitors and may be substituted for each other based on price, preference, and availability. For example, Atlantic cod is reported as the preferred whitefish in Europe, likely due to traditional consumption of cod harvests in the North Sea. However, with climate change and overfishing pressure on Atlantic cod, alternative sources of whitefish may be increasingly necessary as substitutions.

9.1.1 Current Alaska Seafood Market Challenges

Currently, the Alaska seafood industry and market has been facing exceptional challenges on the local, national, and global scale. These challenges have contributed to "an economic squeeze not seen for decades or longer," as noted by the Alaskan Seafood Marketing Institute (ASMI 2023). This section briefly highlights some of these challenges because they impact the BS pollock fishery, but many of the problems currently facing the Bering Sea pollock industry are outside of the direct control of the AFA.

Inflationary pressure has created significant cost increases for fuel, equipment, labor, shipping, cold storage, among other categories for harvesters, processors, and distributors alike. Meanwhile, many global competitors do not face the same cost limits, such as those incurred for product testing, environmentally sound processing, and labor standards (Townsend 2024). Additionally, and as discussed previously, the pollock industry has been impacted by **holdover inventories** in recent years. The COVID-19 pandemic created a shift in consumer demand for seafood and contributed to price volatility. Increased supermarket demand for pollock (and other Alaskan species like crab) increased as consumers prepared more meals at home. In response, supermarkets and seafood suppliers purchased large amounts of frozen seafood and put it in cold storage. With increased inflation and higher consumer prices, suppliers ended up with substantial remaining inventory. Historically, retailers would lower prices to clear inventory, but in 2022-2023 retailers transitioned to keeping their new purchases of wholesale supply lower and slowly moved high priced inventory out of cold storage (AFSC 2024).

Consumer demand for Alaskan seafood has decreased within the U.S. and globally. Nationally, inflationary pressures have contributed to demand decreases for all seafood products. Globally, Alaskan seafood competes with lower-cost products, making it a less attractive option for many consumers. There has been an **increase in Russian harvests** of pollock (as well as sockeye salmon and crab) in recent years, creating excess supply. Inventories of these products have lingered, which disincentivizes retailers and wholesalers from purchasing additional products (McKinley Research Group 2024).

Similarly, **trade conflicts** and due to **high tariffs** have impacted Alaska seafood exports to China which has traditionally been a key market. Russia has flooded the market with seafood at rock-bottom prices to fund the war in Ukraine. These products directly compete with Alaskan seafood. Additionally, in response to tariffs in the European Union, a primary market for pollock fillets, Russian seafood companies have shifted a new focus onto Asian surimi markets (Townsend 2024).

The culmination of these challenges has resulted in difficult economic conditions for Alaskan seafood markets and the processors, harvesters, and communities that participate in them. Over the last year, news about Alaska's fishing industry highlighted the impacts of these challenges, including delays in planned capital investments, temporary closures of shoreside processing operations, companies listing assets for sale, and other impacts and changes in business relationships among entities with full or partial ownership in shoreside processors (AFSC 2024).

9.2 Product Branding

The cooperative management structure implemented by the AFA has also benefited the BS pollock fishery by fostering a new spirit of collaboration among fishery participants. Under the race-for-fish, companies were in constant competition with each other, but since implementation of the AFA, pollock operations have been more willing to work together for the benefit of the fishery as a whole. An important example of this collaboration was seeking sustainable seafood certification for the BS pollock fishery under the standards of the Marine Stewardship Council (MSC) (Strong and Criddle 2013).

This section discusses the fishing industry's involvement in certification of the BS pollock fishery by both the MSC and Alaska Responsible Fisheries Management (RFM) Certification Program, together with the perceived product marketing benefits of the two programs. In addition, collaborative efforts by industry to further differentiate their products in markets are described.

9.2.1 Marine Stewardship Council Certification

The MSC certification program is the world's leading seafood sustainability certification program. It uses a third party to review the current condition and management of a fishery based on three guiding principles of: 1) sustainable fish stocks, 2) minimizing environmental impact, and 3) effective management. Fisheries that meet the certification criteria are authorized to mark their products with the MSC logo.

In 2000, the Unilever Corporation, a co-founder of the MSC, approached the At-sea Processors Association about applying to have the BS pollock fishery assessed against the MSC sustainability standard. At the time, Unilever was one of the largest whitefish buyers in the world, owning such popular brands as Gorton's, Iglo, and Birds Eye. Unilever was committed to sourcing seafood from proven sustainable fisheries, and Alaska's pollock fishery was one of the world's largest fisheries and at that time an important component of Unilever's fish supply (Gilmore 2008). With the support of other AFA members, the At-sea Processors Association began the arduous and costly MSC certification process in 2001 (Strong and Criddle 2013).

The BS pollock fishery was certified as a "well managed and sustainable fishery" by the MSC in 2005 and re-certified in 2010, 2016, 2020, and most recently in 2023. Each AFA C/P, CV, and mothership, or the company that owns and operates such vessels, participates in the MSC's product traceability program in which independent chain-of-custody auditors review production processes and records to confirm that a supplier can track products back to a certified fishery (MRAG Americas 2019). By 2007, there were 167 different Alaska-origin pollock products bearing the MSC ecolabel being marketed in 12 countries, predominantly in Europe (Gilmore 2008).

In addition to providing Alaska-origin pollock products preferential access to European and North American markets, MSC certification allowed Alaska producers of pollock to exact a price premium over noncertified, but otherwise comparable product (Strong and Criddle 2013).

9.2.2 Alaska Responsible Fisheries Management Certification

Consumers were provided additional assurance that pollock caught in state and federal waters off the coast of Alaska are harvested in a sustainable manner in 2011, when the BSAI and GOA pollock fisheries were awarded a designation of "certified responsible fisheries management" by the Alaska RFM Certification Program, with successful re-certification occurring in 2017 and most recently in February 2023. Alaska RFM provides credible standards for sustainable fishing and supply chain traceability. The Alaska Seafood Marketing Institute, a public-private agency created under state law as a public corporation to serve as Alaska's seafood marketing arm, developed the Alaska RFM Certification Program in 2010 to provide cost-effective third-party certification of the management of the major Alaska commercial fisheries (Alaska Seafood Marketing Institute 2016). The program was the first seafood certification program to achieve recognition by the Global Sustainable Seafood Initiative's Global Benchmark Tool, which is based on the United Nations Food and Agriculture Organization's Code of Conduct for Responsible Fisheries and Guidelines for Ecolabelling of Fish and Fishery Products from Marine/Inland Capture Fisheries (Global Sustainable Seafood Initiative 2012). On July 1, 2020, Alaska Seafood Marketing Institute officially handed over ownership of the RFM certification program to the Certified Seafood Collective (CSC), a 501(c)(3) non-profit foundation led by a diverse board of seafood and sustainability industry experts.

10 Sideboard Limits

By providing AFA vessel owners with fixed allocations of BS pollock and the ability to effectively consolidate or otherwise improve the efficiency of their BS pollock operations, the AFA could potentially have provided opportunities for these vessel owners to expand into other fisheries that would not otherwise have been available. To limit these expansions, the AFA created harvesting limits, known as sideboards, on AFA vessels in non-pollock groundfish, crab, and scallop fisheries in the BSAI and Gulf of Alaska (GOA). Sideboard limits were also developed for prohibited species as were sideboard processing limits for BSAI crab species for all AFA processors.

This section describes these sideboard protections and provides a summary of all AFA vessel sideboard limits and catch amounts in the BSAI and GOA groundfish fisheries, PSC sideboard limits, herring PSC limits, and BSAI trawl limited access sector PSC limits.

10.1 Overview

All sideboard fisheries are managed by NMFS through directed fishing closures. In general, NFMS will open a fishery for directed fishing if it determines that the annual harvest limit for any individual species is large enough to support directed fishing. However, directed fishing closures are sometimes made at the start of the season, and certain species are never available for directed fishing. If NMFS closes a species to directed fishing (i.e., if the species is placed on a "bycatch-only" status), vessels may not retain that species at levels in excess of "maximum retainable amounts" (MRA), which have been set in regulation for each species.

NMFS takes a similar approach with respect to managing AFA sideboard limits for groundfish species. The agency makes an initial determination at the beginning of the fishing year, regarding the fisheries in which AFA vessels are likely to participate, based on historical participation, TACs, PSC limits, and other apportionments and regulations. For those species, NFMS actively manages sideboard limits; for the other sideboard species, NFMS closes the sideboard species to directed fishing by AFA vessels, typically at the beginning of the fishing year.

For sideboard fisheries for which directed fishing is allowed, NMFS combines the AFA harvest of each sideboard species into the sideboard total regardless of whether the catch occurred in a directed fishery for that species, or if the catch was considered as incidental catch in another fishery. If AFA catch of a sideboard species that is open for directed fishing approaches the sideboard limit, NMFS will set aside an amount they estimate will be needed for incidental catch in other fisheries by AFA vessels for the remainder of the year and then place that sideboard species on bycatch-only status, with retention allowed up to MRAs. Sideboard fisheries that are closed to directed fishing by AFA vessels at the beginning of the year or are closed to directed fishing for reasons other than the sideboard limit, are placed by NMFS on bycatch-only status. For these species, if incidental catch amounts in AFA sideboard fisheries combined with catch in other non-AFA fisheries approaches the TAC, NMFS could place these sideboard species on "PSC" status; otherwise AFA catch of these bycatch-only sideboard species can accrue without limit.

To streamline and simplify NMFS's management of AFA groundfish sideboard limits, regulations were published under 84 FR 2723, which became effective on March 11, 2019, that prohibited directed fishing for several BSAI and GOA sideboard fisheries (see Table 10-1, Table 10-2, and Table 10-3 below for list of those species or species groups). AFA regulations required NMFS to calculate numerous sideboard limits as part of the annual BSAI and GOA harvest specifications process and publish those limits in the Federal Register. Simultaneously, NMFS would prohibit directed fishing for the majority of the groundfish species subject to these sideboard limits because most sideboard limits were too small each year to support directed fishing and the Amendment 80 species (except yellowfin sole) where allocated to the Amendment 80 Program. Vessels subject to sideboard limits in the final rule are prohibited from

directed fishing for those species in regulations (50 CFR §§ 679.20(d)(1)(iv)(D) and 50 CFR §680.22€(1)(i) and (iii) and Tables 54, 55, and 56 to 50 CFR §679).

Table 10-1 BSAI species and species groups for which directed fishing for sideboard limits by listed AFA C/P and C/Ps designated on listed AFA C/P permits is prohibited (Table 54 to part 679)

Species or species group	Management or regulatory are and processing component (if applicable)
Sablefish, trawl gear	BS subarea & AI subarea
Atka mackerel	BS/EAI & WAI
Rock sole	BSAI
Greenland turbot	BS subarea and AI
Arrowtooth flounder	BSAI
Kamchatka flounder	BSAI
Flathead sole	BSAI
Alaska plaice	BSAI
Other flatfish	BSAI
Pacific ocean perch	BS subarea, EAI, CAI, & WAI
Northern rockfish	BSAI
Shortraker rockfish	BSAI
Blackspotted and Rougheye rockfish	BS subarea, EAI, CAI, & WAI
Other rockfish	BS & AI
Skates	BSAI
Sculpins	BSAI
Sharks	BSAI
Octopuses	BSAI

Source: 84 FR 2723

Table 10-2 BSAI species and species groups for which directed fishing for sideboard limits by non-exempt AFA CVs is prohibited (Table 55 to part 679)

Species or species group	Management area or subarea	Gear type
Pacific cod	BSAI	Jig, H&L CV ≥ 60', H&L ≤ 60', & Pot
Sablefish, trawl gear	BS subarea & AI	All
Atka mackerel	BSAI	All
Rock sole	BSAI	All
Greenland turbot	BS and AI	All
Arrowtooth flounder	BSAI	All
Kamchatka flounder	BSAI	All
Alaska plaice	BSAI	All
Other flatfish	BSAI	All
Flathead sole	BSAI	All
Pacific ocean perch	BS, EAI, CAI, & WAI	All
Northern rockfish	BSAI	All
Shortraker rockfish	BSAI	All
Blackspotted and Rougheye rockfish	BS subarea, EAI, CAI, & WAI	All
Other rockfish	BS subarea & AI	All
Skates	BSAI	All
Sculpins	BSAI	All
Sharks	BSAI	All
Octopuses	BSAI	All

Source: 84 FR 2723

Table 10-3 GOA species and species groups for which directed fishing for sideboard limits by non-exempt AFA CVs is prohibited (Table 56 to part 679)

Species or species group	Management or regulatory are and processing component (if applicable)
Pacific cod	EGOA, inshore and offshore components
Sablefish	WGOA, CGOA, & EGOA
Shallow-water flatfish	EGOA
Deep-water flatfish	WGOA
Rex sole	WGOA & EGOA
Arrowtooth flounder	WGOA & EGOA
Flathead sole	WGOA & EGOA
Pacific ocean perch	WGOA
Northern rockfish	WGOA
Shortaker rockfish	WGOA, CGOA, & EGOA
Dusky rockfish	WGOA, CGOA, & EGOA
Rougheye and blackspotted rockfish	WGOA, CGOA, & EGOA
Demersal shelf rockfish	Southeast Outside District
Thornyhead rockfish	WGOA, CGOA, & EGOA
Other rockfish	CGOA & WGOA
Atka mackerel	GOA
Big skate	WGOA, CGOA, & EGOA
Longnose skate	WGOA, CGOA, & EGOA
Other skates	GOA
Sculpins	GOA
Sharks	GOA
Octopuses	GOA

Source: 84 FR 2723

10.2 AFA CV BSAI Sideboard Limits

At the beginning of each year, NMFS sets separate AFA CV sideboard harvest limits for non-pollock target species of groundfish and for all of the currently listed prohibited species. In selected fisheries, the sideboards are applied on a seasonal basis as well. The AFA CV cooperatives (including the inshore cooperatives, as well as the Mothership Fleet Cooperative and the High Seas Catchers' Cooperative) divide the harvest limits among themselves, and each cooperative apportions its allocations among member vessels. Because the sideboard harvest limits apply to all AFA CVs across the three AFA sectors, the Catcher Vessel Inter-cooperative Agreement was created to divide the limits among cooperatives, set penalties for exceeding the limits, and to monitor sideboard species transfers between cooperatives. Thus, the cooperative structure provides a mechanism by which AFA CVs can manage the harvest of non-pollock species as well as their harvests of BS pollock.

The CV sideboard limits for both groundfish and prohibited species apply only to AFA vessels that are not exempt from the specific sideboard limits in question. Amendments 61/61/13/8 established two classes of exempted AFA CVs: 1) those exempt from sideboard limits in the BSAI Pacific cod fishery, and 2) those exempt from sideboard limits in the GOA groundfish fisheries. In the sections that follow we will first discuss the sideboard limits and then describe the exemptions to the limits.

The AFA established CV sideboards for all BSAI groundfish species (except pollock) using a formula based on the retained catch of all non-exempt AFA CVs for each sideboard species from 1995 through 1997 (only 1997 for BSAI Pacific cod), divided by the available TAC during the same time period. For the BSAI, NMFS issued sideboard limits on 16 different groundfish species or species groups. Of these,

AFA CVs have historically only targeted two species—Pacific cod and yellowfin sole—fisheries for the remaining sideboard species were generally closed to directed fishing by AFA CVs at the beginning of the year. However, as noted above, since March 11, 2019, regulations were published under 84 FR 2723, that prohibit directed fishing for several BSAI and GOA sideboard fisheries. As a result, the remainder of this section will focus on Pacific cod and yellowfin sole only.

CV sideboards were established for Pacific cod and yellowfin sole using a formula based on the retained catch of all non-exempt AFA CVs for yellowfin sole from 1995 through 1997 and only 1997 for BSAI Pacific cod, which is then divided by the available TAC for these two species during the same time period. Table 10-4 summarizes AFA CV participation in the BSAI Pacific cod and yellowfin sole sideboard fisheries from 2015 through 2023 using data provided by cooperative reports. Aggregate catch includes both directed and incidental harvest—both of which accrue against the sideboard limit. Since implementation of the AFA, other regulations and amendments have altered the mechanism by which harvest and PSC sideboard limits are calculated by the AFA fleet.

Looking first at Pacific cod, the sideboard limit for AFA CVs was 86.09 percent of the trawl CV apportionment of the BSAI Pacific cod initial TAC. The number of non-exempt AFA CVs participating in the BSAI Pacific cod fishery reached a high of 55 in 2004 and has since shown a decreasing trend. Between 2001 and 2015, an average of 68 percent of the initial sideboard limit was annually harvested in aggregate. During these years, directed fishing harvest by non-exempt vessels account for an average of 76 percent of the aggregate catch—or 52 percent of the sideboard limit, while the remainder of the harvests are considered incidental catch in pollock and other non-pollock target fisheries. During the 2015 through 2023 period, the number of non-exempt AFA CVs participating in the BSAI Pacific cod fishery ranged from a low of 32 in 2015 to a high of 42 in 2018 and the percent of the limit harvested ranged from 51 percent to 71 percent.

Following the implementation of Amendment 122 to the BSAI groundfish FMP on September 7, 2023, management of the BSAI Pacific cod fishery for AFA CVs was modified significantly. The amendment implemented the Pacific Cod Trawl Catcher Vessel Program (PCTC Program), which is a cooperative style LAPP for the BSAI Pacific cod trawl CV sector. The program allocates A season and B season quota share, leaving the C season as a limited access fishery available to any trawl CVs with an eligible groundfish LLP license and appropriate endorsements. Since the C season would continue to be managed as a trawl CV limited access fishery, the existing AFA trawl CV sideboard limit for BSAI Pacific cod for the C season was not modified by the action. The C season sideboard limit was maintained to ensure the AFA non-exempt trawl CVs do not use their competitive advantage under the AFA Program in the C season trawl CV limited access Pacific cod fishery relative to the non-AFA trawl CVs and the AFA sideboard exempt trawl CVs.

Specifically, the amendment revises the BSAI Pacific cod and halibut PSC sideboard limits for AFA trawl CVs specified at § 679.64(b)(4)(i) and in Table 40 to part 679 to only apply in the C season. For the 2024 season, the BSAI Pacific cod C season sideboard limit for AFA CVs is 3,971 mt. In addition, the program also removed the halibut PSC sideboard limits for AFA trawl CVs because the PCTC Program establishes lower PSC limits for PCTC Program participants than the previous AFA sideboard limits. This final rule does not change the BSAI crab PSC sideboard limit for AFA trawl CVs specified at § 679.64(b)(4)(i) and Table 41 to part 679.

For yellowfin sole, Amendment 80 regulations suspend the AFA sideboard limits for BSAI yellowfin sole when the initial TAC is equal to or greater than 125,000 mt in order to allow AFA sectors the opportunity to expand their harvest of yellowfin sole during periods of diminished availability of pollock. When the initial TAC of yellowfin sole is less than 125,000 mt, the sideboard limit for AFA non-exempt CVs applies and the limit is 6.47 percent of the initial yellowfin sole TAC. Since implementation of Amendment 80, the AFA non-exempt CVs have not had sideboard limit for yellowfin sole since the initial TAC has been set higher than the 125,000 mt.

Table 10-4 AFA CV sideboard limits (mt), aggregate catch (mt) by non-exempt AFA CVs, percent of sideboard limit harvested, and vessel count of non-exempted CVs from 2015 through 2023

	Species	2015	2016	2017	2018	2019	2020	2021	2022	2023
Pacific cod	Sideboard limit (mt)	42,378	42,734	40,674	34,631	30,699	26,435	21,267	25,529	23,079
	Aggregate catch (mt)	21,810	29,432	29,020	23,112	19,074	15,719	10,839	13,439	13,368
	% of sideboard limit harvested directed fishing	51%	69%	71%	67%	62%	59%	51%	53%	58%
	# of non-exempted CVs	32	39	41	42	41	36	35	33	36
Yellowfin sole	Sideboard limit (mt)					No limit				
	Aggregate catch (mt)	0	3,251	1,454	224	*	*	*	*	*
	% of sideboard limit harvested directed fishing					No limit				
	# of non-exempted CVs	2	3	3	2	2	2	1	1	1

Source: CV Intercooperative Reports for Pacific cod (2015-2023) and yellowfin sole (2015-2018); AKFIN for vessel counts and yellowfin sole aggregate catch for 2019-2023 which is confidental.
*Denotes confidental data

The AFA also required PSC limits for BSAI and GOA sideboard fisheries. PSC sideboard amounts are based on the percentage of historical groundfish catch in each BSAI groundfish fishery, rather than on the actual PSC in the historical fishery. This approach was utilized to not reward vessels for higher levels of PSC. Annually, NMFS publishes PSC sideboard limits for four species—halibut, red king crab, C. *opilio* (COBLZ), and C. *bairdi* (Zone 1 and Zone 2). PSC sideboard limits in the BSAI only apply to non-exempt AFA CVs. Halibut and crab PSC by the non-exempt AFA CVs will accrue against the PSC sideboard limit. If the PSC limit is reached by the non-exempt AFA CVs, NMFS is authorized to close directed fishing for that target fishery with the exception of pollock/Atka mackerel/other species fishery category. Table 10-5 provides the PSC sideboard limits for halibut by target fishery and for the different crab PSC species at the BSAI wide level since the sideboard limit is not apportioned by target species. Overall, the non-exempt AFA CVs did not exceed the halibut or crab sideboard limits during the 2015 through 2023 review period except for 2018 when the halibut PSC in the pollock/Atka mackerel/other species target exceeded the 5 mt limit.

With the implementation of Amendment 122 to the BSAI groundfish FMP with an effective date of September 7, 2023, the halibut PSC sideboard limit for AFA CVs in the BSAI Pacific cod target fishery was removed from regulations. Halibut PSC sideboard limits still apply for other target groundfish fisheries like yellowfin sole for example. The reason the halibut PSC sideboard limit for the Pacific cod target fishery was due to the PSC sideboard limit being non-constraining. AFA non-exempt trawl CV sideboard limit for the BSAI Pacific cod fishery was 887 mt. Since that BSAI halibut PSC sideboard limit for the BSAI Pacific cod target fishery was larger than the existing 453 mt halibut PSC limit for the Pacific cod trawl limited access sectors, the halibut PSC sideboard limit for Pacific cod was no longer needed since the PSC limit for trawl limited access sector, which the non-exempt AFA CVs are part of, is more limiting. As a result, the Council recommended and NMFS approved, the existing AFA non-exempt trawl CVs BSAI halibut PSC sideboard limit regulations for the Pacific cod fishery at 50 CFR §679.64(b)(4)(i) were removed. As for crab PSC sideboard limits, AFA trawl CV sideboard limits are not apportioned at the target species level, so these PSC sideboard limits remain in effect for the non-exempt AFA CVs in the BSAI.

Table 10-5 Non-exempt AFA CV PSC sideboard limits and PSC in the BSAI by target fishery for halibut and BSAI wide for crab

PSC Species		2015	2016	2017	2018	2019	2020	2021	2022	2023
Halibut in the Pacific cod target	Sideboard limit (mt)	887	887	887	887	887	887	887	877	877
	PSC (mt)	116	218	163	113	260	105	50	125	102
	% constraining sideboard limit	13%	25%	18%	13%	29%	12%	6%	14%	12%
Halibut in the yellowfin sole target	Sideboard limit (mt)	101	101	101	101	101	101	101	101	101
	PSC (mt)	18	48	9	0	19	33	27	6	0
	% constraining sideboard limit	18%	48%	9%	0%	19%	33%	27%	6%	0%
Halibut in the pollock/Atka mackerel/other species target	Sideboard limit (mt)	5	5	5	5	5	5	5	5	5
	PSC (mt)	0	0	0	11	0	0	0	0	0
	% constraining sideboard limit	0%	0%	0%	220%	0%	0%	0%	0%	0%
Red king crab (Zone 1)	Sideboard limit (# of crab)	25,900	25,900	25,900	25,900	25,900	25,900	25,900	8,544	8,544
	PSC (# of crab)	46	608	162	10	181	709	554	333	5
	% constraining sideboard limit	0%	2%	1%	0%	1%	3%	2%	4%	0%
C. *opilio* (COBLZ)	Sideboard limit (# of crab)	1,652,061	706,360	1,366,040	1,368,300	1,787,754	1,287,341	1,078,949	652,604	652,604
	PSC (# of crab)	1,953	44	232	318	20	864	1,117	0	39
	% constraining sideboard limit	0%	0%	0%	0%	0%	0%	0%	0%	0%
C. *bairdi* Zone 1	Sideboard limit (# of crab)	288,796	244,593	244,593	244,593	288,796	288,796	288,796	244,593	244,593
	PSC (# of crab)	4,436	7,043	3,661	418	1,089	842	166	549	247
	% constraining sideboard limit	2%	3%	1%	0%	0%	0%	0%	0%	0%
C. *bairdi* Zone 2	Sideboard limit (# of crab)	493,311	418,567	343,823	418,567	493,311	493,311	493,311	418,567	418,567
	PSC (# of crab)	8,155	1,749	1,315	0	144	3,712	6,794	193	933
	% constraining sideboard limit	2%	0%	0%	0%	0%	1%	1%	0%	0%

Source: CV Intercooperative Reports

10.2.1 Pacific Cod Exempt Vessels

Under Amendments 61/61/13/8, the Council recommended that certain AFA CVs that have relatively low pollock fishing history and show a significant economic dependence on BSAI Pacific cod be exempt from BSAI Pacific cod sideboards. For AFA CVs to receive an exemption from BSAI Pacific cod sideboards, they had to have made 30 or more legal landings of BSAI Pacific cod in the BSAI directed fishery for Pacific cod from 1995 to 1997, averaged annual BS pollock landings less than 1,700 mt from 1995 to 1997, and be less than 125 ft in length. In addition, the Council recommended that all AFA CVs with mothership endorsements be exempt from Pacific cod sideboard limits after March 1 of each year. Of the 112 permitted AFA CVs, 10 are exempt from the sideboards under the landings and vessel size criteria, as are the 19 vessels that are members of the Mothership Fleet Cooperative after March 1 of each year. As shown in Table 10-6, the number of active exempt AFA CVs in the BSAI Pacific cod fishery ranged from a low 5 vessels to a high of 8 vessels and the percent of aggregate BSAI Pacific cod catch by the AFA exempt CVs relative to total aggregate catch of BSAI Pacific cod by all AFA CVs ranged from a high 37 percent to a low of 14 percent.

Table 10-6 Exempt AFA CV aggregate BSAI Pacific cod catch (mt), percent of total AFA Pacific cod aggregate catch, and vessel count of exempt AFA CVs, 2015 through 2023

Species		2015	2016	2017	2018	2019	2020	2021	2022	2023
Pacific cod	Aggregate catch (mt)	9,336	10,935	7,578	4,716	4,059	2,624	1,983	3,027	2,755
	% of total AFA Pacific cod aggregate catch	37%	30%	24%	18%	18%	14%	15%	18%	17%
	# of non-exempted CVs	8	8	8	7	6	6	5	5	5

Source: AKFIN for aggregate catch, perecent of total AFA Pacific cod aggregate catch, and vessel counts.

10.3 AFA Catcher Processor BSAI Sideboard Limits

The AFA mandated that sideboards be established for AFA C/Ps participating in other BSAI groundfish fisheries and completely prohibited these vessels from fishing in the GOA. These sideboards only apply to C/Ps listed in the AFA, i.e. the sideboard limits do not apply to the F/V *Ocean Peace* which was not listed, but which qualified to harvest limited amounts of BS pollock in targeted fisheries.

To streamline and simplify NMFS's management of AFA groundfish sideboard limits, regulations were published under 84 FR 2723, which became effective on March 11, 2019, that prohibited directed fishing for several BSAI sideboard fisheries for C/Ps (see Table 10-1 above for a list of those species or species

groups). This change revises §§ 679.64 and 680.22 for sideboard limits that applies to AFA C/Ps permitted to harvest BS pollock that operate in the BSAI. Specifically, the regulatory change prohibits directed fishing for groundfish species or species group that are subject to sideboard limits that are not large enough to support directed fishing. This regulatory revision is intended to streamline and simplify management of the AFA Program sideboard limits. In addition, the rule removes the regulation at § 679.64(a)(1)(ii)(B) listing a sideboard limit for AFA C/Ps in the Central AI for Atka mackerel that is currently subject to a more restrictive harvest limit. The regulatory change was effective on March 11, 2019.

The BSAI non-pollock fisheries in which at least one AFA C/P engaged in directed fishing are the yellowfin sole, Pacific cod, and Atka mackerel fisheries. Among the three fisheries, the BSAI yellowfin sole fishery is the primary fishery. Between 2015 and 2023, the number of AFA C/Ps participating in the BSAI yellowfin sole fishery ranged from a low of 2 vessels to a high of 7 vessels. AFA C/Ps have not been sideboarded for participation in the yellowfin sole directed fishery since 2008 because the initial TAC has been greater than 125,000 mt.

Since 2002, only one AFA C/P has targeted BSAI Pacific cod. Under Amendment 85 to the BSAI groundfish FMP, which was implemented in 2008, AFA C/Ps are allocated 2.3 percent of the BSAI Pacific cod TAC. The amendment removed the sideboard limit for BSAI Pacific cod for the AFA C/Ps. The establishment of a separate BSAI Pacific cod allocation to this sector negated the need for the BSAI Pacific cod sideboard which protects the historic share of the non-AFA trawl C/P sector (Amendment 80 sector) from being eroded by AFA C/Ps. Prior to the implementation of Amendment 85 in 2008, the AFA C/P sector shared a 23.5 percent BSAI Pacific cod allocation with the Amendment 80 sector. Upon implementation of Amendment 85, the PCC coordinated its 2.3 percent allocation of BSAI Pacific cod. As for Atka mackerel directed fishing activity by AFA C/Ps, fishery participation has been consistently low, with only one vessel targeting the fishery from 2015 through 2023.

AFA C/P PSC sideboard limits are equivalent to the total PSC in 1995, 1996, and 1997 relative to the total amount of PSC available by the offshore component in the fishery in 1995, 1996 and 1997. Like non-exempt AFA CVs, NMFS publishes separate PSC sideboards limits for four species—halibut, red king crab, *C. opilio* (COBLZ), and *C. bairdi* (Zone 1 and 2)—for AFA C/Ps. AFA C/Ps are also subject to the general PSC limits for herring that apply to both the BSAI trawl limited access sector and Amendment 80 sector. AFA C/P PSC sideboard limits extend to all listed C/Ps and do not include unlisted AFA C/Ps that qualify to fish for pollock under section 208(e)(21) of the AFA (C/V *Ocean Peace*).

As with AFA CV PSC sideboard limits (except halibut), all AFA C/Ps PSC sideboard limits are apportioned as a whole to all non-pollock targets in all years (pre- and post- Amendment 80). Because the AFA C/P halibut PSC sideboard is not apportioned by fishery category, the C/P halibut PSC sideboard limit applies to all non-pollock targets.

Under Amendment 80, PSC limits for the BSAI trawl limited access sector are apportioned by fishery category, and therefore, the historic sideboard limits may not be constraining for any individual target species. For AFA C/Ps, the general PSC limit for yellowfin sole for the BSAI trawl limited access sector is more constraining than the single AFA C/P sideboard limit for non-pollock targets. Therefore, it is possible that AFA C/Ps could reach the halibut PSC limit in the yellowfin sole fishery before reaching their AFA sideboard limit.

Table 10-7 summarizes PSC sideboard limits for the AFA C/P sector. Overall, the AFA C/Ps did not exceed their PSC sideboard limits during the 2015 through 2023 review period. The one exception was red king crab (Zone 1) in 2016 when C/Ps PSC was 698 crabs for a limit of 606 crabs.

Table 10-7 All AFA C/P PSC sideboard limits and PSC from 2015 through 2023

Species		2015	2016	2017	2018	2019	2020	2021	2022	2023
Halibut	Sideboard limit (mt)	286	286	286	286	286	286	286	286	286
	Trawl limited access sector PSC limit (mt)	875	745	745	745	745	745	745	745	745
	PSC (mt)	136	142	56	134	105	34	38	94	64
Red king crab (Zone 1)	Sideboard limit (# of crabs)	606	606	606	606	606	606	606	200	200
	Trawl limited access sector PSC limit (# of crabs)	26,489	26,489	26,489	26,489	26,489	26,489	26,489	8,739	8,739
	PSC (# of crabs)	0	698	196	230	288	500	361	61	0
C. opilio (COBLZ)	Sideboard limit (# of crabs)	1,528,317	643,292	1,244,072	1,246,130	1,628,133	1,172,400	982,614	594,336	594,336
	Trawl limited access sector PSC limit (# of crabs)	3,160,549	1,351,334	2,613,365	2,617,688	3,420,143	2,462,805	2,064,131	1,248,494	1,248,494
	PSC (# of crabs)	18,115	2,373	1,410	57,608	3,928	17,933	8,153	5,044	88,091
C. bairdi (Zone 1 & 2)	Sideboard limit (# of crabs)	255,131	216,285	196,193	216,285	255,131	255,131	255,131	216,285	216,285
	Trawl limited access sector PSC limit (# of crabs)	1,652,728	1,401,679	1,213,573	1,401,679	1,652,728	1,652,728	1,652,728	1,401,679	1,401,679
	PSC (# of crabs)	24,341	4,047	11,762	8,945	5,857	12,445	21,448	16,049	23,180

Source: CV Intercooperative Reports and NMFS Harvest Specification for trawl limited access sector PSC limit

10.4 AFA CV GOA Sideboard Limits

When the AFA Program was implemented in 2000, AFA vessel owners received fixed allocations of BS pollock. With the fixed pollock allocations, companies could effectively consolidate or otherwise improve the efficiency of their BS pollock operations, thereby freeing AFA vessel owners to potentially expand into other fisheries that would not otherwise have been available. To limit these expansions, the AFA directed the Council to develop and recommend conservation and management measures necessary to protect other fisheries from potential adverse impacts from the AFA Program. As a result, harvesting and processing restrictions, known as sideboards, on AFA vessels in groundfish, crab, and scallop fisheries in the BSAI (excluding pollock) and GOA were created (Section 211 of the AFA). In addition, specified restrictions for prohibited species, as well as harvesting and processing limits for BSAI crab species for AFA vessels were created.

In the GOA, AFA CVs are divided into two categories, those vessels subject to sideboard limits and those vessels exempt from sideboard limits. The limits are calculated based on the catch histories of the non-exempt AFA CVs. Specifically, the sideboard ratio is aggregated retained catch for each groundfish species or species group during 1995 through 1997 period relative to the sum of the TACs for the species or species group. An inter-cooperative agreement divides the sideboard limits among the cooperatives and sets penalties for exceeding the limits.

The Council provided a sideboard exemption for AFA CVs that demonstrated dependence on GOA fisheries, while having limited history in the BSAI pollock fishery. Although not incorporated in regulation, the Council recommended and approved the exemption with the understanding that no GOA sideboard-exempt vessel would lease its BS pollock in a year that it exceeds its GOA average harvest level from 1995 through 1997. To ensure that the Council's intent is satisfied, the Catcher Vessel Inter-Cooperative Agreement binds vessels to this limitation.

The sideboard limit for halibut PSC is calculated based on the retained groundfish catch by AFA sideboarded CVs in the shallow-water and deep-water complex from 1995 through 1997 relative to total retained catch in the shallow-water[22] and deep-water[23] complex. Under the sideboard limits, fisheries in the applicable complex are closed for the remainder of a season once NMFS determines that the sideboard will be reached. Any unused halibut PSC sideboard limit in one season may be rolled to the next season. Conversely, if a seasonal apportionment of a trawl halibut PSC limit is exceeded, the overage is deducted from the apportionment for the next season during the current fishing year. A number of AFA vessels (3 GOA non-exempt vessels and 14 GOA exempt vessels) receive allocations under the Rockfish Program

[22] Shallow-water complex is composed of pollock, Pacific cod, shallow-water flatfish, flathead sole, Atka mackerel, skates, and other species (sculpins, sharks, and octopuses).
[23] Deep-water complex is composed of sablefish, rockfish, deep-water flatfish, rex sole, and arrowtooth flounder.

(and an associated halibut PSC allowance), so the limited access deep-water complex fisheries are closed to AFA vessels during the third season.

NMFS manages the AFA sideboard limits. The agency makes an initial determination at the beginning of the fishing year regarding the fisheries in which AFA vessels are likely to participate, based on historical participation (sideboard ratios), TACs, prohibited species catch (PSC) limits, and other apportionments and regulations. The sideboard limit ratios were calculated as percentages of the TAC based on the aggregate retained catch by AFA vessels of the sideboard species from 1995 to 1997. The ratio remains the same year-to-year but is applied to the current year's ITACs to determine the yearly sideboard limit. Table 10-8 provides annual sideboard limits, sideboard harvest, percent of sideboard limit harvested, and the count of AFA non-exempt vessels by sideboard fishery from 2015 through 2023. Of the 82 AFA non-exempt vessels that are sideboarded in the GOA groundfish fisheries, currently only 12 non-exempt vessels have an LLP license that are endorsed in the GOA. At a sub-area level, 10 AFA non-exempt vessels are endorsed for the Central GOA and six AFA non-exempt vessels are endorsed for the Western GOA. Overall, none of the GOA groundfish sideboard limits were exceeded during the 2015 through 2023 review period.

As part of the PCTC Program, the GOA sideboard limits and associated GOA halibut PSC limit for the non-exempt AFA vessels and LLP license holders were modified in addition to modifying regulations to prohibit directed fishing where sideboard limits were too small to support a directed fishery. All GOA non-exempt AFA CVs and associated AFA LLP licenses are sideboarded in aggregate for all GOA groundfish fishing activity and for GOA halibut PSC based on their GOA catch history during the qualifying period, except when participating in the Central Gulf of Alaska (CGOA) Rockfish Program. The existing sideboards apply to non-exempt AFA vessels as defined at § 679.64(b)(2). The PCTC Program modified the calculation of the existing sideboard limits for these non-exempt AFA CVs based on the GOA catch history. LLP licenses associated with non-exempt AFA CVs are also subject to the revised sideboard limits regardless of which vessel is named on the LLP.

The PCTC Program modifies the calculation of the sideboard ratios for non-exempt AFA CVs that will be used in the annual GOA harvest specifications to the ratio of catch to the TAC in the qualifying years of 2009–2019. The PCTC Program also closes directed fishing to all GOA non-exempt AFA CVs and LLP licenses for the following species categories: Southeast Outside district of the Eastern GOA pollock, Western GOA shallow-water flatfish, Central and Eastern GOA deep-water flatfish, Central GOA dusky rockfish and Eastern GOA and Central GOA Pacific ocean perch. NMFS will no longer publish AFA Program sideboard limits for these specific species or species groups in the **Federal Register** as part of the annual groundfish harvest specifications and instead this final rule specifies in regulation at § 679.64(b)(4)(ii) that directed fishing for these species is closed to non-exempt AFA CVs.

In addition, the ratio used to apportion GOA halibut PSC limits is modified and the original five seasonal apportionments based on that sideboard ratio is reduced to a single aggregate annual amount. Providing an aggregate annual halibut PSC limit provides greater flexibility for the AFA vessels and LLP licenses to assign halibut PSC limits to those GOA groundfish sideboard fisheries that have the greatest value.

Table 10-9 summarizes halibut PSC sideboard limits and PSC, by season and fishery category, for non-exempt AFA CVs in the GOA. Overall, with the exception of 4th season shallow-water targets in 2019 and 2nd season deep-water targets in 2017, no other GOA halibut PSC limits during the 2015 through 2023 review period were exceeded.

Table 10-8 AFA CV sideboard limit, aggregated catch, percent of sideboard limit harvested, and the number of AFA non-exempt CVs by GOA sideboard fishery from 2015-2023

Species		2015	2016	2017	2018	2019	2020	2021	2022	2023
Pollock	Sideboard limit (1,000 mt)	41.2	41.2	38.8	41.3	36.0	28.9	27.9	27.9	38.7
	Aggregate catch (1,000 mt)	15.1	13.6	13.6	9.5	5.5	5.7	2.5	6.9	6.5
	% of sideboard limit harvested directed fishing	37%	33%	35%	23%	15%	20%	9%	25%	17%
	# of non-exempted CVs	7	8	8	7	6	3	3	3	3
Pacific cod	Sideboard limit (1,000 mt)	6.8	4.3	4.8	1.2	1.1	0.5	1.2	1.5	1.2
	Aggregate catch (1,000 mt)	0.7	0.3	1.0	0.0	0.2	0.0	0.0	0.4	0.2
	% of sideboard limit harvested directed fishing	10%	7%	21%	0%	18%	0%	0%	27%	17%
	# of non-exempted CVs	7	8	8	7	3	3	3	3	3
Arrowtooth flounder	Sideboard limit (1,000 mt)	2.1	2.1	2.1	1.4	2.0	1.9	1.9	1.9	1.8
	Aggregate catch (1,000 mt)	0.5	0.1	1.1	0.5	0.6	0.5	0.0	0.0	0.3
	% of sideboard limit harvested directed fishing	24%	5%	52%	36%	30%	26%	0%	0%	17%
	# of non-exempted CVs	6	8	8	7	6	3	3	3	3
Pacific ocean perch	Sideboard limit (1,000 mt)	1.3	1.5	1.5	1.8	1.7	2.1	2.4	2.4	2.5
	Aggregate catch (1,000 mt)	0.6	0.1	0.2	0.2	0.0	0.0	0.0	0.3	0.3
	% of sideboard limit harvested directed fishing	46%	7%	13%	11%	0%	0%	0%	13%	12%
	# of non-exempted CVs	6	6	6	7	5	3	3	3	3
Shallow-water flatfish	Sideboard limit (1,000 mt)	1.1	1.3	1.3	1.7	1.8	1.8	1.9	1.9	1.8
	Aggregate catch (1,000 mt)	0.2	0.1	0.1	0.0	0.4	0.1	0.0	0.0	0.0
	% of sideboard limit harvested directed fishing	18%	8%	8%	0%	22%	6%	0%	0%	0%
	# of non-exempted CVs	6	6	8	3	1	2	3	2	2
Northern rockfish	Sideboard limit (1,000 mt)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Aggregate catch (1,000 mt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% of sideboard limit harvested directed fishing	0%	0%	0%	0%	0%	0%	0%	0%	0%
	# of non-exempted CVs	5	6	5	2	2	1	3	3	2
Rex sole	Sideboard limit (1,000 mt)	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.5
	Aggregate catch (1,000 mt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% of sideboard limit harvested directed fishing	0%	0%	0%	0%	0%	0%	0%	0%	0%
	# of non-exempted CVs	6	6	8	5	3	2	3	3	3
Deep-water flatfish	Sideboard limit (1,000 mt)	0.4	0.3	0.3	0.3	0.3	1.0	0.2	0.2	0.2
	Aggregate catch (1,000 mt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% of sideboard limit harvested directed fishing	0%	0%	0%	0%	0%	0%	0%	0%	0%
	# of non-exempted CVs	2	4	4	2	3	1	1	1	2
Flathead sole	Sideboard limit (1,000 mt)	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.5
	Aggregate catch (1,000 mt)	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
	% of sideboard limit harvested directed fishing	0%	0%	33%	33%	25%	0%	0%	0%	0%
	# of non-exempted CVs	6	8	8	7	3	3	3	3	3

Source: CV Intercooperative Reports and AKFIN; Vessel Council BSAI_PCOD_LAPP_GOA_SB_LANDINGS(7-17-12);

Table 10-9 Non-exempt AFA CV halibut PSC sideboard limits in GOA shallow-water and deep-water species fisheries from 2015-2023

			2015	2016	2017	2018	2019	2020	2021	2022	2023
Shallow-water targets	1st season	Allowance	135	131	131	131	131	131	131	131	131
		PSC	3	0	3	0	2	0	0	0	0
	2nd season	Allowance	30	29	29	29	29	29	29	29	29
		PSC	0	8	10	0	9	0	0	0	0
	3rd season	Allowance	60	58	58	58	41	41	41	41	41
		PSC	0	0	0	0	0	4	1	0	0
	4th season	Allowance	45	44	44	44	18	18	18	18	18
		PSC	34	5	0	0	21	0	0	0	0
Deep-water targets	1st season	Allowance	6	6	6	6	9	9	9	9	9
		PSC	0	0	2	13	4	0	0	0	0
	2nd season	Allowance	18	18	18	18	18	18	18	18	19
		PSC	11	5	21	18	4	0	0	0	1
	3rd season	Allowance	25	24	24	24	24	24	24	24	24
		PSC	0	0	0	0	0	11	0	0	0
	4th season	Allowance	0	0	0	0	5	5	5	5	5
		Allowance	0	0	4	0	0	0	0	0	0
All targets (5th season)		Allowance	54	52	52	52	52	52	52	52	52
		PSC	10	1	11	1	0	0	0	0	0

Source: CV Intercooperative Reports

10.4.1.1 GOA Groundfish Exempt Vessels

During development of the AFA, CVs that had relatively low pollock fishing history and show a significant economic dependence on GOA groundfish fisheries were exempt from GOA sideboards. The

criteria to receive an exemption from GOA sideboards differs slightly from the criteria established for BSAI Pacific cod. For an AFA CV to receive a GOA exemption, it had to meet the same length and landings requirements (5,100 mt of BSAI pollock) as BSAI Pacific cod but make 40 or more legal landings of GOA groundfish from 1995 to 1997. Of the 112 permitted AFA CVs, 17 CVs are exempt from the GOA sideboards. The remaining AFA CVs are subject to GOA sideboard limits. Table 10-10 highlights the AFA GOA exempt CVs harvesting activities in the GOA from 2015 through 2023.

Table 10-10 Harvest (mt) and number of GOA sideboard exempt AFA CVs by species from 2015 through 2023

Species		2015	2016	2017	2018	2019	2020	2021	2022	2023
Pollock	Harvest (mt)	52,381	52,785	58,334	46,001	30,881	23,335	27,885	39,160	37,891
	Number of exempt CVs	15	15	14	16	14	14	14	13	13
Pacific cod	Harvest (mt)	2,557	1,424	1,791	437	310	159	601	1,461	1,147
	Number of exempt CVs	15	15	14	15	14	13	14	13	13
Arrowtooth Flounder	Harvest (mt)	1,615	2,872	2,062	1,141	1,668	1,312	113	136	112
	Number of exempt CVs	15	15	14	16	14	14	14	13	13
Flathead Sole	Harvest (mt)	254	408	93	168	226	204	26	11	26
	Number of exempt CVs	15	15	14	16	14	14	14	13	12
GOA Deep Water Flatfish	Harvest (mt)	10	24	13	1	3	7	0	0	1
	Number of exempt CVs	10	13	7	9	12	4	8	4	7
GOA Rex Sole	Harvest (mt)	148	227	60	67	67	68	8	4	15
	Number of exempt CVs	15	15	13	13	12	13	13	11	11
GOA Shallow Water Flatfish	Harvest (mt)	158	348	298	515	119	94	34	78	62
	Number of exempt CVs	15	15	12	15	10	9	12	12	10
Northern Rockfish	Harvest (mt)	19	43	9	8	1	1	*	0	0
	Number of exempt CVs	12	13	12	7	10	7	2	5	6
Pacific Ocean Perch	Harvest (mt)	64	806	983	715	387	237	286	992	848
	Number of exempt CVs	15	15	14	16	14	14	14	13	13

Source: AKFIN; file source BSAI_PCOD_LAPP_GOA_SB_LANDINGS(7-22-24)

The PCTC Program allows AFA exempt vessels that receive annual BSAI Pacific cod CQ to lease that CQ for that calendar year if the vessel does not fish in the GOA during the calendar year, except for the CGOA Rockfish Program. If the AFA exempt vessel does fish in the GOA during a calendar year, other than in the CGOA Rockfish Program, then the AFA exempt vessel would be prohibited from leasing their BSAI Pacific cod CQ for that calendar year. Of the 17 CVs that are exempt from GOA sideboard limits, 14 AFA exempt CVs qualified for the PCTC Program and therefore would be limited by this leasing restriction. The ability to lease BSAI Pacific cod CQ for AFA GOA exempt vessels provides greater flexibility for these vessels if they do not fish in the GOA. This is important for those GOA exempt CVs that are not designed to deliver Pacific cod shoreside (i.e., lack hold capacity) and have a limited offshore market since the PCTC Program eligible C/Ps may not be able to provide markets for all offshore designed CVs. The combination of having a CV designed only for offshore deliveries, no market for deliveries of Pacific cod PCTC CQ, and a prohibition on leasing of PCTC Program CQ for GOA exempt vessels could have resulted in PCTC CQ being stranded.

The PCTC Program does include an exception for vessels with LLP licenses less than 300 mt of average annual qualifying BSAI Pacific cod catch history. Ten AFA exempt vessels qualified for this exception and would be able to lease their BSAI Pacific cod CQ.

10.4.1.2 CGOA Rockfish Program

Amendments 68, 88, and 111 to the GOA groundfish FMP implemented the CGOA Rockfish Pilot Program in 2006 and CGOA Rockfish Program in 2011 and reauthorized the CGOA Rockfish Program in 2021. The CGOA Rockfish Program moved the management of the CGOA rockfish fishery from a license limitation program to a limited access privilege program in which quota share was allocated based on historic participation among fishing vessels and processors in Pacific ocean perch, northern rockfish, and pelagic shelf rockfish (now dusky rockfish) in the CGOA. In addition, allocations are also made for

secondary species harvested while fishing for the primary species. These species include Pacific cod, rougheye rockfish, shortraker rockfish, sablefish, and thornyhead rockfish.

The CGOA Rockfish Program also includes sideboard limits that apply to federally permitted vessels fishing in federal waters and waters adjacent to the CGOA when the harvest of rockfish primary species (POP, Northern rockfish, and dusky rockfish) by that vessel are deducted from the federal TAC. Sideboards limit both the LLP license with rockfish QS assigned to it, and the vessel used to make legal landings of rockfish QS. CGOA Rockfish Program sideboards are in effect from July 1 through July 31. Sideboard measures are in effect only during the month of July when the CGOA rockfish fisheries were traditionally open, and vessel operators had to choose between fishing in the GOA rockfish fisheries and other fisheries (salmon) that were open to directed fishing.

Specific to rockfish qualified CVs, they are prohibited from fishing for the primary rockfish species in the West Yakutat District (WYAK) and Western GOA (WGOA) during July. Instead of utilizing small sideboard limits, the CV sector sideboard limits instead prohibit directed fishing for the primary rockfish species, which eases the management burden and reduces the observer coverage and costs associated with sideboard fisheries for the sector. Rockfish qualified CVs are also prohibited from directed fishing in any target fishery in the deep-water complex (except for CGOA rockfish) but can directed fish for target fisheries in the shallow-water complex during July. Deep-water complex includes the arrowtooth flounder, deep-water flatfish, and rex sole fisheries. The shallow-water complex includes pollock, Pacific cod, shallow-water flats, flathead sole, Atka mackerel, and other species. These restrictions were implemented to limit participation of Rockfish Program qualified CVs in these fisheries because they had not historically harvested these species in July. As a result, Rockfish Program qualified CVs are limited to fishing species in the shallow-water complex during the month of July.

Two exemptions from sideboards were included under the Rockfish Program. The first applies to CVs and LLP licenses that applied to be permanently exempted from the Rockfish Program and choose not to receive rockfish QS for which they would have otherwise qualified. The second exemption is specific to AFA CVs that are subject to AFA GOA sideboard limits. These vessels, of which there are four, are exempt because the Council believed these CVs did not need to be further limited since it determined that the AFA GOA sideboards limits effectively constrained AFA CVs from expanding their ability to harvest in other fisheries. Imposing additional sideboard limits would have been duplicative and unnecessary.

The impact of the CGOA Rockfish Program on AFA vessels is subtle. GOA non-exempt AFA CVs that receive both primary rockfish species quota and secondary species quota are permitted to harvest both the Pacific cod allocation made to them as a secondary species under the CGOA Rockfish Program and also continue to fish for Pacific cod as an AFA sideboard fishery. Implementation of the CGOA Rockfish Program closed all directed fishing on rockfish species for non-rockfish program participants in the CGOA, as well as directed fishing for non-exempt AFA CVs in the Western GOA. Therefore, non-GOA exempt AFA vessels that did not qualify or chose not to participate in the CGOA Rockfish Program, lost the ability to directed fish for Pacific ocean perch, norther rockfish, and dusky rockfish. GOA-exempt AFA CVs comprise the majority of AFA CVs participating in the CGOA Rockfish Program.

11 Fishing Vessel Safety[24]

With the establishment of cooperatives under the AFA and subsequent lessening of the race-for-fish, AFA vessels can better choose when to fish during the longer fishing season, thereby maximizing safe weather and sea conditions. The extended fishing season has also led to more stable employment, which results in crews that are better trained and experienced. Further, to the extent that the AFA has helped improve the profitability of fishing operations, vessel owners can perform additional preventive and corrective vessel maintenance that will enhance safety at sea (Hughes and Woodley 2007; Lincoln et al. 2007).

Lincoln et. al (2007) attempted to quantify the safety improvements in the BS pollock fishery following passage of the AFA using data from U.S. Coast Guard. The U.S. Coast Guard maintains the Online Incident Investigation Report that provides information regarding maritime incidents investigated by the U.S. Coast Guard under Part D of Title 46 of the U.S. Code. The analysis was restricted to reported non-fatal injuries that occurred between 1995 and 2005. When pre- and post-AFA implementation periods were compared, the rate of nonfatal injuries had decreased by 76 percent. However, upon studying annual rates, Lincoln et al. discovered that the decline started to occur before AFA implementation. The authors suggest that the decline of non-fatal injuries pre-1999 could have been because the fishing companies that owned vessels operating in the BS pollock fishery had started developing occupational safety programs at the time which focused on preventing these types of injuries.

Case et al. (2016) analyzed the number of fatalities that have occurred in the BS pollock fishery since implementation of the AFA through 2014. During this period, five fatalities occurred in the BS pollock fleet—two fatalities were the result of drowning following falls overboard, two were the result of drowning after intentional jumps overboard, and one was the result of a fatal injury that occurred on deck. Case et al. (2016) found that five fatalities reported for the BS pollock fishery between 2002 and 2014 is low compared to other Alaska fisheries. The authors note that the relatively few fatalities highlight the success of the BS pollock fleet in maintaining a high level of vessel safety and conclude that the fleet is among the safest in Alaska. Nevertheless, Case et al. caution that the continuing fatalities are reminders that serious hazards still exist in the fleet. Similarly, Lincoln et al. (2007) noted that while the AFA generally slowed the pace of the BS pollock fishery, there are still economic pressures present, such as delivery deadlines and harvesting the most fish during the prime state of life, that influence fishermen's risk-taking behavior.

Case et al. (2024) queried National Institute for Occupational Safety and Health (NIOSH) Commercial Fishing Incident Database (CFID) for incidents involving AFA vessels for fatalities due to traumatic injury that occurred 2015 through 2022 and nonfatal vessel incidents through 2019, which was the last year NIOSH collected nonfatal vessel disaster data. Fatality data for 2023 was not yet available. Other safety measures (such as reported nonfatal injuries or vessel casualties) are helpful in assessing fleet safety but are unfortunately not routinely collected by NIOSH.

Since implementation of the AFA, the following are the major safety incidents involving AFA vessels:

- In 2001, the CV *Amber Dawn* sank north of Atka while fishing for Pacific cod. Two of the five crew members were lost at sea (Anonymous 2001).
- In 2008, the C/P *Pacific Glacier* caught fire 136 miles northwest of Unalaska/Dutch Harbor. There were no fatalities, and the vessel made it to port. The vessel was refurbished, and it resumed operating in the BS pollock fishery in 2009 (Fredrickson 2008, Fey 2016).

[24] This section is based, in part, on information in reports prepared for the AFA Program Reviews by Samantha Case, Devin Lucas, and Krystal Mason, National Institute of Occupational Safety and Health, Western States Division, Alaska Office.

- In 2009, the CV Mar-Gun was grounded on St. George Island. There were no fatalities. The vessel was refloated in May of the same year, but it has not returned to the BS pollock fishery (Anonymous 2009; Fey 2016).
- In 2016, a crewmember from the vessel *Margaret Lyn* suffered an injury from falling from the dock while returning to the vessel.
- In 2017, the vessel *Predator* grounded after a crewmember at the helm fell asleep. All crew were evacuated.
- In 2017, a crewmember on the vessel *Ocean Phoenix* while lifting a roll of rubber mats with two other crewmembers assisting died of cardiac arrest. Substance use was considered the cause of death.
- In 2018, a crewmember on the vessel *Pacific Viking* fell from the dock and subsequently drowned. Alcohol was a contributing factor.
- In 2020, the Master of the vessel *Pacific Fury* died of suicide while in port at Dutch Harbor.

12 Cost Recovery

Section 304(d) of the MSA mandates the collection of cost recovery fees so that NMFS can recover actual costs directly related to the management, data collections, and enforcement of Limited Access Privilege Programs (LAPPS) and the CDQ Program. These programs aim to enhance economic efficiency, promote sustainability, and support long-term resource management.

On January 5, 2016, NMFS published a final rule to implement cost recovery for the AFA program (81 FR 150, January 5, 2016). The AFA allocates the BS directed pollock fishery TAC to three sectors: inshore, C/P, and mothership. Each sector has established cooperatives to harvest their pollock allocation. Currently, only the inshore cooperative is responsible for paying a fee for that sector's BS pollock landed under the AFA. In 2017 and 2018, NMFS suspended the collection of cost recovery fees from the C/P sector and mothership sector under the AFA program. These actions were taken due to the decision in the C/P Salmon Corporation, et al., v. Ross and the filing of the Mothership Fleet Cooperative v. Ross cases. Therefore only the inshore cooperative is responsible for paying a fee for that sector's BS pollock landed under the AFA, which is due on December 31 of the year in which the landings were made. Cost recovery requirements for the AFA sectors are at 50 CFR 679.66. The total dollar amount of the annual fee is determined by multiplying the NMFS published fee percentage by the ex-vessel value of all landings under the program made during the fishing year. NMFS calculates the fee percentage each year according to the factors and methods described in this report and at 50 CFR 679.66(c)(2). The 2023 notice of the fee percentages for the AFA program was published in the Federal Register on November 24, 2023 (88 FR 82336).

Calculating the ex-vessel value of the AFA Program fisheries

For purposes of calculating the fishery value, NMFS calculates a standard ex-vessel price (standard price) for BS pollock using the most recent annual value information reported to the Alaska Department of Fish & Game (ADF&G) in the Commercial Operator's Annual Report, which is compiled in the Gross Earnings database of the Alaska Commercial Fisheries Entry Commission. Due to filing deadlines and the time required to compile the data, there is a one-year delay between the most recent gross earnings data and the fishing year to which it is applied. For example, NMFS used 2022 gross earnings data to calculate the standard price for 2023 pollock landings. Each pollock landing made under the AFA Program is multiplied by the appropriate standard price to arrive at an ex-vessel value for each landing. These values are added together to arrive at the ex-vessel value for the AFA Program (fishery value).

Calculating the costs of management and enforcement

Direct program costs are calculated by determining the incremental management costs of the AFA Program; that is, incremental costs are those that would not have been incurred but for the AFA Program. These costs cover the management, data collection, and enforcement of the AFA Program by NMFS, ADF&G, and the Pacific States Marine Fisheries Commission (PSFMC). The NMFS Alaska Region (NMFS AKR) divisions that incur direct program costs are: the Sustainable Fisheries Division (SFD), the Restricted Access Management Division (RAM), the Operations and Management Division (OMD), the Information Systems Division (ISD), the Alaska Fisheries Science Center (AFSC), and the Office of Law Enforcement Alaska Division (OLE). For the purposes of this report, NMFS AKR management unit costs are aggregated and OLE and AFSC costs are broken out into separate cost categories.

On an annual basis, each management unit calculates direct program costs through an established and systematic accounting system that allows staff to track labor, travel, contracts, rent, procurement, and other costs. These costs are tracked for the Federal fiscal year (October 1 through September 30) and are broken out by cost categories, which includes personnel/overhead, travel, transportation, printing, contracts/training, supplies, equipment, and rent/utilities. Table 12-1 displays the 2023 direct program costs by category for the AFA inshore sector. Table 12-2 compares costs across years, starting in 2020.

Only AFA direct program costs incurred by the inshore sector are included for the fee percentage calculation. AFA direct program costs that are attributable to the C/P and mothership sectors are excluded.

Cost recovery fees do not increase agency budgets or expenditures. They offset funds that would otherwise have been appropriated, except the ADF&G expenditures for which there is no direct appropriation. No budgetary advantage is gained by inflating AFA Program management and enforcement costs.

Examples of the specific tasks that were included under the 2023 AFA direct program costs are:

- Observer sampling station inspections, data quality assurance (AFSC),
- Chinook Salmon Bycatch Economic Data Reports (AFSC),
- Patrols, outreach and education, investigations, and compliance assistance (OLE),
- Publication of BS pollock allocations and sideboards in other fisheries (NMFS AKR),
- Management of AFA sideboards (NMFS AKR),
- Review of weekly inshore catch reports (NMFS AKR),
- Review of annual AFA cooperative reports (NMFS AKR),
- Maintenance of eLandings and the catch accounting system (NMFS, ADF&G),
- Programming and web design for online applications (NMFS AKR),
- Responding to questions about AFA permits (NMFS AKR),
- Fee determination and collection process (NMFS AKR), and
- At-sea scale and video equipment inspections (NMFS AKR).

Details on Cost Categories

Overall, direct program costs increased between FY 2022 and FY 2023 (NOAA Fisheries, 2023). Table 12-1 displays the AFA inshore sector direct program costs for FY 2023. Table 12-2 compares direct program costs between FY 2020, FY 2021, FY 2022, and FY 2023.

Higher overall direct program costs were offset by an overall increased value, which decreased the fee percentage from 0.32% to 0.26% between FY 2022 and FY 2023. The highest direct program costs were attributed to OLE. Costs accrue to support personnel engaged in enforcing fines, investigation, and outreach efforts. OLE officers and agents have dynamic and unpredicted work schedules so labor costs associated with OLE will vary from one fiscal year to the next. Increased costs were attributed to personnel and benefits of filled vacancies, in addition to increased rent and security costs.

The second highest direct program costs were attributed to the AFSC. Overall costs between FY 2022 and FY 2023 were similar, with a 5% increase in FY 2023. The increase is attributed to 5 increased travel to cover vacant staff positions in Dutch Harbor and the need to purchase specific observer sampling supplies that are not annual purchases. Costs were used to support the Fisheries Monitoring and Analysis (FMA) and Resource Ecology and Fisheries Management (REFM) Divisions. The FMA division operates the North Pacific Observer Program, which deploys observers onboard fishing vessels to collect catch data. The Observer Program also provides quality control and quality assurance on data provided by the observers. The REFM division operates the Economic and Social Sciences Research Program which administers the Chinook Salmon Economic Data Report (EDR) Program, providing NMFS AKR with data to assess the effectiveness of the Amendment 91 Chinook salmon bycatch management measures.

NMFS AKR, the third highest contributor incurred higher costs in FY 2023 than in FY 2022, largely due to changes in contract and personnel costs. Contract costs are related to development, support, and

maintenance of data flow for the trawl electronic monitoring (EM) and cost recovery programs. Personnel category costs support eLandings and maintenance of the Catch Accounting System. These costs were apportioned based on a formula that includes weighting factors for the degree of complexity, amount of integration, time sensitivity, and workload for eLandings maintenance tasks. These are then used to calculate the proportion of eLandings tasks that can be attributed to each program sector. Additionally, there are NMFS personnel costs for at-sea scale inspections and general program administration.

PSMFC costs are for personnel that support data collection, analysis, the administration of AFA EDRs and time spent on updates to the website. No ADF&G costs were incurred in FY 2023.

Table 12-1 Fiscal Year 2023 direct program costs for the AFA Program Inshore Sector

Cost recovery category	AKR NMFS	ADF&G	PSMFC	AFSC	OLE	Total
Personnel/Overhead[a]	$59,119	-	$42,328	$125,153	$151,358	$377,958
Travel[b]	$4,494	-	-	$3,971	-	$8,465
Transportation[c]	-	-	-	-	-	-
Printing	-	-	-	$5,000	-	$5,000
Contracts/Training	$155,206	-	$1,814	$28,629	$12,020	$197,669
Supplies	-	-	$25	$3,171	-	$3,197
Equipment	-	-	-	$850	-	$850
Rent/Utilities[d]	$1,710	-	$390	-	$14,317	$16,418
Other[e]	-	-	$462	-	$366	$828
Total	**$220,529**	**$0**	**$45,020**	**$166,775**	**$164,627**	**$610,384**

[a]Personnel costs includes locality pay, benefits, and overhead

[b]Travel includes per diem payments

[c]Transportation includes shipments of items

[d]Rent/Utilities includes cost of space and utilities and shared common space and services

[e]Other includes costs allocated for grants & other/misc. category costs

Table 12-2 Comparison of direct costs for Fiscal Years 2020, 2021, 2022, and 2023 for the AFA Program Inshore Sector

Cost recovery category	FY 2020	FY 2021	FY 2022	FY 2023
Personnel/Overhead	$233,484	$287,518	$309,541	$377,958
Travel	$322	$644	$494	$8,465
Printing	-	-	$4,500	$5,000
Contracts/Training	$29,152	$118,691	$167,646	$197,669
Supplies	$2,177	-	$738	$3,043
Equipment	$26,028	$210	$2,000	$850
Rent/Utilities	$42,200	$11,208	$17,868	$18,418
Other	$45,157	$62,830	$198	$828
Total Direct Costs	**$378,550**	**$481,120**	**$502,984**	**$610,384**
Fishery Value	**$176,889,942**	**$190,527,567**	**$164,631,479**	**$242,979,836**
Fee Percentage	**0.21**	**0.25**	**0.32**	**0.26**

13 Net Benefits to the Nation

NOAA Fisheries' policy guidance for CSPs states that a "review should contain an assessment of the program's effects on net benefits to the Nation, keeping in mind that net benefits are not exclusively economic in nature" (NOAA Fisheries, 2017). This report does not attempt to provide a quantitative estimate of changes in net benefits to the Nation, since the data to make those estimates are unavailable. Instead, a qualitative discussion of factors that change net benefits to the Nation is provided.

Limiting the number of vessels and processors that can participate in the BS pollock fishery, providing the formation of cooperatives across the different AFA sectors, and specifying the allocation of the BS pollock TAC among the different AFA sectors, the AFA has allowed participants to reduce excess fishing and processing capacity. This has in turn reduced fishing effort and slowed the pace of the fishery, which has also improved the utilization of the BS pollock resource. Specifically, the AFA has created an environment for greater investment in modern fish-processing technologies, improving efficiency and reducing waste, and enabling companies to work together to optimize production and maximize the quality of BS pollock.

Continued production improvements of BS pollock should lead to continued benefits for U.S. consumers. Processors continue to try to develop profitable U.S. markets where consumers can purchase different BS pollock products like fillets, and finished products made from surimi.

A primary benefit of the AFA's establishment of fishing cooperatives, which ended the race-for-fish, is that it has provided vessels with an opportunity to reduce PSC by-catch rates. AFA vessels have reduced their halibut, crab, and Chinook salmon PSC mortality over the past decade. Non-Chinook salmon PSC has been variable but declined in 2022 and 2023 compared to the recent high bycatch year in 2021. Since 2012, the AFA fleets made voluntary changes to various aspects of their fishing behavior to reduce halibut, crab, and Chinook and non-Chinook salmon PSC that would likely not have been possible without the benefits of AFA.

Finally, elimination of the race-for-fish conditions improves safety at sea. Cooperative allocations of BS pollock to the AFA sectors has reduce the incentive for fisheries participants to take risks to maintain their share of the fisheries, including fishing when weather conditions are poor or crew are fatigued.

14 Adaptive and Maladaptive Features of the AFA Program

During the June 2024 meeting, the Council, while reviewing the Crab Program Review, requested that all program reviews put key program elements in context with climate/environmental related instability highlighting both potential adaptive and maladaptive features of the program. Table 14-1 provides a list of AFA Program elements and a description of outside factor impact outcomes. In general, the structure of the AFA Program has provided the tools to decrease the vulnerability to negative impacts resulting from factors not directly related to the AFA Program and to increase adaptive capacity or resilience of the fishery in responding to those impacts. Those program elements were designed to facilitate efficiency within the program. An example of some of these factors include declining TACs, changes in world markets, the global COVID-19 pandemic, and environmental/climate changes impacting the BS.

Table 14-1 AFA Program Elements and Outside Factor Impact Outcomes

AFA Program Element	Impact
Cooperatives	The cooperative structure has allowed AFA sectors to adapt to changes in the fishery caused by changes in environmental factors and world economic conditions. AFA Program cooperatives have greater flexibility to fish their own quota or utilize lease markets to increase their vessel's catch or to not fish using their vessel. Leasing AFA pollock quota to other vessel operators allows the quota holder to generate revenue while reducing costs.
Excess capacity	The 17.5% use cap limit has also been effective in limiting consolidation, but flexible enough to provide opportunities for expanded harvest for vessels below the use cap. The 30% processing cap has been effective in limiting processing consolidation in the AFA Program, but it still provides flexibility for those companies below the cap to processing additional BS pollock.
PSC limits	Limitations on PSC were included to reduce bycatch. Experience with rationalization programs shows that as the race for fish ends, the AFA fleet will utilize the flexibility of the cooperative program to make operational choices that promote PSC savings. However, PSC limitations can reduce the ability of the AFA vessels to adapt to changes to the BS pollock fishery.
Sideboard limits	Limitations on participation in non-rationalized fisheries were included to provide protection for the BSAI and GOA fleet because AFA vessels were expected to have more flexibility when they would fish their BS pollock allocations. Establishing protections for the BSAI and GOA fleets could reduce the ability of the AFA vessels to adapt to changes to the BS pollock like changes in world markets. Sideboard limits could be modified but the analysis would need to consider the tradeoffs associated with allowing AFA vessels to have greater flexibility to adapt to changing environmental and economic conditions compared to the negative impacts potential increased harvest by the AFA vessels would have on persons more reliant on BSAI and GOA fisheries.

15List of Preparers

Preparers:

Samantha Case, NIOSH

Michael Fey, AKFIN

Kate Haapala, NPFMC

Devin Lucas, NIOSH

Jon McCracken, McCracken & Associates

Sarah Marrinan, NPFMC

Krystal Mason, NIOSH

Consulted:

Stephanie Madsen, APA

Brent Paine, United Catcher Boats

16 References

Abelman, A., A. Abolhassani, M. Dalton, R. Dame, B. Garber-Yonts, A. Harley, S. Kasperski, J. Lee, D. Lew, C. Seung, M Szymkowiak, and S Wise. 2024. Stock assessment and fishery evaluation report for the groundfish fisheries of the Gulf of Alaska and BS/Aleutian Islands area: Economic status of the groundfish fisheries off Alaska, 2023.

Alaska Seafood Marketing Institute. 2016. RFM Certification. Available online at http://www.alaskaseafood.org/rfm-certification/. Accessed November 1, 2016.

Alaska Seafood Marketing Institute (ASMI). 2023. "Extraordinary circumstances". October 25, 2023.

Alaska Fisheries Science Center (AFSC). 2024. Alaska Seafood Snapshot. August 24, 2024.

Anonymous. 2001. Two still missing after trawler sinks in the BS. Peninsula Clarion. March 7.

Anonymous. 2009. Mar-Gun saved! Deckboss. May 13.

Case, S. 2024. Assessment of Occupational Hazards in the BS and Aleutian Islands Pollock Fleet. Western States Division, Alaska Office, National Institute for Occupational Safety and Health. Anchorage, AK.

Case, S., D. Lucas, and K. Mason. 2016. Assessment of Occupational Hazards in the BS and Aleutian Islands Pollock Fleet. Western States Division, Alaska Office, National Institute for Occupational Safety and Health. Anchorage, AK.

Downs, M. & A. Henry (2023). Baseline Commercial Fishing Community Profile Updates: Akutan and Unalaska, Alaska.

Global Trust Certification, Ltd. 2011. FAO-Based Responsible Fisheries Management Certification Full Assessment and Certification Report for the US Alaska Pollock Commercial Fishery (200 mile EEZ). Dundalk, Ireland.

Hughes, S.E. and C. Woodley. 2007. Transition from open access to quota based fishery management regimes in Alaska increased the safety of operations. *International Maritime Health* 58 (1-4):33-45.

MRAG Americas, Inc. 2019. MSC Final Report and Determination for Alaska Pollock – BS and Aleutian Islands. Prepared for At-Sea Processors Association. Seattle, WA.

Kearns, M. 2015. Alaska pollock name change a game changer for fishery demand. *SeafoodSource.com*. Available online at http://www.seafoodsource.com/news/supply-trade/alaska-pollock-namechange-a-game-changer-for-fishery-demand. Accessed October 28, 2016.

Lincoln, J. M., N. A. Mode, and C. J. Woodley. 2007. An Evaluation of Quota-Based Management Systems in Alaska. North Pacific Research Board Project 533 Final Report. Anchorage, AK.

McKinley Research Group. 2021. Alaska Seafood COVID-19 Briefing Paper, March 2021.

Murphy, J. M., E. V. Farley, J. N. Ianelli and D. L. Stram. 2016. Distribution, Diet, and Bycatch of Chum Salmon in the Eastern Bering Sea. *North Pacific Anadromous Fish Commission Bulletin* 6:219234.

NOAA Fisheries, (2023). American Fisheries Act Program Cost Recovery Report. Alaska Region.

NMFS, Alaska Regional Office. 2002. Final Environmental Impact Statement for American Fisheries Act Amendments 61/61/13/8. Juneau, Alaska

NMFS, Alaska Regional Office. Alaska Fisheries Science Center. 2016a. Wholesale Market Profiles for Alaska Groundfish and Crab Fisheries. Seattle, WA.

NMFS. 2023. Economic Status of the Groundfish Fisheries of Alaska. March 2023. Available at: 2022 Economic Status of the Groundfish Fisheries Off Alaska | NOAA Fisheries

NMFS. 2023. Wholesale Market Profiles for Alaska Groundfish and Crab Fisheries. Seattle WA.

NMFS. 2023. Alaska Groundfish Harvest Specifications Final Environmental Impact Statement Supplemental Information Report. Dept. of Commerce, Juneau, Alaska, November.

NPFMC. 2002. Report to the U.S. Congress and the Secretary of Commerce. Impacts of the American Fisheries Act. Anchorage, AK.

NPFMC. 2016a. Celebrating 40 Years of Sustainable Fisheries. Anchorage, AK.

NPFMC. 2017. American Fisheries Act Program Review. Final Report. Anchorage, AK.

NPFMC/ NMFS. 2024. Draft for Initial Review Preliminary Draft Environmental Impact Statement for Proposed Amendment to the Fishery Management Plan for Groundfish of the Bering Sea/Aleutian Islands Management Area Bering Sea Chum Salmon Bycatch Management. December 20, 2024.

Stram, D. L. and J. N. Ianelli. 2014. Evaluating the efficacy of salmon bycatch measures using fishery-dependent data. *ICES Journal of Marine Science: Journal du Conseil* 72: 1173-1180.

Strong, J.W. and K. R. Criddle. 2013. Fishing for Pollock in a Sea of Change: A Historical Analysis of the BS Pollock Fishery. Alaska Sea Grant, Anchorage, AK.

Sullivan, J. M. 2000. Harvesting Cooperatives and U.S. Antitrust Law Recent Developments and Implications. In: *Microbehavior and Macroresults: Proceedings of the Tenth Biennial Conference of the International Institute of Fisheries Economics and Trade Presentations.* Corvallis, OR: Oregon State University.

Sullivan, J.M. 2007. Elements of the Pollock Cooperative Harvest Agreement: Legal Problems and Solutions. Actor Agreement Workshop, Marine Law Institute, University of Maine School of Law, November 1-2, 2007.

Townsend, L. 2024. “The outlook for commercial fisheries.” Alaska Public Media, July 24, 2024.