

STOCK ASSESSMENT AND FISHERY EVALUATION REPORT FOR THE  
GROUND FISH FISHERIES OF THE GULF OF ALASKA AND BERING  
SEA/ALEUTIAN ISLANDS AREA:

ECONOMIC STATUS OF THE GROUND FISH FISHERIES OFF ALASKA, 2015

by

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The authors of the Groundfish SAFE Economic Status Report invite users to provide feedback regarding the quality and usefulness of the Report and recommendations for improvement. AFSC's Economic and Social Sciences Research Program staff have begun an initiative to revise the SAFE Economic Status Reports for Alaska Groundfish and BSAI Crab to incorporate additional analytical content and synthesis, improve online accessibility of public data in electronic formats, and otherwise improve the utility of the reports to users. We welcome any and all comments and suggestions for improvements to the SAFE Economic Status Reports, and have developed an online survey to facilitate user feedback. The survey is available at:

[http://www.afsc.noaa.gov/REFM/Socioeconomics/Contact/SAFE\\_survey.php](http://www.afsc.noaa.gov/REFM/Socioeconomics/Contact/SAFE_survey.php)

This report will be available at:

<http://www.afsc.noaa.gov/refm/docs/2016/economic.pdf>

Time series of data for the tables presented in this report (in CSV format) are available at:

<http://www.afsc.noaa.gov/refm/Socioeconomics/SAFE/groundfish.php#data>

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Dear Reader,

**This preliminary report of the “Economic Status of the Groundfish Fisheries Off Alaska” is compiled for the express purpose of the Sept. 2016 meeting of the Groundfish Plan Teams. A final version of this report will be prepared for the Nov. 2016 meeting of the Groundfish Plan Team. The data contained within this report are the most recent data available. At the time this report was compiled, data continue to be finalized and validated. In some cases, numbers in the final draft of this report may change from those presented in this preliminary draft. As we finalize and validate the data in this report, the Economic and Social Sciences Research Program welcomes any feedback from readers regarding data.**

Thank you,  
Alaska Fisheries Science Center,  
Economic and Social Sciences Research Program

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## 1. EXECUTIVE SUMMARY

The commercial groundfish fisheries off Alaska had a total catch of 2.2 million tons (t) in 2015 (including catch in federal and state waters) (Fig. 1 and Table 1). This amount was approximately equal to the catch in 2014. Groundfish accounted for 80% of Alaska's 2015 total catch, which was slightly less than typical because of high Pacific salmon catch (Table 1A). Notable increases in catch were observed in the Alaska pollock (particularly in the Gulf of Alaska) and Atka mackerel fisheries, while catch in the flatfish species complex saw a significant decrease in 2015.

The aggregate ex-vessel value of the FMP groundfish fisheries off Alaska was \$895 million, which was 52% of the ex-vessel value of all commercial fisheries off Alaska in 2015 (Tables 17 and 19).<sup>1</sup> Nominal ex-vessel value of FMP groundfish decreased \$39 million in 2015 (Table 19). After adjustment by the Personal Consumption Expenditure Index (PCE), real ex-vessel value decreased \$44 million (Table 16). The ex-vessel market of the FMP groundfish fisheries off Alaska remained healthy in 2015 though aggregate economic metrics showed little change from 2014 levels.

Due to an aggregate ex-vessel price decrease of 4.9% to \$0.191 per pound of retained catch, aggregate value decreased 4.2% (Tables 2, 6 and 19). Aggregate retained catch increased slightly (0.78%) to 2,126 thousand t, in part, because of decreased discards. The decrease in 2015 ex-vessel prices is related to the corresponding decrease in wholesale prices to which they are linked. Most species did not see dramatic price changes in 2015; the decrease in the aggregate ex-vessel price was the combined effect of marginal decreases in the prices for most of the individual species (complexes) (Table 18). Relatively small decreases in ex-vessel value were observed for nearly all species (complexes) except pollock, which saw a small increase. Because movements in price were generally small, changes in catch were more critical in determining the difference in the way ex-vessel value changed for individual fisheries across regions, sectors, and gear types. FMP groundfish made up a larger share of the ex-vessel value from the fisheries off Alaska than they did in 2014 largely because of the decrease in salmon revenues. Revenues from halibut and shellfish increased (Table 17).

The gross value of the 2015 groundfish catch after primary processing (first wholesale) was \$2.26 billion (Table 31), a decrease of 3.6% from 2014. This change was the combined effect of a decrease in aggregate first-wholesale production, down 3.1% to 943.4 thousand t, and aggregate price decrease of 0.49% to \$1.087 per pound in 2015 (Table 25 and 26). Similarly, small decreases in value were observed in the first-wholesale markets for most species (complexes) in 2015, with the exception of Atka mackerel where production rose substantially. Variation in production was the larger determinant of changes in value across species in 2015. In percentage terms the most significant increase in value was from Atka mackerel products, which grew 17.4% due to increased catch and production. The most significant decrease in value was in products from the flatfish complex, which fell 24.1%. This was again a result of decreased catch and production, particularly from yellowfin sole and arrowtooth flounder products. First-wholesale value from pollock and pacific cod products changed very little, decreasing only slightly. The strength of the U.S. dollar and strong global whitefish supplies were factors that hindered increases in first-wholesale prices of Alaska products.

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<sup>1</sup>The data required to estimate net benefits to either the participants in fisheries or the Nation, such as cost or quota value (where applicable) data, are not available. Unless otherwise noted value should be interpreted as gross revenue.

The first-wholesale value of Alaska's FMP groundfish fisheries accounted for 53% of Alaska's total first-wholesale value from commercial fisheries (Table 30). First-wholesale value of Alaska's non-FMP groundfish fisheries totaled \$2.01 billion, most of which (\$1.5 billion) came from Pacific salmon. Pacific salmon value increased only 2.2% despite substantially increased catch levels in 2015 as prices were driven down in response to the supply and a strong U.S. dollar. Pacific halibut fisheries, which are concentrated in the Gulf of Alaska, saw a modest increase in total allowable catch and production in 2015 after steady declines over the last decade. First-wholesale value in the Pacific halibut fisheries increased \$10 million to \$132 million in 2015.

The groundfish fisheries off Alaska are an important segment of the U.S. fishing industry. In 2014, it accounted for 52% of the weight of total U.S. domestic landings and 16% of the ex-vessel value of total U.S. domestic landings (Fisheries of the United States, 2014).

A significant portion of the products produced from the commercial fisheries off Alaska are exported. Since 2006, exports of pollock originating from Washington and Alaska have risen from 280 thousand t to 374 thousand t in export volume and from \$876 million to \$1,029 million in value (Table E.2). Pollock fillet and surimi accounted for 72.3% of the export value. Germany, South Korea, and Japan were the primary export markets with a value of \$220 million, \$254 million and \$265 million, respectively, while the export value of products going to China totaled \$108 million in 2015 (Table E.2). Globally, pollock, Pacific cod, and sablefish from Alaska accounted for 11% of the World's 6.6 million t production of 'cod, hake, and haddock' species (as defined by the FAO) in 2014 (Tables 25 and E.1). Alaska's first-wholesale value from pollock, Pacific cod, and sablefish was \$2 billion relative to the world's total 'cod, hake, and haddock' species product value of \$9.4 billion. Between 2011 and 2014 Alaska's share of production in the global 'cod, hake, and haddock' market has increased from 10% to 11%, while value has gone from 23% to 21%.

NOAA Fisheries collects only limited data on employment in the fisheries off Alaska. The most direct measure available is the number of 'crew weeks' on at-sea processing vessels of FMP groundfish. These data indicate that in 2015 crew weeks totaled 104,112 with the majority of them (100,096) occurring in the BSAI groundfish fishery (Table 50). In 2015 the maximum monthly employment peaked in March with 15,538 crew weeks. Relative to 2014, annual crew weeks decreased in 2015 by 0.33%, which comes after an increase of 4.8% in 2014 from 2013. Statewide average monthly employment in fish processing (of any species) was 10,200 employees in 2015, down slightly from the previous year (Table E.3). Statewide average monthly employment in groundfish harvesting between 2008 and 2012 (the most recent data currently available from the Alaska Department of Labor) was 1,552 employees and comprised 20% of the total fish harvesting employment in Alaska (Table E.4). The Alaska Department of Labor reports that groundfish harvesting employment grew 28.4% in 2014. Given the 2015 change in harvest volume, harvesting employment through 2015 likely remained steady.

Alaska's FMP groundfish fisheries have six major species (complexes); Alaska pollock, Pacific cod, sablefish, Atka mackerel, the flatfish complex, and the rockfish complex, plus Pacific halibut (which is not an FMP groundfish).<sup>2</sup> The fisheries for these species (complexes) are distributed across two regions: the Bering Sea & Aleutian Islands and the Gulf of Alaska. Each region can be broadly divided into two sectors: catcher vessels which deliver their harvest to shoreside processors, and the at-sea processing sector, whose processed product sells directly to the first-wholesale market.

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<sup>2</sup>An FMP fishery is one where management, including total catch, is carried out under a federal Fishery Management Plan. Pacific halibut is not an FMP groundfish fishery and its total catch is set by the International Pacific Halibut Commission, though allocation of the catch among users is managed by the NPFMC and NMFS.

Catcher vessels accounted for a higher proportion of the ex-vessel value of groundfish landings than total catch (50% versus 47%) in 2015 because they take larger than average percentages of higher-priced species such as sablefish (Table 18). The ex-vessel value of the at-sea sector is imputed from observed first-wholesale value to exclude the value added by at-sea processing. The following gives a summary of the economic status of the six FMP groundfish species' (complexes) fisheries in 2015.

### *Alaska pollock*

Alaska pollock, the dominant species in terms of catch, accounted for 67% of FMP groundfish harvest with a catch of 1.5 million t in 2015 (Table 2). The ex-vessel value of the Alaska pollock fishery was \$480 million (Table 19). While pollock prices fell slightly, increased catch (particularly in the GOA) had the net effect of a 1.2% increase in ex-vessel value (Table 19). Pollock first-wholesale value decreased 2.1% in 2015 to \$1.38 billion, due to a 2.2% decrease in price (Tables 25 and 26). Ex-vessel and first-wholesale value in the pollock fishery remains above the 10 year average, though not at the peak in 2012 when ex-vessel prices were higher.

The majority of pollock is harvested in the BSAI (approximately 90%) where catch is divided between the shoreside and at-sea sectors. It also comprises a large share of the GOA shoreside revenues. Pollock is targeted almost exclusively with trawl gear. Pollock catches increased throughout Alaska's regions and sectors but most prominently in the Gulf of Alaska where it increased by 16% to the highest level seen in recent history. Pollock is an abundant whitefish with extensive global markets and is harvested at or very near the TAC. Hence changes in pollock catch and production largely reflect changes in the annual TAC, which is related to the sustainability of the resource, for which the AFSC carries out extensive annual stock assessments. Because pollock is harvested at the TAC wholesale pollock prices play a significant role in determining annual revenue and influence the mix of products produced for the wholesale market. Pollock has three primary product forms: fillets, surimi, and roe, which made up a combined 81.7% of pollock total first-wholesale value. Value decreased for two of pollock's primary product forms: fillets and roe, while surimi value increased. Wholesale prices played a role in the changes in value. Fillet prices of fell 1.5% to \$1.4 per pound as increases in Russian production put downward pressure on prices. Decreases in Japanese surimi production allowed for increases in both surimi production and prices, which rose 2.3% to \$1.115 per pound.

### *Pacific cod*

The fisheries for Pacific cod are the second largest by volume in Alaska with a total catch of 289 thousand t in 2015, a decrease of 2.7% from 2014. Decreases in both catch and ex-vessel price had the combined effect of a 8.7% decrease in ex-vessel value to \$186 million. Similarly, Pacific cod aggregate first-wholesale value fell 0.8% with production, though the aggregate wholesale price was virtually unchanged over last year. The decreases in value in 2015 comes after a significant increase in 2014 and value in the Pacific cod fishery was roughly at, though just below, the 10 year average level of value.

Pacific cod is harvested in the BSAI and the GOA regions by the shoreside and at-sea sectors, by various fleets using different gear types. The largest fishery is located the BSAI at-sea sector, which is primarily prosecuted by the longline catcher/processor fleet. Fisheries in the shoreside sector utilize trawl, hook-and-line, and pot gear types. In the GOA Pacific cod is mostly harvested by the shoreside sector where catch is carried out using hook-and-line, trawl, and pot gear. The change in



value was the result of decreased catch across most of the different gear types, sectors, and regions, with the exception of the BSAI at-sea hook-and-line fishery which saw a small increase (4%) (Table 2). Like pollock, cod is harvested at or very near the TAC. Catch levels of Pacific cod remained strong in 2015 despite slight decreases, and are at or above their ten year average. Ex-vessel prices have been trending down since about 2007 which has been disruptive to ex-vessel revenues despite the strong catch levels. The declining ex-vessel prices are largely a reflection of a similar trend in first-wholesale prices. Pacific cod is processed in a number of different product form for wholesale markets, the two most important of which are fillets and head-and-gut (H&G). The at-sea sector produced mostly H&G products and the shoreside sector produces fillets, H&G, and other product forms. Whitefish products, such as those produced from cod, have come under increased global competition over the last decade which is reflected in the downward trend in wholesale prices. In 2015 the aggregate first-wholesale price was basically stagnant, increasing a mere 0.5%. This was the combined effect of the counteracting changes in the H&G and fillet prices. H&G prices increased 12.2% to \$1.347 per pound while fillet prices fell 8.5% to \$2.653 per pound. Correspondingly, production of fillets decreased while H&G production increased.

### *Sablefish*

Sablefish is primarily harvested by the GOA shoreside sector which typically accounts for upwards of 90% of the annual catch. It is also caught by the BSAI shoreside and GOA at-sea sectors. Most sablefish is caught using the hook-and-line gear type. As a valuable premium high-priced whitefish, sablefish is an important source of revenues for GOA catcher vessels and catches are at or near the TAC. Since the mid-2000s, decreasing biomass has ratcheted down the TAC and catch. This trend continued through 2015 as catches decreased to 12 thousand t in 2015, down from 12 thousand t in 2014. At \$94 million in 2015, ex-vessel value in the sablefish fishery decreased because of reduced catch levels, despite a \$0.14 increase in ex-vessel price. Commensurate with this decrease in catch and corresponding production, first-wholesale value was down 8.1% to \$91 in 2015 which was mitigated, in part, by a slight increase in the first wholesale price. Persistent declines in catch have been disruptive to revenues in the sablefish fishery. Strong prices have maintained value in the fishery as catches have declined; however, the peak price levels seen in 2010.

### *Flatfish species complex*

The flatfish complex is comprised of a number of different species. The species targeted vary substantially by region. In the BSAI the primary target species are yellowfin sole, rock sole, flathead sole, and arrowtooth flounder, which are mostly fished by catcher/processors in the Amendment 80 fleet.<sup>3</sup> In the GOA, arrowtooth is the primary target species though other flatfish (e.g., flathead sole and rex sole) are caught in smaller quantities. GOA flatfish are caught by the western and central gulf trawl fleets which are comprised of both shoreside catcher vessels and at-sea catcher/processors. Aggregate flatfish catch decreased considerably in the both the BSAI and GOA. In the BSAI catch fell 21% to 218 thousand t. In the GOA, catch fell 44% to 24 thousand t. Decreases in catch were most prominent for arrowtooth flounder and yellowfin sole, though decreases occurred for many other flatfish species as well.

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<sup>3</sup>Amendment 105 BSAI Flatfish Harvest Specification Flexibility went into effect in 2015 allowing cooperative and CDQ groups to exchange flatfish harvest quota between yellowfin sole, rock sole, and flathead sole under the Allowable Biological Catch (for details see <http://federalregister.gov/r/0648-BD23>).

Arrowtooth, the largest flatfish fishery in the GOA, can show considerable year over year catch variability, in part because of regulatory changes.<sup>4</sup> However, 2015 catches were at the lowest level seen since 2004 because of a closure in the non-rockfish, non-pollock fisheries from May 3rd to Aug 10th because they reached their Chinook salmon bycatch limit. In the BSAI the yellowfin sole fishery is the largest. The yellowfin TAC decreased to maintain the 2 million ton groundfish cap in the BSAI; however the TAC is not typically a binding constraint on the fishery, though industry may react to TAC changes. The decreased TAC in 2015 precluded harvests at 2014 levels, however, the fishery still only harvested 85% of the 2015 TAC and prices, while not high relative to recent history, were up from 2014. There were notable decreases in catch for the BSAI rock sole and arrowtooth fisheries as well. The decreased catch in BSAI flatfish fisheries were related to poor fishing conditions early in the year and voluntary efforts to reduce Pacific halibut PSC at the request of the NPFMC. Commensurate with the reduced catch was a decrease in aggregate flatfish ex-vessel value to \$71 million in 2015. First-wholesale value decreased 24.1% to \$162 million in 2015. The decrease in flatfish value can largely be attributed to the drop in production from reduced catch levels. Flatfish are mostly processed and sold in the head-and-gut product form. On the whole, first-wholesale flatfish prices were relatively stable, yellowfin sole price increased 4% and arrowtooth price decreased 5%.

#### *Rockfish species complex*

The rockfish fisheries target a diverse set of species which can vary by region and sector. By volume, the majority of rockfish (70%) is caught in the BSAI, which is largely attributable to the sizable BSAI fisheries for Pacific ocean perch (the largest rockfish fishery in the GOA). The other five major species (dusky, rougheye, northern, shortraker, and thornyhead) are predominantly caught in the GOA, though most species are caught in both regions. In the BSAI rockfish are caught by at-sea catcher/processors while in the GOA catch is distributed between the shoreside and at-sea sectors. Rockfish catch in Alaska totaled 68 thousand t in 2015 with increases the Pacific ocean perch and northern rockfish fisheries (Table R1). Aggregate ex-vessel value increased 3.4% to \$29 million in 2015 (Table 19) despite a decrease in aggregate prices (Table 18). Overall first-wholesale prices decreased 10%, the net effect of which was 5% decrease in first-wholesale value to \$77.1 million.

Catches increased in 2015 for the GOA Pacific ocean perch and BSAI northern rockfish fisheries, but decreased for most other species. Diverted effort from the flatfish fisheries could, in part, account for the increases in Pacific ocean perch and northern rockfish catch. Though there is no directed fishery for northern rockfish, the marked increase in catch was also ostensibly associated with the increase in Atka mackerel catch. Pacific ocean perch and northern rockfish are the largest of the rockfish fisheries, accounting for 74% and 13% of the total rockfish revenues respectively. Ex-vessel prices in the GOA Pacific ocean perch fishery increased, resulting in a net increase in revenues for rockfish fisheries in this region. The increase in rockfish prices corresponded with a similar increase in the GOA shoreside wholesale price which rose 7%. Wholesale revenues in this sector rose 4% to \$15.9 million. However, at-sea wholesale prices decreased in both the GOA and BSAI (down 5% and 10% respectively) which resulted in a net decrease in wholesale revenues (\$17.9 and \$42 million, respectively). These changes in aggregate price are largely a reflection of the change in wholesale prices for Pacific ocean perch and northern rockfish.

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<sup>4</sup>In 2014, Amendment 95 (regulations to reduce GOA halibut PSC limits) implemented changes to the accounting of halibut PSC sideboard limits for Amendment 80 vessels that allowed the fleet to increase their groundfish catch, mostly arrowtooth flounder. Also, Amendment 95 revised halibut PSC limit apportionments used by trawl catcher vessels from May 15 through June 30 that extended the deep-water species fishery allowing for an increase in arrowtooth flounder catch for this fleet. For details see <http://alaskafisheries.noaa.gov/frules/79fr9625.pdf>

## *Atka Mackerel*

Atka mackerel is predominantly caught in the BSAI, primarily in the Aleutian Islands, and almost exclusively by the Amendment 80 Fleet.<sup>5</sup> The increase in catch of Atka mackerel to 54 thousand t brings catch back to roughly 2011 levels after significant reductions in the TAC in 2012 and 2013. The lower catch was due to area closures for Steller sea lions and survey-based changes in the spatial apportionment of TAC. Recent increases in TAC reflect the continued health of the stock and expanded fishing opportunities in the Aleutian Islands. Approximately 90% of the Atka mackerel production volume is processed as H&G, while the remainder is mostly sold as whole fish. Most of the Atka mackerel produced is exported to Asia. Commensurate with the increased production from catch, first-wholesale production increased 57%. The result was a 17.4% growth in first-wholesale revenue to \$74 million, despite a 25.4% decrease in the wholesale price.

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<sup>5</sup>Because Atka mackerel is only targeted by at-sea catcher/processor vessel there is not an effective ex-vessel market for it. Though ex-vessel statistics are computed for national reporting purposes.

## 2. OVERVIEW OF ECONOMIC STATUS REPORT, 2015

### 2.1. Introduction

This report presents the economic status of groundfish fisheries off Alaska in terms of economic activity and outputs using estimates of catch, prohibited-species catch (PSC), ex-vessel prices and value (i.e., revenue), effort (as measured by the size and level of activity of the groundfish fleet), and the first wholesale production volume and gross value of (i.e., F.O.B. Alaska revenue from) processed products.<sup>1</sup> The catch, ex-vessel value, fleet size, and activity data reported here reflect the fishing industry activities that are accounted for in the groundfish landings and production reports, North Pacific groundfish and halibut observer data, and the State of Alaska Commercial Operator’s Annual Reports. Catch data in this report are sourced from the NMFS Alaska Regional Office (AKRO) catch-accounting system (CAS), which is used for in-season monitoring groundfish and PSC quotas. The data descriptions, qualifications, and limitations noted in this overview of the fisheries and the footnotes to the tables are critical to understanding the information in this report. This report updates last year’s report (Fissel *et al.* 2015) and is intended to serve as a reference document for those involved in making decisions with respect to conservation, management, and use of Gulf of Alaska (GOA) and Bering Sea and Aleutian Islands (BSAI) groundfish fishery resources.

In addition to catch that is counted against a federal Total Allowable Catch (TAC) quota (i.e., managed under a federal Fishery Management Plan (FMP)), estimates provided in some of the following tables may include catch from other Alaska groundfish fisheries (as indicated by the footnotes). The distinction between catch managed under a federal FMP and catch managed by the State of Alaska is not merely a geographical distinction between catch occurring in the U.S. Exclusive Economic Zone (EEZ) and catch occurring Alaska state waters (3-mile limit). The State of Alaska maintains authority over some rockfish fisheries in the EEZ of the GOA, for example, and parallel fisheries occurring within state waters are managed under federal FMPs. It is not always possible, depending on the data source(s) from which a particular estimate is derived, to definitively identify a unit of catch, or associated units of measure, such as revenue or price, as being part of a federal FMP or otherwise. Users are encouraged to consult table footnotes for clarification on coverage in individual tables with respect to federally-managed and state-managed catch. Additionally, unless explicitly indicated, phrases such as “groundfish fisheries off Alaska” or “Alaska groundfish”, as used in this report, should not be construed to precisely include or exclude any category of state or federally managed fishery or to refer to any specific geographic area. These and similar phrases may describe groundfish from both Alaska state waters and the federal EEZ off Alaska, groundfish managed only under federal FMPs, or managed under the authority of both NMFS and the state of Alaska.

The BSAI and GOA groundfish fisheries are widely considered to be among the best managed fisheries in the world. These fisheries produce high levels of catch, ex-vessel revenue, processed product revenue, exports, employment, and other measures of economic activity while maintaining ecological sustainability of the fish stocks. However, the data required to estimate the success of these policies with respect to net benefits to either the participants in these fisheries or the Nation, such

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<sup>1</sup>F.O.B. refers to the value (or price) excluding transportation costs. The acronym, F.O.B. stands for “Free On Board”.

as cost or quota value data (where applicable), are not available for many of the fisheries. Fishery economists began discussing the potential for rent dissipation in fisheries managed with open-access catch policies long ago (Scott 1954, Gordon 1955). The North Pacific region has gradually moved away from such management, as discussed by Holland (2000), and instituted catch share programs in many of its fisheries. Six of the sixteen catch-share programs currently in operation throughout the U.S. operate in the North Pacific, accounting for approximately 75% of groundfish landings. By allocating the catch to individuals, cooperatives, communities, or other entities catch share programs are intended to promote sustainability and increase economic benefits. Research on North Pacific fisheries has examined some of these issues after program implementation (e.g., Felthoven 2002, Homans and Wilen 2005, Wilen and Richardson 2008, Abbott et al. 2010, Fell and Haynie 2011, Torres and Felthoven 2014, Abbott et al. 2015).

There is considerable uncertainty concerning the future conditions of stocks, the resulting quotas, and potential changes to the fishery management regimes for the BSAI and GOA groundfish fisheries. The management tools used to allocate the catch between various user groups can significantly affect the economic health of either the fishery as a whole or segments of the fishery. Changes in fishery management measures are expected to result from continued concerns with: 1) the catch of prohibited species; 2) the discard and utilization of groundfish catch; 3) the effects of the groundfish fisheries on marine mammals and sea birds; 4) other effects of the groundfish fisheries on the ecosystem and habitat; 5) the allocations of groundfish quotas among user groups; and 6) maintaining sustainable fisheries and fishing communities that allow for new entrants into the fisheries.

The remainder of this report is structured as follows: Section 2.2 gives a verbal description and important information for understanding the economic data tables in Section 4. Section 5 examines the economic performance of the North Pacific groundfish fisheries through market indices. Section A contains additional economic data tables.

## 2.2. Description of the Economic Data Tables

### *2.2.1 Groundfish and Prohibited Species Catch Data Description*

#### *Data Sources*

Total catch estimates in the groundfish fisheries off Alaska are generated by NMFS from data collected through an extensive fishery observer program and from information provided through required industry reports of harvest and at-sea discard. The North Pacific Groundfish Observer Program (Observer Program), based at the NMFS Alaska Fisheries Science Center (AFSC), has had a vital role in the management of North Pacific groundfish fisheries since 1989. Observer data are collected by NMFS-certified observers and provide scientific information for managing the groundfish fisheries and minimizing bycatch. Industry-reported data consists of catch and processed product amounts that are electronically recorded and submitted to NMFS through the Interagency Electronic Reporting System, known as eLandings. Observer information and industry reports are integrated into a NMFS application called the Alaska Catch Accounting System (CAS).

The harvest of groundfish in Federal waters are governed under fishery management plans (FMPs) that are specific to the Bering Sea and Aleutian Islands (BSAI) and Gulf of Alaska (GOA) regions. The groundfish TACs are established and monitored in terms of total catch, which is both retained

catch and discarded catch. In addition, the FMPs describe policy for setting bycatch limits for some species, such as halibut and salmon, whose retention is prohibited in the groundfish fisheries; bycatch of these species is referred to as Prohibited Species Catch (PSC). The primary purpose of the CAS is to provide estimates of total catch for FMP species (including prohibited species) in the groundfish and halibut fisheries and allow the in-season monitoring of catch against the TACs and PSC limits.

In the CAS, at-sea sample data collected by observers are used to create discard and PSC rates (a ratio of the estimated discarded catch to the estimated total catch in sampled hauls). For trips that are unobserved, the discard and PSC rates are applied to industry-supplied landings of retained catch. Expanding on the observer data that are available, the extrapolation from observed vessels to unobserved vessels is based on varying levels of aggregated data (post-stratification). Data are matched based on processing sector (e.g. catcher/processor or catcher vessel), week, target fishery, gear, and Federal reporting area. Further detail on the estimation procedure, including levels of post-stratification, is available in Cahalan et al. (2014). With the exception of Pacific halibut PSC, all estimated at-sea discard is assumed to have 100% mortality. Halibut mortality rates are generated every three years based on the estimated condition of halibut sampled by observers (Williams 2012). These rates are applied to the total estimated halibut discard (for a gear type, FMP area (GOA or BSAI), fishery, and year).

#### *Groundfish Catch Tables*

The catch presented throughout these tables is total catch which includes retained and discarded catch. Catch data are sourced from the NMFS Alaska Region Office Catch Accounting System (CAS). Catch for all Alaska including state and federal catches is displayed in Table 1 and catch for just FMP-managed groundfish are provided in Tables 2 through 5. Table 2 presents catch data by area (BSAI and GOA), gear (trawl, hook and line—used in this report to include longlines and jigs—and pot gear), vessel type (catcher vessels and catcher/processor vessels), and species. Tables 3 and 4 provide estimates of total catch by species, area, gear, and target species for the GOA and BSAI. In general, the species or species group accounting for the largest proportion of retained catch on the trip or haul is considered the target species, with two exceptions. A target of pelagic pollock is assigned only if 95% or more of the total catch is pollock. In the BSAI, if flatfish species (flathead, rock, and yellowfin sole, and other flatfish) represent the largest amount of retained catch, then a target of yellowfin sole is assigned if this species represents at least 70% of the combined flatfish retained catch; otherwise, the flatfish species accounting for the greatest amount of retained flatfish catch is assigned as the target. Beginning in 2011, Kamchatka flounder was broken out from arrowtooth flounder in the BSAI. As such, the “other flatfish”, and/or arrowtooth flounder target categories may not be directly comparable between 2011 and prior years in Tables 4, 8, 10, 13, and 15; and the other flatfish species category is not comparable in Tables 4, 8, and 26.

Catch data by the residency of primary vessel owners are summarized in Table 5. These data are sourced from the CAS combined with State of Alaska groundfish fish ticket data and vessel registration data, the latter of which includes the stated residency of the primary vessel owner. Residents of Alaska and of other states, particularly Washington and Oregon, are active participants in the BSAI and GOA groundfish fisheries. For the domestic groundfish fishery as a whole, 83% of the 2015 catch volume was made by vessels with primary owners that were not Alaska residents, although catch in the GOA was more equally distributed between Alaska resident and non-resident vessel owners.

### *Groundfish Discards and Discard Rates*

Discarded catch is the unretained catch of species that a vessel is legally able to target and retain. Discards are included in a vessel's total catch. Discards can occur for various reasons and in a variety of ways such as discarding of non-targets species, fish falling off of processing conveyor belts, dumping of large portions of nets before bringing them on-board the vessel, dumping fish from the decks, size sorting by crewmen, and quality-control. In each target fishery the discard rates can be high for non-target species. For the most common species (e.g. pollock and cod) retention requirements can reduce the amount of discards for these species. The discard rate is the percent of total catch of a species that is discarded. Details on discard estimation can be found in Cahalan *et al.* (2014). The discards in the groundfish fisheries have received significant management attention by NMFS, the Council, Congress, and the public at large. Table 6 presents CAS estimates of discarded groundfish catch and discard rates (calculated as the percent of total catch that is discarded) by gear, area, and species for years 2011-2015. Tables 7-10 provide estimates of discarded catch and discard rates by species, area, gear, and target fishery.

### *Prohibited-Species Catch*

Prohibited-species catch (PSC) is the catch of species that a vessel is prohibited from targeting and retaining due to their economic value to users outside the FMP groundfish fisheries. These species include Pacific halibut, king and tanner crab (*Chionoecetes*, *Lithodes*, and *Paralithodes spp.*), Pacific salmon (*Oncorhynchus spp.*), and Pacific herring (*Clupea pallasii*). Monitoring and minimizing the amount PSC in the Alaska groundfish fisheries has historically been an issue that has received significant management attention. The retention of these species was prohibited first in the foreign groundfish fisheries to ensure that groundfish fishermen had no incentive to target these species. Estimates of PSC for 2011-2015 are summarized by area and gear in Table 11. More detailed estimates of PSC and of PSC rates for 2014 and 2015 are in Tables 12-15. Details on PSC estimation can be found in Cahalan *et al.* (2014).

The at-sea observer program was developed for the foreign fleets and then extended to the domestic fishery. The observer program, managed by the Fisheries Monitoring and Analysis Division (FMA) of the Alaska Fisheries Science Center, resulted in fundamental changes in the nature of the PSC problem. First, by providing estimates of total groundfish catch and non-groundfish PSC by species, it reduced the concern that total fishing mortality was being vastly underestimated due to fish that were discarded at sea. Second, it made it possible to establish, monitor, and enforce the groundfish quotas in terms of total catch as opposed to only retained catch. Third, it made it possible to implement and enforce PSC quotas for the non-groundfish species that by regulation had to be discarded at sea. Finally, it provided extensive information that managers and the industry could use to assess methods to reduce PSC and PSC mortality. In summary, the observer program provided fishery managers with the information and tools necessary to prevent PSC from adversely affecting the stocks of the PSC species. An example of how this program is being used is the Bering Sea pollock fishery, which became completely observed in 2011. As a result, salmon PSC estimates in the Bering Sea are a census rather than a sample and since 2011, there has been a fixed "hard cap" in the fishery. The information from the observer program helps identify the types of information and management measures that are required to reduce PSC to the extent practicable, as is required by the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

### 2.2.2 *Ex-Vessel Prices and Value*

The ex-vessel market is the transaction of catch delivered by vessels to processors. Tables 16 through 24 summarize data on ex-vessel prices and value of Alaska groundfish fisheries, with Tables 19 through 22 including only groundfish catch counted against federal TACs. Tables 16, 17, 23, and 24 additionally including groundfish catch and/or pricing data from state-managed fisheries. In general, ex-vessel prices are derived from Commercial Operator Annual Report buying reports. Some catcher-vessels minimally processes (e.g., head-and-gut) the catch prior to delivery to the processor. The value of this on-board processing is discounted from the ex-vessel price so that it represents the round-weight (unprocessed) prices of the retained catch. Ex-vessel value is calculated by multiplying ex-vessel prices by retained catch. For the at-sea sector much of catch is both caught and processed for first-wholesale distribution by a single entity and as such a true “ex-vessel” market does not exist. For national accounting purposes the “ex-vessel” value of the at-sea sector are calculated by applying COAR buying prices for the corresponding species (group), region, and gear-type of the retained catch. For a subset of fisheries that are prosecuted primarily by the at-sea catcher/processor fleet, and for which COAR buying data are sparse, we impute prices as a percentage (40%) of the estimated wholesale value per round weight. This percentage reflects the long-term average of the ratio ex-vessel prices to head-and-gut (H&G) processed-product prices for species (primarily Pacific cod) that are well represented in COAR buying and production reports. Ex-vessel prices and value include post-season adjustments. Additional details on pricing methodology are available in metadata for these tables accessible at [http://www.afsc.noaa.gov/REFM/Socioeconomics/SAFE/CSV\\_groundfish/metadata/groundfish\\_exvessel\\_value\\_metadata.pdf](http://www.afsc.noaa.gov/REFM/Socioeconomics/SAFE/CSV_groundfish/metadata/groundfish_exvessel_value_metadata.pdf).

Table 18 contains estimated ex-vessel prices that are used with estimates of retained catch to calculate ex-vessel values (gross revenues). Prices in this table may include data from both federally-managed and state-managed fisheries. Estimates of ex-vessel value by area, gear, type of vessel, and species are presented in Table 19.

Tables 20 and 21 summarize the ex-vessel value of catch delivered to shoreside processors by vessel-size class, gear, and area. Table 20 gives the total ex-vessel value in each category and Table 21 gives the ex-vessel value per vessel. Table 22 provides estimates of ex-vessel value by residency of primary vessel owners, area, and species. For the BSAI and GOA combined, 74.2% of the 2015 ex-vessel value was accounted for by vessels with primary owners who indicated that they were not residents of Alaska.

Table 23 presents estimates of ex-vessel value of catch delivered to shoreside processors, and Table 24 gives the ex-vessel value of groundfish as a percentage of the ex-vessel value of all species delivered to shoreside processors.<sup>2</sup> Data in both tables are summarized by processor groupings determined primarily by their geographical locations. Refer to the table footnotes for additional details on processor groupings.

An additional set of tables in the appendix, Tables 16.B-24.B, present ex-vessel prices and value utilizing prices derived from ADF&G fish tickets priced by the Alaska Commercial Fisheries Entry Commission (CFEC). This provides an alternative source of ex-vessel prices to the COAR purchasing data that has historically been used to assemble Tables 16-24. CFEC fish ticket prices reflect individual transactions reported on shoreside and mothership landing reports, adjusted by analysts with consideration to COAR buying data, and therefore may be subject to additional

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<sup>2</sup>This including catch in non-Federal fisheries. See table notes for details.



scrutiny. Work is ongoing to analyze and characterize differences between the two pricing methods, and we are working with industry to get their perspective on which source may best reflect the pricing conditions faced by their companies. Until we have finalized this analysis we will retain the COAR pricing in the main body of the status report (Section 4: Tables 16-24) and include the CFEC pricing in the appendix. Note that Tables 16.B-24.B are valid only for the years after 2003.

### *2.2.3 First Wholesale Production, Prices and Value*

The first wholesale market is the first sale onto the wholesale market of fisheries products after initial processing by a commercial processor with a Federal Processor Permit (FPP).<sup>3</sup> Groundfish first wholesale production data summarized in Tables 25 through 35 are sourced from at-sea and shoreside groundfish production reports. Product pricing and value reflect COAR product report price data appended to these production data per the AKFIN product pricing index. While groundfish production reports are a federal reporting requirement, there is typically no distinction made in this reporting between product derived from federally-managed catch and product derived from state-managed catch. Likewise, while COAR production reports include the area of processing, these data are insufficient for identifying the fishery inputs for units of finished production. As such, these tables reflect production volume and pricing from federal and some state-managed fisheries. Wholesale value and prices in Tables 25-35 are given as F.O.B. (Free On Board) Alaska, indicating that transportation costs are not included in values and prices.

Estimates of first wholesale weight and value (gross revenue) of the processed products sourced from catch of BSAI and GOA groundfish are presented by species, product form, area, and type of processor in Tables 25, 28, and 29. Product price-per-pound estimates are presented in Table 26, and estimates of total first wholesale product value per round metric ton of retained catch are reported in Table 27. For Table 27, we source the round weight of retained catch from CAS data rather than using product recovery rates to derive round weights from production data.

Table 30 reports estimates of the weight and first wholesale value of processed products from catch in the non-groundfish commercial fisheries of Alaska. As with the ex-vessel value estimates reported in Table 16, Tables 30 and 25 used together provide a means of comparing the value of groundfish and non-groundfish fisheries in Alaska.

Gross product value of Alaska groundfish is summarized by processing sector and area in Table 31. Table 32 and Table 33, respectively, summarize first wholesale value and value per vessel for the catcher/processor sector, stratified by vessel category, length, and area. Vessel categories are assigned by vessel rather than by trip; categorization methods are described in metadata for these tables available at [http://www.afsc.noaa.gov/REFM/Socioeconomics/SAFE/CSV\\_groundfish/metadata/groundfish\\_first\\_wholesale\\_value\\_metadata.pdf](http://www.afsc.noaa.gov/REFM/Socioeconomics/SAFE/CSV_groundfish/metadata/groundfish_first_wholesale_value_metadata.pdf).

Tables 34 and 35 present the gross product value of groundfish processed by shoreside processors and the groundfish gross product value as a percentage of all-species gross product value, with both tables reported by the same processor groupings used in Tables 23 and 24. Data in these tables are summarized from COAR product reporting, and no distinction is made between state-managed and federally-managed groundfish sources of production.

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<sup>3</sup>An FPP is required for all processors receiving and/or processing groundfish harvested in Federal waters.

#### *2.2.4 Counts and Average Revenue of Vessels That Meet a Revenue Threshold*

For the purposes of Regulatory Flexibility Act analyses, a business involved in fish harvesting is defined by the National Marine Fisheries Service (NMFS) as a small business if it is independently owned and operated, and is not dominant in its field of operation (including its affiliated operations worldwide). As of December 29, 2015, the NMFS defines small entity size standards for finfish fishing (NAICS code 114111) and shellfish fishing (NAICS code 114112) vessel are defined as those that have combined annual receipts across all revenue sources no greater than \$11 million.<sup>4</sup> Prior to December 29, 2015 Regulatory Flexibility Act analyses used the Small Business Administration (SBA) size standards which defined a small entity size for finfish fishing and shellfish fishing industries as those that have combined annual receipts across all revenue sources no greater than \$20.5 million and \$5 million, respectively.

Tables 36 - 39b present estimated counts and average revenues of entities with catch in federally-managed Alaska groundfish fisheries in, reported by NMFS entity size standard. Entities are classified as large or small for a given year using their average annual gross revenues over the three most recent years. Beginning with the reporting of 2013 data, which draws on more complete accounting of groundfish bycatch in directed halibut fisheries, we include vessels with indirect catch of groundfish while targeting halibut among the entities reported in these tables.

Estimates of gross revenue include revenue streams from ex-vessel landings (for catcher vessels) and first wholesale production (for catcher/processors) of groundfish and other species. Available sources of data on Alaska fisheries revenue include the CFEC gross earnings file, COAR product reports, and federal groundfish production data priced via AKFIN's product price index. Data on ex-vessel revenue from federal West Coast fisheries, including the imputed ex-vessel value of the at-sea whiting fishery, have also been incorporated into revenue estimates for the relevant entities to maintain consistency with the size standard requirement that all revenue sources be used. It should be noted that current methods for calculating gross revenue are likely to overestimate the number of small entities and underestimate the number of large entities, as vessels may have additional revenue streams (e.g., tendering activity) not represented in these data sets. We also lack information necessary to determine if a vessel is independently owned and operated, although we attempt in some tables to report counts and average revenues accounting for known affiliations among vessels, as described further below.

Estimates of fishing vessels that are clearly large entities and those that are potentially small entities are presented in Tables 36 and 37a, respectively. Estimates of the average annual revenue per vessel are presented in Table 38 for large entity vessels and in Table 39a for the small entity vessels. These tables treat vessels as proxies for entities, in that revenue and entity size are determined for each vessel individually without regard to affiliated vessels.

An alternative set of tables, Tables 37b and 39b, show small entity counts and average annual revenues per entity taking into account known affiliations among vessels. These tables utilize information on cooperative affiliations in the AFA pollock, Amendment 80 non-pollock trawl, Central Gulf of Alaska rockfish, Bering Sea & Aleutians Islands crab, and freezer longliner BSAI Pacific cod fisheries, in addition to known corporate affiliations among vessels. Group revenue for these affiliations is calculated as the total revenue across all member vessels; group revenue is used to determine small or large entity status for affiliations. Entity size for all affiliations is determined

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<sup>4</sup><https://federalregister.gov/a/2015-32564>

with respect to the finfish small entity standard, with the exception of crab cooperatives, which are subject to the shellfish standard.

### *2.2.5 Effort (Fleet Size, Weeks of Fishing, Crew Weeks)*

Tables 40 through 50 present data on selected measures of fishing capacity and effort in federally-managed Alaska groundfish fisheries, including fleet size, duration of fishing, and levels of harvesting and processing employment. Data for these tables are sourced from catch accounting data, ADF&G groundfish fish tickets, North Pacific groundfish observer data, and at-sea groundfish production reports. Note that these tables are not directly useable or comparable with Tables 36-39b in that they do not count vessels and trips for fishing activity where halibut is identified as the target species.

Vessel counts and registered net tonnage of vessels in the groundfish fisheries are presented by area and gear in Table 40, and the numbers of vessels that landed groundfish are depicted in Fig. 6 by gear type. More detailed measures of vessel participation stratified by target, vessel type, length class, catch volume, residency of vessel owners, and month are shown in Tables 41-47, with Tables 42 and 44 additionally reporting mean length and net tonnage for vessels in these strata. In particular, Table 43 gives the numbers of smaller (i.e., less than 60 feet in length) hook-and-line catcher vessels.

Tables 48 and 49 provide estimates of vessel weeks for catcher vessels and catcher/processors, respectively, stratified by length class, area, gear, and target fishery. Vessel weeks are apportioned by catch volume in cases where a vessel is identified with activity in multiple gears, areas, and/or targets in a given week.

At-sea groundfish production reports, which include data on the number of licensed crew working aboard motherships and catcher/processors, provide the source for reporting of “crew weeks” by month and area in Table 50. A single crew week represents one crew member aboard one vessel for a week. Crew weeks are apportioned by catch volume in cases where a vessel is identified with activity in multiple areas in a given week. These data do not include employment levels in the shoreside and inshore processing sectors. Future versions of this report may include reporting of harvest crew employment in the catcher vessel sector, data which are now collected in groundfish landing reports.

### *2.2.6 Economic Data Tables for the Commercial Pacific Halibut Fishery*

Pacific halibut fisheries in Alaska is managed jointly by the NMFS, the NPFMC, the state of Alaska, and the International Pacific Halibut Commission (IPHC). The IPHC was established through a Convention between the United States and Canada to research the biology of Pacific halibut and conduct stock assessments which are used to establish catch levels in each country.<sup>5</sup> Under the authority of the NMFS, the NPFMC allocates the halibut resource among the user groups (commercial, recreational, and subsistence fisheries and sets bycatch limits for fisheries with incidental halibut catch) and NMFS enforces U.S. regulations. The state of Alaska permits fishermen and assists in monitoring and reporting, particularly of recreational and subsistence harvests.<sup>6</sup> Since 1995 the commercial halibut fisheries off Alaska have been managed as a catch share fishery through

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<sup>5</sup>[www.iphc.int/home.html](http://www.iphc.int/home.html)

<sup>6</sup><http://www.adfg.alaska.gov/index.cfm?adfg=halibut.management>

the Individual Fisheries Quota (IFQ) program and the Community Development Quota (CDQ) program.

Prior to 2014 this report included only limited data on halibut because it is not an FMP managed species and the Alaska Fisheries Science Center does not conduct the Pacific halibut stock assessment. Beginning in 2014, economic data tables for Pacific halibut are included in this report to provide management and the public a consolidated source for economic information of fisheries activity for species harvested in the federal waters off Alaska. Economic data tables in Section 4 for Pacific halibut are provided separate from the FMP managed groundfish because of its unique management status. Moreover, halibut management units (e.g., areas) do not match the definitions used for FMP Groundfish making it infeasible to append halibut data directly to the economic data tables for the FMP groundfish.

The economic data in Tables H1A-H13 are only for the commercial fishing sector. Tables H1A-H2 display Pacific halibut commercial landings (net weight retained catch). Table H3 displays prohibited species catch (of non-halibut species) on commercial trips where was the halibut target species. Ex-vessel value and price are displayed by various management areas, vessel length, and ports in Tables H4A-H6. First-wholesale production, value, and prices by product type is displayed in Table H7 and value by region in Table H8. Fishing effort as measured by: vessel counts are displayed in Tables H9-H11; days fishing are displayed in Table H12; crew weeks are displayed in Table H13.

#### *2.2.7 Description of the Category “Other” in Data Tables*

- TABLE 1A: “Other shellfish” comprises shellfish other than crab, including abalone, mussel, clam, oyster, scallop, sea cucumber, sea urchin, shrimp, and snails. Note that octopus and squid are reported as groundfish as they are managed under the BSAI and GOA groundfish FMPs.
- TABLE 4, 8: “Other flatfish” in the BSAI include Alaska Plaice and species within the BSAI other flatfish management complex, including starry flounder and dover, rex, butter, English, petrale, and sand sole.
- TABLE 11, 12: “Other salmon” are non-Chinook salmon species (sockeye, coho, pink, chum). “Other King crab” are blue, golden (brown), and scarlet king crab species. “Other Tanner crab” are snow, grooved, and triangle Tanner crab species.
- TABLE 12, 14: “Other groundfish” are octopus, sculpin, shark, skates, and squid.
- TABLE 13, 15: “Other flatfish” in the BSAI include Alaska Plaice and species within the BSAI other flatfish management complex (starry flounder and dover, rex, butter, english, petrale, and sand sole)
- TABLE 25, 26, 28, 29: “Other fillets” for pollock include fillets with skin and ribs; fillets with skin, no ribs; fillets with ribs, no skin; and skinless/boneless fillets
- TABLE 26: “Flat Other” includes BSAI Alaska Plaice and species within the BSAI other flatfish management complex (starry flounder and dover, rex, butter, english, petrale, and sand sole)
- TABLE 27: “Other” species are primarily skate, squid, octopus, shark, and sculpin.

- TABLE 30: “Other” includes lingcod, non-crab shellfish (mussel, clam, scallop, shrimp), and various freshwater and anadromous finfish species other than federally managed groundfish, salmon, halibut, and herring (e.g., whitefish, trout, Arctic char).

### 2.2.8 Additional Notes

- Confidential values are excluded from the computation of aggregates (e.g. sums and averages) within a table. This is particularly important to remember for highly stratified tables, such as Tables 19, 20, 25, and 26. Care should be taken when comparing totals from tables containing values suppressed for confidentiality. In general, preference should be given to aggregate numbers from less stratified tables.
- Within the data tables, numbers that are smaller than the level of precision used within the table are printed as '0'. For example, if a table uses the one decimal place level of precision, then an actual value of '0.01' is presented in the table as '0'.
- The Personal Consumption Expenditures: chain-type price index <https://research.stlouisfed.org/fred2/series/PCEPI> was used to deflate the ex-vessel and first wholesale value estimates reported in Tables 16. The PCE is used to adjust to fishermen’s ex-vessel revenues to account for the change in general US consumption expenditures. The GDP: chain-type price index <https://research.stlouisfed.org/fred2/series/GDPCTPI> was used to deflate the ex-vessel and first wholesale value estimates reported in Tables 30. The GDP price index is used to adjust to fishermen’s wholesale production revenues to account for the change in general US production prices. The use of these indices began in 2014. Before 2014 this annual report used the Producer Price Index (PPI) for unprocessed and packaged fish was used for real adjustments (<http://data.bls.gov/cgi-bin/srgate>, using the series ID ‘WPU0223’).
- Estimates of U.S. imports and per-capita consumption of various fisheries products, previously published in Table 54-56 of this report, are available in Fisheries of the United States (FUS), published annually by the NMFS Office of Science & Technology. The 2015 FUS is available at: <http://www.st.nmfs.noaa.gov/Assets/commercial/fus/fus12/index.html>.
- Annual and monthly U.S. economic indicators (producer and consumer price indices), published in past years in Tables 57 and 58 are available from the U.S. Department of Labor Statistics at: <http://www.bls.gov/data/sa.htm>.
- Foreign exchange rates, which we’ve previously published in Tables 59 and 60, are available from the U.S. Federal Reserve Board (for all currencies except the Icelandic kronur) at: [www.federalreserve.gov](http://www.federalreserve.gov). Exchange rates for Iceland’s kronur are available at: [www.oanda.com](http://www.oanda.com).
- The information provided by the FMA division of the AFSC has had a key role in the monitoring of total allowable catches (TACs), catch of prohibited species. In recent years, observer data for individual vessel accounting has been important in the management of the CDQ program, AFA pollock, BSAI crab, Amendment 80 fisheries, as well as others. In addition, much of the information that is used to assess the status of groundfish stocks, to monitor the interactions between the groundfish fishery and marine mammals and sea birds, and to analyze fishery management actions is provided by the FMA.

- Observer coverage costs: In previous years, Table 51 provided estimates of the numbers of vessels and plants with observers, the numbers of observer-deployment days, and observer costs by year, and type of operation. In 2013, the restructured observer program was implemented and more detailed treatment of observer cost estimates can be found in the Observer Annual Report at: <http://alaskafisheries.noaa.gov/fisheries/observer-program-reports>.

### 2.3. Request for Feedback

The data and estimates in this report are intended both to provide information that can be used to describe the Alaska groundfish fisheries and to provide the industry and others an opportunity to comment on the validity of these estimates. We hope that the industry and others will identify any data or estimates in this report that can be improved and provide the information and methods necessary to improve them for both past and future years. There are two reasons why it is important that such improvements be made. First, with better estimates, the report will be more successful in monitoring the economic performance of the fisheries and in identifying changes in economic performance that may be attributable to regulatory actions. Second, the estimates in this report often will be used as the basis for estimating the effects of proposed fishery management actions. Therefore, improved estimates in this report will allow more informed decisions by those involved in managing and conducting the Alaska groundfish fisheries. The industry and other stakeholders in these fisheries can further improve the usefulness of this report by suggesting other measures of economic performance that should be included in the report, or other ways of summarizing the data that are the basis for this report, and participating in voluntary survey efforts NMFS may undertake in the future to improve existing data shortages. An online survey to facilitate user feedback is available at: [http://www.afsc.noaa.gov/REFM/Socioeconomics/Contact/SAFE\\_survey.php](http://www.afsc.noaa.gov/REFM/Socioeconomics/Contact/SAFE_survey.php).

### 2.4. Citations

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### 3. FIGURES REPORTING ECONOMIC DATA OF THE GROUND FISH FISHERIES OFF ALASKA

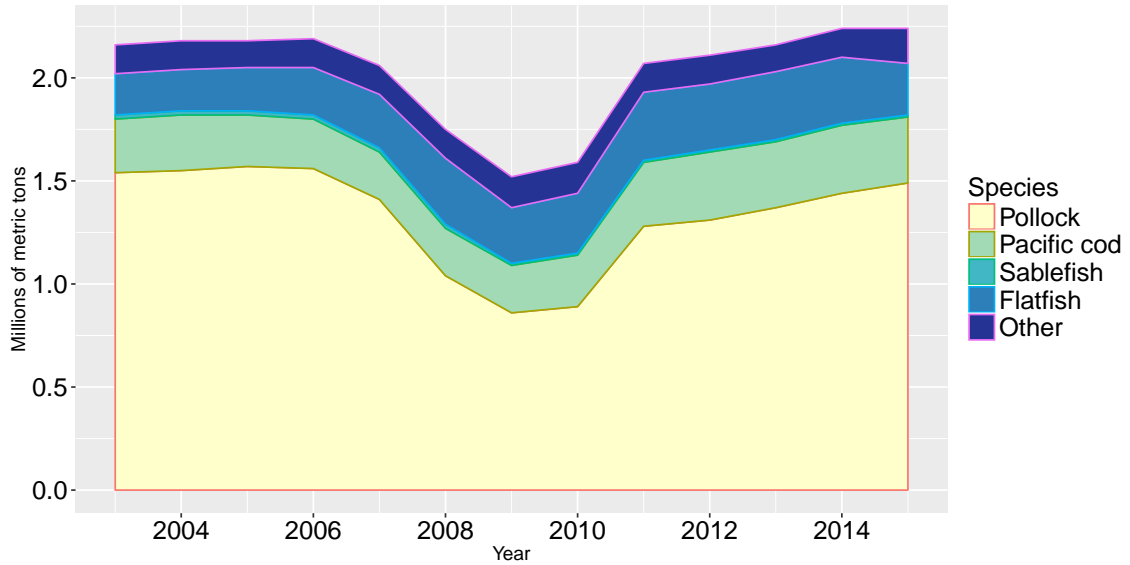


Figure 1: Groundfish catch in the commercial fisheries off Alaska by species, 2003-2015.

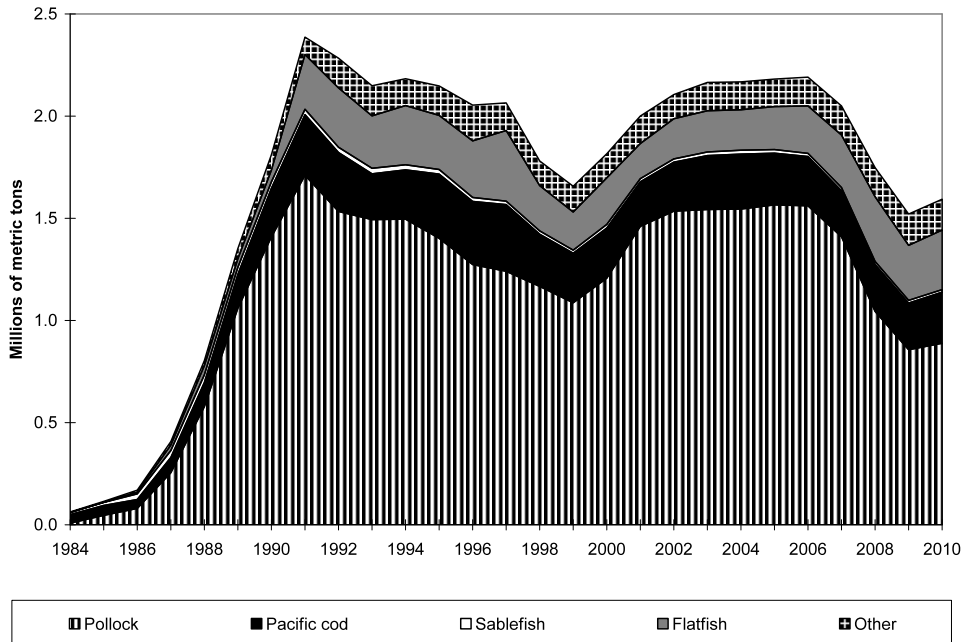


Figure 2: Groundfish catch in the domestic commercial fisheries off Alaska by species, (1984-2010).  
**Notes:** Catch for 2011 and onward are displayed in Figure 1.



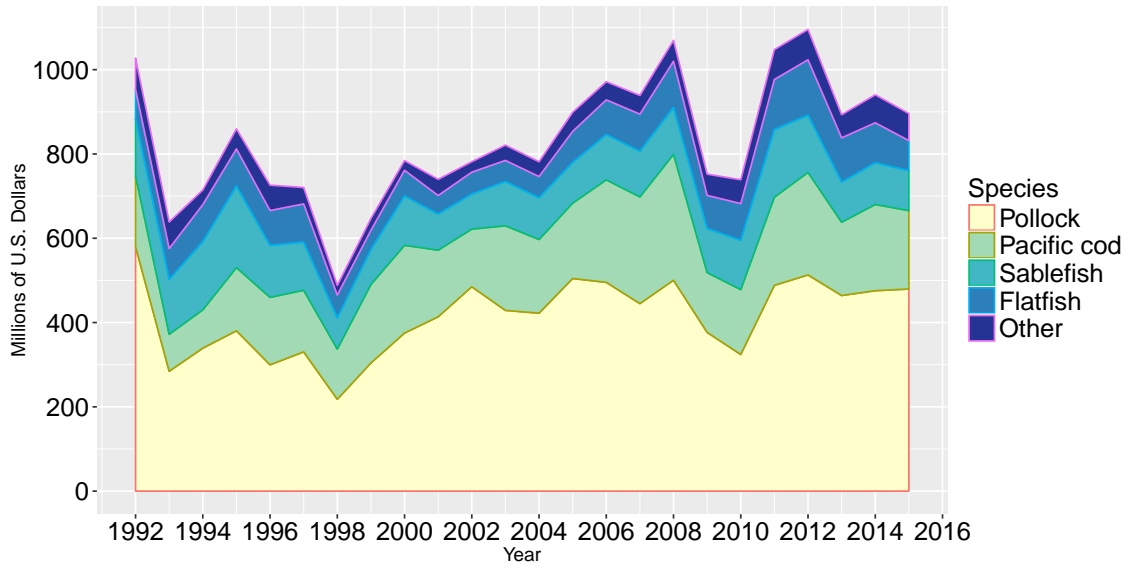


Figure 3: Real ex-vessel value of the groundfish catch in the domestic commercial fisheries off Alaska by species, 1992-2015 (base year = 2015).

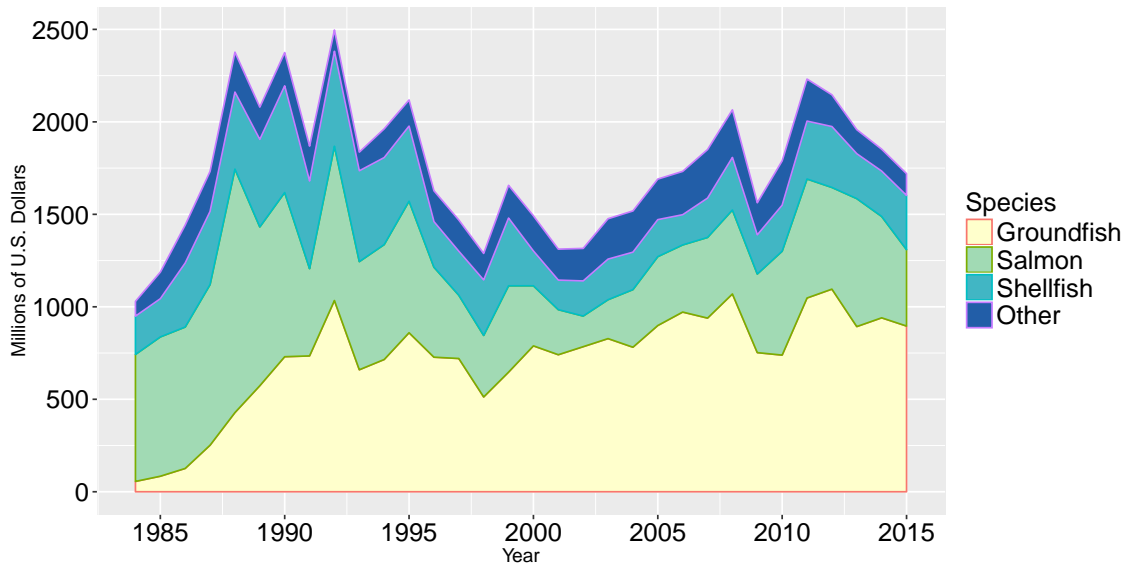


Figure 4: Real ex-vessel value of the domestic fish and shellfish catch off Alaska by species group, 1984-2015 (base year = 2015).

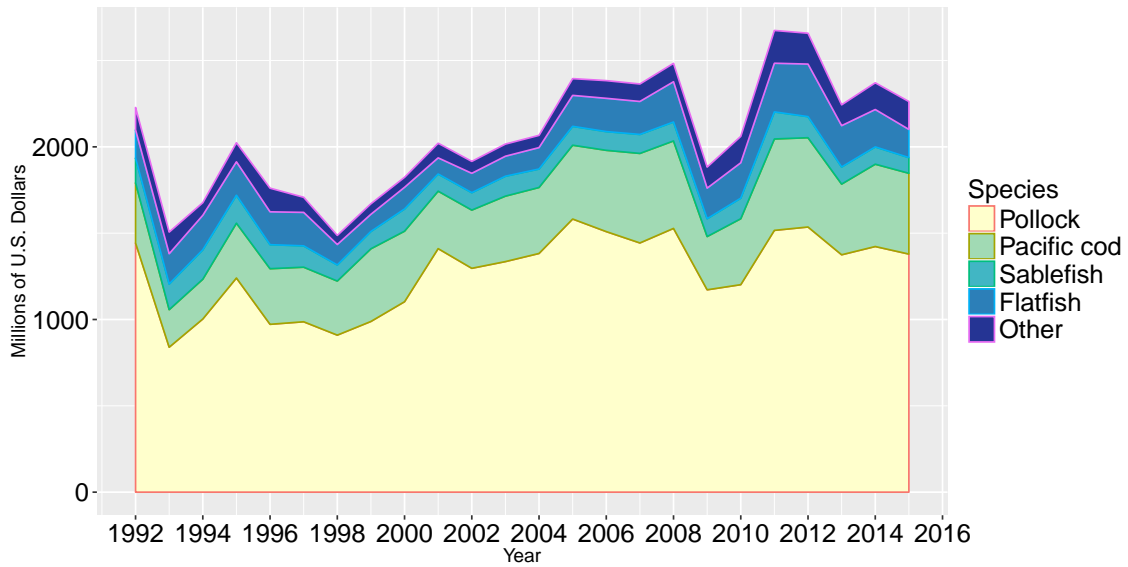


Figure 5: Real gross product value of the groundfish catch off Alaska by species, 1992-2015 (base year = 2015).

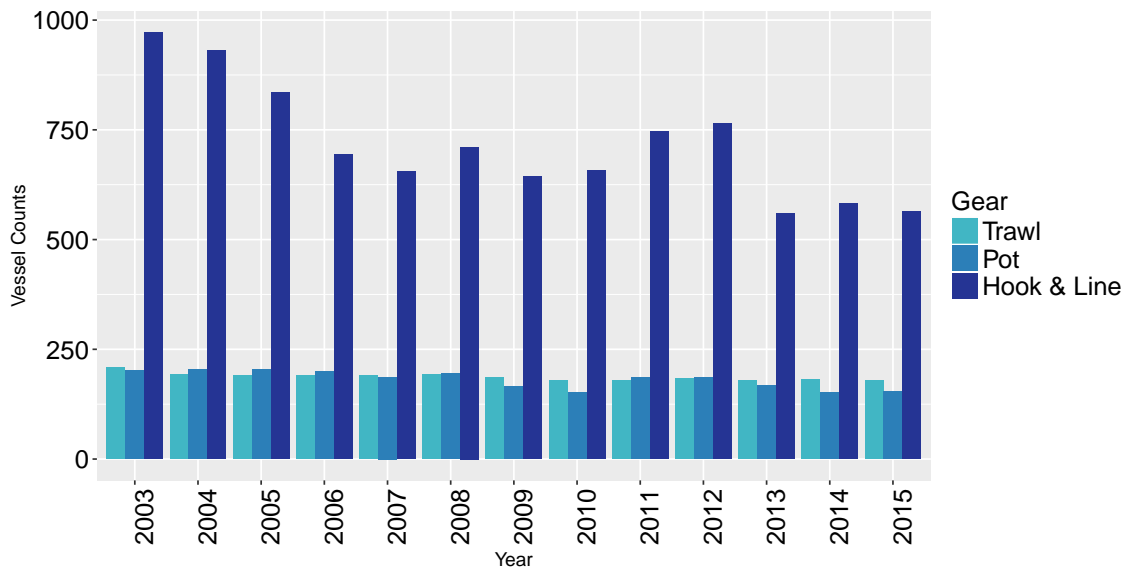


Figure 6: Number of vessels in the domestic fishery off Alaska by gear type, 2003-2015.

#### 4. TABLES REPORTING ECONOMIC DATA OF THE GROUND FISH FISHERIES OFF ALASKA

Table 1: Groundfish catch in the commercial fisheries of Alaska by area and species, 2006-2015 (1,000 metric tons, round weight).

	Year	Pollock	Sablefish	Pacific Cod	Flatfish	Rockfish	Atka Mackerel	Total
Gulf of Alaska	2006	72.0	14.6	47.9	42.3	24.5	0.9	210.3
	2007	52.7	14.7	52.3	40.5	23.6	1.5	192.4
	2008	52.6	13.6	59.0	45.7	23.1	2.1	202.6
	2009	44.2	12.0	53.2	42.3	22.8	2.2	185.6
	2010	76.7	10.9	78.3	37.7	25.5	2.4	238.7
	2011	81.4	12.0	85.2	41.1	23.1	1.6	251.7
	2012	104.0	12.7	78.0	29.5	27.4	1.2	258.9
	2013	96.4	12.8	68.6	33.9	24.9	1.3	250.2
	2014	142.6	11.1	84.8	47.6	28.8	1.0	326.2
	2015	167.6	11.1	79.0	26.7	29.0	1.2	324.1
Bering Sea & Aleutian Islands	2006	1,489.8	2.2	193.0	189.5	17.7	61.9	1,982.6
	2007	1,357.0	2.4	174.5	216.2	23.6	58.7	1,860.4
	2008	991.9	2.0	171.0	270.0	21.7	58.1	1,545.7
	2009	812.5	2.0	175.8	226.3	19.5	72.8	1,337.1
	2010	811.6	1.8	171.9	253.3	23.5	68.6	1,354.5
	2011	1,200.4	1.7	220.1	285.9	28.2	51.8	1,817.8
	2012	1,206.3	1.9	250.9	291.2	28.1	47.8	1,857.8
	2013	1,273.8	1.7	250.3	297.2	34.9	23.2	1,914.5
	2014	1,300.2	1.1	249.3	276.0	36.1	31.0	1,928.3
	2015	1,323.2	0.6	242.0	219.2	39.6	53.3	1,914.0
All Alaska	2006	1,561.8	16.9	240.9	231.8	42.2	62.8	2,192.9
	2007	1,409.7	17.0	226.7	256.7	47.2	60.2	2,052.8
	2008	1,044.4	15.7	230.0	315.7	44.8	60.2	1,748.3
	2009	856.8	14.0	229.0	268.6	42.3	75.0	1,522.7
	2010	888.4	12.7	250.2	291.0	49.0	71.1	1,593.2
	2011	1,281.8	13.7	305.3	327.0	51.3	53.4	2,069.4
	2012	1,310.2	14.6	328.9	320.7	55.5	49.0	2,116.6
	2013	1,370.1	14.5	318.9	331.1	59.8	24.5	2,164.7
	2014	1,442.9	12.3	334.2	323.6	64.9	32.0	2,254.6
	2015	1,490.8	11.7	321.1	245.9	68.7	54.5	2,238.1

**Notes:** These estimates include catch from both federal and state of Alaska fisheries.

**Source:** NMFS Office of Science and Technology, Fisheries Statistics Division, Fisheries of the United States. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 1A: Catch of species other than groundfish in the domestic commercial fisheries, 2001-2015 (1,000 metric tons).

Year	Crab	Other Shellfish	Salmon	Halibut	Herring	Total
2001	21.4	2.8	311.3	33.7	38.4	407.8
2002	26.3	3.8	237.3	35.4	31.7	334.3
2003	25.8	2.5	286.0	34.8	31.3	380.4
2004	23.9	3.6	316.6	34.7	32.2	410.9
2005	25.9	2.9	395.7	33.5	38.9	496.9
2006	31.4	2.5	287.8	31.4	36.2	389.2
2007	32.1	2.1	390.7	30.5	30.5	485.8
2008	45.1	2.3	290.4	29.3	38.2	405.4
2009	40.6	2.2	304.6	26.2	39.4	413.0
2010	36.1	2.1	343.3	24.9	49.2	455.6
2011	36.5	1.7	334.8	18.7	44.7	436.5
2012	50.8	1.9	277.6	14.7	34.0	379.0
2013	39.5	1.8	459.3	13.0	38.6	552.3
2014	38.6	1.8	309.9	9.8	43.9	404.1
2015	55.0	2.2	472.1	10.4	31.1	570.7

**Notes:** These estimates include catch from both federal and state of Alaska fisheries

**Source:** NMFS Office of Science and Technology, Fisheries Statistics Division, Fisheries of the United States. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 2: Groundfish catch off Alaska by area, vessel type, gear and species, 2011-2015 (1,000 metric tons, round weight).

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
		Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total
Sablefish	2011	9	1	10	1	0	1	10	1	11
	2012	10	1	11	1	0	1	11	1	12
	2013	10	1	11	1	0	1	11	1	12
	2014	9	1	9	1	0	1	9	1	10
	2015	9	0	9	0	0	0	9	1	10
Pacific Cod	2011	9	8	17	1	117	119	10	126	136
	2012	11	5	15	1	131	132	11	136	147
	2013	10	3	13	2	125	127	12	128	140
	2014	10	6	16	2	125	128	12	131	143
	2015	8	5	13	1	130	131	9	136	144
Hook & Line Flatfish	2011	0	0	0	0	4	4	0	4	5
	2012	0	0	0	0	5	5	0	5	5
	2013	0	0	1	0	3	3	1	3	4
	2014	0	0	0	0	4	4	0	4	4
	2015	0	0	0	0	4	4	0	4	5
Rockfish	2011	1	0	1	0	0	0	1	0	1
	2012	1	0	1	0	0	0	1	0	2
	2013	2	0	2	0	0	0	2	0	3
	2014	1	0	2	0	0	0	2	0	2
	2015	1	0	2	0	0	0	1	0	2
All Groundfish	2011	22	10	32	2	146	148	24	156	180
	2012	24	6	31	2	162	164	26	168	194
	2013	30	5	34	3	156	158	32	160	193
	2014	25	8	33	4	159	163	29	166	196
	2015	22	8	29	2	168	170	24	176	200

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Table 2: Continued

		Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska			
	Year	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total	
Pot	Pacific Cod	2011	29	*	29	25	3	28	54	3	57
		2012	21	*	21	23	5	29	45	5	50
		2013	17	-	17	23	7	30	40	7	47
		2014	20	-	20	24	8	31	44	8	51
		2015	21	-	21	22	8	30	43	8	51
Trawl	Pollock	2011	78	2	80	632	562	1,195	710	564	1,274
		2012	99	1	101	634	567	1,201	733	568	1,302
		2013	91	2	93	662	605	1,267	753	607	1,360
		2014	138	2	140	670	623	1,293	808	624	1,433
		2015	161	1	163	688	629	1,316	849	630	1,479
Trawl	Sablefish	2011	1	1	1	0	0	0	1	1	1
		2012	0	0	1	*	0	0	0	1	1
		2013	0	0	1	0	0	0	0	1	1
		2014	0	0	1	*	0	0	0	0	1
		2015	1	0	1	0	0	0	1	0	1
Trawl	Pacific Cod	2011	15	1	16	39	33	72	54	34	89
		2012	19	1	20	46	37	83	65	39	103
		2013	20	1	21	42	45	87	62	46	108
		2014	24	2	26	41	36	77	65	38	103
		2015	20	1	22	38	35	73	58	36	94
Trawl	Flatfish	2011	23	16	39	7	272	278	30	288	318
		2012	16	11	27	6	272	277	22	282	304
		2013	20	12	31	4	275	279	24	287	311
		2014	20	24	44	4	260	264	25	284	308
		2015	13	11	24	13	202	214	26	213	238

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Table 2: Continued

		Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
	Year	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total
Rockfish	2011	9	13	22	1	26	27	10	39	49
	2012	11	15	26	0	25	26	12	40	52
	2013	10	13	23	0	32	32	10	45	55
	2014	12	15	27	0	33	33	12	48	60
	2015	11	15	27	4	36	39	15	51	66
Trawl Atka Mackerel	2011	0	1	1	5	46	52	5	48	53
	2012	0	1	1	1	43	44	1	44	45
	2013	0	1	1	0	21	21	0	23	23
	2014	0	1	1	0	28	28	0	29	29
	2015	0	1	1	3	50	53	4	51	54
All Groundfish	2011	128	35	162	686	949	1,634	813	983	1,797
	2012	148	30	179	689	953	1,642	837	984	1,821
	2013	144	30	173	710	989	1,698	854	1,018	1,872
	2014	196	44	241	718	987	1,706	915	1,032	1,946
	2015	209	31	240	748	956	1,704	957	987	1,944
All Gear All Groundfish	2011	180	45	224	714	1,098	1,812	893	1,143	2,036
	2012	195	36	231	714	1,121	1,835	909	1,157	2,065
	2013	191	34	225	736	1,151	1,888	927	1,186	2,113
	2014	243	52	295	747	1,154	1,901	990	1,206	2,196
	2015	252	38	291	773	1,133	1,906	1,025	1,171	2,196

**Notes:** The estimates are of total catch (i.e., retained and discarded catch). All groundfish include additional species categories. These estimates include only catch counted against federal TACs. Includes FMP groundfish catch on halibut targets. Beginning in 2013, CAS includes estimates of groundfish discards in halibut fishery “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 3: Gulf of Alaska groundfish catch by species, gear, and target fishery, 2014-2015 (1,000 metric tons, round weight).

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Flathead Sole	Rex Sole	Flat Deep	Flat Shallow	Rockfish	Atka Mackerel	All Species
Hook & Line	Pollock, Bottom	*	-	-	-	-	-	-	-	*	-	*
	Sablefish	0	8.8	0.1	0.2	0	-	0	0	1.1	-	10.7
	Pacific Cod	0.2	0	14.6	0	0	-	0	0	0.1	0	17.6
	Rockfish	0	*	0	-	-	-	-	-	0.1	-	0.1
	All Targets	0.2	9.5	15.8	0.3	0	-	0	0	1.5	0	32.7
2014 Pot	Sablefish	-	-	*	-	-	-	-	-	-	-	*
	Pacific Cod	0	0	20.0	0	0	*	-	0	0	0	21.4
	All Targets	0	0	20.0	0	0	*	-	0	0	0	21.4
	Pollock, Bottom	18.7	0	2.8	2.2	0.3	0.3	0	0.2	0.2	*	25.4
Trawl	Pollock, Pelagic	116.5	0	0.5	0.2	0.1	0	0	0	0.4	*	117.8
	Sablefish	0	0.1	0	0	0	0	0	0	0	-	0.2
	Pacific Cod	1.3	0	17.2	1.3	0.3	0.1	0	0.9	0.1	0	21.5
	Arrowtooth	1.5	0.2	3.0	29.4	1.3	1.8	0.1	0.7	2.6	0.5	42.2
	Flathead Sole	*	*	*	*	*	*	*	*	*	-	*
	Rex Sole	0	0	0.1	0.2	0	0.4	0	0	0.1	*	0.8
	Flatfish, Shallow	0.3	0	1.8	0.4	0.2	0	0	1.9	0	*	4.8
	Rockfish	1.3	0.5	0.6	1.4	0	0.1	0.1	0	23.2	0.4	27.9
	All Targets	139.7	0.9	26.0	35.1	2.2	2.7	0.3	3.8	26.7	1.0	240.7
	All Gear All Targets	139.9	10.4	61.8	35.4	2.2	2.7	0.3	3.8	28.3	1.0	294.8

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Table 3: Continued

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Flathead Sole	Rex Sole	Flat Deep	Flat Shallow	Rockfish	Atka Mackerel	All Species
Hook & Line	Pollock, Bottom	*	-	-	-	-	-	-	-	*	-	*
	Sablefish	0	8.5	0.1	0.1	0	-	0	0	1.1	0	10.4
	Pacific Cod	0.2	0	12.6	0	0	0	0	0	0.1	*	15.4
	Rockfish	0	-	0	-	-	-	-	-	0.1	*	0.1
	All Targets	0.2	9.3	13.1	0.2	0	0	0	0	0	1.6	0
2015 Pot	Pacific Cod	0.1	0	20.7	0	0	0	0	0	0	0	21.9
	All Targets	0.1	0	20.7	0	0	0	0	0	0	0	21.9
Trawl	Pollock, Bottom	12.2	0.1	1.1	1.3	0.3	0.1	0	0.3	0.1	0	15.9
	Pollock, Pelagic	147.1	0	0.6	0.4	0.2	0	0	0	0.1	0	149.1
	Sablefish	*	0.2	*	0	-	0	0	0	0.1	-	0.3
	Pacific Cod	0.8	0	17.5	1.1	0.3	0.1	0	1.0	0.2	0.1	21.8
	Arrowtooth	0.9	0.2	1.4	13.9	0.8	0.9	0.1	0.2	1.2	0	20.3
	Flathead Sole	*	*	*	*	*	*	*	*	*	-	*
	Rex Sole	*	*	*	*	*	*	*	*	*	*	*
	Flatfish, Shallow	0.2	0	0.4	0.1	0	0	*	0.9	0	*	1.7
	Rockfish	1.3	0.4	0.8	1.4	0	0.1	0	0	25.2	1.0	30.5
	All Targets	162.5	1.0	21.7	18.1	1.7	1.3	0.2	2.5	26.9	1.2	239.5
All Gear	All Targets	162.8	10.2	55.5	18.3	1.7	1.3	0.2	2.5	28.5	1.2	290.7

**Notes:** Totals may include additional categories. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area, and gear. These estimates include only catch counted against federal TACs. Includes FMP groundfish catch on halibut targets. Beginning in 2013, CAS includes estimates of groundfish discards in halibut fishery “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 4: Bering Sea and Aleutian Islands groundfish catch by species, gear, and target fishery, 2014-2015, (1,000 metric tons, round weight).

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Kamchatka Flounder	Flathead Sole	Rock Sole	Yellowfin	Flat Other	Rockfish	Atka Mackerel	All Species	
Hook & Line	Sablefish	*	0.7	*	0	0	*	-	-	0	0.2	0	1.1	
	Pacific Cod	6.0	0	127.5	0.5	0	0.6	0.1	1.9	0	0.1	0	159.8	
	Turbot	0	0	*	0	0	0	-	-	*	0	-	0.8	
	Rockfish	-	*	*	*	*	-	-	-	-	*	-	*	
	All Targets	6.0	0.7	127.7	0.6	0.1	0.6	0.1	1.9	0.1	0.4	0	163.0	
Pot	Sablefish	-	*	-	*	*	-	-	-	-	*	-	*	
	Pacific Cod	0	-	31.2	0	*	0	0	0.4	0	0	0	32.2	
	All Targets	0	*	31.2	0	*	0	0	0.4	0	0	0	32.2	
2014	Pollock, Bottom	47.7	0	1.1	0.3	0.1	0.6	1.9	1.2	0.3	0.2	0.1	54.2	
	Pollock, Pelagic	1,196.1	*	4.1	0.5	0.1	2.0	2.5	0.7	0.2	1.2	0	1,209.2	
	Sablefish	*	*	-	*	-	*	*	-	*	*	-	*	
	Pacific Cod	5.5	*	42.6	0.2	0	0.2	1.5	1.5	0.7	0	0	52.8	
	Arrowtooth	2.7	0	0.4	10.1	2.1	0.9	0	0	0.6	0.8	0.5	19.0	
	Kamchatka Flounder	0.4	0	0	1.0	2.0	*	*	*	0	0.1	0	3.8	
	Flathead Sole	4.1	-	2.3	1.7	0.2	6.9	1.7	2.9	1.0	0.1	*	21.3	
	Rock Sole	11.2	*	10.9	0.7	0.1	1.3	36.9	8.7	3.6	0	*	74.9	
	Turbot	*	*	*	*	*	*	*	*	*	*	*	-	*
	Yellowfin	23.8	*	14.3	2.1	0.5	3.9	6.8	133.9	16.4	0	*	204.7	
	Other Flatfish	0	-	0	0	0	*	*	*	0	0	*	0.1	
	Rockfish	0.9	0	0.3	0.7	0.6	0	0	0	0.1	25.3	1.8	30.1	
	Atka Mackerel	0.6	0	0.9	1.0	0.6	*	0	-	0	5.7	25.8	35.4	
	All Targets	1,293.1	0.1	76.9	18.3	6.3	15.8	51.3	148.8	22.9	33.4	28.2	1,705.6	
	All Gear	All Targets	1,299.1	0.8	235.8	19.0	6.4	16.4	51.4	151.1	22.9	33.9	28.2	1,900.8

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Table 4: Continued

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Kamchatka Flounder	Flathead Sole	Rock Sole	Yellowfin	Flat Other	Rockfish	Atka Mackerel	All Species
Hook & Line	Pollock, Bottom	*	-	-	*	*	*	-	-	-	*	-	*
	Sablefish	*	0.4	*	*	*	*	-	-	*	0.1	*	0.5
	Pacific Cod	7.0	0	131.1	0.7	0.1	0.5	0.1	1.8	0.1	0.2	0	167.6
	Turbot	0	0	*	0	0.1	0	-	*	*	0	*	1.4
	Rockfish	-	*	*	*	-	-	-	-	-	*	*	*
	All Targets	7.0	0.5	131.3	0.7	0.1	0.5	0.1	1.8	0.1	0.3	0	170.3
2015 Pot	Sablefish	-	0.1	-	0	0	-	-	-	-	0	-	0.1
	Pacific Cod	0	-	29.9	0	*	0	0	0.3	0	0	0	30.9
	All Targets	0	0.1	29.9	0	0	0	0	0.3	0	0	0	31.0
Trawl	Pollock, Bottom	36.6	*	0.9	0.1	0	0.3	0.6	0.4	0.1	0.6	0	40.4
	Pollock, Pelagic	1,240.6	0	7.4	0.3	0	1.9	1.1	0.5	0.1	2.1	0.2	1,256.8
	Pacific Cod	2.1	0	35.9	0.2	0	0.1	1.7	0.6	0.3	0	0	41.4
	Arrowtooth	1.4	0	0.3	5.1	0.7	0.6	0	0	0.4	0.3	*	9.7
	Kamchatka Flounder	0.9	0	0.1	1.0	2.6	*	*	-	0	0.1	0	4.9
	Flathead Sole	2.6	*	1.7	1.0	0.2	3.6	0.7	2.0	0.5	0	*	12.5
	Rock Sole	9.4	0	11.0	0.3	0	0.8	31.3	12.9	1.9	0	0	68.3
	Turbot	*	*	*	*	*	*	-	-	-	*	-	*
	Yellowfin	21.3	0	12.2	1.7	0.4	3.3	9.8	108.0	12.7	0	0	171.6
	Other Flatfish	0.3	*	0.3	0.1	0	0	0.1	0.6	0.9	*	-	2.3
	Rockfish	0.9	0	0.7	0.6	0.6	0.1	0	0	0	26.6	5.5	35.5
	Atka Mackerel	0.2	0	2.3	0.1	0.3	0	0.1	*	0	9.5	47.5	60.9
	All Targets	1,316.2	0	72.6	10.6	4.9	10.8	45.4	124.8	16.9	39.2	53.2	1,704.3
	All Gear All Targets	1,323.2	0.6	233.8	11.3	5.0	11.3	45.5	126.9	17.0	39.6	53.3	1,905.6

**Notes:** Totals may include additional categories. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area, and gear. These estimates include only catch counted against federal TACs. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5: Groundfish catch off Alaska by area, residency, and species, 2011-2015, (1,000 metric tons, round weight).

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
		Alaska	Other	Alaska	Other	Alaska	Other
Pollock	2011	30	50	229	972	259	1,021
	2012	39	62	212	994	252	1,056
	2013	32	61	231	1,043	263	1,104
	2014	59	81	227	1,073	286	1,155
	2015	66	97	238	1,085	304	1,182
Sablefish	2011	6	5	1	1	7	6
	2012	6	6	1	1	7	7
	2013	6	6	1	1	7	7
	2014	6	5	0	1	6	6
	2015	5	5	0	0	6	5
Pacific Cod	2011	41	22	53	167	94	189
	2012	38	19	58	188	95	207
	2013	31	21	59	187	90	208
	2014	40	23	54	183	94	206
	2015	41	15	54	180	95	195
Flatfish	2011	15	26	24	262	39	288
	2012	9	20	5	286	15	306
	2013	13	21	17	280	30	301
	2014	12	35	17	259	29	295
	2015	9	18	15	204	24	222
Rockfish	2011	4	19	1	27	5	46
	2012	6	21	0	28	6	49
	2013	6	19	0	34	7	53
	2014	7	22	0	36	7	58
	2015	6	22	1	38	8	61
Atka Mackerel	2011	0	2	0	52	0	53
	2012	0	1	0	48	0	49
	2013	0	1	0	23	0	24
	2014	0	1	0	31	0	32
	2015	0	1	0	53	0	54
All Groundfish	2011	100	126	313	1,505	413	1,631
	2012	102	132	282	1,570	384	1,703
	2013	96	133	314	1,595	410	1,728
	2014	129	170	306	1,610	435	1,780
	2015	134	161	317	1,589	451	1,750

**Notes:** These estimates include only catch counted against federal TACs. Catch delivered to motherships is classified by the residence of the owner of the mothership. All other catch is classified by the residence of the owner of the fishing vessel. All groundfish include additional species categories. Other includes catch by vessels for which residency information was unavailable. Includes FMP groundfish catch on halibut targets. Beginning in 2013, CAS includes estimates of groundfish discards in halibut fishery

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; and CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 6: Discards and discard rates for groundfish catch off Alaska by area, gear, and species, 2011-2015, (1,000 metric tons, round weight).

	Year	Fixed		Trawl		All Gear		
		Total Discards	Discard Rate	Total Discards	Discard Rate	Total Discards	Discard Rate	
Gulf of Alaska	Pollock	2011	0	20 %	2.0	2 %	2.0	2 %
		2012	0	21 %	1.9	2 %	2.0	2 %
		2013	0.1	32 %	2.4	2 %	2.4	3 %
		2014	0.1	31 %	1.4	1 %	1.5	1 %
		2015	0.1	31 %	1.2	1 %	1.3	1 %
	Sablefish	2011	0.4	4 %	0.2	16 %	0.6	5 %
		2012	0.3	2 %	0.1	8 %	0.3	3 %
		2013	0.7	6 %	0	6 %	0.8	6 %
		2014	0.5	5 %	0.1	8 %	0.6	5 %
		2015	0.7	7 %	0.2	17 %	0.9	8 %
	Pacific Cod	2011	1.4	1 %	0.7	4 %	2.1	1 %
		2012	0.3	0 %	0.7	3 %	1.0	1 %
		2013	2.3	5 %	2.3	11 %	4.6	7 %
		2014	1.7	3 %	3.5	13 %	5.2	6 %
		2015	0.9	2 %	0.8	4 %	1.7	2 %
Flatfish	2011	0.3	91 %	7.6	19 %	7.9	19 %	
	2012	0.3	90 %	5.6	19 %	5.9	20 %	
	2013	0.5	97 %	5.8	17 %	6.3	19 %	
	2014	0.3	96 %	3.9	8 %	4.2	9 %	
	2015	0.3	93 %	2.4	9 %	2.7	10 %	
Rockfish	2011	0.3	28 %	1.6	7 %	1.9	8 %	
	2012	0.5	33 %	1.6	6 %	2.0	8 %	
	2013	1.1	48 %	1.8	8 %	2.9	12 %	
	2014	0.7	40 %	2.3	8 %	2.9	10 %	
	2015	0.7	38 %	1.6	6 %	2.2	8 %	
Atka Mackerel	2011	0	99 %	0.5	35 %	0.5	35 %	
	2012	0	86 %	0.5	42 %	0.5	42 %	
	2013	0	99 %	0.4	36 %	0.4	36 %	
	2014	0	97 %	0.1	7 %	0.1	7 %	
	2015	0	100 %	0.3	26 %	0.3	27 %	
All Groundfish	2011	5.3	4 %	13.6	8 %	18.9	7 %	
	2012	3.2	4 %	11.5	6 %	14.7	6 %	
	2013	12.5	14 %	14.3	8 %	26.8	10 %	
	2014	9.7	10 %	12.8	5 %	22.5	7 %	
	2015	8.2	9 %	8.3	3 %	16.5	5 %	

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Table 6: Continued

		Fixed		Trawl		All Gear		
	Year	Total Discards	Discard Rate	Total Discards	Discard Rate	Total Discards	Discard Rate	
Bering Sea & Aleutian Islands	Pollock	2011	0.8	15 %	4.0	0 %	4.9	0 %
		2012	0.5	10 %	5.0	0 %	5.5	0 %
		2013	0.6	12 %	4.9	0 %	5.5	0 %
		2014	0.6	10 %	13.9	1 %	14.5	1 %
		2015	0.7	9 %	9.0	1 %	9.6	1 %
	Sablefish	2011	0	1 %	0	4 %	0	1 %
		2012	0	1 %	0	1 %	0	1 %
		2013	0	2 %	0	1 %	0	2 %
		2014	0	5 %	0	2 %	0	4 %
		2015	0	2 %	0	16 %	0	3 %
	Pacific Cod	2011	1.9	1 %	0.5	1 %	2.5	1 %
		2012	1.9	1 %	0.9	1 %	2.8	1 %
		2013	3.7	2 %	1.5	2 %	5.2	2 %
		2014	3.3	2 %	0.6	1 %	3.9	2 %
		2015	2.7	2 %	0.4	1 %	3.1	1 %
	Flatfish	2011	2.1	47 %	22.3	8 %	24.5	9 %
		2012	2.6	49 %	18.8	7 %	21.4	7 %
		2013	2.9	79 %	22.5	8 %	25.4	9 %
		2014	3.5	81 %	14.7	5 %	18.2	7 %
		2015	3.5	75 %	7.9	4 %	11.4	5 %
	Rockfish	2011	0.1	39 %	1.0	4 %	1.1	4 %
		2012	0.1	27 %	1.4	5 %	1.5	5 %
		2013	0.2	60 %	0.9	3 %	1.1	3 %
		2014	0.3	68 %	1.2	3 %	1.5	4 %
		2015	0.2	64 %	1.8	5 %	2.1	5 %
Atka Mackerel	2011	0	81 %	1.7	3 %	1.8	3 %	
	2012	0	54 %	1.3	3 %	1.3	3 %	
	2013	0	92 %	0.7	3 %	0.7	3 %	
	2014	0	95 %	0.4	1 %	0.4	1 %	
	2015	0	100 %	0.8	1 %	0.8	1 %	
All Groundfish	2011	20.5	12 %	37.6	2 %	58.1	3 %	
	2012	20.4	10 %	35.7	2 %	56.1	3 %	
	2013	24.1	12 %	39.0	2 %	63.1	3 %	
	2014	26.0	12 %	37.9	2 %	63.9	3 %	
	2015	27.8	13 %	25.8	2 %	53.6	3 %	

Continued on next page.

Table 6: Continued

	Year	Fixed		Trawl		All Gear	
		Total Discards	Discard Rate	Total Discards	Discard Rate	Total Discards	Discard Rate
Pollock	2011	0.9	16 %	6.0	0 %	6.9	1 %
	2012	0.5	11 %	6.9	1 %	7.4	1 %
	2013	0.7	13 %	7.3	1 %	7.9	1 %
	2014	0.7	11 %	15.3	1 %	16.0	1 %
	2015	0.8	10 %	10.1	1 %	10.9	1 %
Sablefish	2011	0.5	3 %	0.2	15 %	0.6	4 %
	2012	0.3	2 %	0.1	6 %	0.3	3 %
	2013	0.8	6 %	0	5 %	0.8	6 %
	2014	0.5	5 %	0.1	8 %	0.6	5 %
	2015	0.7	6 %	0.2	17 %	0.9	7 %
Pacific Cod	2011	3.3	1 %	1.2	1 %	4.5	1 %
	2012	2.2	1 %	1.6	1 %	3.7	1 %
	2013	6.0	3 %	3.8	3 %	9.8	3 %
	2014	5.0	2 %	4.2	4 %	9.1	3 %
	2015	3.6	2 %	1.2	1 %	4.9	2 %
All Alaska Flatfish	2011	2.4	49 %	29.9	9 %	32.3	10 %
	2012	2.9	51 %	24.5	8 %	27.3	9 %
	2013	3.4	82 %	28.3	9 %	31.8	10 %
	2014	3.9	82 %	18.6	6 %	22.4	7 %
	2015	3.8	76 %	10.3	4 %	14.1	6 %
Rockfish	2011	0.4	31 %	2.6	5 %	3.1	6 %
	2012	0.5	32 %	3.0	6 %	3.5	6 %
	2013	1.4	50 %	2.6	5 %	4.0	7 %
	2014	1.0	46 %	3.5	6 %	4.4	7 %
	2015	0.9	42 %	3.4	5 %	4.3	6 %
Atka Mackerel	2011	0	84 %	2.2	4 %	2.3	4 %
	2012	0	63 %	1.8	4 %	1.8	4 %
	2013	0	93 %	1.1	5 %	1.1	5 %
	2014	0	96 %	0.4	1 %	0.5	1 %
	2015	0	100 %	1.1	2 %	1.1	2 %
All Groundfish	2011	25.8	9 %	51.2	3 %	77.0	4 %
	2012	23.6	9 %	47.3	3 %	70.9	3 %
	2013	36.6	13 %	53.3	3 %	90.0	4 %
	2014	35.7	12 %	50.7	3 %	86.4	4 %
	2015	36.0	12 %	34.1	2 %	70.1	3 %

**Notes:** All groundfish and all gear may include additional species or gear types. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. For details on discard estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 7: Gulf of Alaska groundfish discards by species, gear, and target fishery, 2014-2015, (metric tons, round weight).

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Flathead Sole	Flat Shallow	Atka Mackerel	All Species	
2014	Hook & Line	Sablefish	1	367	69	163	0	2	-	1,710
		Pacific Cod	57	7	335	43	18	18	2	2,945
		Rockfish	0	0	0	-	-	-	-	0
		All Targets	76	510	1,431	262	19	22	3	8,594
	Pot	Sablefish	-	*	*	-	-	-	-	*
		Pacific Cod	8	2	250	1	0	2	5	1,138
		All Targets	8	2	250	1	0	2	5	1,138
	Trawl	Pollock, Bottom	25	0	6	921	4	0	*	1,336
		Pollock, Pelagic	529	0	1	8	2	0	*	857
		Sablefish	1	0	0	31	0	1	-	59
		Pacific Cod	26	3	57	779	101	303	0	1,503
		Arrowtooth	394	44	1,561	840	23	32	7	4,604
		Flathead Sole	0	*	0	24	0	0	-	27
	Rex Sole	1	0	34	275	1	1	*	721	
	Flatfish, Shallow	243	10	1,797	164	4	66	14	2,612	
	Rockfish	167	19	81	180	4	4	47	1,082	
	All Targets	1,384	76	3,537	3,224	139	409	68	12,801	
All Gear	All Targets	1,468	588	5,218	3,487	158	433	76	22,533	

Continued on next page.



Table 7: Continued

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Flathead Sole	Flat Shallow	Atka Mackerel	All Species	
2015	Hook & Line	Sablefish	3	455	88	131	0	2	0	1,681
		Pacific Cod	68	37	235	47	16	13	2	2,475
		Rockfish	0	-	0	-	-	-	*	0
		All Targets	75	672	681	221	16	20	2	7,074
	Pot	Sablefish	-	*	-	-	-	-	-	*
		Pacific Cod	22	2	245	1	0	3	7	1,077
		All Targets	22	2	245	1	0	3	7	1,077
	Trawl	Pollock, Bottom	66	62	7	489	12	28	20	850
		Pollock, Pelagic	562	4	4	9	1	0	0	1,036
		Sablefish	*	0	*	44	-	0	-	103
		Pacific Cod	43	4	191	407	82	282	138	1,666
		Arrowtooth	141	75	261	442	20	16	11	1,964
		Flathead Sole	*	*	*	*	*	*	-	*
		Rex Sole	19	1	16	100	8	1	*	388
	Flatfish, Shallow	43	14	184	106	1	31	7	625	
	Rockfish	296	23	149	137	2	6	140	1,669	
	All Targets	1,171	182	812	1,733	125	365	316	8,301	
All Gear	All Targets	1,267	856	1,739	1,955	141	388	325	16,452	

**Notes:** Totals may include additional categories. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area, and gear. These estimates include only catch counted against federal TACs. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. For details on discard estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 8: Bering Sea and Aleutian Islands groundfish discards by species, gear, and target fishery, 2014-2015, (metric tons, round weight).

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Kamchatka Flounder	Flathead Sole	Rock Sole	Turbot	Yellowfin	Flat Other	Rockfish	Atka Mackerel	All Species	
Hook & Line	Sablefish	*	13	0	28	24	*	-	43	-	8	114	0	321	
	Pacific Cod	616	1	2,898	468	40	543	52	5	1,812	38	84	4	23,145	
	Turbot	1	0	*	17	38	7	-	16	-	*	2	-	126	
	Rockfish	-	*	*	*	*	-	-	*	-	-	1	-	1	
	All Targets	617	33	3,116	525	114	550	52	67	1,813	55	279	4	24,844	
2014 Pot	Sablefish	-	*	-	*	*	-	-	*	-	-	*	-	*	
	Pacific Cod	11	-	156	1	*	0	2	*	351	0	4	7	1,122	
	All Targets	11	*	156	1	*	0	2	*	351	0	4	7	1,122	
Trawl	Pollock, Bottom	252	0	2	26	6	5	9	4	31	56	90	1	676	
	Pollock, Pelagic	456	*	5	115	19	469	804	3	295	24	639	5	4,092	
	Sablefish	*	*	-	*	-	*	*	-	-	*	*	-	*	
	Pacific Cod	2,527	*	214	189	18	111	465	2	81	144	19	2	4,268	
	Arrowtooth	455	0	1	153	47	15	2	127	0	13	74	0	1,187	
	Kamchatka Flounder	54	0	0	3	6	*	*	2	*	1	0	0	167	
	Flathead Sole	910	-	18	219	41	79	19	13	78	109	0	*	1,866	
	Rock Sole	2,523	*	196	316	50	14	379	3	123	1,390	1	*	6,278	
	Turbot	*	*	*	*	*	*	*	*	*	*	*	*	-	*
	Yellowfin	6,549	*	157	640	153	133	182	35	1,834	5,353	1	*	17,467	
	Other Flatfish	0	-	0	0	0	*	*	*	*	0	2	*	*	4
	Rockfish	93	1	28	116	59	7	7	1	0	10	237	254	1,055	
	Atka Mackerel	95	0	8	28	23	*	11	0	-	1	142	113	868	
	All Targets	13,915	1	629	1,807	423	834	1,877	190	2,442	7,101	1,206	376	37,928	
	All Gear	All Targets	14,543	35	3,900	2,333	537	1,384	1,932	257	4,606	7,156	1,490	386	63,894

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Table 8: Continued

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Kamchatka Flounder	Flathead Sole	Rock Sole	Turbot	Yellowfin	Flat Other	Rockfish	Atka Mackerel	All Species
Hook & Line	Sablefish	*	5	*	2	4	*	-	10	-	*	23	*	63
	Pacific Cod	622	3	2,415	580	44	480	51	14	1,803	59	152	13	25,742
	Turbot	10	1	*	6	69	8	-	10	*	*	3	*	317
	Rockfish	-	*	*	*	-	-	-	*	-	-	*	*	*
	All Targets	632	13	2,590	605	121	489	51	53	1,803	61	218	13	26,839
2015 Pot	Sablefish	-	0	-	4	0	-	-	*	-	-	0	-	5
	Pacific Cod	25	-	95	1	0	0	1	*	315	0	5	8	967
	All Targets	25	0	95	5	0	0	1	*	315	0	5	8	972
Trawl	Pollock, Bottom	347	*	3	19	2	2	2	0	5	25	31	0	668
	Pollock, Pelagic	386	0	3	64	12	483	300	5	97	13	987	105	3,767
	Pacific Cod	473	0	141	140	6	98	337	0	16	112	17	4	1,795
	Arrowtooth	391	0	3	164	22	7	0	24	0	11	95	*	899
	Kamchatka Flounder	138	0	0	1	3	*	*	0	-	1	8	0	294
	Flathead Sole	789	*	21	167	33	62	10	13	34	41	13	*	1,433
	Rock Sole	1,741	4	62	155	15	21	274	0	207	650	0	0	3,756
	Turbot	*	*	*	*	*	*	-	*	-	-	*	*	*
	Yellowfin	4,573	0	172	446	107	55	135	20	1,386	1,939	0	0	10,582
	Other Flatfish	41	*	2	2	2	0	1	*	5	26	*	-	113
	Rockfish	89	0	6	49	38	13	15	1	0	7	203	106	809
	Atka Mackerel	8	0	20	11	9	0	10	0	*	1	475	555	1,685
	All Targets	8,977	5	431	1,218	249	741	1,085	64	1,751	2,825	1,829	771	25,801
All Gear	All Targets	9,634	18	3,117	1,828	370	1,230	1,136	117	3,869	2,887	2,052	792	53,612

**Notes:** Totals may include additional categories. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area, and gear. These estimates include only catch counted against federal TACs. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. For details on discard estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 9: Gulf of Alaska groundfish discard rates by species, gear, and target fishery, 2014-2015 (percent).

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Flathead Sole	Rex Sole	Flat Deep	Flat Shallow	Rockfish	Atka Mackerel	All Species	
2014	Hook & Line	Sablefish	99	4	60	98	100	-	100	100	39	-	13
		Pacific Cod	27	25	2	84	100	-	96	100	55	100	14
		Rockfish	0	0	0	-	-	-	-	-	0	-	0
		All Targets	33	5	7	96	100	-	100	100	40	100	16
	Pot	Sablefish	-	*	*	-	-	-	-	-	-	-	*
		Pacific Cod	19	100	1	51	24	*	-	100	100	95	3
		All Targets	19	100	1	51	24	*	-	100	100	95	3
	Trawl	Pollock, Bottom	0	0	0	41	1	0	0	0	63	*	5
		Pollock, Pelagic	0	0	0	4	3	5	0	0	76	*	1
		Sablefish	100	0	21	100	99	97	81	75	19	-	26
		Pacific Cod	2	13	0	61	36	14	6	34	0	93	7
		Arrowtooth	26	22	52	3	2	1	29	4	39	1	11
Flathead Sole		0	*	0	30	0	0	6	0	0	-	5	
Rex Sole		1	0	12	40	1	0	31	4	76	*	25	
Flatfish, Shallow		47	41	79	25	1	1	6	2	4	27	38	
Rockfish		12	4	13	13	13	5	76	14	2	11	4	
All Targets		1	8	13	9	5	1	38	9	8	7	5	
All Gear	All Targets	1	5	6	10	6	1	41	9	10	7	7	

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Table 9: Continued

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Flathead Sole	Rex Sole	Flat Deep	Flat Shallow	Rockfish	Atka Mackerel	All Species
Hook & Line	Sablefish	95	5	70	88	100	-	100	100	40	100	14
	Pacific Cod	29	77	1	93	100	100	100	100	24	100	13
	Rockfish	0	-	0	-	-	-	-	-	0	*	0
	All Targets	31	7	4	91	100	100	100	99	37	100	14
2015 Pot	Sablefish	-	*	-	-	-	-	-	-	-	-	*
	Pacific Cod	31	100	1	93	71	52	100	89	99	100	3
	All Targets	31	100	1	93	71	52	100	89	99	100	3
Trawl	Pollock, Bottom	1	56	1	38	4	5	34	9	35	82	5
	Pollock, Pelagic	0	20	1	2	0	0	0	0	11	0	1
	Sablefish	*	0	*	98	-	74	81	100	36	-	28
	Pacific Cod	5	12	1	38	25	6	63	28	49	93	8
	Arrowtooth	16	39	19	3	2	1	49	10	34	50	10
	Flathead Sole	*	*	*	*	*	*	*	*	*	-	*
	Rex Sole	51	7	10	26	18	0	85	22	69	*	23
	Flatfish, Shallow	17	47	26	33	0	2	*	2	51	22	17
	Rockfish	22	5	19	10	3	8	65	23	3	14	5
	All Targets	1	17	4	9	7	2	60	11	6	26	3
All Gear	All Targets	1	8	2	10	7	2	64	12	8	27	5

**Notes:** Totals may include additional categories. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area, and gear. These estimates include only catch counted against federal TACs. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. For details on discard estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 10: Bering Sea and Aleutian Islands groundfish discard rates by species, gear, and target fishery, 2014-2015 (percent).

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Kamchatka Flounder	Flathead Sole	Rock Sole	Turbot	Yellowfin	Flat Other	Rockfish	Atka Mackerel	All Species	
Hook & Line	Sablefish	*	2	1	96	85	*	-	80	-	100	61	100	28	
	Pacific Cod	10	20	2	86	84	97	100	31	97	99	79	99	14	
	Turbot	74	2	*	38	100	100	-	3	-	*	7	-	16	
	Rockfish	-	*	*	*	*	-	-	*	-	-	19	-	19	
	All Targets	10	5	2	83	91	97	100	10	97	99	67	99	15	
Pot	Sablefish	-	*	-	*	*	-	-	*	-	-	*	-	*	
	Pacific Cod	70	-	0	100	*	67	100	*	100	100	99	94	3	
	All Targets	70	*	0	100	*	67	100	*	100	100	99	94	3	
Trawl	Pollock, Bottom	1	0	0	9	5	1	0	14	3	16	37	1	1	
	Pollock, Pelagic	0	*	0	24	36	24	33	19	39	13	54	27	0	
	Sablefish	*	*	-	*	-	*	*	-	-	*	*	-	*	
	Pacific Cod	46	*	0	84	60	50	32	68	5	21	94	99	8	
	Arrowtooth	17	2	0	2	2	2	9	20	26	2	9	0	6	
	Kamchatka Flounder	13	0	1	0	0	*	*	2	*	16	0	0	4	
	Flathead Sole	22	-	1	13	25	1	1	72	3	11	0	*	9	
	Rock Sole	22	*	2	46	53	1	1	63	1	38	100	*	8	
	Turbot	*	*	*	*	*	*	*	*	*	*	*	*	-	*
	Yellowfin	27	*	1	29	31	3	3	61	1	31	82	*	8	
	Other Flatfish	0	-	0	0	0	*	*	*	*	2	41	*	5	
	Rockfish	8	3	8	17	9	18	31	2	11	14	1	12	3	
	Atka Mackerel	15	5	1	3	4	*	33	1	-	42	2	0	2	
	All Targets	1	2	1	10	7	5	4	20	2	30	3	1	2	
	All Gear	All Targets	1	4	2	12	8	8	4	16	3	30	4	1	3

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Table 10: Continued

	Target	Pollock	Sablefish	Pacific Cod	Arrowtooth	Kamchatka Flounder	Flathead Sole	Rock Sole	Turbot	Yellowfin	Flat Other	Rockfish	Atka Mackerel	All Species
Hook & Line	Sablefish	*	1	*	100	100	*	-	92	-	*	31	*	11
	Pacific Cod	9	75	2	87	86	99	100	59	99	78	81	100	15
	Turbot	53	9	*	65	93	100	-	1	*	*	10	*	22
	Rockfish	-	*	*	*	-	-	-	*	-	-	*	*	*
	All Targets	9	3	2	87	90	99	100	5	99	78	63	100	16
2015 Pot	Sablefish	-	0	-	100	100	-	-	*	-	-	87	-	4
	Pacific Cod	78	-	0	99	100	61	91	*	100	100	100	99	2
	All Targets	78	0	0	100	100	61	91	*	100	100	99	99	2
Trawl	Pollock, Bottom	1	*	0	26	18	1	0	5	1	24	6	1	2
	Pollock, Pelagic	0	15	0	20	27	25	27	14	20	11	46	61	0
	Pacific Cod	23	100	0	62	58	80	20	43	3	39	40	23	4
	Arrowtooth	29	4	1	3	3	1	2	3	12	3	36	*	9
	Kamchatka Flounder	16	0	0	0	0	*	*	0	-	5	6	7	6
	Flathead Sole	30	*	1	17	18	2	1	21	2	9	54	*	11
	Rock Sole	19	93	1	46	40	3	1	48	2	34	100	22	5
	Turbot	*	*	*	*	*	*	-	*	-	-	*	-	*
	Yellowfin	21	66	1	26	25	2	1	48	1	15	19	50	6
	Other Flatfish	15	*	1	3	4	1	1	*	1	3	*	-	5
	Rockfish	9	1	1	8	7	25	39	2	25	17	1	2	2
	Atka Mackerel	5	8	1	10	3	6	19	1	*	5	5	1	3
	All Targets	1	16	1	12	5	7	2	6	1	17	5	1	2
All Gear	All Targets	1	3	1	16	7	11	2	5	3	17	5	1	3

**Notes:** Totals may include additional categories. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area, and gear. These estimates include only catch counted against federal TACs. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. For details on discard estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. "\*" indicates a confidential value; "-" indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 11: Prohibited species catch by species, area and gear, 2011-2015, (metric tons (t) or number in 1,000s).

	Year	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)	
Gulf of Alaska	Hook & Line	2011	-	-	-	-	0	6	-	
		2012	-	-	-	-	-	0	3	0
		2013	-	-	-	-	0	0	1	-
		2014	-	-	-	-	-	0	0	0
		2015	-	-	-	-	0	0	0	-
	Pot	2011	45	-	-	-	-	-	21	-
		2012	42	-	-	-	-	-	167	-
		2013	15	-	-	-	-	-	568	-
		2014	11	-	-	-	-	-	133	-
		2015	22	-	-	-	-	-	128	-
	Trawl	2011	1,870	11	20	3	-	0	103	-
		2012	1,706	1	20	1	-	0	83	-
		2013	1,228	11	23	5	-	0	243	-
		2014	1,392	6	16	2	-	*	64	-
		2015	1,410	80	19	1	-	*	73	-
All Gear	2011	1,915	11	20	3	-	0	130	-	
	2012	1,748	1	20	1	-	0	254	0	
	2013	1,243	11	23	5	0	0	813	-	
	2014	1,403	6	16	2	-	0	198	0	
	2015	1,432	80	19	1	0	0	201	-	
Bering Sea & Aleutian Islands	Hook & Line	2011	552	0	0	-	3	2	14	38
		2012	613	0	0	-	4	2	16	30
		2013	521	0	*	-	6	1	17	18
		2014	442	-	0	-	8	1	20	20
		2015	316	0	0	0	4	1	23	16
	Pot	2011	7	-	-	-	19	197	298	145
		2012	6	-	-	-	8	*	104	16
		2013	4	-	-	-	101	0	230	14
		2014	4	-	-	-	137	*	572	83
		2015	3	-	-	-	171	2	610	121
	Trawl	2011	2,609	396	26	194	46	53	905	766
		2012	3,117	2,376	13	24	34	26	432	626
		2013	3,078	988	15	127	31	31	714	691
		2014	3,029	186	18	224	32	23	624	484
		2015	2,229	1,531	25	243	20	13	424	492
All Gear	2011	3,168	396	26	194	68	252	1,217	949	
	2012	3,735	2,376	13	24	45	27	552	672	
	2013	3,603	988	15	127	138	32	961	724	
	2014	3,474	186	18	224	177	24	1,216	587	
	2015	2,548	1,531	25	243	194	16	1,057	629	

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Table 11: Continued

	Year	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)	
All Alaska	All Gear	2011	5,083	407	46	197	68	252	1,347	949
		2012	5,484	2,377	33	25	45	28	805	672
		2013	4,846	999	37	132	138	32	1,773	724
		2014	4,877	192	34	226	177	24	1,413	587
		2015	3,980	1,610	44	245	194	16	1,257	629

**Notes:** These estimates include only catches counted against federal TACs. Totals may include additional categories. Totals include halibut mortality taken by Amendment 80 vessels under the Exempted Fishing Permit No.2015-02. The estimates of halibut bycatch mortality are based on the IPHC discard mortality rates that were used for in-season management. The halibut IFQ program allows retention of halibut in the hook-and-line groundfish fisheries, making true halibut bycatch numbers unavailable. This is particularly a problem in the GOA for all hook-and-line fisheries and in the BSAI for the sablefish hook-and-line fishery. Therefore, estimates of halibut bycatch mortality are not included in this table for those fisheries. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. Excludes PSC on halibut targets. Excludes PSC in state fisheries (sablefish and P. cod targets in state waters) For details on prohibited species catch estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 12: Prohibited species catch in the Gulf of Alaska by species, gear, and groundfish target fishery, 2014-2015, (metric tons (t) or number in 1,000s).

	Target	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)	
Hook & Line	Sablefish	-	-	-	-	-	0	0	-	
	Pacific Cod	-	-	-	-	-	-	0.2	0	
	All Targets	-	-	-	-	-	0	0.2	0	
Pot	Pacific Cod	10.6	-	-	-	-	-	133.2	-	
2014	Pollock, Bottom	82.5	-	3.8	0.1	-	-	2.1	-	
	Pollock, Pelagic	-	4.6	7.1	1.3	-	-	-	-	
	Sablefish	1.1	-	-	-	-	*	-	-	
	Pacific Cod	215.5	-	0.3	-	-	-	12.1	-	
	Arrowtooth	790.5	0.1	1.0	0.2	-	-	39.2	-	
	Flathead	2.3	-	1.2	-	-	-	-	-	
	Sole	55.3	-	0.4	0.1	-	-	0.2	-	
	Flatfish, Deep	-	-	-	-	-	*	-	-	
	Flatfish, Shallow	163.6	0.8	0.7	*	-	-	10.5	-	
	Rockfish	81.6	*	1.2	0.6	-	*	0.2	-	
	All Targets	1,392.4	5.5	15.7	2.3	-	*	64.3	-	
	All Gear	All Targets	1,403.1	5.5	15.7	2.3	-	0	197.8	0

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Table 12: Continued

	Target	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)
Hook & Line	Sablefish	-	-	-	-	0	0	0.2	-
	Pacific Cod	-	-	-	-	0	0	0.2	-
	All Targets	-	-	-	-	0	0	0.3	-
Pot	Pacific Cod	22.2	-	-	-	-	-	127.7	-
2015	Pollock, Bottom	94.3	1.9	1.5	0	-	-	2.3	-
	Pollock, Pelagic	7.8	76.3	12.1	0.9	-	-	-	-
	Sablefish	2.2	-	-	-	-	-	*	-
	Trawl Pacific Cod	484.0	*	1.2	*	-	-	1.2	-
	Arrowtooth	581.5	0.1	2.1	0.1	-	*	6.7	-
	Flathead	*	-	-	-	-	-	*	-
	Sole								
	Rex Sole	29.5	-	0.1	0	-	-	0.1	-
	Flatfish, Shallow	107.6	1.4	-	-	-	-	62.3	-
	Rockfish	103.3	*	1.9	0.3	-	*	*	-
	All Targets	1,410.0	79.7	18.9	1.3	-	*	72.6	-
	All Gear	All Targets	1,432.2	79.7	18.9	1.3	0	0	200.6

**Notes:** These estimates include only catches counted against federal TACs. Totals may include additional categories. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area and gear. The estimates of halibut PSC mortality are based on the International Pacific Halibut Commission discard mortality rates that were used for in-season management. The halibut IFQ program allows retention of halibut in the hook-and-line groundfish fisheries, making true halibut PSC numbers unavailable. Therefore, estimates of halibut PSC mortality are not included in this table for those fisheries. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. For details on prohibited species catch estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 13: Prohibited species catch in the Bering Sea and Aleutian Islands by species, gear, and groundfish target fishery, 2014-2015, (metric tons (t) or number in 1,000s)..

	Target	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)
Hook & Line	Sablefish	-	-	-	-	0	0.5	-	-
	Pacific	440.3	-	0	-	7.5	0.7	19.8	19.7
	Cod	1.3	-	-	-	-	*	*	*
	Turbot	*	-	-	-	-	-	-	-
	Rockfish	*	-	-	-	-	-	-	*
	Other Ground- fish	*	-	-	-	-	-	-	*
	All Targets	441.6	-	0	-	7.6	1.2	19.8	19.7
Pot 2014	Sablefish	*	-	-	-	-	*	-	*
	Pacific	3.2	-	-	-	136.8	-	571.7	83.3
	Cod	3.6	-	-	-	136.8	*	571.7	83.3
	All Targets	3.6	-	-	-	136.8	*	571.7	83.3
Trawl	Pollock, Bottom	80.6	8.2	0.7	1.8	0.4	*	11.6	16.1
	Pollock, Pelagic	119.1	151.3	14.4	218.1	*	-	0.9	3.3
	Sablefish	*	-	-	-	-	-	-	-
	Pacific	331.5	1.1	1.3	*	0.6	*	21.7	12.5
	Cod	191.0	0.3	-	*	-	5.0	5.5	6.5
	Arrowtooth Kamchatka	14.4	*	-	-	-	8.3	-	*
	Flounder	119.6	*	-	0.7	*	-	85.3	100.5
	Sole	677.2	0.7	0.9	0.5	24.4	0.2	108.6	11.9
	Rock Sole	-	-	-	-	-	*	-	-
	Turbot	1,342.0	24.7	0.3	1.7	6.3	0.3	390.5	333.6
	Yellowfin	*	*	-	-	-	-	-	-
	Other Flatfish	69.5	-	0.3	0.3	*	7.2	*	-
	Rockfish	83.7	-	0.3	0.5	0.8	2.3	-	-
	Atka Mackerel	3,028.5	186.2	18.2	223.5	32.4	23.2	624.1	484.5
	All Targets	3,473.7	186.2	18.2	223.5	176.8	24.4	1,215.6	587.5

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Table 13: Continued

	Target	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)
Hook & Line	Pollock, Bottom	*	-	-	-	-	-	-	-
	Sablefish	-	-	0	-	0.2	0.2	-	-
	Pacific Cod	312.5	0	0	0.1	4.0	0.8	22.5	16.3
	Turbot	3.1	-	*	0	-	*	-	*
	Other Ground- fish	*	-	-	-	*	-	-	-
	All Targets	315.6	0	0.1	0.1	4.2	1.0	22.5	16.3
	2015 Pot	Sablefish	0.1	-	-	-	-	*	-
	Pacific Cod	3.4	-	-	-	170.6	2.0	610.3	120.8
	All Targets	3.4	-	-	-	170.6	2.0	610.3	120.8
Trawl	Pollock, Bottom	26.5	101.3	0.7	1.6	-	-	7.7	5.4
	Pollock, Pelagic	103.7	1,387.5	17.6	236.3	-	-	1.2	2.9
	Pacific Cod	287.7	3.1	1.4	0.3	0.3	-	13.6	5.8
	Arrowtooth	65.0	*	0.2	0.5	-	4.2	14.2	4.1
	Kamchatka Flounder	44.0	-	-	*	-	3.1	-	-
	Flathead Sole	46.8	0.5	*	0.6	*	*	54.2	21.1
	Rock Sole	506.9	6.8	3.1	0.9	10.0	*	50.7	8.8
	Yellowfin	756.0	30.7	1.1	1.1	9.3	0.5	269.9	422.4
	Other Flatfish	1.9	0.6	-	-	*	*	12.1	21.1
	Rockfish	60.8	-	0.8	0.3	*	5.1	*	-
	Atka Mackerel	97.5	-	*	1.7	*	0.5	0.3	*
	EFP	232.0	-	-	-	-	-	-	-
	All Targets	2,228.8	1,530.6	25.0	243.2	19.7	13.4	423.9	491.7
	All Gear	All Targets	2,547.8	1,530.6	25.0	243.3	194.4	16.4	1,056.7

**Notes:** These estimates include only catches counted against federal TACs. Totals may include additional categories. The target EFP accounts for halibut mortality taken by Amendment 80 vessels under the Exempted Fishing Permit (EFP) No.2015-02. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area and gear. The estimates of halibut PSC mortality are based on the International Pacific Halibut Commission discard mortality rates that were used for in-season management. The halibut IFQ program allows retention of halibut in the hook-and-line groundfish fisheries, making true halibut PSC numbers unavailable. This is particularly a problem in the Bering Sea and Aleutian Islands sablefish hook-and-line fishery. Therefore, estimates of halibut PSC mortality are not included in this table for that fishery. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. For details on prohibited species catch estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 14: Prohibited species catch rates in the Gulf of Alaska by species, gear, and groundfish target fishery, 2014-2015, (metric tons PSC per metric ton target catch or numbers of PSC per metric ton target catch).

	Target	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)	
Hook & Line	Sablefish	-	-	-	-	-	0.004	0.001	-	
	Pacific Cod	-	-	-	-	-	-	0.014	0	
	All Targets	-	-	-	-	-	0.001	0.009	0	
Pot	Pacific Cod	0	-	-	-	-	-	6.230	-	
2014	Pollock, Bottom	0.003	-	0.149	0.005	-	-	0.081	-	
	Pollock, Pelagic	-	0	0.060	0.011	-	-	-	-	
	Sablefish	0.005	-	-	-	-	*	-	-	
	Pacific Cod	0.010	-	0.013	-	-	-	0.565	-	
	Arrowtooth	0.019	0	0.025	0.005	-	-	0.930	-	
	Flathead	0.004	-	1.946	-	-	-	-	-	
	Sole	0.019	-	0.131	0.040	-	-	0.079	-	
	Flatfish, Deep	-	-	-	-	-	*	-	-	
	Flatfish, Shallow	0.024	0	0.102	*	-	-	1.521	-	
	Rockfish	0.003	*	0.045	0.020	-	*	0.006	-	
	All Targets	0.006	0	0.064	0.009	-	*	0.262	-	
	All Gear	All Targets	0.005	0	0.053	0.008	-	0	0.670	0

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Table 14: Continued

	Target	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)
Hook & Line	Sablefish	-	-	-	-	0.001	0.004	0.016	-
	Pacific Cod	-	-	-	-	0.001	0	0.011	-
	All Targets	-	-	-	-	0.001	0.002	0.013	-
Pot	Pacific Cod	0.001	-	-	-	-	-	5.832	-
2015	Pollock, Bottom	0.006	0	0.093	0.003	-	-	0.146	-
	Pollock, Pelagic	0	0.001	0.081	0.006	-	-	-	-
	Sablefish	0.006	-	-	-	-	-	*	-
	Pacific Cod	0.022	*	0.054	*	-	-	0.056	-
	Arrowtooth	0.029	0	0.105	0.004	-	*	0.330	-
	Flathead Sole	*	-	-	-	-	-	*	-
	Rex Sole	0.018	-	0.080	0	-	-	0.049	-
	Flatfish, Shallow	0.030	0	-	-	-	-	17.118	-
	Rockfish	0.003	*	0.062	0.011	-	*	*	-
	All Targets	0.006	0	0.078	0.005	-	*	0.298	-
All Gear	All Targets	0.005	0	0.065	0.005	0	0	0.688	-

**Notes:** These estimates include only catches counted against federal TACs. Totals may include additional categories. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area and gear. The estimates of halibut PSC mortality are based on the International Pacific Halibut Commission discard mortality rates that were used for in-season management. The halibut IFQ program allows retention of halibut in the hook-and-line groundfish fisheries, making true halibut PSC numbers unavailable. Therefore, estimates of halibut PSC mortality are not included in this table for those fisheries. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. For details on prohibited species catch estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 15: Prohibited species catch rates in the Bering Sea and Aleutian Islands by species, gear, and groundfish target fishery, 2014-2015, (metric tons PSC per metric ton target catch or numbers of PSC per metric ton target catch).

	Target	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)
Hook & Line	Sablefish	-	-	-	-	0.042	0.435	-	-
	Pacific Cod	0.003	-	0	-	0.047	0.004	0.124	0.123
	Turbot	0.002	-	-	-	-	*	*	*
	Rockfish	*	-	-	-	-	-	-	-
	Other Ground- fish	*	-	-	-	-	-	-	*
	All Targets	0.003	-	0	-	0.047	0.007	0.122	0.122
	Pot	Sablefish	*	-	-	-	-	*	-
2014	Pacific Cod	0	-	-	-	4.244	-	17.737	2.585
	All Targets	0	-	-	-	4.200	*	17.555	2.558
	Trawl	Pollock, Bottom	0.001	0	0.013	0.032	0.007	*	0.215
	Pollock, Pelagic	0	0	0.012	0.180	*	-	0.001	0.003
	Sablefish Pacific Cod	*	-	-	-	-	-	-	-
	Arrowtooth	0.010	0	-	*	-	0.261	0.288	0.340
	Kamchatka Flounder	0.004	*	-	-	-	2.168	-	*
	Flathead Sole	0.006	*	-	0.031	*	-	3.996	4.708
	Rock Sole	0.009	0	0.012	0.006	0.325	0.002	1.444	0.158
	Turbot	-	-	-	-	-	*	-	-
	Yellowfin	0.006	0	0.001	0.008	0.029	0.002	1.827	1.561
	Other Flatfish	*	*	-	-	-	-	-	-
	Rockfish	0.002	-	0.008	0.010	*	0.218	*	-
	Atka Mackerel	0.002	-	0.008	0.014	0.021	0.060	-	-
	All Targets	0.002	0	0.011	0.130	0.019	0.014	0.363	0.282
All Gear	All Targets	0.002	0	0.010	0.117	0.092	0.013	0.635	0.307

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Table 15: Continued

	Target	Halibut (t)	Herring (t)	Chinook (1,000s)	Other Salmon (1,000s)	Red King Crab (1,000s)	Other King Crab (1,000s)	Bairdi (1,000s)	Other Tanner (1,000s)
Hook & Line	Pollock, Bottom	*	-	-	-	-	-	-	-
	Sablefish	-	-	0.018	-	0.417	0.358	-	-
	Pacific Cod	0.002	0	0	0.001	0.024	0.005	0.134	0.097
	Turbot	0.002	-	*	0.024	-	*	-	*
	Other Ground- fish	*	-	-	-	*	-	-	-
	All Targets	0.002	0	0	0.001	0.025	0.006	0.133	0.096
	2015 Pot	Sablefish	0.001	-	-	-	-	*	-
Pacific Cod		0	-	-	-	5.525	0.065	19.770	3.912
All Targets		0	-	-	-	5.503	0.065	19.689	3.897
Trawl	Pollock, Bottom	0.001	0.003	0.018	0.039	-	-	0.190	0.134
	Pollock, Pelagic	0	0.001	0.014	0.188	-	-	0.001	0.002
	Pacific Cod	0.007	0	0.034	0.008	0.008	-	0.328	0.139
	Arrowtooth	0.007	*	0.019	0.054	-	0.433	1.466	0.420
	Kamchatka Flounder	0.009	-	-	*	-	0.617	-	-
	Flathead Sole	0.004	0	*	0.045	*	*	4.324	1.684
	Rock Sole	0.007	0	0.046	0.013	0.147	*	0.742	0.129
	Yellowfin	0.004	0	0.007	0.006	0.054	0.003	1.573	2.462
	Other Flatfish	0.001	0	-	-	*	*	5.103	8.894
	Rockfish	0.002	-	0.022	0.008	*	0.144	*	-
	Atka Mackerel	0.002	-	*	0.028	*	0.009	0.004	*
	All Targets	0.001	0.001	0.015	0.143	0.012	0.008	0.249	0.288
	All Gear All Targets	0.001	0.001	0.013	0.128	0.102	0.009	0.555	0.330

**Notes:** These estimates include only catches counted against federal TACs. Totals may include additional categories. The target is derived from an algorithm used to determine preponderance of catch, accounting for processor, trip, processing mode, NMFS area and gear. The estimates of halibut PSC mortality are based on the International Pacific Halibut Commission discard mortality rates that were used for in-season management. The halibut IFQ program allows retention of halibut in the hook-and-line groundfish fisheries, making true halibut PSC numbers unavailable. This is particularly a problem in the Bering Sea and Aleutian Islands sablefish hook-and-line fishery. Therefore, estimates of halibut PSC mortality are not included in this table for that fishery. There were substantial changes to the observer program in 2013 that could affect the comparability of 2013 and later years, to previous years. For details on prohibited species catch estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 16: Real ex-vessel value of the catch in the domestic commercial fisheries off Alaska by species group, 2006-2015; calculations based on COAR (\$ millions, base year = 2015).

Year	Shellfish	Salmon	Herring	Halibut	Groundfish	Total
2006	163.3	363.0	11.4	223.0	972.0	1,732.7
2007	212.6	436.1	17.4	245.2	939.3	1,850.6
2008	284.2	454.0	28.1	229.3	1,070.2	2,065.9
2009	211.7	425.1	26.2	147.4	752.6	1,563.0
2010	248.8	561.8	23.8	216.0	739.3	1,789.7
2011	313.1	643.4	11.4	215.8	1,048.3	2,232.0
2012	329.2	549.8	22.4	149.5	1,096.2	2,147.1
2013	242.7	691.9	16.6	113.5	893.5	1,958.2
2014	245.1	548.1	11.5	107.1	940.8	1,852.6
2015	293.1	413.2	7.0	110.7	896.3	1,720.3

**Notes:** These estimates include the value of catch from both federal and state of Alaska fisheries. The data have been adjusted to 2015 dollars by applying the Personal Consumption Expenditure Index at (<https://research.stlouisfed.org/fred2/series/PCEPI>)

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; ADF&G Commercial Operators Annual Reports (COAR); and NMFS Office of Science and Technology, Fisheries Statistics Division, Fisheries of the United States. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 17: Percentage distribution of ex-vessel value of the catch in the domestic commercial fisheries off Alaska by species group, 2006-2015; calculations based on COAR.

Year	Shellfish	Salmon	Herring	Halibut	Groundfish
2006	9.4 %	20.9 %	0.7 %	12.9 %	56.1 %
2007	11.5 %	23.6 %	0.9 %	13.3 %	50.8 %
2008	13.8 %	22.0 %	1.4 %	11.1 %	51.8 %
2009	13.5 %	27.2 %	1.7 %	9.4 %	48.1 %
2010	13.9 %	31.4 %	1.3 %	12.1 %	41.3 %
2011	14.0 %	28.8 %	0.5 %	9.7 %	47.0 %
2012	15.3 %	25.6 %	1.0 %	7.0 %	51.1 %
2013	12.4 %	35.3 %	0.8 %	5.8 %	45.6 %
2014	13.2 %	29.6 %	0.6 %	5.8 %	50.8 %
2015	17.0 %	24.0 %	0.4 %	6.4 %	52.1 %

**Notes:** These estimates report the distribution of the value of catch from both federal and state of Alaska fisheries.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; ADF&G Commercial Operators Annual Reports (COAR); and NMFS Office of Science and Technology, Fisheries Statistics Division, Fisheries of the United States. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 18: Ex-vessel prices in the groundfish fisheries off Alaska by area, gear, and species, 2011-2015; calculations based on COAR (\$/lb, round weight).

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska
		Fixed	Trawl	Fixed	Trawl	All Gear
Pollock	2011	0.128	0.161	0.178	0.165	0.165
	2012	0.144	0.171	0.108	0.173	0.173
	2013	0.156	0.176	0.092	0.150	0.152
	2014	0.115	0.123	0.097	0.154	0.151
	2015	0.088	0.120	0.170	0.150	0.147
Sablefish	2011	5.463	3.986	5.105	1.790	5.290
	2012	4.421	3.231	3.522	1.014	4.192
	2013	3.215	2.434	2.838	1.173	3.100
	2014	3.919	2.972	4.001	1.317	3.841
	2015	4.101	3.008	3.720	1.272	3.985
Pacific Cod	2011	0.339	0.309	0.306	0.249	0.300
	2012	0.361	0.326	0.327	0.313	0.329
	2013	0.273	0.244	0.252	0.240	0.251
	2014	0.307	0.271	0.289	0.262	0.284
	2015	0.306	0.260	0.269	0.234	0.267
Flatfish	2011	0.512	0.110	0.174	0.182	0.174
	2012	0.223	0.137	0.017	0.204	0.197
	2013	0.019	0.141	0.015	0.158	0.156
	2014	0.241	0.145	0.131	0.142	0.142
	2015	0.336	0.141	0.003	0.140	0.139
Rockfish	2011	0.668	0.157	0.742	0.348	0.276
	2012	0.848	0.266	0.687	0.289	0.292
	2013	0.826	0.207	0.975	0.211	0.225
	2014	0.775	0.185	0.630	0.238	0.226
	2015	0.706	0.187	0.833	0.198	0.203
Atka Mackerel	2011	0.016	0.365	0.124	0.268	0.270
	2012	0.131	0.388	0.180	0.293	0.294
	2013	*	0.367	0.017	0.327	0.328
	2014	*	0.377	0.341	0.353	0.353
	2015	*	0.302	0.279	0.257	0.257

**Notes:** 1) Prices are for catch from both federal and state of Alaska fisheries.

2) The unfrozen landings price is calculated as landed value divided by estimated or actual round weight.

3) Prices for catch processed by an at-sea processor without a COAR buying record (e.g., from catcher/processers) are set using the prices for the matching species (group), region and gear-types for which buying records exist.

4) Trawl-caught sablefish, rockfish and flatfish in the BSAI and trawl-caught Atka mackerel in both the BSAI and the GOA are not well represented in the COAR buying records. A price was calculated for these categories from product-report prices; the price in this case is the value of the first wholesale products divided by the calculated round weight and multiplied by a constant 0.4 to correct for value added by processing.

5) The “All Alaska/All gear” column is the average weighted by retained catch.

Values not adjusted for inflation. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 19: Ex-vessel value of the groundfish catch off Alaska by area ,vessel category, gear, and species,2011-2015; calculations based on COAR (\$ millions).

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska			
		Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	
Hook & Line	Sablefish	2011	116.4	9.0	125.4	7.4	4.7	12.1	123.8	13.7	137.5
		2012	105.2	6.8	112.0	5.5	3.7	9.2	110.7	10.5	121.2
		2013	74.6	4.7	79.3	3.6	2.9	6.5	78.1	7.6	85.8
		2014	78.4	4.8	83.2	4.5	1.7	6.3	83.0	6.5	89.5
		2015	78.9	5.1	84.0	2.9	1.0	3.9	81.8	6.1	87.9
	Pacific Cod	2011	10.1	6.1	16.2	0.7	78.0	78.7	10.8	84.1	94.9
		2012	12.6	3.7	16.3	0.6	93.1	93.7	13.2	96.8	110.0
		2013	6.3	1.9	8.1	0.6	67.7	68.2	6.8	69.5	76.4
		2014	8.3	4.0	12.3	1.4	78.0	79.4	9.7	82.0	91.7
		2015	7.0	3.6	10.6	0.5	75.8	76.3	7.4	79.4	86.9
	Flatfish	2011	0	0	0	*	0.9	0.9	0	0.9	0.9
		2012	0	0	0	*	0.1	0.1	0	0.1	0.1
		2013	0	*	0	*	0	0	0	0	0
		2014	0	*	0	*	0.2	0.2	0	0.2	0.2
		2015	0	0	0	*	0	0	0	0	0
	Rockfish	2011	1.2	0.1	1.4	0.1	0.2	0.3	1.3	0.4	1.7
		2012	1.9	0.2	2.1	0.1	0.3	0.4	2.0	0.5	2.5
		2013	2.0	0.1	2.2	0.1	0.3	0.3	2.1	0.4	2.5
		2014	1.6	0.1	1.8	0.1	0.1	0.2	1.7	0.3	1.9
		2015	1.6	0.1	1.7	0.1	0.2	0.2	1.6	0.3	1.9
	All Species	2011	128.4	15.6	144.0	8.2	89.7	98.0	136.6	105.4	242.0
		2012	120.6	10.9	131.4	6.2	100.4	106.7	126.8	111.3	238.1
		2013	83.5	6.8	90.3	4.2	78.1	82.4	87.7	84.9	172.6
		2014	89.0	9.0	98.0	6.0	89.5	95.4	95.0	98.5	193.5
		2015	88.1	9.0	97.1	3.4	81.6	85.0	91.5	90.6	182.2

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Table 19: Continued

		Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska			
	Year	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	
Pot	Pacific Cod	2011	34.1	*	34.1	16.8	2.2	19.0	50.8	2.2	53.1
		2012	29.5	*	29.5	18.7	3.9	22.6	48.2	3.9	52.0
		2013	18.7	-	18.7	15.0	*	15.0	33.7	*	33.7
		2014	25.8	-	25.8	22.2	4.9	27.0	48.0	4.9	52.9
		2015	27.1	-	27.1	17.7	4.7	22.4	44.8	4.7	49.5
	Pollock	2011	27.7	0.4	28.1	229.7	204.6	434.3	257.5	205.0	462.4
		2012	38.0	0.4	38.4	241.3	216.1	457.4	279.3	216.5	495.9
		2013	35.9	0.4	36.4	218.7	199.8	418.5	254.6	200.3	454.8
		2014	37.7	0.5	38.2	226.5	207.8	434.3	264.3	208.2	472.5
		2015	43.5	0.3	43.8	227.3	206.0	433.3	270.8	206.3	477.1
Trawl	Sablefish	2011	4.6	3.5	8.1	0	0.3	0.3	4.6	3.8	8.4
		2012	2.9	2.7	5.7	*	0.5	0.5	2.9	3.3	6.2
		2013	2.2	2.1	4.3	*	0.5	0.5	2.2	2.6	4.8
		2014	3.0	2.8	5.8	*	0.2	0.2	3.0	3.0	6.0
		2015	2.8	3.0	5.8	0	0.1	0.1	2.8	3.0	5.9
	Pacific Cod	2011	9.9	0.8	10.7	16.9	23.0	40.0	26.8	23.9	50.7
		2012	13.1	0.9	14.0	28.9	30.8	59.7	42.0	31.7	73.7
		2013	9.8	0.6	10.4	21.5	25.1	46.6	31.3	25.7	57.0
		2014	13.2	0.7	13.9	21.4	24.0	45.4	34.5	24.7	59.2
		2015	11.6	0.7	12.3	16.3	21.0	37.3	27.9	21.7	49.6
	Flatfish	2011	5.0	3.1	8.1	1.6	102.5	104.1	6.6	105.6	112.1
		2012	4.2	2.9	7.1	1.7	118.2	119.9	5.9	121.1	127.0
		2013	5.5	3.1	8.6	0.6	93.8	94.5	6.1	97.0	103.1
		2014	5.8	8.0	13.8	0.7	79.8	80.5	6.5	87.8	94.3
		2015	3.5	3.9	7.4	0.3	63.3	63.7	3.8	67.3	71.1

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Table 19: Continued

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska			
		Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	
Trawl	Rockfish	2011	3.0	4.0	7.0	0.1	20.5	20.6	3.1	24.5	27.6
		2012	6.3	7.9	14.2	0.2	16.6	16.8	6.5	24.6	31.0
		2013	4.4	5.2	9.5	0.1	15.5	15.6	4.5	20.7	25.1
		2014	4.4	5.7	10.2	0.2	17.9	18.1	4.7	23.6	28.2
		2015	4.6	5.9	10.6	0.3	16.0	16.3	5.0	22.0	26.9
	Atka Mackerel	2011	0	0.8	0.8	0.6	29.0	29.5	0.6	29.8	30.4
		2012	0	0.6	0.6	0.1	29.8	30.0	0.2	30.4	30.6
		2013	0	0.7	0.7	0	16.1	16.2	0	16.8	16.9
		2014	0	0.8	0.8	0.1	23.7	23.8	0.1	24.5	24.6
		2015	0	0.6	0.6	0	29.7	29.7	0.1	30.2	30.3
	All Species	2011	51.8	12.9	64.8	249.0	380.2	629.2	300.8	393.1	693.9
		2012	66.0	15.8	81.8	272.4	412.4	684.8	338.4	428.2	766.6
		2013	59.5	12.1	71.6	240.9	351.1	592.0	300.4	363.2	663.6
		2014	64.9	18.7	83.6	249.2	353.8	603.0	314.1	372.5	686.6
		2015	67.0	14.5	81.5	244.6	336.4	581.1	311.6	350.9	662.6
All Gear	Pollock	2011	27.8	0.4	28.1	229.7	206.4	436.1	257.5	206.8	464.3
		2012	38.0	0.4	38.5	241.3	217.2	458.5	279.4	217.6	497.0
		2013	36.0	0.5	36.4	218.7	200.7	419.4	254.6	201.2	455.8
		2014	37.8	0.5	38.2	226.5	208.9	435.4	264.3	209.4	473.7
		2015	43.5	0.3	43.8	227.3	208.4	435.7	270.9	208.7	479.6
Sablefish	2011	121.5	12.5	134.0	13.3	5.0	18.3	134.9	17.5	152.4	
	2012	108.1	9.5	117.7	5.5	4.2	9.7	113.7	13.7	127.4	
	2013	77.0	6.8	83.8	3.6	3.4	7.0	80.6	10.2	90.8	
	2014	81.4	7.6	89.1	4.5	1.9	6.4	85.9	9.6	95.5	
	2015	81.7	8.0	89.8	2.9	1.1	4.0	84.7	9.1	93.7	

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Table 19: Continued

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska			
		Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	
All Gear	Pacific Cod	2011	54.1	7.0	61.0	34.4	103.3	137.7	88.5	110.2	198.7
		2012	55.2	4.6	59.7	48.2	127.8	176.0	103.4	132.3	235.7
		2013	34.8	2.5	37.2	37.0	92.8	129.8	71.8	95.3	167.1
		2014	47.3	4.7	52.0	45.0	106.8	151.8	92.3	111.5	203.8
		2015	45.7	4.3	50.0	34.5	101.5	136.0	80.1	105.9	186.0
	Flatfish	2011	5.0	3.1	8.1	1.6	103.4	105.0	6.6	106.5	113.1
		2012	4.2	2.9	7.1	1.7	118.3	120.0	5.9	121.2	127.1
		2013	5.5	3.1	8.6	0.6	93.9	94.5	6.1	97.0	103.1
		2014	5.8	8.0	13.8	0.7	80.0	80.7	6.5	88.0	94.5
		2015	3.5	3.9	7.4	0.3	63.3	63.7	3.8	67.3	71.1
	Rockfish	2011	4.2	4.2	8.4	0.2	20.7	20.9	4.4	24.8	29.3
		2012	8.1	8.2	16.3	0.3	16.9	17.2	8.4	25.0	33.5
		2013	6.4	5.3	11.7	0.2	15.8	16.0	6.6	21.1	27.7
		2014	6.0	5.9	11.9	0.3	18.0	18.3	6.3	23.8	30.2
		2015	6.2	6.1	12.3	0.4	16.2	16.6	6.6	22.3	28.9
	Atka Mackerel	2011	0	0.8	0.8	0.6	29.0	29.5	0.6	29.8	30.4
		2012	0	0.6	0.6	0.1	29.8	30.0	0.2	30.4	30.6
		2013	0	0.7	0.7	0	16.1	16.2	0	16.8	16.9
		2014	0	0.8	0.8	0.1	23.7	23.8	0.1	24.5	24.6
		2015	0	0.6	0.6	0	29.7	29.7	0.1	30.2	30.3
All Species	2011	215.1	28.6	243.7	280.0	472.1	752.1	495.1	500.7	995.8	
	2012	216.3	26.7	243.0	297.3	516.7	814.0	513.7	543.4	1,057.1	
	2013	162.2	18.9	181.0	260.2	429.2	689.4	422.3	448.1	870.4	
	2014	180.3	27.8	208.0	277.5	448.1	725.6	457.7	475.9	933.6	
	2015	182.5	23.5	206.1	265.8	422.7	688.5	448.3	446.3	894.6	

**Notes:** Ex-vessel value is calculated by multiplying ex-vessel prices by the retained round weight catch. Refer to Table 18 for a description of the price derivation. The value added by at-sea processing is not included in these estimates of ex-vessel value. All groundfish includes additional species categories. Values not adjusted for inflation. "\*" indicates a confidential value; "-" indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.



Table 20: Ex-vessel value of Alaska groundfish delivered to shoreside processors by area, gear and catcher-vessel length, 2006-2015; calculations based on COAR (\$ millions).

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
		<60	60-125	>=125	<60	60-125	>=125	<60	60-125	>=125
Fixed	2006	65.6	32.8	0.2	6.4	14.2	3.8	72.0	47.0	4.1
	2007	75.0	33.5	0	5.5	16.0	2.5	80.5	49.4	2.5
	2008	86.0	35.4	0.3	9.1	16.7	3.6	95.1	52.1	3.9
	2009	68.5	26.8	*	5.1	7.3	1.6	73.6	34.1	1.6
	2010	80.1	31.2	*	7.7	11.6	3.2	87.8	42.8	3.2
	2011	117.5	45.8	*	11.9	15.2	3.9	129.4	60.9	3.9
	2012	108.9	41.8	*	14.4	10.8	3.6	123.4	52.6	3.6
	2013	75.8	26.8	*	11.0	7.8	3.2	86.9	34.6	3.2
	2014	85.7	29.9	-	19.4	8.9	2.8	105.1	38.8	2.8
	2015	85.4	30.4	-	14.0	7.5	0.6	99.4	37.9	0.6
Trawl	2006	7.7	33.4	-	*	94.0	112.1	7.7	127.4	112.1
	2007	8.7	34.2	-	*	92.7	100.1	8.7	126.9	100.1
	2008	10.8	38.2	*	*	106.9	119.2	10.8	145.1	119.2
	2009	6.5	27.1	-	*	72.4	84.2	6.5	99.5	84.2
	2010	10.3	39.0	-	*	60.8	69.3	10.3	99.8	69.3
	2011	8.2	43.6	-	*	100.4	107.8	8.2	144.1	107.8
	2012	15.4	50.6	-	*	111.2	119.7	15.4	161.8	119.7
	2013	8.9	50.6	-	*	95.2	108.4	8.9	145.9	108.4
	2014	12.8	52.1	-	*	98.8	112.0	12.8	150.9	112.0
	2015	14.6	52.4	-	-	94.0	112.3	14.6	146.4	112.3
All Gear	2006	73.2	66.2	0.2	6.4	108.3	116.0	79.6	174.5	116.2
	2007	83.7	67.7	0	5.5	108.7	102.6	89.2	176.3	102.6
	2008	96.8	73.6	0.3	9.1	123.7	122.8	105.9	197.3	123.1
	2009	75.0	53.9	*	5.1	79.7	85.8	80.1	133.6	85.8
	2010	90.4	70.2	*	7.7	72.4	72.6	98.1	142.6	72.6
	2011	125.7	89.4	*	11.9	115.6	111.7	137.6	205.0	111.7
	2012	124.3	92.4	*	14.4	121.9	123.4	138.8	214.4	123.4
	2013	84.7	77.5	*	11.0	103.0	111.6	95.7	180.5	111.6
	2014	98.5	82.0	-	19.4	107.7	114.8	117.9	189.7	114.8
	2015	100.0	82.8	-	14.0	101.5	112.9	114.1	184.3	112.9

**Notes:** These estimates include only catch counted against federal TACs. Values not adjusted for inflation. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 21: Ex-vessel value per catcher vessel for Alaska groundfish delivered to shoreside processors by area, gear and catcher-vessel length, 2006-2015; calculations based on COAR (\$ thousands).

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
		<60	60-125	>=125	<60	60-125	>=125	<60	60-125	>=125
Fixed	2006	65	263	57	98	226	321	70	316	340
	2007	72	301	9	76	275	209	76	351	211
	2008	79	337	74	117	275	359	86	395	353
	2009	67	276	*	74	155	200	71	286	178
	2010	77	328	*	113	242	358	83	372	323
	2011	106	498	*	165	271	490	116	521	436
	2012	98	510	*	225	234	404	110	496	363
	2013	82	362	*	140	165	354	91	353	354
	2014	91	427	-	381	212	312	110	417	312
	2015	90	447	-	223	196	104	103	436	104
Trawl	2006	295	682	-	*	1,306	4,313	295	1,341	4,313
	2007	324	744	-	*	1,288	3,848	324	1,426	3,848
	2008	384	867	*	*	1,528	4,256	384	1,630	4,256
	2009	231	616	-	*	1,081	3,119	231	1,171	3,119
	2010	412	908	-	*	980	2,568	396	1,248	2,568
	2011	340	970	-	*	1,477	3,993	340	1,757	3,993
	2012	642	1,077	-	*	1,710	4,276	642	1,973	4,276
	2013	341	1,151	-	*	1,465	4,016	341	1,779	4,016
	2014	474	1,212	-	*	1,620	4,148	474	1,863	4,148
	2015	563	1,218	-	-	1,492	4,159	563	1,807	4,159
All Gear	2006	72	406	57	94	808	3,053	77	752	3,059
	2007	80	445	9	70	842	2,699	83	787	2,700
	2008	88	511	59	110	951	3,231	95	917	3,155
	2009	73	396	*	67	705	2,452	77	675	2,384
	2010	87	528	*	107	658	2,016	92	750	1,961
	2011	113	672	*	163	932	3,192	122	1,051	3,104
	2012	112	734	*	209	1,098	3,334	123	1,159	3,246
	2013	91	674	*	136	920	3,101	99	1,020	3,101
	2014	104	745	-	366	1,046	3,189	122	1,110	3,189
2015	105	767	-	223	1,005	3,422	117	1,117	3,422	

**Notes:** These estimates include only catch counted against federal TACs. Values not adjusted for inflation. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 22: Ex-vessel value of the groundfish catch off Alaska by area, residency, and species, 2011-2015; calculations based on COAR (\$ millions).

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
		Alaska	Other	Alaska	Other	Alaska	Other
Pollock	2011	10.8	17.3	83.3	352.8	94.2	370.1
	2012	15.1	23.4	80.6	377.8	95.7	401.2
	2013	12.5	23.9	76.2	343.2	88.6	367.2
	2014	16.0	22.2	76.3	359.1	92.3	381.3
	2015	17.8	26.1	78.8	357.0	96.5	383.1
Sablefish	2011	71.9	62.2	7.8	10.5	79.6	72.7
	2012	59.3	58.8	2.8	7.0	62.0	65.8
	2013	42.5	41.3	4.4	5.3	46.9	46.6
	2014	46.2	43.2	2.2	4.3	48.4	47.4
	2015	46.4	43.7	1.4	2.5	47.8	46.2
Pacific Cod	2011	43.9	17.1	35.0	102.7	78.9	119.8
	2012	43.8	15.9	42.7	133.3	86.5	149.2
	2013	25.0	12.2	31.1	98.7	56.1	110.9
	2014	37.2	14.8	38.7	113.0	75.9	127.9
	2015	40.1	9.9	34.4	101.6	74.5	111.5
Flatfish	2011	2.5	5.6	8.3	96.7	10.8	102.2
	2012	2.0	5.2	1.7	118.3	3.6	123.5
	2013	2.9	5.7	5.0	89.5	7.9	95.2
	2014	3.3	10.5	4.5	76.2	7.7	86.8
	2015	2.4	5.1	4.0	59.6	6.4	64.7
Rockfish	2011	2.0	6.4	0.6	20.4	2.6	26.7
	2012	3.9	12.4	0.1	17.1	4.1	29.4
	2013	3.4	8.3	0.3	15.7	3.6	24.1
	2014	3.1	8.8	0.1	18.1	3.2	26.9
	2015	3.1	9.2	0.5	16.1	3.6	25.3
Atka Mackerel	2011	0	0.8	0	29.5	0	30.4
	2012	0	0.6	0	30.0	0	30.6
	2013	0	0.7	0	16.2	0	16.9
	2014	0	0.8	0	23.8	0	24.5
	2015	0	0.6	0	29.7	0	30.3
All Groundfish	2011	132.9	110.7	136.2	615.9	269.1	726.7
	2012	125.8	117.7	128.8	685.2	254.6	802.9
	2013	87.5	93.7	118.8	573.3	206.3	667.0
	2014	107.2	101.1	124.1	601.5	231.3	702.5
	2015	111.2	95.2	119.7	568.8	230.9	664.0

**Notes:** These estimates include only catches counted against federal TACs. Ex-vessel value is calculated using prices on Table 18. Please refer to Table 18 for a description of the price derivation. Catch delivered to motherships is classified by the residence of the owner of the mothership. All other catch is classified by the residence of the owner of the fishing vessel. All groundfish include additional species categories. For catch for which the residence is unknown, there are either no data or the data have been suppressed to preserve confidentiality. Values not adjusted for inflation.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; ADF&G Commercial Operators Annual Reports (COAR); and CFEC gross earnings (fish tickets) file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 23: Ex-vessel value of groundfish delivered to shoreside processors by processor group, 2011-2015; calculations based on COAR (\$ millions).

Region	2011	2012	2013	2014	2015
Bering Sea Pollock	254.4	270.3	231.3	257.0	242.8
AK Peninsula/Aleutians	12.0	19.7	15.0	14.2	11.5
Kodiak	77.4	87.6	68.3	76.1	77.6
South Central	44.8	37.0	26.4	29.4	29.9
Southeastern	44.8	43.3	28.4	31.3	33.1
All Regions	433.5	457.8	369.2	408.0	395.0

**Notes:** Refer to the notes for Table 24.

**Source:** ADF&G Commercial Operators Annual Reports (COAR); and ADF&G Intent to Operate (ITO) file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 24: Ex-vessel value of groundfish as a percentage of the ex-vessel value of all species delivered to shoreside processors by processor group, 2011-2015; calculations based on COAR (percent).

Region	2011	2012	2013	2014	2015
Bering Sea Pollock	58.7	64.4	62.9	67.4	63.9
AK Peninsula/Aleutians	4.6	7.0	5.4	4.6	4.5
Kodiak	41.9	47.9	40.5	50.8	49.6
South Central	17.7	15.6	9.7	14.1	14.3
Southeastern	13.9	15.7	8.8	12.2	15.1
All Regions	29.8	32.8	26.3	31.2	32.4

**Notes:** These tables include the value of groundfish purchases reported by processing plants, as well as by other entities, such as markets and restaurants, that normally would not report sales of groundfish products. Keep this in mind when comparing ex-vessel values in this table to gross processed-product values in Table 34. The data are for catch from both federal and state of Alaska fisheries. The processor groups are defined as follows: "Bering Sea Pollock" are the AFA inshore pollock processors including the two AFA floating processors. "AK Peninsula/Aleutian" are other processors on the Alaska Peninsula or in the Aleutian Islands. "Kodiak" are processors on Kodiak Island. "South Central" are processors west of Yakutat and on the Kenai Peninsula. "Southeastern" are processors located from Yakutat south. Values not adjusted for inflation.

**Source:** ADF&G Commercial Operators Annual Reports (COAR); and ADF&G Intent to Operate (ITO) file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 25: Production and gross value of groundfish products in the fisheries off Alaska by species, 2011-2015, (1,000 metric tons product weight and million dollars).

	Product	2011		2012		2013		2014		2015	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Pollock	Whole Fish	2.01	\$ 3.2	2.19	\$ 2.2	2.48	\$ 2.8	1.67	\$ 1.5	4.10	\$ 4.1
	Head And Gut	59.60	\$ 109.1	48.15	\$ 71.2	62.26	\$ 100.0	67.22	\$ 94.0	55.72	\$ 76.4
	Roe	19.29	\$ 152.9	18.16	\$ 169.2	16.12	\$ 115.6	24.12	\$ 148.2	21.87	\$ 103.6
	Deep-Skin Fillets	46.19	\$ 171.0	55.49	\$ 206.5	51.59	\$ 184.5	43.69	\$ 153.6	43.77	\$ 150.2
	Other Fillets	120.72	\$ 399.1	96.96	\$ 314.0	125.07	\$ 379.5	140.27	\$ 403.2	132.34	\$ 374.8
	Surimi	148.07	\$ 418.0	167.04	\$ 523.6	170.26	\$ 377.5	183.66	\$ 441.4	202.38	\$ 497.6
	Minced Fish	30.99	\$ 50.8	31.59	\$ 54.3	30.94	\$ 46.0	26.25	\$ 34.4	25.19	\$ 37.1
	Fishmeal	52.92	\$ 82.5	52.52	\$ 78.8	53.87	\$ 92.9	56.85	\$ 96.1	61.03	\$ 101.5
	Other Products	33.97	\$ 37.3	38.79	\$ 48.6	33.81	\$ 36.2	36.46	\$ 34.7	34.31	\$ 32.8
	All Products	513.75	\$ 1,424.0	510.89	\$ 1,468.4	546.41	\$ 1,335.1	580.20	\$ 1,407.0	580.71	\$ 1,377.9
Sablefish	Head And Gut	6.86	\$ 138.3	7.52	\$ 113.4	7.35	\$ 93.6	6.29	\$ 96.1	5.81	\$ 89.0
	Other Products	0.81	\$ 9.1	0.63	\$ 3.4	0.49	\$ 2.6	0.41	\$ 2.9	0.25	\$ 2.0
	All Products	7.67	\$ 147.4	8.16	\$ 116.8	7.84	\$ 96.2	6.70	\$ 99.0	6.06	\$ 91.0

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Table 25: Continued

	Product	2011		2012		2013		2014		2015	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Pacific Cod	Whole Fish	2.47	\$ 3.7	3.27	\$ 4.8	3.64	\$ 3.9	1.43	\$ 2.5	1.20	\$ 1.4
	Head And Gut	106.07	\$ 348.6	119.61	\$ 354.1	104.39	\$ 240.9	114.51	\$ 317.3	119.88	\$ 355.9
	Salted/Split	*	\$ *	*	\$ *	*	\$ *	-	\$ -	-	\$ -
	Roe	3.17	\$ 4.9	3.86	\$ 7.1	4.38	\$ 9.1	5.25	\$ 11.7	3.71	\$ 6.3
	Fillet	15.79	\$ 106.2	15.84	\$ 103.1	18.50	\$ 122.2	18.27	\$ 117.2	12.67	\$ 74.1
	Other Products	15.06	\$ 33.3	14.17	\$ 25.3	14.59	\$ 21.9	15.13	\$ 23.3	15.00	\$ 30.1
	All Products	142.56	\$ 496.7	156.75	\$ 494.4	145.50	\$ 397.9	154.58	\$ 471.9	152.46	\$ 467.9
Flatfish	Whole Fish	21.54	\$ 30.2	26.03	\$ 39.1	15.71	\$ 41.3	27.07	\$ 33.0	12.57	\$ 14.9
	Head And Gut	142.08	\$ 222.5	142.22	\$ 241.6	151.20	\$ 182.7	146.10	\$ 175.1	118.71	\$ 141.5
	Kirimi	*	\$ *	*	\$ *	*	\$ *	0.13	\$ 0.4	0.66	\$ 1.5
	Fillet	0.19	\$ 0.8	0.19	\$ 0.9	0.22	\$ 0.8	0.16	\$ 0.6	0.05	\$ 0.2
	Fishmeal	0	\$ 0	0	\$ 0	0.01	\$ 0.0	0.01	\$ 0.0	0.01	\$ 0.0
	Other Products	3.47	\$ 8.1	3.12	\$ 6.4	2.02	\$ 5.9	1.59	\$ 3.7	1.24	\$ 3.3
	All Products	167.27	\$ 261.7	171.57	\$ 288.0	169.16	\$ 230.7	175.06	\$ 212.7	133.23	\$ 161.5
Rockfish	Whole Fish	3.61	\$ 8.5	3.24	\$ 7.0	3.79	\$ 7.5	4.28	\$ 7.9	4.32	\$ 8.1
	Head And Gut	22.32	\$ 84.0	22.66	\$ 72.6	24.98	\$ 58.0	27.57	\$ 71.5	29.16	\$ 67.0
	Other Products	0.43	\$ 2.4	0.69	\$ 5.2	0.40	\$ 2.4	0.44	\$ 1.8	0.50	\$ 2.0
	All Products	26.35	\$ 94.9	26.59	\$ 84.7	29.17	\$ 67.8	32.28	\$ 81.2	33.99	\$ 77.1
Atka Mackerel	Whole Fish	5.33	\$ 5.3	5.63	\$ 7.9	2.91	\$ 5.3	3.25	\$ 4.7	3.31	\$ 3.9
	Head And Gut	27.41	\$ 69.6	24.51	\$ 67.0	11.67	\$ 34.1	17.63	\$ 58.6	29.56	\$ 70.4
	Other Products	0	\$ 0	0.03	\$ 0.0	0	\$ 0	0	\$ 0	0.01	\$ 0.0
	All Products	32.74	\$ 74.9	30.17	\$ 74.8	14.57	\$ 39.4	20.88	\$ 63.3	32.87	\$ 74.3
All Species Total		893.19	\$ 2,507.6	907.81	\$ 2,538.7	916.02	\$ 2,177.1	973.63	\$ 2,343.7	943.43	\$ 2,259.9

**Notes:** Total includes additional species not listed in the production details as well as confidential data from Tables 28 and 29. These estimates are for catch from both federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 26: Price per pound of groundfish products in the fisheries off Alaska by species and processing mode, 2011-2015, (dollars).

	Product	2011		2012		2013		2014		2015	
		At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside
Pollock	Whole Fish	\$ 0.66	\$ 0.73	\$ 0.53	\$ 0.45	\$ 0.40	\$ 0.52	\$ 0.47	\$ 0.39	\$ 0.45	\$ 0.45
	Head And Gut	\$ 0.92	\$ 0.65	\$ 0.73	\$ 0.60	\$ 0.71	\$ 0.76	\$ 0.64	\$ 0.62	\$ 0.64	\$ 0.61
	Roe	\$ 3.94	\$ 3.07	\$ 5.03	\$ 3.38	\$ 3.73	\$ 2.74	\$ 3.31	\$ 2.29	\$ 2.64	\$ 1.55
	Deep-Skin Fillets	\$ 1.75	\$ 1.52	\$ 1.70	\$ 1.67	\$ 1.71	\$ 1.41	\$ 1.63	\$ 1.50	\$ 1.58	\$ 1.47
	Other Fillets	\$ 1.46	\$ 1.53	\$ 1.42	\$ 1.52	\$ 1.29	\$ 1.46	\$ 1.31	\$ 1.30	\$ 1.39	\$ 1.20
	Surimi	\$ 1.41	\$ 1.16	\$ 1.61	\$ 1.26	\$ 1.08	\$ 0.94	\$ 1.19	\$ 1.00	\$ 1.26	\$ 0.99
	Minced Fish	\$ 0.76	\$ 0.70	\$ 0.79	\$ 0.74	\$ 0.68	\$ 0.65	\$ 0.60	\$ 0.59	\$ 0.67	\$ 0.66
	Fishmeal	\$ 0.79	\$ 0.65	\$ 0.86	\$ 0.56	\$ 0.88	\$ 0.72	\$ 0.96	\$ 0.63	\$ 0.92	\$ 0.63
	Other Products	\$ 0.60	\$ 0.44	\$ 0.67	\$ 0.53	\$ 0.59	\$ 0.43	\$ 0.46	\$ 0.41	\$ 0.52	\$ 0.38
	All Products	\$ 1.36	\$ 1.15	\$ 1.44	\$ 1.17	\$ 1.17	\$ 1.05	\$ 1.19	\$ 1.01	\$ 1.22	\$ 0.94
Pacific Cod	Whole Fish	\$ 0.49	\$ 0.73	\$ 0.57	\$ 0.73	\$ 0.50	\$ 0.46	\$ 0.36	\$ 0.86	\$ 0.34	\$ 0.56
	Head And Gut	\$ 1.56	\$ 1.31	\$ 1.41	\$ 1.18	\$ 1.10	\$ 0.82	\$ 1.32	\$ 1.07	\$ 1.43	\$ 1.13
	Salted/Split	\$ -	\$ *	\$ -	\$ *	\$ -	\$ *	\$ -	\$ -	\$ -	\$ -
	Roe	\$ 0.76	\$ 0.70	\$ 0.81	\$ 0.84	\$ 0.77	\$ 0.95	\$ 0.89	\$ 1.03	\$ 0.59	\$ 0.81
	Fillets	\$ 2.43	\$ 3.08	\$ 1.51	\$ 2.98	\$ 1.07	\$ 3.03	\$ 0.94	\$ 2.93	\$ 1.18	\$ 2.68
	Other Products	\$ 1.26	\$ 0.89	\$ 0.91	\$ 0.78	\$ 0.53	\$ 0.75	\$ 0.74	\$ 0.69	\$ 0.95	\$ 0.89
All Products	\$ 1.53	\$ 1.65	\$ 1.37	\$ 1.51	\$ 1.06	\$ 1.55	\$ 1.30	\$ 1.50	\$ 1.39	\$ 1.39	
Sablefish	Head And Gut	\$ 7.83	\$ 9.38	\$ 5.31	\$ 7.09	\$ 5.19	\$ 5.87	\$ 6.19	\$ 7.04	\$ 5.86	\$ 7.08
	Other Products	\$ 1.20	\$ 6.06	\$ 1.29	\$ 2.58	\$ 0.82	\$ 3.22	\$ 0.83	\$ 3.87	\$ 1.14	\$ 4.62
	All Products	\$ 6.94	\$ 9.04	\$ 5.03	\$ 6.74	\$ 4.62	\$ 5.74	\$ 5.63	\$ 6.86	\$ 5.36	\$ 7.00

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Table 26: Continued

		2011		2012		2013		2014		2015	
Product		At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside
Deep-Water Flatfish (GOA)	Whole Fish	\$ -	\$ 0.42	\$ *	\$ *	\$ -	\$ 0.45	\$ -	\$ 0.36	\$ -	\$ *
	Head And Gut	\$ -	\$ 0.62	\$ 0.90	\$ 0.64	\$ 0.52	\$ 0.78	\$ 0.72	\$ 0.63	\$ *	\$ *
	Kirimi	\$ -	\$ *	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Fillets	\$ -	\$ 2.01	\$ -	\$ *	\$ -	\$ 1.76	\$ -	\$ 2.04	\$ -	\$ *
	Other Products	\$ *	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	All Products	\$ *	\$ 0.58	\$ 0.90	\$ 0.64	\$ 0.52	\$ 0.61	\$ 0.72	\$ 0.73	\$ *	\$ *
Shallow- Water Flatfish (GOA)	Whole Fish	\$ *	\$ 0.63	\$ *	\$ 0.63	\$ -	\$ 1.08	\$ *	\$ 0.58	\$ -	\$ 1.07
	Head And Gut	\$ 0.64	\$ 0.68	\$ 0.77	\$ 0.70	\$ 0.46	\$ 0.72	\$ 0.41	\$ 0.69	\$ 0.85	\$ 0.53
	Kirimi	\$ -	\$ *	\$ -	\$ *	\$ -	\$ *	\$ -	\$ *	\$ -	\$ 1.04
	Fillets	\$ -	\$ 2.06	\$ -	\$ 2.15	\$ -	\$ 1.62	\$ -	\$ 1.39	\$ -	\$ 2.37
	Other Products	\$ -	\$ 0.14	\$ -	\$ *	\$ -	\$ *	\$ -	\$ *	\$ -	\$ -
	All Products	\$ 0.64	\$ 0.78	\$ 0.77	\$ 0.82	\$ 0.46	\$ 0.98	\$ 0.41	\$ 0.65	\$ 0.85	\$ 1.02
Arrowtooth	Whole Fish	\$ -	\$ 0.65	\$ *	\$ 0.47	\$ *	\$ 0.64	\$ 0.54	\$ 0.67	\$ *	\$ *
	Head And Gut	\$ 0.69	\$ 0.54	\$ 0.81	\$ 0.57	\$ 0.54	\$ 0.45	\$ 0.75	\$ 0.45	\$ 0.69	\$ 0.45
	Kirimi	\$ -	\$ *	\$ -	\$ *	\$ -	\$ *	\$ -	\$ *	\$ -	\$ *
	Fillets	\$ *	\$ *	\$ -	\$ *	\$ -	\$ 1.74	\$ -	\$ *	\$ -	\$ *
	Other Products	\$ 0.77	\$ 0.85	\$ 0.75	\$ 0.46	\$ 1.27	\$ 1.39	\$ 0.93	\$ 0.92	\$ 0.87	\$ 0.70
	All Products	\$ 0.70	\$ 0.57	\$ 0.81	\$ 0.56	\$ 0.55	\$ 0.51	\$ 0.75	\$ 0.46	\$ 0.69	\$ 0.46
Kamchatka Flounder (BSAI)	Whole Fish	\$ -	\$ -	\$ -	\$ -	\$ *	\$ -	\$ -	\$ -	\$ -	\$ -
	Head And Gut	\$ 0.70	\$ -	\$ 1.00	\$ -	\$ 0.55	\$ -	\$ 0.74	\$ -	\$ 0.67	\$ -
	Fishmeal	\$ 0.75	\$ -	\$ 0.66	\$ *	\$ 1.29	\$ -	\$ 0.93	\$ -	\$ 0.94	\$ -
	All Products	\$ 0.70	\$ -	\$ 1.00	\$ *	\$ 0.55	\$ -	\$ 0.74	\$ -	\$ 0.67	\$ -

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Table 26: Continued

	Product	2011		2012		2013		2014		2015	
		At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside
Flathead Sole	Whole Fish	\$ 0.59	\$ 0.53	\$ 0.76	\$ 0.62	\$ 1.38	\$ 1.06	\$ 0.62	\$ 0.51	\$ 0.44	\$ 0.86
	Head And Gut	\$ 0.89	\$ 0.53	\$ 0.93	\$ 0.61	\$ 0.85	\$ 0.68	\$ 0.70	\$ 0.70	\$ 0.64	\$ 0.49
	Kirimi	\$ -	\$ *	\$ -	\$ *	\$ -	\$ *	\$ -	\$ 1.23	\$ -	\$ 1.08
	Fillets	\$ *	\$ 2.15	\$ *	\$ 2.00	\$ -	\$ 1.56	\$ *	\$ 1.36	\$ 2.33	\$ *
	Other Products	\$ 0.82	\$ 0.73	\$ 0.75	\$ 0.37	\$ 1.35	\$ 1.30	\$ 0.93	\$ 0.92	\$ 0.87	\$ 0.87
	All Products	\$ 0.89	\$ 0.60	\$ 0.91	\$ 0.59	\$ 0.90	\$ 0.98	\$ 0.70	\$ 0.66	\$ 0.64	\$ 0.83
Rex Sole (GOA)	Whole Fish	\$ 1.12	\$ 1.02	\$ 1.12	\$ 1.12	\$ 1.21	\$ 0.94	\$ 1.11	\$ 0.86	\$ 0.77	\$ 0.99
	Head And Gut	\$ *	\$ *	\$ *	\$ *	\$ 1.76	\$ *	\$ 0.62	\$ *	\$ 0.95	\$ *
	Kirimi	\$ -	\$ -	\$ -	\$ *	\$ -	\$ *	\$ -	\$ -	\$ -	\$ -
	Fillets	\$ -	\$ 1.83	\$ -	\$ *	\$ -	\$ 1.31	\$ -	\$ *	\$ -	\$ *
	Other Products	\$ -	\$ 0.74	\$ -	\$ *	\$ -	\$ *	\$ -	\$ *	\$ -	\$ -
	All Products	\$ 1.12	\$ 1.03	\$ 1.12	\$ 1.12	\$ 1.21	\$ 0.94	\$ 1.11	\$ 0.86	\$ 0.77	\$ 0.99
Rock Sole (BSAI)	Whole Fish	\$ 0.53	\$ *	\$ 0.66	\$ *	\$ 0.50	\$ *	\$ 0.53	\$ *	\$ 0.50	\$ -
	Head And Gut	\$ 0.69	\$ -	\$ 0.80	\$ -	\$ 0.54	\$ -	\$ 0.45	\$ -	\$ 0.49	\$ -
	Head And Gut With Roe	\$ 1.05	\$ -	\$ 1.28	\$ -	\$ 0.85	\$ -	\$ 0.85	\$ -	\$ 0.89	\$ -
	Fillets	\$ *	\$ -	\$ -	\$ -	\$ *	\$ -	\$ 5.70	\$ -	\$ 2.78	\$ -
	Other Products	\$ 0.84	\$ 0.74	\$ 0.71	\$ 0.37	\$ 1.26	\$ 1.30	\$ 0.92	\$ 0.92	\$ 0.87	\$ 0.87
	All Products	\$ 0.77	\$ 0.74	\$ 0.91	\$ 0.37	\$ 0.58	\$ 1.30	\$ 0.55	\$ 0.92	\$ 0.55	\$ 0.87
Turbot (BSAI)	Whole Fish	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ *	\$ -	\$ *
	Head And Gut	\$ 2.65	\$ *	\$ 2.09	\$ -	\$ 1.95	\$ -	\$ 2.18	\$ *	\$ 2.15	\$ -
	Other Products	\$ 1.90	\$ 0.70	\$ 1.59	\$ 0.37	\$ 1.56	\$ 1.33	\$ 1.89	\$ 0.93	\$ 1.80	\$ 0.88
	All Products	\$ 2.45	\$ 0.68	\$ 1.96	\$ 0.37	\$ 1.86	\$ 1.33	\$ 2.11	\$ 0.93	\$ 2.06	\$ 0.88

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Table 26: Continued

	Product	2011		2012		2013		2014		2015	
		At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside
Yellowfin (BSAI)	Whole Fish	\$ 0.55	\$ -	\$ 0.63	\$ *	\$ 1.34	\$ *	\$ 0.46	\$ *	\$ 0.45	\$ -
	Head And Gut	\$ 0.65	\$ -	\$ 0.63	\$ -	\$ 0.51	\$ -	\$ 0.45	\$ -	\$ 0.48	\$ -
	Kirimi	\$ *	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Fillets	\$ -	\$ -	\$ *	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Other Products	\$ 0.85	\$ 0.85	\$ 0.87	\$ 0.88	\$ 1.30	\$ 1.30	\$ 0.90	\$ 0.92	\$ 1.02	\$ 0.87
	All Products	\$ 0.63	\$ 0.85	\$ 0.63	\$ 0.88	\$ 0.58	\$ 1.30	\$ 0.46	\$ 0.92	\$ 0.48	\$ 0.87
Flat Other (BSAI)	Whole Fish	\$ 1.05	\$ 1.40	\$ 0.81	\$ *	\$ 0.90	\$ *	\$ 0.67	\$ *	\$ 0.51	\$ *
	Head And Gut	\$ 0.51	\$ *	\$ 0.58	\$ -	\$ 0.49	\$ -	\$ 0.49	\$ -	\$ 0.46	\$ -
	Fillets	\$ *	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Other Products	\$ 0.84	\$ 0.74	\$ 0.87	\$ 0.37	\$ 1.26	\$ 1.30	\$ 0.91	\$ 0.92	\$ 0.88	\$ 0.87
	All Products	\$ 0.56	\$ 1.34	\$ 0.64	\$ 0.37	\$ 0.57	\$ 1.30	\$ 0.53	\$ 0.92	\$ 0.47	\$ 0.87
Rockfish	Whole Fish	\$ 1.49	\$ 0.94	\$ 0.96	\$ 0.98	\$ 1.19	\$ 0.84	\$ 1.68	\$ 0.69	\$ 1.14	\$ 0.80
	Head And Gut	\$ 1.70	\$ 1.74	\$ 1.40	\$ 1.75	\$ 1.02	\$ 1.32	\$ 1.16	\$ 1.33	\$ 1.00	\$ 1.43
	Other Products	\$ 1.24	\$ 2.76	\$ 1.17	\$ 3.48	\$ 1.10	\$ 2.85	\$ 0.81	\$ 2.01	\$ 1.02	\$ 1.97
	All Products	\$ 1.69	\$ 1.42	\$ 1.38	\$ 1.67	\$ 1.03	\$ 1.16	\$ 1.17	\$ 1.03	\$ 1.00	\$ 1.13
Atka Mackerel	Whole Fish	\$ 0.45	\$ 0.54	\$ 0.63	\$ 0.70	\$ 0.83	\$ *	\$ 0.66	\$ 0.60	\$ 0.53	\$ *
	Head And Gut	\$ 1.15	\$ *	\$ 1.24	\$ -	\$ 1.33	\$ -	\$ 1.51	\$ -	\$ 1.08	\$ -
	Other Products	\$ 0.64	\$ 0.47	\$ 0.71	\$ 0.36	\$ 1.03	\$ 1.09	\$ 1.21	\$ 0.51	\$ 0.87	\$ 0.88
	All Products	\$ 1.04	\$ 0.54	\$ 1.13	\$ 0.66	\$ 1.23	\$ 1.09	\$ 1.38	\$ 0.60	\$ 1.02	\$ 0.87

**Notes:** These estimates are based on data from both federal and state of Alaska fisheries. Prices based on confidential data have been excluded. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 27: Total product value per round metric ton of retained catch in the groundfish fisheries off Alaska by processor type, species, area and year, 2011-2015, (dollars).

	Species	Bering Sea & Aleutian Islands					Gulf of Alaska				
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Motherships	Pollock	1,220	1,153	808	1,035	971	-	-	-	-	-
	Pacific Cod	402	965	555	388	459	-	-	-	-	-
Catcher processors	Pollock	1,190	1,206	1,037	1,037	1,044	881	658	682	497	578
	Sablefish	10,172	7,853	7,799	9,728	10,625	11,279	6,770	6,834	8,391	6,794
	Pacific Cod	1,687	1,501	1,180	1,423	1,579	1,621	1,480	1,063	1,300	1,381
	Flatfish	913	1,004	768	694	693	1,020	1,103	909	915	887
	Rockfish	1,967	1,572	1,173	1,370	1,141	2,059	1,568	1,103	1,329	1,232
	Atka Mackerel	1,484	1,584	1,681	2,019	1,391	1,694	1,856	2,075	1,828	1,508
	Other	483	624	482	460	513	1,098	1,223	1,922	1,148	2,343
Shoreside processors	Pollock	1,047	1,089	950	980	887	920	865	1,007	757	639
	Sablefish	11,258	9,152	9,913	9,570	13,167	11,319	8,246	6,744	8,380	8,307
	Pacific Cod	1,682	1,632	1,398	1,489	1,391	1,570	1,463	1,502	1,502	1,326
	Flatfish	829	741	1,102	553	564	676	799	831	700	695
	Rockfish	1,730	1,661	1,424	936	1,071	1,865	1,830	1,469	1,299	1,339
	Other	428	888	433	1,611	1,776	1,606	2,166	2,037	1,585	1,568

**Notes:** These estimates include the product value of catch from both federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports; ADF&G Commercial Operators Annual Reports (COAR); and NMFS Alaska Region Blend and Catch-accounting System estimates. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 28: Production of groundfish products in the fisheries off Alaska by species, product and area, 2011-2015, (1,000 metric tons product weight).

	Product	Bering Sea & Aleutian Islands					Gulf of Alaska				
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Pollock	Whole Fish	1.5	1.7	1.8	1.4	1.8	0.5	0.5	0.7	0.3	2.3
	Head And Gut	44.8	29.1	41.0	37.5	25.4	14.8	19.0	21.3	29.7	30.3
	Roe	18.0	16.5	13.9	20.6	18.8	1.3	1.7	2.2	3.5	3.1
	Deep-Skin Fillets	46.2	55.5	51.6	43.7	43.8	*	*	*	*	-
	Other Fillets	115.0	91.1	119.3	132.1	123.2	5.7	5.9	5.8	8.2	9.1
	Surimi	141.0	157.1	161.7	171.3	187.7	7.1	9.9	8.6	12.3	14.6
	Minced Fish	30.4	31.0	30.7	26.1	25.2	0.5	0.6	0.2	0.2	*
	Fishmeal	52.8	52.5	53.9	56.9	61.0	0.1	*	*	*	*
Other Products	33.3	38.2	33.0	36.0	34.0	0.6	0.6	0.8	0.5	0.3	
Sablefish	Head And Gut	1.0	1.2	1.1	0.7	0.5	5.9	6.3	6.2	5.6	5.3
	Other Products	0	0.1	0	0	0	0.8	0.6	0.5	0.4	0.2
Pacific Cod	Whole Fish	1.2	1.5	2.4	1.0	0.5	1.3	1.8	1.2	0.5	0.7
	Head And Gut	88.8	104.2	97.8	100.6	100.8	17.3	15.4	6.6	13.9	19.1
	Salted/Split	*	*	-	-	-	*	-	*	-	-
	Roe	1.8	2.4	2.8	3.5	2.4	1.3	1.5	1.6	1.8	1.3
	Fillets	6.6	6.8	8.8	8.4	6.3	9.2	9.1	9.7	9.9	6.4
	Other Products	9.0	7.9	10.0	10.1	10.5	6.0	6.3	4.6	5.0	4.5
Flatfish	Whole Fish	17.4	22.5	10.5	21.6	10.3	4.1	3.5	5.2	5.5	2.3
	Head And Gut	130.1	133.8	142.6	129.2	110.1	12.0	8.4	8.6	16.9	8.6
	Kirimi	*	-	-	-	-	*	*	*	0.1	0.7
	Fillets	*	*	*	0	0	0.2	0.2	0.2	0.2	0
	Fishmeal	0	0	0	0	0	-	-	-	-	-
	Other Products	3.1	3.1	2.0	1.6	1.2	0.3	0.1	0	*	0.1
Rockfish	Whole Fish	0.7	1.3	0.5	0.5	0.5	3.0	1.9	3.3	3.8	3.9
	Head And Gut	13.4	12.3	16.3	17.5	18.8	8.9	10.4	8.6	10.1	10.4
	Other Products	0	0.1	0	0.1	0.2	0.4	0.6	0.4	0.4	0.3
Atka Mackerel	Whole Fish	5.3	5.6	2.9	3.3	3.3	-	*	-	*	*
	Head And Gut	26.9	24.2	11.1	17.1	29.1	0.5	0.4	0.5	0.5	0.5
	Other Products	0	0	0	0	0	-	*	*	-	*

**Notes:** These estimates include production resulting from catch from federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value. Confidential data withheld from this table are included in the grand totals in Table 25.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 29: Production of groundfish products in the fisheries off Alaska by species, product and processing mode, 2011-2015, (1,000 metric tons product weight).

	Product	At-sea					Shoreside				
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Pollock	Whole Fish	0.11	0.24	0.16	0.31	1.11	1.90	1.95	2.32	1.36	2.98
	Head And Gut	38.83	26.05	37.86	35.46	25.95	20.77	22.10	24.40	31.76	29.78
	Roe	11.66	9.30	8.37	11.71	12.01	7.63	8.86	7.75	12.41	9.86
	Deep-Skin Fillets	32.25	36.84	36.83	32.68	34.56	13.94	18.65	14.76	11.01	9.22
	Other Fillets	58.32	47.55	59.63	63.68	57.44	62.40	49.41	65.44	76.60	74.90
	Surimi	70.80	77.93	80.85	87.81	95.94	77.27	89.11	89.41	95.84	106.45
	Minced Fish	23.49	25.06	23.47	19.98	19.71	7.50	6.53	7.47	6.28	5.47
	Fishmeal	22.58	21.08	20.98	23.25	26.45	30.34	31.44	32.89	33.60	34.59
Other Products	12.26	10.57	12.21	13.57	12.60	21.71	28.22	21.60	22.90	21.71	
Sablefish	Head And Gut	1.03	1.08	1.05	0.78	0.64	5.83	6.44	6.30	5.51	5.17
	Other Products	0.16	0.08	0.16	0.09	0.07	0.65	0.55	0.33	0.32	0.18
Pacific Cod	Whole Fish	0.63	1.28	1.99	0.19	0.12	1.84	1.99	1.65	1.24	1.09
	Head And Gut	78.50	86.92	84.36	84.46	87.81	27.57	32.69	20.03	30.05	32.06
	Salted/Split	-	-	-	-	-	*	*	*	-	-
	Roe	0.46	0.62	0.38	0.75	0.62	2.71	3.24	3.99	4.50	3.09
	Fillets	0.71	0.32	0.28	0.15	0.20	15.08	15.52	18.21	18.12	12.47
	Other Products	4.62	3.11	4.32	3.10	5.35	10.44	11.06	10.27	12.03	9.66
Flatfish	Whole Fish	18.86	23.86	12.37	22.89	11.41	2.68	2.16	3.34	4.18	1.17
	Head And Gut	136.38	138.44	146.87	141.80	116.27	5.69	3.78	4.33	4.30	2.44
	Kirimi	*	-	-	-	-	*	*	*	0.13	0.66
	Fillets	*	*	*	0	0.01	0.19	0.19	0.22	0.16	0.04
	Fishmeal	0	0	0.01	0.01	0.01	-	*	-	-	-
	Other Products	2.46	2.23	1.61	1.30	0.97	1.01	0.89	0.41	0.28	0.27
Rockfish	Whole Fish	0.82	1.17	0.52	0.63	0.63	2.78	2.07	3.27	3.64	3.69
	Head And Gut	19.73	19.42	22.35	24.66	26.31	2.59	3.23	2.63	2.91	2.85
	Other Products	0.06	0.03	0.03	0.05	0.11	0.37	0.66	0.36	0.39	0.39
Atka Mackerel	Whole Fish	5.07	5.43	2.91	3.17	3.31	0.25	0.20	*	0.08	*
	Head And Gut	27.41	24.51	11.67	17.63	29.56	*	-	-	-	-
	Other Products	0	0	0	0	0	0	0.03	0	0	0

**Notes:** These estimates include production resulting from catch from federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value. Confidential data withheld from this table are included in the grand totals in Table 25.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 30: Production and real gross value of non-groundfish products in the commercial fisheries of Alaska by species group and area of processing, 2011-2015, (1,000 metric tons product weight and \$ millions).

Species	Bering Sea & Aleutian Islands		Gulf of Alaska		All Alaska		
	Quantity	Value	Quantity	Value	Quantity	Value	
2011	Salmon	48.6	\$ 426.9	198.7	\$ 1,105.9	247.3	\$ 1,532.9
	Halibut	2.8	\$ 57.1	8.2	\$ 150.0	11.0	\$ 207.1
	Herring	20.4	\$ 22.7	21.0	\$ 23.5	41.4	\$ 46.2
	Crab	19.5	\$ 342.4	4.6	\$ 79.8	24.1	\$ 422.2
	Other	*	\$ *	1.3	\$ 24.2	1.3	\$ 24.2
	All Species	91.3	\$ 849.2	233.8	\$ 1,383.3	325.1	\$ 2,232.5
2012	Salmon	39.8	\$ 337.7	168.3	\$ 1,008.8	208.1	\$ 1,346.5
	Halibut	2.0	\$ 35.1	8.5	\$ 134.9	10.5	\$ 170.0
	Herring	16.2	\$ 21.1	15.4	\$ 30.7	31.6	\$ 51.8
	Crab	29.0	\$ 382.8	4.6	\$ 70.5	33.6	\$ 453.3
	Other	0	\$ 0	1.7	\$ 34.2	1.7	\$ 34.9
	All Species	87.0	\$ 777.5	198.6	\$ 1,279.0	285.5	\$ 2,056.5
2013	Salmon	34.7	\$ 363.0	290.3	\$ 1,493.0	325.1	\$ 1,855.9
	Halibut	1.4	\$ 18.0	7.5	\$ 117.1	8.9	\$ 135.2
	Herring	25.5	\$ 25.7	11.6	\$ 22.6	37.1	\$ 48.3
	Crab	24.7	\$ 335.4	3.0	\$ 45.9	27.7	\$ 381.3
	Other	0	\$ 0	1.3	\$ 26.3	1.3	\$ 27.1
	All Species	86.4	\$ 742.9	313.7	\$ 1,704.9	400.1	\$ 2,447.7
2014	Salmon	58.1	\$ 454.7	176.8	\$ 967.6	234.9	\$ 1,422.4
	Halibut	0.6	\$ 8.9	5.5	\$ 102.2	6.2	\$ 111.1
	Herring	19.5	\$ 17.0	20.4	\$ 24.6	39.9	\$ 41.6
	Crab	23.2	\$ 327.1	3.8	\$ 58.9	27.0	\$ 386.0
	Other	0	\$ 0	1.2	\$ 19.1	1.2	\$ 19.6
	All Species	101.4	\$ 808.2	207.8	\$ 1,172.4	309.2	\$ 1,980.6
2015	Salmon	70.5	\$ 418.6	270.7	\$ 1,035.6	341.3	\$ 1,454.2
	Halibut	3.4	\$ 20.2	6.1	\$ 112.2	9.5	\$ 132.4
	Herring	17.7	\$ 18.6	10.1	\$ 11.9	27.8	\$ 30.4
	Crab	25.4	\$ 321.0	3.9	\$ 56.5	29.3	\$ 377.5
	Other	0	\$ 0	1.0	\$ 17.5	1.0	\$ 18.1
	All Species	117.1	\$ 778.9	291.8	\$ 1,233.7	408.9	\$ 2,012.6

**Notes:** These estimates include production resulting from catch in both federal and state of Alaska fisheries. The data have been adjusted to 2015 dollars by applying the GDP: chain-type price index <https://research.stlouisfed.org/fred2/series/GDPCTPI>. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 31: Gross product value of Alaska groundfish by area and processing mode, 2011-2015, (\$ millions).

Year	Bering Sea & Aleutian Islands		Gulf of Alaska		All Alaska
	At-sea	Shoreside	At-sea	Shoreside	All Sectors
2011	1,447.4	656.1	69.0	339.2	2,511.7
2012	1,469.3	699.4	51.5	322.4	2,542.7
2013	1,221.6	629.6	36.3	292.9	2,180.4
2014	1,292.0	666.0	62.2	325.6	2,345.9
2015	1,309.5	602.4	47.7	302.7	2,262.4

**Notes:** These estimates include the product value of catch from both federal and state of Alaska fisheries.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 32: Gross product value of Alaska groundfish by catcher/processor category, vessel length, and area, 2011-2015, (\$ millions).

	Year	Bering Sea & Aleutian Islands			Gulf of Alaska	
		125-165	<125	>165	<125	>=125
Fixed Gear	2011	117.7	58.3	62.2	11.7	11.8
	2012	111.1	64.8	57.2	6.9	6.2
	2013	84.6	42.5	51.4	*	6.3
	2014	100.3	47.2	66.2	3.0	10.2
	2015	123.7	56.3	63.9	4.0	8.8
Fillet Trawl	2011	-	-	79.6	-	-
	2014	-	-	*	-	-
Head And Gut Trawl	2011	64.4	47.9	287.9	8.4	37.1
	2012	74.2	48.4	307.1	9.3	28.4
	2013	48.7	33.1	244.1	8.7	18.8
	2014	48.6	26.1	262.1	*	35.8
	2015	45.3	27.6	242.2	*	25.1
Surimi Trawl	2011	-	-	595.0	-	-
	2012	-	-	684.8	-	-
	2013	-	-	627.6	-	-
	2014	-	-	590.3	-	-
	2015	-	-	639.0	-	-
All Trawl	2011	64.4	47.9	962.5	8.4	37.1
	2012	74.2	48.4	992.0	9.3	28.4
	2013	48.7	33.1	871.7	8.7	18.8
	2014	48.6	26.1	852.4	*	35.8
	2015	45.3	27.6	881.1	*	25.1

**Notes:** These estimates include the product value of catch from both federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region At-sea Production Reports; ADF&G Commercial Operators Annual Reports (COAR); and NMFS Alaska Region permit data. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 33: Gross product value per vessel of Alaska groundfish by catcher/processor category, vessel length, and area 2011-2015, (\$ millions).

	Year	Bering Sea & Aleutian Islands			Gulf of Alaska	
		125-165	<125	>165	<125	>=125
Fixed Gear	2011	7.8	4.2	7.8	1.5	1.1
	2012	7.4	5.0	6.4	1.0	0.8
	2013	5.6	3.5	5.7	*	0.9
	2014	6.3	5.2	7.4	0.7	1.1
	2015	7.7	6.3	7.1	1.0	1.3
Fillet Trawl	2011	-	-	26.5	-	-
	2014	-	-	*	-	-
Head And Gut Trawl	2011	16.1	9.6	24.0	2.1	2.9
	2012	18.6	9.7	23.6	2.3	2.2
	2013	12.2	11.0	18.8	2.9	1.7
	2014	12.2	8.7	20.2	*	4.0
	2015	11.3	9.2	18.6	*	3.6
Surimi Trawl	2011	-	-	49.6	-	-
	2012	-	-	48.9	-	-
	2013	-	-	44.8	-	-
	2014	-	-	45.4	-	-
	2015	-	-	45.6	-	-
All Trawl	2011	16.1	9.6	35.6	2.1	2.9
	2012	18.6	9.7	36.7	2.3	2.2
	2013	12.2	11.0	32.3	2.9	1.7
	2014	12.2	8.7	31.6	*	4.0
	2015	11.3	9.2	32.6	*	3.6

**Notes:** These estimates include the product value of catch from both federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region At-sea Production Reports; ADF&G Commercial Operators Annual Reports (COAR); and NMFS Alaska Region permit data. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.



Table 34: Gross product value of groundfish processed by shoreside processors by processor group, 2011-2015, (\$ millions).

Processor Group	2011	2012	2013	2014	2015
Bering Sea Pollock	675.8	699.4	636.0	691.1	618.9
AK Peninsula/Aleutians	44.2	61.2	35.9	30.7	21.4
Kodiak	161.7	168.4	157.2	178.8	185.7
South Central	58.3	48.5	34.3	30.0	39.5
Southeastern	51.2	51.0	35.8	39.6	41.2
All Regions	991.1	1,028.6	899.2	970.2	906.7

**Notes:** See Table 35 for notes and source information.

Table 35: Groundfish gross product value as a percentage of all-species gross product value by shoreside processor group, 2011-2015, (percent).

Processor Group	2011	2012	2013	2014	2015
Bering Sea Pollock	72.8	75.7	74.3	79.1	71.1
AK Peninsula/Aleutians	8.8	11.8	6.9	5.5	3.9
Kodiak	46.4	46.0	41.7	55.4	49.4
South Central	13.8	10.2	5.4	6.6	8.2
Southeastern	8.3	9.8	5.7	7.7	8.8
All Regions	35.2	36.7	29.8	35.7	33.1

**Notes:** The data are for catch from both federal and state of Alaska fisheries. The processor groups are defined as follows: "Bering Sea Pollock" are the AFA inshore pollock processors including the two AFA floating processors. "AK Peninsula/Aleutian" are other processors on the Alaska Peninsula or in the Aleutian Islands. "Kodiak" are processors on Kodiak Island. "South Central" are processors west of Yakutat and on the Kenai Peninsula. "Southeastern" are processors located from Yakutat south.

**Source:** ADF&G Commercial Operators Annual Reports (COAR); and ADF&G Intent to Operate (ITO) file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 36: Number of groundfish vessels that caught or caught and processed more than \$11 million ex-vessel value or product value of groundfish and other species by area, vessel type and gear, 2015.

Gear	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
	Catcher Processors	All Vessels	Catcher Processors	All Vessels	Catcher Processors	All Vessels
Hook & Line	-	-	2	2	2	2
2015 Trawl	8	8	32	32	32	32
All Gear	8	8	34	34	34	34

**Notes:** Includes only vessels that fished part of federal groundfish TACs. Determination that a vessel was below the \$11 million threshold was based on total revenue from catching or processing all species, not just groundfish. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** ADF&G Commercial Operators Annual Reports (COAR); ADF&G Intent to Operate (ITO) file; NMFS Alaska Region At-sea Production Reports; CFEC gross earnings (fish tickets) file; NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region permit data; and AKFIN West Coast whiting revenue data. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 37a: Number of groundfish vessels that caught or caught and processed less than \$11 million ex-vessel value or product value of groundfish and other species by area, vessel type and gear, 2015.

Gear	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
	Catcher Vessels	Catcher Processors	All Vessels	Catcher Vessels	Catcher Processors	All Vessels	Catcher Vessels	Catcher Processors	All Vessels
2015 Hook & Line	832	12	844	122	30	152	889	32	921
Pot	116	-	116	47	4	51	150	4	154
Trawl	68	2	70	100	2	102	143	3	146
All Gear	948	14	962	258	35	293	1,105	38	1,143

**Notes:** Includes only vessels that fished part of federal groundfish TACs. Determination that a vessel was below the \$11 million threshold was based on total revenue from catching or processing all species, not just groundfish. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** ADF&G Commercial Operators Annual Reports (COAR); ADF&G Intent to Operate (ITO) file; NMFS Alaska Region At-sea Production Reports; CFEC gross earnings (fish tickets) file; NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region permit data; and AKFIN West Coast whiting revenue data. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 37b: Number of groundfish vessels that caught or caught and processed less than \$11 million ex-vessel value or product value of groundfish and other species by area, vessel type and gear, 2015; entity size based on vessel revenues and affiliated group revenues.

Gear	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
	Catcher Vessels	Catcher Processors	All Vessels	Catcher Vessels	Catcher Processors	All Vessels	Catcher Vessels	Catcher Processors	All Vessels
Hook & Line	825	2	827	118	3	121	881	5	886
Pot	115	-	115	26	2	28	127	2	129
Trawl	29	1	30	17	-	17	41	1	42
All Gear	902	3	905	152	4	156	975	7	982

**Notes:** Includes only vessels that fished part of federal groundfish TACs. Determination that a vessel is above the \$11 million threshold is based on the vessel’s total revenue from catching or processing all species, not just groundfish. Entity size determination is additionally based on total vessel revenues of known affiliated groups (Amendment 80, AFA pollock, Central Gulf of Alaska rockfish, BSAI crab, and freezer longline cooperatives, as well as known corporate affiliations), whereby group revenue totaling over \$11 million confers large entity status on all member vessels. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** ADF&G Commercial Operators Annual Reports (COAR); ADF&G Intent to Operate (ITO) file; NMFS Alaska Region At-sea Production Reports; CFEC gross earnings (fish tickets) file; NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region permit data; and AKFIN West Coast whiting revenue data. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 38: Average revenue of groundfish vessels that caught or caught and processed more than \$11 million ex-vessel value or product value of groundfish and other species, by area, vessel type, and gear, 2015, (\$ millions).

		Gulf of	Bering Sea	All Alaska
		Alaska	& Aleutian Islands	
Gear		Catcher Processors	Catcher Processors	Catcher Processors
2015	Hook & Line	-	*	*
	Trawl	18.42	31.3	31.3

**Notes:** Includes only vessels that fished part of federal groundfish TACs. Categories with fewer than four vessels are not reported. Averages are obtained by adding the total revenues, across all areas and gear types, of all the vessels in the category, and dividing that sum by the number of vessels in the category. Averages include revenue realized from catching or processing all species, not just groundfish. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** ADF&G Commercial Operators Annual Reports (COAR); ADF&G Intent to Operate (ITO) file; NMFS Alaska Region At-sea Production Reports; CFEC gross earnings (fish tickets) file; NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region permit data; and AKFIN West Coast whiting revenue data. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 39a: Average revenue of groundfish vessels that caught or caught and processed less than \$11 million ex-vessel value or product value of groundfish and other species, by area, vessel type and gear, 2015, (\$ millions).

Gear	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
	Catcher Vessels	Catcher Processors	Catcher Vessels	Catcher Processors	Catcher Vessels	Catcher Processors
Hook & Line	0.35	5.8	0.58	6.78	0.35	6.47
2015 Pot	0.65	-	1.93	4.68	1.01	4.68
Trawl	1.62	*	2.86	*	2.41	*

**Notes:** Includes only vessels that fished part of federal groundfish TACs. Categories with fewer than four vessels are not reported. Averages are obtained by adding the total revenues, across all areas and gear types, of all the vessels in the category, and dividing that sum by the number of vessels in the category. Averages include revenue realized from catching or processing all species, not just groundfish. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** ADF&G Commercial Operators Annual Reports (COAR); ADF&G Intent to Operate (ITO) file; NMFS Alaska Region At-sea Production Reports; CFEC gross earnings (fish tickets) file; NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region permit data; and AKFIN West Coast whiting revenue data. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 39b: Average revenue of groundfish vessels that caught or caught and processed less than \$11 million ex-vessel value or product value of groundfish and other species, by area, vessel type and gear, 2015, (\$ millions); entity size based on vessel revenues and affiliated group revenues.

Gear	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
	Catcher Vessels	Catcher Processors	Catcher Vessels	Catcher Processors	Catcher Vessels	Catcher Processors
	2015 Hook & Line	0.34	*	0.52	*	0.34
Pot	0.76	-	1.29	*	0.79	*
Trawl	1.85	*	2.99	-	1.90	*

**Notes:** Includes only vessels that fished part of federal groundfish TACs. Determination that a vessel is above the \$11 million threshold is based on the vessel's total revenue from catching or processing all species, not just groundfish. Categories with fewer than four vessels are not reported. Averages are obtained by adding the total revenues, across all areas and gear types, of all the vessels in the category, and dividing that sum by the number of vessels in the category. Entity size determination is additionally based on total vessel revenues of known affiliated groups (Amendment 80, AFA pollock, Central Gulf of Alaska rockfish, BSAI crab, and freezer longline cooperatives, as well as known corporate affiliations), whereby group revenue totaling over \$11 million confers large entity status on all member vessels. "\*" indicates a confidential value; "-" indicates no applicable data or value.

**Source:** ADF&G Commercial Operators Annual Reports (COAR); ADF&G Intent to Operate (ITO) file; NMFS Alaska Region At-sea Production Reports; CFEC gross earnings (fish tickets) file; NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region permit data; and AKFIN West Coast whiting revenue data. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 40: Number and total registered net tons of vessels that caught groundfish off Alaska by area and gear, 2008-2015.

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
		Number Of Vessels	Registered Net Tons	Number Of Vessels	Registered Net Tons	Number Of Vessels	Registered Net Tons
Hook & Line	2008	668	24,268	107	15,103	711	31,654
	2009	609	22,700	77	13,862	643	29,518
	2010	633	22,279	73	12,541	658	28,256
	2011	716	23,444	78	11,148	747	28,709
	2012	726	21,702	68	10,686	764	28,752
	2013	516	17,270	66	10,966	559	24,960
	2014	551	19,306	52	10,450	582	25,332
	2015	562	18,192	52	10,319	594	25,257
Pot	2008	149	8,670	72	8,355	194	14,639
	2009	126	7,098	55	6,426	165	12,200
	2010	115	6,639	54	6,737	152	11,820
	2011	146	7,943	58	7,082	186	13,243
	2012	146	7,812	57	6,874	185	13,162
	2013	128	7,134	62	7,084	167	12,364
	2014	102	5,767	58	7,183	152	12,194
	2015	116	5,979	51	6,258	154	11,223
Trawl	2008	88	13,394	149	52,865	192	56,289
	2009	90	14,102	146	47,909	186	51,235
	2010	85	13,769	138	49,022	178	52,397
	2011	86	13,753	140	49,822	178	52,883
	2012	88	14,002	146	50,659	183	53,769
	2013	84	12,274	136	49,538	178	52,901
	2014	82	10,967	134	49,402	181	53,200
	2015	78	10,711	134	49,462	178	53,147
All Gear	2008	857	43,180	314	75,163	1,036	98,316
	2009	779	41,216	270	67,431	939	89,382
	2010	791	40,033	260	67,579	942	89,199
	2011	885	41,742	271	67,475	1,040	90,613
	2012	904	40,255	264	67,529	1,069	91,789
	2013	689	34,115	259	67,304	860	87,301
	2014	696	33,634	241	66,707	868	87,598
	2015	722	32,715	234	65,809	888	87,125

**Notes:** These estimates include only vessels fishing federal TACs. Registered net tons totals exclude mainly smaller vessels for which data were unavailable. Annually percentage of vessels missing is between 1-2%.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.



Table 41: Number of vessels that caught groundfish off Alaska by area, vessel category, gear and target, 2011-2015.

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
		Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total
Sablefish	2011	299	9	308	24	9	33	313	13	326
	2012	297	7	304	25	5	30	311	10	321
	2013	265	7	272	17	6	23	273	11	284
	2014	264	6	270	13	5	18	270	9	279
	2015	253	6	259	13	3	16	259	8	267
Pacific Cod	2011	323	15	338	20	31	51	331	35	366
	2012	320	9	329	13	32	45	327	35	362
	2013	181	5	186	18	29	47	196	30	226
	2014	204	10	214	8	29	37	211	31	242
	2015	223	10	233	9	29	38	230	31	261
Hook & Line Flatfish	2011	-	-	-	-	8	8	-	8	8
	2012	-	-	-	-	7	7	-	7	7
	2013	-	-	-	-	4	4	-	4	4
	2014	-	-	-	-	3	3	-	3	3
	2015	-	-	-	-	3	3	-	3	3
Rockfish	2011	150	1	151	1	-	1	150	1	151
	2012	174	-	174	-	2	2	174	2	176
	2013	143	-	143	-	3	3	143	3	146
	2014	144	-	144	1	2	3	145	2	147
	2015	112	-	112	1	1	2	112	1	113
All Groundfish	2011	697	19	716	43	35	78	710	37	747
	2012	711	15	726	34	34	68	726	38	764
	2013	506	10	516	33	33	66	524	35	559
	2014	538	13	551	21	31	52	548	34	582
	2015	520	12	532	21	31	52	531	33	564

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Table 41: Continued

		Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska			
	Year	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total	
Pot	Pacific Cod	2011	144	1	145	47	5	52	174	5	179
		2012	144	1	145	49	5	54	176	5	181
		2013	128	-	128	56	3	59	161	3	164
		2014	100	-	100	51	4	55	143	4	147
		2015	116	-	116	44	4	48	148	4	152
	Pollock	2011	62	3	65	86	31	117	129	31	160
		2012	67	1	68	90	32	122	135	32	167
		2013	64	3	67	87	32	119	132	33	165
		2014	68	2	70	87	34	121	136	34	170
		2015	62	1	63	87	32	119	129	32	161
Trawl	Sablefish	2011	14	-	14	-	-	-	14	-	14
		2012	12	-	12	-	-	-	12	-	12
		2013	17	-	17	-	2	2	17	2	19
		2014	12	1	13	-	1	1	12	2	14
		2015	18	1	19	-	-	-	18	1	19
	Pacific Cod	2011	52	1	53	50	18	68	86	18	104
		2012	61	3	64	60	18	78	101	18	119
		2013	54	1	55	54	18	72	95	18	113
		2014	55	-	55	50	14	64	97	14	111
		2015	53	1	54	48	16	64	95	17	112
	Flatfish	2011	31	6	37	2	31	33	33	32	65
		2012	32	5	37	4	30	34	36	31	67
		2013	31	5	36	5	27	32	36	28	64
		2014	27	6	33	4	28	32	31	29	60
		2015	16	5	21	6	25	31	22	26	48

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Table 41: Continued

		Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
	Year	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total	Catcher Vessels	Catcher Processors	Total
Rockfish	2011	26	12	38	2	16	18	28	18	46
	2012	31	16	47	2	17	19	33	20	53
	2013	30	13	43	1	16	17	31	19	50
	2014	29	9	38	3	17	20	32	19	51
	2015	28	8	36	4	14	18	32	17	49
Trawl Atka Mackerel	2011	-	1	1	5	9	14	5	9	14
	2012	-	-	-	3	11	14	3	11	14
	2013	-	2	2	3	10	13	3	11	14
	2014	-	-	-	3	8	11	3	8	11
	2015	-	-	-	5	9	14	5	9	14
All Groundfish	2011	69	17	86	104	36	140	141	37	178
	2012	71	17	88	110	36	146	146	37	183
	2013	70	14	84	102	34	136	143	35	178
	2014	71	11	82	100	34	134	146	35	181
	2015	68	10	78	100	34	134	143	35	178
All Gear All Groundfish	2011	848	37	885	198	73	271	964	76	1,040
	2012	871	33	904	191	73	264	991	78	1,069
	2013	665	24	689	189	70	259	787	73	860
	2014	672	24	696	173	68	241	796	72	868
	2015	670	22	692	165	69	234	786	72	858

**Notes:** The target is determined based on vessel, week, catching mode, NMFS area, and gear. These estimates include only vessels that fished part of federal TACs. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 42: Number of vessels, mean length and mean net tonnage for vessels that caught groundfish off Alaska by area, vessel-length class (feet), and gear, 2011-2015, (excluding catcher-processors).

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands			All Alaska			
		<60	60-125	<60	60-125	>=125	<60	60-125	>=125	
Number of vessels	Hook & Line	2011	645	52	38	5	-	656	54	-
		2012	664	47	33	1	-	678	48	-
		2013	467	39	31	2	-	484	40	-
		2014	499	39	18	3	-	508	40	-
		2015	479	41	20	1	-	489	42	-
	Pot	2011	119	26	15	30	8	125	48	8
		2012	122	23	20	23	9	128	43	9
		2013	106	22	25	25	9	113	42	9
		2014	82	20	20	25	9	96	43	9
		2015	99	17	22	19	6	109	35	6
	Trawl	2011	24	45	1	75	28	24	89	28
		2012	24	47	6	74	30	25	91	30
		2013	26	44	2	71	29	26	88	29
		2014	27	44	2	69	29	27	90	29
		2015	25	43	-	71	29	25	89	29
Mean vessel length (feet)	Hook & Line	2011	43	74	47	78	-	44	74	-
		2012	44	73	48	98	-	44	73	-
		2013	45	73	43	82	-	45	73	-
		2014	45	73	46	78	-	45	73	-
		2015	45	73	45	98	-	45	74	-
	Pot	2011	53	92	57	107	135	54	100	135
		2012	54	91	57	108	134	54	100	134
		2013	54	90	56	109	135	54	100	135
		2014	54	87	58	109	135	55	99	135
		2015	54	86	57	110	137	55	99	137

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Table 42: Continued

		Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
		Year	<60	60-125	<60	60-125	>=125	<60	60-125	>=125
Mean vessel length (feet)	Trawl	2011	58	94	58	105	155	58	101	155
		2012	57	94	56	106	157	57	101	157
		2013	58	95	58	107	156	58	102	156
		2014	58	94	58	108	156	58	102	156
		2015	58	94	-	107	156	58	102	156
Mean Registered net tons	Hook & Line	2011	25	65	32	100	-	25	68	-
		2012	24	66	36	156	-	25	68	-
		2013	26	60	32	102	-	27	62	-
		2014	26	60	38	100	-	26	63	-
		2015	26	59	35	156	-	26	62	-
Mean Registered net tons	Pot	2011	44	100	69	117	147	47	109	147
		2012	45	101	69	123	145	49	112	145
		2013	48	97	68	119	145	51	109	145
		2014	47	95	74	126	145	52	112	145
		2015	45	92	72	130	158	50	112	158
Mean Registered net tons	Trawl	2011	67	102	75	115	238	67	110	238
		2012	67	103	59	115	244	65	110	244
		2013	65	101	62	115	241	65	110	241
		2014	66	100	57	117	241	66	110	241
		2015	69	106	-	116	241	69	112	241

**Notes:** If the permit files do not report a length for a vessel, the vessel is counted in the "less than 60 feet" class. These estimates include only vessels that fished part of federal TACs. "\*" indicates a confidential value; "-" indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 43: Number of smaller hook-and-line vessels that caught groundfish off Alaska, by area and vessel-length class (feet), 2011-2015, (excluding catcher-processors).

		Year	<26	26-29	30-34	35-39	40-44	45-49	50-54	55-60	>=60
Number of vessels	Gulf of Alaska	2011	32	17	90	86	124	103	67	126	52
		2012	25	18	91	90	136	107	71	126	47
		2013	14	6	57	50	101	76	60	103	39
		2014	20	8	54	65	102	78	65	107	39
		2015	9	8	66	54	103	79	55	105	41
	Bering Sea & Aleutian Islands	2011	1	-	5	5	3	6	6	12	5
		2012	-	-	3	7	3	4	4	12	1
		2013	2	3	5	4	1	3	3	10	2
		2014	1	-	2	3	1	2	3	6	3
		2015	1	-	3	3	2	3	1	7	1
	All Alaska	2011	33	17	91	89	124	103	68	131	54
		2012	25	18	92	95	137	107	72	132	48
		2013	16	9	59	53	101	76	61	109	40
		2014	21	8	55	66	102	79	66	111	40
		2015	10	8	67	54	104	81	55	110	42

**Notes:** If the permit files do not report a length for a vessel, the vessel is counted in the “<26” class. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 44: Number of vessels, mean length and mean net tonnage for vessels that caught and processed groundfish off Alaska by area, vessel-length class (feet), and gear, 2011-2015.

	Year	Gulf of Alaska					Bering Sea & Aleutian Islands					All Alaska				
		<125	125-165	166-235	236-260	>260	<125	125-165	166-235	236-260	>260	<125	125-165	166-235	236-260	>260
Hook & Line	2011	9	5	5	-	-	14	14	7	-	-	16	14	7	-	-
	2012	8	5	2	-	-	12	14	8	-	-	16	14	8	-	-
	2013	2	5	3	-	-	12	13	8	-	-	14	13	8	-	-
	2014	4	5	4	-	-	9	14	8	-	-	12	14	8	-	-
	2015	5	4	3	-	-	9	14	8	-	-	11	14	8	-	-
Number of vessels Pot	2011	-	1	-	-	-	2	2	1	-	-	2	2	1	-	-
	2012	-	1	-	-	-	2	2	1	-	-	2	2	1	-	-
	2013	-	-	-	-	-	-	2	1	-	-	-	2	1	-	-
	2014	-	-	-	-	-	1	2	1	-	-	1	2	1	-	-
	2015	-	-	-	-	-	1	2	1	-	-	1	2	1	-	-
Trawl	2011	4	2	9	1	1	5	4	10	3	14	6	4	10	3	14
	2012	4	2	9	1	1	5	4	10	3	14	6	4	10	3	14
	2013	3	2	8	1	-	3	4	10	3	14	4	4	10	3	14
	2014	2	3	5	1	-	3	4	10	3	14	4	4	10	3	14
	2015	2	2	5	1	-	3	4	10	3	14	4	4	10	3	14
Mean vessel length (feet)	2011	94	136	176	-	-	107	144	175	-	-	102	142	176	-	-
	2012	90	136	177	-	-	108	144	176	-	-	101	142	176	-	-
	2013	68	141	175	-	-	114	142	177	-	-	107	142	177	-	-
	2014	76	139	176	-	-	113	142	177	-	-	101	141	177	-	-
	2015	95	136	174	-	-	110	142	177	-	-	105	140	176	-	-
Pot	2011	-	165	-	-	-	101	165	166	-	-	101	165	166	-	-
	2012	-	165	-	-	-	114	165	166	-	-	114	165	166	-	-
	2013	-	-	-	-	-	-	165	166	-	-	-	165	166	-	-
	2014	-	-	-	-	-	124	165	166	-	-	124	165	166	-	-
	2015	-	-	-	-	-	124	165	166	-	-	124	165	166	-	-

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Table 44: Continued

		Gulf of Alaska					Bering Sea & Aleutian Islands					All Alaska					
		Year	<125	125-165	166-235	236-260	>260	<125	125-165	166-235	236-260	>260	<125	125-165	166-235	236-260	>260
Mean vessel length (feet)	Trawl	2011	111	146	204	238	295	116	148	204	245	306	114	147	204	243	305
		2012	115	150	204	238	295	116	148	204	245	306	115	148	204	243	305
		2013	117	146	201	238	-	122	148	204	245	306	120	147	202	243	306
		2014	114	144	207	238	-	122	148	204	245	306	119	146	205	243	306
		2015	114	150	207	238	-	122	148	204	245	306	119	148	205	243	306
	Hook & Line	2011	106	242	562	-	-	125	294	513	-	-	118	281	534	-	-
		2012	104	241	652	-	-	117	294	478	-	-	111	280	513	-	-
		2013	144	232	533	-	-	126	307	546	-	-	128	286	543	-	-
		2014	120	232	696	-	-	112	295	546	-	-	115	278	596	-	-
		2015	115	225	608	-	-	112	295	546	-	-	113	279	563	-	-
Mean Registered net Pot tons		2011	-	128	-	-	-	123	461	192	-	-	123	350	192	-	-
		2012	-	128	-	-	-	123	461	192	-	-	123	350	192	-	-
		2013	-	-	-	-	-	-	461	192	-	-	-	461	192	-	-
		2014	-	-	-	-	-	135	461	192	-	-	135	461	192	-	-
		2015	-	-	-	-	-	135	461	192	-	-	135	461	192	-	-
	Trawl	2011	125	256	584	611	693	134	254	588	985	1,713	130	254	586	892	1,645
		2012	123	255	584	611	693	134	254	588	985	1,713	129	254	586	892	1,645
		2013	119	256	584	611	-	133	254	588	985	1,713	126	254	586	892	1,713
		2014	113	214	661	611	-	133	254	588	985	1,713	125	237	612	892	1,713
		2015	113	255	620	611	-	133	254	588	985	1,713	125	254	599	892	1,713

**Notes:** If the permit files do not report a length for a vessel, the vessel is counted in the “less than 125 feet” class. These estimates include only vessels that fished part of federal TACs. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.



Table 45: Number of vessels that caught groundfish off Alaska by area, tonnage caught, and gear, 2008-2015.

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
		<2 MT	2-25MT	>25MT	<2 MT	2-25MT	>25MT	<2 MT	2-25MT	>25MT
Hook & Line	2008	217	209	242	21	26	60	238	232	271
	2009	172	197	240	6	13	58	178	208	270
	2010	179	188	266	3	19	51	182	205	291
	2011	205	234	277	5	22	51	210	250	308
	2012	197	222	307	8	14	46	204	235	339
	2013	133	143	240	11	8	47	144	151	276
	2014	154	139	258	7	6	39	161	145	287
	2015	118	166	248	3	11	38	121	175	278
Pot	2008	8	26	115	4	2	66	12	28	160
	2009	12	23	91	1	5	49	13	28	127
	2010	8	6	101	-	5	49	8	11	133
	2011	35	9	102	1	1	56	36	10	143
	2012	18	20	108	-	-	57	18	20	150
	2013	7	18	103	2	3	57	9	21	140
	2014	5	8	89	-	4	54	5	12	136
	2015	8	8	100	1	2	48	9	10	140
Trawl	2008	1	1	86	-	3	146	1	4	191
	2009	2	2	86	-	1	145	2	3	183
	2010	1	-	84	1	-	137	2	-	176
	2011	1	5	80	-	1	139	1	6	173
	2012	1	1	86	-	5	141	1	6	182
	2013	1	1	82	-	2	134	1	3	176
	2014	2	-	80	-	1	133	2	1	179
	2015	-	1	77	-	-	134	-	1	178
All Gear	2008	226	234	414	24	30	269	250	261	587
	2009	186	218	392	6	19	247	192	235	548
	2010	188	193	423	4	24	233	192	215	570
	2011	239	244	433	6	24	241	245	262	591
	2012	216	238	473	8	19	239	223	256	637
	2013	141	162	396	12	13	236	153	175	559
	2014	161	146	398	7	11	223	168	157	568
	2015	126	175	402	4	13	217	130	186	569

**Notes:** These estimates include only vessels fishing part of federal TACs. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 46: Number of vessels that caught groundfish off Alaska by area, residency, gear, and target, 2011-2015.

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska		
		Alaska	Other	Alaska	Other	Alaska	Other	
Hook & Line	Pollock	2011	5	-	1	-	6	-
		2012	1	-	-	-	1	-
		2013	4	-	-	2	4	2
		2014	2	-	-	-	2	-
		2015	2	-	-	1	2	1
	Sablefish	2011	225	83	17	16	236	90
		2012	221	84	19	11	231	91
		2013	195	77	12	11	200	84
		2014	194	76	7	11	197	82
		2015	184	75	9	7	187	80
	Pacific Cod	2011	304	34	23	28	314	52
		2012	302	27	18	27	312	50
		2013	166	20	23	24	187	39
		2014	192	22	12	25	203	39
		2015	214	19	13	26	225	37
	Flatfish	2011	-	-	1	7	1	7
		2012	-	-	-	7	-	7
		2013	-	-	-	4	-	4
		2014	-	-	-	3	-	3
		2015	-	-	-	3	-	3
Rockfish	2011	135	16	-	1	135	16	
	2012	158	16	-	2	158	18	
	2013	131	12	-	3	131	15	
	2014	128	16	1	2	129	18	
	2015	107	5	1	1	107	6	
All Groundfish	2011	593	123	39	39	605	142	
	2012	606	121	34	34	622	143	
	2013	413	103	33	33	434	125	
	2014	447	104	20	32	460	122	
	2015	438	94	21	32	450	115	
Pot	Pacific Cod	2011	126	19	19	33	134	45
		2012	125	20	21	33	134	47
		2013	108	20	21	38	115	49
		2014	85	15	23	32	103	44
		2015	110	6	23	25	121	31
Trawl	Pollock	2011	25	41	6	111	26	135
		2012	26	42	6	116	27	140
		2013	25	42	6	113	26	139
		2014	32	38	6	115	33	137
		2015	26	37	5	114	27	134

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Table 46: Continued

		Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska		
		Alaska	Other	Alaska	Other	Alaska	Other	
Trawl	Sablefish	2011	6	8	-	-	6	8
		2012	5	7	-	-	5	7
		2013	6	11	-	2	6	13
		2014	6	7	-	1	6	8
		2015	8	11	-	-	8	11
	Pacific Cod	2011	18	36	6	62	18	87
		2012	25	39	7	71	25	94
		2013	25	30	5	67	25	88
		2014	30	25	2	62	30	81
		2015	28	26	3	61	28	84
	Flatfish	2011	11	26	1	32	12	53
		2012	11	26	-	34	11	56
		2013	12	24	-	32	12	52
		2014	12	21	-	32	12	48
		2015	8	13	-	31	8	40
	Rockfish	2011	12	26	-	18	12	34
		2012	14	33	1	18	15	38
		2013	14	29	-	17	14	36
		2014	14	24	-	20	14	37
		2015	11	25	-	18	11	38
Atka Mackerel	2011	-	1	-	14	-	14	
	2012	-	-	-	14	-	14	
	2013	-	2	-	13	-	14	
	2014	-	-	-	11	-	11	
	2015	-	-	-	14	-	14	
All Groundfish	2011	27	60	8	132	28	151	
	2012	28	60	8	138	29	154	
	2013	29	55	7	129	30	148	
	2014	34	48	6	128	35	146	
	2015	30	48	6	128	31	147	
All Gear All Groundfish	2011	694	192	69	202	715	326	
	2012	714	191	62	202	740	331	
	2013	522	167	62	197	551	309	
	2014	538	158	50	191	566	302	
	2015	549	143	51	184	572	287	

**Notes:** The target is determined based on vessel, week, processing mode, NMFS area, and gear. Vessels are classified by the residency of the owner of the fishing vessel. These estimates include only vessels fishing part of federal TACs. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 47: Number of vessels that caught groundfish off Alaska by month, area, vessel type, and gear, 2011-2015.

		Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
Gulf of Alaska	Hook & Line	2011	90	104	192	334	202	148	137	109	187	149	35	61	697	
		2012	89	129	246	335	337	204	134	148	190	137	66	41	711	
		2013	61	90	167	248	231	197	109	116	97	117	69	40	506	
		2014	57	96	192	234	286	136	103	121	128	97	74	46	538	
		2015	78	122	207	258	298	131	94	107	133	109	57	49	520	
	Catcher Vessels	Pot	2011	72	110	81	-	1	-	-	1	56	53	4	25	145
			2012	64	91	132	1	1	-	-	-	42	40	27	19	145
			2013	75	73	102	23	-	-	-	-	14	16	13	12	128
			2014	57	40	87	7	2	-	-	3	38	39	22	11	102
			2015	78	77	100	51	-	-	-	-	13	17	19	24	116
	Catcher Vessels	Trawl	2011	39	44	51	33	19	15	9	23	50	54	9	1	69
			2012	33	58	54	36	20	18	13	23	59	57	23	6	71
			2013	39	52	58	19	23	18	9	40	42	48	19	2	70
			2014	41	63	61	51	25	20	12	47	59	52	23	4	71
			2015	40	60	65	57	30	13	6	15	52	54	18	1	68
Catcher Vessels	All Gear	2011	199	255	308	365	222	163	146	133	291	254	48	87	848	
		2012	186	271	412	370	358	222	147	170	291	231	114	66	871	
		2013	173	212	317	288	254	215	118	156	153	180	101	54	665	
		2014	146	199	327	291	313	156	115	171	219	185	119	61	672	
		2015	192	254	360	362	328	144	100	122	198	179	94	74	670	
Catcher Processors	Hook & Line	2011	10	8	1	5	4	2	2	2	6	5	2	3	19	
		2012	7	4	4	7	4	3	2	1	2	4	2	1	15	
		2013	1	2	3	4	3	6	4	2	1	-	2	1	10	
		2014	1	6	8	5	3	2	1	1	3	3	3	1	13	
		2015	3	5	6	4	6	3	2	1	3	3	2	1	12	
	Catcher Processors	Pot	2011	1	1	-	-	-	-	-	-	-	-	-	-	1
			2012	1	-	-	-	-	-	-	-	-	-	-	-	1
	Catcher Processors	Trawl	2011	-	1	3	6	1	4	14	3	2	3	2	-	17
			2012	2	1	-	5	1	1	17	6	1	2	1	1	17
			2013	-	1	3	3	2	4	13	3	1	2	4	2	14
			2014	-	-	1	5	4	3	7	6	3	7	5	1	11
			2015	-	1	1	4	4	3	9	4	4	1	2	1	10
	Catcher Processors	All Gear	2011	11	10	4	11	5	6	16	5	8	8	4	3	37
			2012	10	5	4	12	5	4	19	7	3	6	3	2	33
			2013	1	3	6	7	5	10	17	5	2	2	6	3	24
2014			1	6	9	10	7	5	8	7	6	10	8	2	24	
2015			3	6	7	8	10	6	11	5	7	4	4	2	22	

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Table 47: Continued

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year		
Bering Sea & Aleutian Islands	Hook & Line	2011	5	5	4	5	12	15	22	20	17	10	3	-	43	
		2012	3	4	4	3	11	15	18	15	13	7	4	-	34	
		2013	5	3	5	5	5	15	12	11	10	4	4	2	33	
		2014	5	4	5	6	5	7	10	8	9	7	4	2	21	
		2015	3	2	4	3	7	6	6	7	8	9	3	1	21	
	Catcher Vessels	Pot	2011	35	12	16	6	9	6	3	4	29	32	3	-	53
			2012	38	18	9	9	5	5	3	1	22	19	5	8	52
			2013	41	23	10	12	3	3	2	2	9	16	9	21	59
			2014	41	21	18	19	14	1	1	1	14	13	11	12	54
			2015	29	27	21	15	1	2	2	1	13	21	9	16	47
	Trawl	2011	53	94	91	80	1	69	72	70	58	52	11	-	104	
		2012	66	88	101	56	2	71	74	76	60	29	16	-	110	
		2013	78	91	94	61	3	71	74	69	43	16	4	-	102	
		2014	42	81	81	65	2	71	72	71	55	4	1	-	100	
		2015	70	86	88	62	5	73	70	74	65	27	4	-	100	
	All Gear	2011	93	111	111	91	21	90	97	94	104	94	17	-	198	
		2012	107	110	114	68	18	91	95	92	95	55	25	8	191	
		2013	124	117	109	78	11	89	88	82	62	36	16	23	189	
		2014	88	106	104	90	21	79	83	80	78	24	14	14	173	
		2015	102	115	113	79	13	81	78	82	86	57	16	17	165	
Catcher Processors	Hook & Line	2011	23	27	29	24	15	15	23	27	30	31	28	24	35	
		2012	24	27	29	25	14	22	30	30	31	28	27	29	34	
		2013	26	26	25	18	13	13	21	28	27	29	28	26	33	
		2014	26	26	28	25	18	20	26	25	25	27	27	24	31	
		2015	26	27	28	24	22	18	22	25	28	27	27	28	31	
	Pot	2011	5	-	1	2	1	-	-	-	2	3	1	1	5	
		2012	5	2	1	1	1	1	1	1	3	3	3	-	5	
		2013	3	2	-	-	-	-	-	-	3	3	3	2	3	
		2014	4	4	2	1	1	-	-	-	3	3	3	1	4	
		2015	4	4	2	2	1	-	-	1	4	4	4	1	4	
	Trawl	2011	27	34	33	31	21	32	32	31	33	32	25	6	36	
		2012	28	33	33	19	20	33	28	30	33	20	14	4	36	
		2013	28	31	32	25	19	33	28	32	31	24	13	6	34	
		2014	30	34	34	21	19	31	29	30	28	18	14	4	34	
		2015	34	34	33	21	19	30	27	28	28	20	14	3	34	
	All Gear	2011	55	61	63	57	37	47	55	58	65	65	54	31	73	
		2012	57	62	63	45	35	56	59	61	67	51	44	33	73	
		2013	57	59	57	43	32	46	49	60	61	56	44	34	70	
		2014	60	64	64	47	38	51	55	55	56	48	44	29	68	
		2015	64	65	63	47	42	48	49	54	60	51	45	32	69	

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Table 47: Continued

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year		
All Alaska	Hook & Line	2011	93	107	196	339	213	161	155	128	198	157	38	61	710	
		2012	91	133	250	338	346	215	150	160	202	144	70	41	726	
		2013	66	93	172	253	236	210	118	126	106	121	72	42	524	
		2014	62	100	197	240	291	142	111	129	135	104	78	48	548	
		2015	81	124	211	261	304	137	98	110	138	116	60	50	531	
	Catcher Vessels	Pot	2011	101	118	92	6	10	6	3	5	84	85	7	25	181
			2012	99	105	140	10	6	5	3	1	63	57	31	27	180
			2013	112	89	112	35	3	3	2	2	23	31	22	33	164
			2014	98	61	105	26	16	1	1	4	51	52	33	23	148
			2015	105	99	121	66	1	2	2	1	25	37	28	39	150
	Trawl	2011	92	124	134	110	20	77	79	91	106	105	20	1	141	
		2012	99	140	138	88	22	84	86	98	114	85	39	6	146	
		2013	117	136	136	77	26	83	81	97	81	61	23	2	143	
		2014	83	139	137	108	27	86	81	111	108	56	24	4	146	
		2015	107	140	141	110	33	80	76	88	111	78	22	1	143	
All Gear	2011	284	346	406	453	242	244	237	224	386	345	65	87	964		
	2012	289	371	508	434	373	304	239	258	379	282	138	74	991		
	2013	293	315	410	363	265	296	201	225	209	212	116	77	787		
	2014	233	300	426	371	333	229	193	244	288	209	133	75	796		
	2015	289	358	461	431	338	219	176	199	274	230	109	90	786		
Catcher Processors	Hook & Line	2011	29	31	29	26	17	17	25	28	34	33	28	25	37	
		2012	27	29	31	29	17	24	31	31	33	31	29	30	38	
		2013	27	27	27	20	15	19	23	29	28	29	29	27	35	
		2014	27	28	29	26	20	22	27	26	27	28	28	25	34	
		2015	28	28	30	27	26	20	23	26	30	29	27	28	33	
	Pot	2011	5	1	1	2	1	-	-	-	2	3	1	1	5	
		2012	5	2	1	1	1	1	1	1	3	3	3	-	5	
		2013	3	2	-	-	-	-	-	-	3	3	3	2	3	
		2014	4	4	2	1	1	-	-	-	3	3	3	1	4	
		2015	4	4	2	2	1	-	-	1	4	4	4	1	4	
	Trawl	2011	27	35	34	34	22	33	35	33	34	33	27	6	37	
		2012	29	33	33	20	21	34	34	33	33	21	15	5	37	
		2013	28	32	33	27	20	34	30	33	32	25	14	7	35	
		2014	30	34	35	23	21	32	34	34	30	20	17	5	35	
		2015	34	35	34	23	20	32	32	32	28	21	15	4	35	
All Gear	2011	61	66	64	62	40	50	60	61	70	68	56	32	76		
	2012	61	64	65	50	39	59	66	65	69	55	47	35	78		
	2013	58	61	60	47	35	53	53	62	63	57	46	36	73		
	2014	61	66	66	50	42	54	61	60	60	51	48	31	72		
	2015	66	67	66	52	47	52	55	59	62	54	46	33	72		

**Notes:** These estimates include only vessels fishing part of federal TACs. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 48: Catcher vessel (excluding catcher-processors) weeks of fishing groundfish off Alaska by area, vessel-length class (feet), gear, and target, 2011-2015.

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands			All Alaska			
		<60	60-125	<60	60-125	>=125	<60	60-125	>=125	
Hook & Line	Sablefish	2011	1,041	262	101	18	-	1,142	280	-
		2012	1,301	314	118	15	-	1,419	329	-
		2013	1,265	338	88	14	-	1,353	352	-
		2014	1,162	307	77	19	-	1,239	326	-
		2015	1,241	342	69	14	-	1,310	356	-
	Pacific Cod	2011	1,719	70	130	1	-	1,848	71	-
		2012	2,285	55	74	-	-	2,359	55	-
		2013	1,200	18	72	-	-	1,273	18	-
		2014	1,523	20	103	-	-	1,626	20	-
		2015	1,818	14	48	-	-	1,865	14	-
	Rockfish	2011	476	1	1	-	-	477	1	-
		2012	571	3	-	-	-	571	3	-
		2013	509	2	-	-	-	509	2	-
		2014	425	4	1	-	-	426	4	-
		2015	371	6	1	-	-	372	6	-
All Groundfish	2011	3,244	333	232	19	-	3,476	352	-	
	2012	4,161	372	192	15	-	4,353	387	-	
	2013	2,988	358	160	14	-	3,148	372	-	
	2014	3,112	331	181	19	-	3,293	350	-	
	2015	3,431	362	117	14	-	3,548	376	-	
Pot	Pacific Cod	2011	880	200	131	175	42	1,011	375	42
		2012	862	280	196	110	42	1,058	390	42
		2013	714	201	221	124	31	935	325	31
		2014	755	216	344	115	29	1,099	331	29
		2015	895	238	312	117	15	1,206	355	15

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Table 48: Continued

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands			All Alaska		
		<60	60-125	<60	60-125	>=125	<60	60-125	>=125
Pollock	2011	175	304	-	1,057	653	175	1,361	653
	2012	198	398	-	945	644	198	1,343	644
	2013	87	384	-	902	608	87	1,286	608
	2014	181	550	-	838	551	181	1,388	551
	2015	237	569	-	904	612	237	1,473	612
Sablefish	2011	4	13	-	-	-	4	13	-
	2012	-	10	-	-	-	-	10	-
	2013	4	21	-	-	-	4	21	-
	2014	2	7	-	-	-	2	7	-
	2015	3	17	-	-	-	3	17	-
Trawl Pacific Cod	2011	30	123	1	264	37	31	387	37
	2012	87	145	18	284	48	105	430	48
	2013	116	88	8	264	40	124	352	40
	2014	163	73	13	247	35	176	320	35
	2015	145	114	-	265	32	145	378	32
Flatfish	2011	2	200	-	-	16	2	200	16
	2012	5	140	-	1	28	5	141	28
	2013	8	170	-	0	47	8	170	47
	2014	9	151	-	2	31	9	152	31
	2015	0	76	-	27	30	0	103	30
Rockfish	2011	2	91	-	-	6	2	91	6
	2012	12	120	-	-	6	12	120	6
	2013	11	99	-	-	9	11	99	9
	2014	7	101	-	-	11	7	101	11
	2015	4	97	-	4	9	4	101	9

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Table 48: Continued

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands			All Alaska			
		<60	60-125	<60	60-125	>=125	<60	60-125	>=125	
Trawl	Atka Mackerel	2011	-	-	-	3	15	-	3	15
		2012	-	-	-	-	22	-	-	22
		2013	-	-	-	-	7	-	-	7
		2014	-	-	-	-	12	-	-	12
		2015	-	-	-	5	10	-	5	10
	All Groundfish	2011	213	734	1	1,324	726	214	2,058	726
		2012	302	813	18	1,230	747	320	2,043	747
		2013	225	762	8	1,166	710	233	1,928	710
		2014	362	881	13	1,086	640	375	1,967	640
		2015	391	872	-	1,205	692	391	2,077	692
All Gear All Groundfish	2011	4,341	1,267	364	1,605	786	4,705	2,872	786	
	2012	5,326	1,466	406	1,392	800	5,732	2,858	800	
	2013	3,927	1,320	389	1,340	761	4,316	2,660	761	
	2014	4,232	1,430	538	1,254	684	4,770	2,684	684	
	2015	4,716	1,472	435	1,354	711	5,151	2,826	711	

**Notes:** These estimates include only vessels fishing part of federal TACs. A vessel that fished more than one category in a week is apportioned a partial week based on catch weight. A target is determined based on vessel, week, processing mode, NMFS area, and gear. All groundfish include additional target categories. "\*" indicates a confidential value; "-" indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 49: Catcher/processor vessel weeks of fishing groundfish off Alaska by area, vessel-length class (feet), gear, and target, 2011-2015.

	Year	Gulf of Alaska				Bering Sea & Aleutian Islands				All Alaska			
		<60	60-124	125-230	>230	<60	60-124	125-230	>230	<60	60-124	125-230	>230
Sablefish	2011	6	3	29	-	2	67	9	-	8	70	38	-
	2012	8	-	25	-	-	75	6	-	8	75	31	-
	2013	11	-	27	-	-	84	3	-	11	84	31	-
	2014	7	-	18	-	-	41	2	-	7	41	21	-
	2015	9	-	19	-	-	38	0	-	9	38	19	-
Pacific Cod	2011	13	63	23	-	-	252	696	-	13	315	719	-
	2012	11	45	9	-	10	319	732	-	21	364	742	-
	2013	-	23	13	-	-	239	718	-	-	262	731	-
	2014	2	22	29	-	7	250	817	-	9	272	846	-
	2015	4	30	30	-	9	253	812	-	13	283	841	-
Hook & Line Flatfish	2011	-	-	-	-	2	2	47	-	2	2	47	-
	2012	-	-	-	-	-	7	45	-	-	7	45	-
	2013	-	-	-	-	-	1	15	-	-	1	15	-
	2014	-	-	-	-	-	5	12	-	-	5	12	-
	2015	-	-	-	-	-	2	26	-	-	2	26	-
Rockfish	2011	-	-	0	-	-	-	-	-	-	-	0	-
	2012	-	-	-	-	-	1	0	-	-	1	0	-
	2013	-	-	-	-	-	2	0	-	-	2	0	-
	2014	-	-	-	-	-	1	-	-	-	1	-	-
	2015	-	-	-	-	-	0	-	-	-	0	-	-
All Groundfish	2011	19	66	52	-	4	321	752	-	23	387	804	-
	2012	19	45	34	-	10	402	784	-	29	447	818	-
	2013	11	23	41	-	-	326	736	-	11	349	777	-
	2014	9	22	48	-	7	298	831	-	16	320	879	-
	2015	13	30	49	-	9	293	838	-	22	323	887	-

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Table 49: Continued

	Year	Gulf of Alaska				Bering Sea & Aleutian Islands				All Alaska				
		<60	60-124	125-230	>230	<60	60-124	125-230	>230	<60	60-124	125-230	>230	
Pot	Pacific Cod	2011	-	-	3	-	-	15	29	-	-	15	32	-
		2012	-	-	0	-	-	22	38	-	-	22	38	-
		2013	-	-	-	-	-	-	54	-	-	-	54	-
		2014	-	-	-	-	-	19	53	-	-	19	53	-
		2015	-	-	-	-	-	23	62	-	-	23	62	-
Trawl	Pollock	2011	-	0	0	-	-	4	11	414	-	4	11	414
		2012	-	0	-	-	-	2	5	313	-	2	5	313
		2013	-	1	0	-	-	3	14	309	-	4	14	309
		2014	-	0	0	-	-	1	14	305	-	1	14	305
		2015	-	-	1	-	-	1	6	310	-	1	6	310
	Sablefish	2013	-	-	-	-	-	0	0	-	-	0	0	-
		2014	-	0	-	-	-	-	0	-	-	0	0	-
		2015	-	0	-	-	-	-	-	-	-	0	-	-
	Pacific Cod	2011	-	-	1	-	-	4	5	1	-	4	6	1
		2012	-	4	0	-	-	6	3	5	-	10	3	5
		2013	-	-	0	-	-	5	11	5	-	5	11	5
		2014	-	-	-	-	-	0	9	12	-	0	9	12
		2015	-	0	-	-	-	1	11	9	-	1	11	9
	Flatfish	2011	-	50	17	-	-	144	405	52	-	193	422	52
		2012	-	39	10	-	-	125	402	69	-	164	412	69
2013		-	48	12	-	-	105	401	87	-	153	412	87	
2014		-	62	27	-	-	92	415	81	-	154	442	81	
2015		-	49	16	-	-	105	395	51	-	155	411	51	

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Table 49: Continued

		Gulf of Alaska				Bering Sea & Aleutian Islands				All Alaska				
Year		<60	60-124	125-230	>230	<60	60-124	125-230	>230	<60	60-124	125-230	>230	
Trawl	Rockfish	2011	-	-	29	2	-	5	24	12	-	5	53	14
		2012	-	3	26	1	-	5	25	10	-	8	51	11
		2013	-	3	27	1	-	0	40	16	-	4	66	16
		2014	-	2	29	3	-	3	34	12	-	5	63	15
		2015	-	8	30	2	-	3	36	17	-	11	66	19
	Atka Mackerel	2011	-	-	0	-	-	0	60	25	-	0	60	25
		2012	-	-	-	-	-	1	63	24	-	1	63	24
		2013	-	0	0	-	-	0	33	13	-	0	33	13
		2014	-	-	-	-	-	-	40	19	-	-	40	19
		2015	-	-	-	-	-	-	66	27	-	-	66	27
All Groundfish	2011	-	50	47	2	-	156	505	504	-	206	552	506	
	2012	-	46	36	1	-	140	498	422	-	186	534	423	
	2013	-	52	39	1	-	113	498	428	-	165	537	429	
	2014	-	65	56	3	-	96	513	428	-	161	569	431	
	2015	-	58	47	2	-	110	513	415	-	168	560	417	
All Gear All Groundfish	2011	19	116	102	2	4	495	1,292	504	23	611	1,394	506	
	2012	19	91	71	1	10	576	1,319	422	29	667	1,390	423	
	2013	11	75	79	1	-	439	1,289	428	11	514	1,368	429	
	2014	9	87	104	3	7	413	1,397	428	16	500	1,501	431	
	2015	13	88	96	2	9	426	1,413	415	22	514	1,509	417	

**Notes:** These estimates include only vessels fishing part of federal TACs. A vessel that fished more than one category in a week is apportioned a partial week based on catch weight. A target is determined based on vessel, week, processing mode, NMFS area, and gear. All groundfish include additional target categories. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 50: Total at-sea processor vessel crew weeks in the groundfish fisheries off Alaska by month and area, 2011-2015.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Gulf of Alaska	2011	498	267	112	635	251	196	1,404	323	376	483	167	175	4,887
	2012	370	186	86	471	220	144	1,161	396	128	178	110	*	3,450
	2013	*	98	214	326	204	433	951	341	*	*	283	96	2,946
	2014	*	190	358	638	233	201	834	526	312	427	415	*	4,134
	2015	155	280	270	499	348	188	846	689	302	247	192	*	4,016
Bering Sea & Aleutian Islands	2011	6,311	13,513	13,817	8,407	3,882	7,601	13,600	11,967	12,266	14,208	5,033	2,105	112,710
	2012	6,434	13,755	15,928	4,383	3,621	10,683	11,700	12,300	11,670	5,207	3,661	2,757	102,099
	2013	4,694	13,341	16,032	4,875	3,756	8,744	9,974	13,745	8,716	5,773	4,581	2,506	96,737
	2014	4,472	13,482	16,511	4,776	4,981	8,841	11,722	14,986	8,523	4,935	4,706	2,384	100,319
	2015	7,843	13,467	12,837	5,523	5,003	7,875	10,938	14,849	9,239	6,836	3,458	2,228	100,096
All Alaska	2011	6,809	13,780	13,929	9,042	4,133	7,797	15,004	12,290	12,642	14,691	5,200	2,280	117,597
	2012	6,804	13,941	16,014	4,854	3,841	10,827	12,861	12,696	11,798	5,385	3,771	2,757	105,549
	2013	4,694	13,439	16,246	5,201	3,960	9,177	10,925	14,086	8,716	5,773	4,864	2,602	99,683
	2014	4,472	13,672	16,869	5,414	5,214	9,042	12,556	15,512	8,835	5,362	5,121	2,384	104,453
	2015	7,998	13,747	13,107	6,022	5,351	8,063	11,784	15,538	9,541	7,083	3,650	2,228	104,112

**Notes:** Crew weeks are calculated by summing weekly reported crew size over vessels and time period. These estimates include only vessels targeting groundfish counted toward federal TACs. Catcher processors typically account for 90-95% of the total at-sea crew weeks in all areas. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region At-sea Production Reports. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table H1A: Catch (net landed weight) in the commercial Pacific halibut fisheries off Alaska by FMP area, 2011-2015, (hundreds of metric tons).

Year	Gulf Of Alaska	Bering Sea & Aleutian Islands	All Alaska
2011	116.48	32.52	149.00
2012	93.03	23.69	116.72
2013	86.39	17.52	103.91
2014	65.15	13.45	78.61
2015	68.29	13.98	82.27

**Notes:** These estimates include catch from both federal and state of Alaska fisheries. Net weight is dressed, head-off, slime and ice deducted.

**Source:** ADF&G/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive FT.

Table H1B: Catch (net landed weight) in the commercial Pacific halibut fisheries off Alaska by IPHC area, 2011-2015, (hundreds of metric tons).

Area	2011	2012	2013	2014	2015
2C	11.13	12.31	13.78	15.71	16.95
3A	67.95	55.40	51.70	34.94	36.49
3B	34.31	23.31	19.02	13.26	12.34
4A	10.39	7.02	5.47	3.77	6.00
4B	9.18	7.75	5.54	4.99	4.81
4CDE	16.04	10.94	8.39	5.93	5.60

**Notes:** 4CDE refers to Areas 4C, 4D and 4E. These estimates include catch from both federal and state of Alaska fisheries. Net weight is dressed, head-off, slime and ice deducted.

**Source:** ADF&G/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive FT.

Table H2: Catch (net landed weight) and percent of FMP area catch in the commercial Pacific halibut off Alaska by vessel length (feet) and FMP area, 2011-2015, (hundreds of metric tons).

	Length	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
		Net Tons	Percent	Net Tons	Percent	Net Tons	Percent
2011	<20	0.09	0	0.32	0.01	0.41	0
	20-29	1.91	0.02	2.86	0.09	4.77	0.03
	30-39	15.15	0.13	3.77	0.12	18.92	0.13
	40-49	39.87	0.34	5.64	0.17	45.51	0.31
	50-59	37.11	0.32	10.28	0.32	47.39	0.32
	>=60	22.07	0.19	9.65	0.30	31.72	0.21
2012	<20	0.10	0	0.29	0.01	0.39	0
	20-29	1.61	0.02	2.34	0.10	3.95	0.03
	30-39	12.63	0.14	2.82	0.12	15.45	0.13
	40-49	33.37	0.36	4.62	0.19	37.99	0.33
	50-59	28.73	0.31	8.08	0.34	36.81	0.32
	>=60	16.37	0.18	5.54	0.23	21.91	0.19
2013	<20	0.09	0	0.24	0.01	0.33	0
	20-29	1.79	0.02	2.17	0.12	3.95	0.04
	30-39	12.85	0.15	2.28	0.13	15.13	0.15
	40-49	30.42	0.35	2.61	0.15	33.03	0.32
	50-59	26.49	0.31	5.96	0.34	32.45	0.31
	>=60	14.50	0.17	4.26	0.24	18.76	0.18
2014	<20	0.10	0	0.19	0.01	0.29	0
	20-29	1.92	0.03	1.57	0.12	3.49	0.04
	30-39	10.44	0.16	1.96	0.15	12.40	0.16
	40-49	23.77	0.37	1.94	0.14	25.70	0.33
	50-59	19.46	0.30	4.68	0.35	24.14	0.31
	>=60	9.11	0.14	3.12	0.23	12.23	0.16
2015	<20	0.10	0	*	*	0.10	0
	20-29	1.79	0.03	1.25	0.09	3.04	0.04
	30-39	10.98	0.16	1.71	0.12	12.70	0.15
	40-49	24.34	0.36	2.68	0.19	27.02	0.33
	50-59	21.61	0.32	5.11	0.37	26.71	0.33
	>=60	9.18	0.13	3.18	0.23	12.36	0.15

**Notes:** Excludes vessels in the Annette Island commercial Pacific halibut fishery. These estimates include catch from both federal and state of Alaska fisheries. Net weight is dressed, head-off, slime and ice deducted.

**Source:** ADF&G/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive FT; AKFIN vessel database.

Table H3: Non-halibut prohibited species catch on commercial Pacific halibut target trips off Alaska by PSC species and area, 2013-2015.

	Year	Bairdi Tanner Crab (Count)	Other King Crab (Count)	Red King Crab (Count)
Gulf of Alaska	2013	-	*	-
	2014	21	-	379
	2015	-	*	-
Bering Sea & Aleutian Islands	2013	-	635	-
	2014	-	303	-
	2015	-	730	-
All Alaska	2013	-	635	-
	2014	21	303	379
	2015	-	730	-

**Notes:** These estimates include trips from both federal and state of Alaska fisheries. For details on prohibited species catch estimation see Cahalan, J., J. Gasper, and J. Mondragon. 2014. Catch sampling and estimation in the federal groundfish fisheries off Alaska, 2015 edition. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-286, 46 p. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** AKRO PSC.

Table H4A: Ex-vessel value and price in the commercial Pacific halibut off Alaska by FMP area, 2011-2015, (\$ millions and \$/lb net weight, respectively).

Year	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
	Value	Price	Value	Price	Value	Price
2011	162.89	6.34	43.60	6.08	206.49	6.29
2012	117.32	5.72	26.80	5.13	144.13	5.60
2013	95.75	5.03	16.66	4.32	112.41	4.91
2014	89.54	6.23	15.82	5.34	105.37	6.08
2015	93.71	6.22	17.71	5.75	111.41	6.14

**Notes:** See notes on Table H4B.

**Source:** ADF&G fish tickets / CFEC gross earnings.



Table H4B: Ex-vessel value and price in the commercial Pacific halibut fisheries off Alaska by IPHC area, 2011-2015, (\$ millions and \$/lb net weight, respectively).

		2011	2012	2013	2014	2015
2C	Value	15.71	16.24	15.67	21.55	22.90
	Price	6.40	5.98	5.16	6.22	6.13
3A	Value	94.80	70.08	58.05	48.58	50.63
	Price	6.33	5.74	5.09	6.31	6.29
3B	Value	47.97	28.62	20.20	17.83	16.81
	Price	6.34	5.57	4.82	6.10	6.18
4A	Value	14.81	8.23	5.32	4.79	7.97
	Price	6.47	5.32	4.41	5.76	6.02
4B	Value	12.23	8.60	5.14	5.95	6.04
	Price	6.04	5.04	4.21	5.41	5.70
4CDE	Value	20.97	12.35	8.02	6.65	6.94
	Price	5.93	5.12	4.34	5.09	5.62

**Notes:** Values and prices are for catch from both federal and state of Alaska fisheries. Price is calculated as landed value divided by net weight. Net weight is dressed, head-off, slime and ice deducted.

**Source:** ADF&G fish tickets / CFEC gross earnings.

Table H5: Ex-vessel value and average value per vessel in the commercial Pacific halibut fisheries off Alaska by FMP area and vessel length (feet), 2011-2015, (millions and thousands \$, respectively).

	Length	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
		Value	Avg. Value/Vessel	Value	Avg. Value/Vessel	Value	Avg. Value/Vessel
2011	<20	0.13	6.11	0.29	4.83	0.42	5.16
	20-29	2.68	19.71	3.05	20.34	5.73	20.18
	30-39	21.00	66.89	4.61	104.85	25.62	74.25
	40-49	55.50	159.47	7.93	330.39	63.42	180.18
	50-59	52.22	357.67	14.11	486.65	66.33	436.40
	>=60	30.97	533.94	13.60	485.78	44.57	685.70
2012	<20	0.13	5.31	0.31	6.44	0.44	6.14
	20-29	2.07	17.42	2.27	15.77	4.34	16.58
	30-39	15.87	53.61	3.17	67.39	19.03	57.33
	40-49	42.26	123.56	5.31	230.97	47.57	136.70
	50-59	36.25	249.99	9.24	318.73	45.49	301.27
	>=60	20.46	401.22	6.50	282.65	26.96	464.88
2013	<20	0.10	5.26	0.20	3.84	0.30	4.27
	20-29	2.00	16.98	2.09	13.40	4.09	15.00
	30-39	14.18	53.11	2.10	53.87	16.28	54.82
	40-49	33.60	107.34	2.42	151.31	36.02	112.91
	50-59	29.45	216.58	5.66	195.28	35.12	247.31
	>=60	16.16	336.65	4.18	199.28	20.34	383.85
2014	<20	0.14	6.01	0.19	12.00	0.33	8.69
	20-29	2.64	21.84	1.45	27.83	4.09	23.78
	30-39	14.24	52.34	2.17	65.86	16.41	55.62
	40-49	32.39	107.97	2.30	143.81	34.69	114.49
	50-59	26.92	197.96	5.74	249.69	32.67	233.32
	>=60	12.73	295.98	3.97	233.41	16.70	362.94
2015	<20	0.13	8.08	*	*	0.17	6.16
	20-29	2.47	23.26	1.43	47.69	3.90	28.86
	30-39	14.98	57.62	2.02	80.97	17.00	61.39
	40-49	33.14	117.09	3.36	186.45	36.49	127.15
	50-59	29.68	210.49	6.65	255.79	36.33	248.83
	>=60	12.90	322.46	4.21	221.52	17.11	388.81

**Notes:** Values are for catch from both federal and state of Alaska fisheries. Excludes vessels in the Annette Island commercial Pacific halibut fishery. Length is measured in feet.

**Source:** ADF&G/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive FT; AKFIN vessel database.

Table H6: Port rank by ex-vessel value, ex-vessel value, price and percent of statewide value in the commercial Pacific halibut fisheries off Alaska by port, 2011-2015, (\$ millions and \$/lb net weight).

	Port	2011	2012	2013	2014	2015	
Rank	Homer	1	2	1	1	2	
	Kodiak	2	1	2	2	1	
	Seward	3	3	3	3	3	
	Dutch Harbor	4	4	5	6	4	
	Sitka	7	5	6	5	6	
	Juneau	9	8	4	7	5	
	St Paul Island	5	7	9	13	11	
	Petersburg	10	6	7	4	7	
	Sand Point	6	9	14	12	13	
	Yakutat	12	10	8	10	9	
	Value	Homer	37.76	26.93	24.24	18.51	17.25
		Kodiak	36.24	27.59	16.60	15.94	17.74
Seward		23.20	15.77	14.79	11.56	12.76	
Dutch Harbor		*	10.94	*	*	*	
Sitka		8.54	*	6.02	*	*	
Juneau		7.16	5.90	6.86	5.79	*	
St Paul Island		*	*	*	*	*	
Petersburg		6.19	6.36	5.56	7.62	7.00	
Sand Point		*	*	*	*	*	
Yakutat		*	*	*	*	4.07	
Price		Homer	6.02	5.50	4.95	6.05	6.11
		Kodiak	6.49	5.64	4.88	6.32	6.39
	Seward	6.27	5.83	5.07	6.20	6.20	
	Dutch Harbor	*	5.25	*	*	*	
	Sitka	6.61	*	5.06	*	*	
	Juneau	6.06	5.69	5.44	6.12	*	
	St Paul Island	*	*	*	*	*	
	Petersburg	6.46	6.07	5.18	6.24	6.52	
	Sand Point	*	*	*	*	*	
	Yakutat	*	*	*	*	6.47	

Continued on next page.

Table H6: Continued

	Port	2011	2012	2013	2014	2015
Percent	Homer	18 %	19 %	22 %	18 %	15 %
	Kodiak	18 %	19 %	15 %	15 %	16 %
	Seward	11 %	11 %	13 %	11 %	11 %
	Dutch Harbor	*	8 %	*	*	*
	Sitka	4 %	*	5 %	*	*
	Juneau	3 %	4 %	6 %	5 %	*
	St Paul Island	*	*	*	*	*
	Petersburg	3 %	4 %	5 %	7 %	6 %
	Sand Point	*	*	*	*	*
	Yakutat	*	*	*	*	4 %

**Notes:** Displays only the 10 Alaska ports with the highest average ex-vessel value. Values and prices are for catch from both federal and state of Alaska fisheries. Price is calculated as landed value divided by net weight. Net weight is dressed, head-off, slime and ice deducted. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** ADF&G fish tickets / CFEC gross earnings.

Table H7: First wholesale production volume, value and price in the commercial Pacific halibut fisheries off Alaska by product, 2011-2015, (1000s of metric tons, millions \$ and \$/lb net weight, respectively).

	Year	Quantity	Value	Price
Head and Gut	2011	7.71	127.39	7.49
	2012	6.70	105.24	7.12
	2013	6.46	92.69	6.51
	2014	4.80	81.92	7.73
	2015	5.38	90.76	7.66
Fillet	2011	2.61	65.33	11.36
	2012	1.94	53.20	12.47
	2013	1.66	35.78	9.80
	2014	0.88	25.53	13.23
	2015	1.11	34.82	14.21
Other Products	2011	0.67	1.76	1.19
	2012	1.85	4.22	1.03
	2013	0.83	2.90	1.58
	2014	0.50	2.47	2.23
	2015	3.05	6.86	1.02
All Products	2011	10.99	194.48	8.03
	2012	10.49	162.65	7.03
	2013	8.94	131.37	6.66
	2014	6.18	109.92	8.06
	2015	9.54	132.45	6.30

**Notes:** Landings, values and prices include both federal and state of Alaska fisheries. Price is calculated as landed value divided by net weight. Net weight is dressed, head-off, slime and ice deducted.

**Source:** ADF&G Commercial Operators Annual Report, data compiled by AKFIN in Comprehensive ENCOAR PROD.

Table H8: First wholesale value of shoreside processors and percentage share of statewide wholesale value in the commercial Pacific halibut fisheries off Alaska by region, 2011-2015, (millions \$).

	Year	Value	Percent
AK Peninsula/Aleutians	2011	60.63	31 %
	2012	41.33	25 %
	2013	19.79	15 %
	2014	10.21	9 %
	2015	20.47	15 %
Kodiak	2011	44.50	23 %
	2012	33.70	21 %
	2013	22.22	17 %
	2014	20.74	19 %
	2015	21.39	16 %
Southcentral	2011	43.38	22 %
	2012	48.82	30 %
	2013	51.27	39 %
	2014	37.15	34 %
	2015	40.85	31 %
Southeast	2011	42.46	22 %
	2012	36.25	22 %
	2013	36.25	28 %
	2014	40.31	37 %
	2015	44.73	34 %
Southwest/ Other AK	2011	1.95	1 %
	2012	2.49	2 %
	2013	1.63	1 %
	2014	1.35	1 %
	2015	4.92	4 %

**Notes:** Values are for catch from both federal and state of Alaska fisheries. Includes Pacific halibut processed by shoreside processors only.

**Source:** ADF&G Commercial Operators Annual Report, data compiled by AKFIN in Comprehensive ENCOAR PROD.

Table H9: Number of vessels and median length (feet) for vessels catching Pacific halibut commercially off Alaska by FMP area and vessel length class, 2011-2015.

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
		Vessels	Median Length	Vessels	Median Length	Vessels	Median Length
<20	2011	21	18	61	18	82	18
	2012	25	17	48	18	72	18
	2013	19	17	53	18	71	18
	2014	23	18	16	18	38	18
	2015	16	18	12	18	27	18
20-29	2011	136	26	150	24	284	24
	2012	119	25	144	24	262	24
	2013	118	25	156	24	273	24
	2014	121	25	52	26	172	26
	2015	106	25	30	28	135	26
30-39	2011	314	34	44	32	345	34
	2012	296	34	47	32	332	34
	2013	267	34	39	32	297	34
	2014	272	34	33	32	295	34
	2015	260	34	25	33	277	34
40-49	2011	348	45	24	47	352	45
	2012	342	45	23	48	348	45
	2013	313	45	16	49	319	45
	2014	300	45	16	48	303	45
	2015	283	45	18	48	287	45
50-59	2011	146	57	29	58	152	58
	2012	145	58	29	58	151	58
	2013	136	58	29	58	142	58
	2014	136	57	23	58	140	57
	2015	141	57	26	58	146	57
≥60	2011	58	73	28	76	65	75
	2012	51	72	23	78	58	74
	2013	48	71	21	76	53	73
	2014	43	72	17	76	46	72
	2015	40	72	19	76	44	73

**Notes:** Excludes vessels in the Annette Island commercial Pacific halibut fishery. Length is measured in feet.

**Source:** ADF&G/CFEC Fish Tickets, data compiled by AKFIN in Comprehensive FT; AKFIN vessel database.

Table H10: Number of vessels catching Pacific halibut commercially off Alaska by FMP area and thousands of pounds caught, 2011-2015.

	Landings	2011	2012	2013	2014	2015
Gulf of Alaska	<1	158	142	112	129	106
	1-9	411	395	360	371	327
	10-24	175	191	189	203	210
	25-49	113	109	114	115	118
	50-74	51	64	58	55	52
	75-99	41	37	38	22	33
	100-199	73	40	30	-	-
	>=200	1	-	-	-	-
Bering Sea & Aleutian Islands	<1	118	126	141	21	15
	1-9	109	91	91	63	38
	10-24	36	30	27	29	30
	25-49	19	26	28	26	30
	50-74	21	20	20	12	9
	75-99	13	10	3	4	4
	100-199	18	11	4	2	4
	>=200	2	-	-	-	-
All Alaska	<1	274	267	250	148	116
	1-9	496	461	435	414	352
	10-24	191	205	198	210	212
	25-49	116	114	118	112	114
	50-74	50	62	59	64	61
	75-99	37	39	37	38	52
	100-199	107	74	58	8	9
	>=200	9	1	-	-	-

**Notes:** Excludes vessels in the Annette Island commercial Pacific halibut fishery. “-” indicates no applicable data or value.

**Source:** ADF&G fish tickets / CFEC gross earnings.

Table H11: Number of vessel catching Pacific halibut commercially off Alaska and the percentage of yearly catch in area by FMP area and month, 2011-2015.

	Month	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
		Vessels	Percent	Vessels	Percent	Vessels	Percent
2011	Mar-Apr	312	20 %	10	2 %	317	16 %
	May	394	19 %	39	14 %	420	18 %
	Jun	321	15 %	209	19 %	524	16 %
	Jul	242	10 %	243	21 %	474	13 %
	Aug	351	15 %	123	19 %	444	16 %
	Sep	314	11 %	73	12 %	366	11 %
	Oct	219	7 %	50	11 %	261	8 %
	Nov	82	2 %	13	2 %	93	2 %
2012	Mar-Apr	276	17 %	3	2 %	279	14 %
	May	332	15 %	22	9 %	348	14 %
	Jun	334	16 %	154	16 %	479	16 %
	Jul	223	10 %	210	24 %	422	13 %
	Aug	361	17 %	106	27 %	444	19 %
	Sep	279	10 %	68	16 %	336	12 %
	Oct	233	13 %	22	6 %	251	11 %
	Nov	68	1 %	7	1 %	75	1 %
2013	Mar-Apr	256	19 %	6	3 %	262	16 %
	May	304	20 %	17	11 %	317	18 %
	Jun	298	16 %	192	16 %	482	16 %
	Jul	197	9 %	226	28 %	413	12 %
	Aug	300	15 %	75	18 %	361	15 %
	Sep	283	12 %	62	13 %	331	12 %
	Oct	219	8 %	25	9 %	236	8 %
	Nov	79	2 %	10	2 %	87	2 %
2014	Mar-Apr	288	26 %	2	2 %	290	22 %
	May	310	20 %	25	15 %	325	19 %
	Jun	234	11 %	46	18 %	270	12 %
	Jul	168	7 %	81	27 %	243	11 %
	Aug	302	16 %	88	21 %	371	17 %
	Sep	257	12 %	44	12 %	288	12 %
	Oct	194	7 %	14	4 %	201	6 %
	Nov	42	1 %	6	1 %	48	1 %
2015	Mar-Apr	263	22 %	4	3 %	266	18 %
	May	357	24 %	20	13 %	370	22 %
	Jun	244	11 %	60	20 %	296	13 %
	Jul	165	8 %	57	18 %	217	10 %
	Aug	236	12 %	69	23 %	288	14 %
	Sep	292	14 %	45	14 %	328	14 %
	Oct	184	7 %	17	9 %	195	7 %
	Nov	54	1 %	4	1 %	58	1 %

**Notes:** Includes catch from both federal and state of Alaska fisheries.

**Source:** ADF&G fish tickets / CFEC gross earnings.



Table H12: Total vessel days fishing Pacific halibut commercially off Alaska by area, 2011-2015.

Area	2011	2012	2013	2014	2015
Gulf of Alaska	16,159	14,818	14,633	12,842	12,548
Bering Sea & Aleutian Islands	6,397	5,110	4,339	2,894	2,726
All Alaska	22,166	19,747	18,754	15,520	15,040

**Notes:** Excludes vessels in the Annette Island commercial Pacific halibut fishery.

**Source:** ADF&G fish tickets / CFEC gross earnings.

Table H13: Crew days fishing Pacific halibut commercially off Alaska by month and area, 2011-2015.

	Year	Mar-Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Gulf of Alaska	2011	10,415	12,079	8,254	6,446	8,286	6,937	4,678	1,333
	2012	8,304	9,431	8,200	5,796	8,708	6,495	6,243	814
	2013	8,546	10,247	7,777	4,859	7,350	6,589	5,928	1,300
	2014	9,918	9,426	5,754	3,601	6,301	5,476	4,179	499
	2015	9,274	10,727	4,910	3,028	5,021	6,386	4,433	733
Bering Sea & Aleutian Islands	2011	967	2,271	4,754	6,219	4,457	2,952	2,062	637
	2012	455	1,429	3,391	5,338	4,693	2,758	1,067	212
	2013	563	1,042	3,166	5,244	2,428	2,291	1,266	224
	2014	242	1,480	1,611	3,397	2,412	1,373	653	121
	2015	416	1,533	2,058	2,206	2,471	1,536	1,185	133
All Alaska	2011	11,221	14,181	12,983	12,454	12,154	9,616	6,621	1,923
	2012	8,759	10,822	11,483	10,938	13,131	9,133	7,271	1,026
	2013	9,109	11,207	10,807	10,011	9,632	8,670	7,029	1,460
	2014	10,160	10,670	7,224	6,904	8,497	6,775	4,754	620
	2015	9,618	12,128	6,847	5,139	7,252	7,787	5,459	866

**Notes:** Excludes vessels in the Annette Island commercial Pacific halibut fishery.

**Source:** ADF&G fish tickets / CFEC gross earnings.

## 5. ECONOMIC PERFORMANCE INDICES FOR THE NORTH PACIFIC GROUND FISH FISHERIES

INDICES HAVE BEEN INCLUDED TO ENHANCE THIS PRELIMINARY DRAFT (SEPTEMBER) OF THE ECONOMIC STATUS REPORT. THE ANALYSIS OF TRENDS THAT IS A TYPICAL FEATURE OF THIS SECTION IS FORTHCOMING IN THE FINAL DRAFT (NOVEMBER).

### 5.1. Introduction

Fisheries markets are complex. A multitude of factors influence demand, supply, price, catch composition, product types produced and other market activity. Indices are a common method used by agencies to synthesize market information in a digestible format. Indices establish a baseline that helps characterize trends in the market for values, prices and quantities of fisheries goods. Market indices have many uses. From a management perspective indices can both retrospectively characterize changes in the market that may be related to policy decisions, or allow managers to evaluate current market conditions in the context of future policy change. Indices may also be useful to market participants when making business decisions.

This section of the Economic Status of the Groundfish Fisheries off Alaska attempts to distill the numerous factors that affect the North Pacific groundfish markets into a simple set of indices that can be used to track performance. Indices of value, price and quantity are presented for each of the four primary sectors: the Bering Sea and Aleutian Island (BSAI) at-sea, the BSAI shoreside, the Gulf of Alaska (GOA) at-sea, and the GOA shoreside. For the at-sea sectors, index analysis will focus on the wholesale market; for the shoreside sectors, index analysis will consider both the wholesale and ex-vessel markets. To help understand and evaluate the indices, we plot the value share stratified by species and product type for wholesale markets, and by species and gear type for the ex-vessel markets. Value share is the proportion of total value from each of the stratified components, such as the proportion of total value that comes from pollock. Additionally, bar graphs provide detail on the division of production among species, product types and gear types. Specifically, for the wholesale market, these graphs show species by product type and product type by species, and in the ex-vessel market, they show species by gear type and gear type by species.

Aggregate indices, by their very nature, cumulate over the many species, products types, and gear types in a sector. The values, prices, and quantities from individual components of these factors (e.g., individual species) may contribute to the movements of the aggregate indices in very different ways. The myriad of market influences make it difficult to disentangle the relative importance of different species or products when monitoring aggregate performance, a problem that can be approached by using a value-share decomposition to examine the influence of these different components on the aggregate index. Decomposition relates the indices for each of the components of a single factor to the aggregate through its value share.

For example, consider an aggregate price index for a sector. The aggregate price index is a function of all the prices for each of the species sold (e.g., pollock, Pacific cod, sablefish). Here, species type is the factor and the component indices of this factor are the price indices for each of the species (e.g., pollock price index, Pacific cod price index). The importance of each individual species price

index is determined by the proportion of total value in the sector for each species. By decomposing the aggregate index in this way, one can see how each of the species price indices influence the movement in the aggregate price index. Similar value-share decompositions are also constructed for product types in the wholesale market, and for gear types in the ex-vessel market.

Section 5.1.1 provides a more in-depth explanation of the indices and how to understand them. Understanding the indices and their construction facilitates accurate interpretation. Indices are plotted in Figures 5.2-5.13. Hereafter, “wholesale value” and “ex-vessel value” refer to the revenue from production at the first wholesale level or from sales of catch on the ex-vessel market, respectively. Walleye pollock will often be referred to simply as “pollock”; similarly, Pacific cod will often be referred to as “cod”.

### 5.1.1 Understanding an Index

Economic indices measure changes in the levels of a set of related economic variables. The set of variables is aggregated to provide a single number that is meant to summarize the cumulative state of the market. This aggregation is done in a way that achieves two objectives: first, is that the more “important” variables should be weighted more heavily in the index; second, is that the index should be comparable over time. Indices and the methods used to construct them to achieve these basic objectives have a deep theoretical foundation in both statistics and economics. An in-depth treatment of these foundations can be found in Coelli (2005), and Diewert (1993). The discussion here is presented with the intent of providing the reader with an intuitive understanding of the index that will help in both general interpretations of the indices and relating the decomposed indices to the aggregate. Details on the precise methods used for constructing indices can be found in NOAA Technical memorandum (Fissel 2014).

The basic intuition behind an economic index is the same for value indices, price indices and quantity indices. For the sake of exposition, we will consider an aggregate price index for the shoreside wholesale market in the GOA but the discussion applies equally well to the quantity and value indices or to the other sectors and markets. We will write the two-period price index between 2010 and 2009 as  $P_{2009}(2010)$ . This price index gives the aggregate price level in 2010 using 2009 as a reference period. If the price index in 2009 was  $P_{2008}(2009) = 1$  and the price index in 2010 was  $P_{2009}(2010) = 1.1$  then the two-period price index would indicate that when you consider all the prices together for the GOA shoreside wholesale market, there was a 10% increase in prices over the year. There are many species and products that GOA shoreside processors sell onto the first wholesale market, including headed-and-gutted sablefish and Pacific cod fillets, which each have their own price. The index  $P_{2009}(2010)$  is formed by taking a weighted sum of the relative prices between 2010 and 2009 over all of these goods:  $P_{2009}(2010) = \sum_{i=1}^N \frac{p^i(2010)}{p^i(2009)} * \omega_{2009}^i(2010)$ .<sup>1</sup> Here,  $p^i(2010)$  is the price of good  $i$  (e.g., Pacific cod fillets) in 2010 and  $\omega_{2009}^i(2010)$  is the weight

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<sup>1</sup> The formulation presented here is intended to give an intuitive understanding of indices. The Fisher index method was used in the actual creation of the indices. The Fisher index is the geometric mean of Laspeyres’ index, which uses weights that favor the reference period, and Paasche’s index, which uses weights that favor the current period. The Fisher index provides a more central index measure and enjoys some desirable theoretic properties that lead it to be preferred over other indices. The Fisher index cannot strictly be written as a linear combination of relative price ratios. However, the Fisher index is bounded by two linear objects that in practice don’t differ significantly and the linear perspective is correct to a first-order approximation. Hence, there is little loss from using the linear intuition given by the other indices when thinking of the Fisher index. Further details on the Fisher index can be found in the NOAA Technical Memorandum (Fissel 2014) as well as Coelli (2005), Diewert (1993)

representing the “importance” of good  $i$  between 2009 and 2010 in the GOA shoreside wholesale market. The economic measure that is used to determine this importance is the proportion of total value for that good makes up in the market, the value share.

Using the same basic weighting idea we can relate the subindices (e.g., species price indices) to their individual components for either *individual species* or for *aggregations* across species. For example, a Pacific cod index,  $P_{2009}^{cod}(2010)$ , would be a weighted sum of all the cod-based product prices, whereas the aggregate index,  $P_{2009}(2010)$ , would be a weighted sum over all the individual species indices. Specifically,  $P_{2009}(2010) = \sum_{s=1}^S P_{2009}^S(2010) * w_{2009}^S(2010)$ , where each  $P_{2009}^S(2010)$  is the species index of species “ $s$ ” for species  $s \in \{\text{pollock, cod, yellowfin sole, } \dots\}$  and  $w_{2009}^s(2010)$  can be thought of as an “importance” weight determined by the value share for each species  $s$  (the proportion of total value for the species). This decomposition of the aggregate index into the species indices is referred to here as the value share decomposition. This decomposition can be done for other cross-sections of the market as well; for example, the aggregate price index can be expressed as a weighted sum of the individual product price indices:  $P_{2009}(2010) = \sum_{k=1}^K P_{2009}^k(2010) * w_{2009}^k(2010)$ , where  $k$  runs over product types,  $k \in \{\text{fillet, head \& gut, surimi, } \dots\}$  and  $w_{2009}^k(2010)$  is the value share of product  $k$ . Value and quantity indices,  $V_{t-1}^i(t)$  and  $Q_{t-1}^i(t)$ , are constructed analogously. These examples show how an aggregate index can be decomposed into its constituent parts. Plotting the factor indices together with the aggregate index provides a perspective on the common movements between associated objects in a market.

Indices may be compared across multiple periods by chaining consecutive two-period estimates together to create a chain index. The consumer price index and other such indices often mentioned in the news are chain indices. Chain indices specify a base period in which the index is equal to 100. For the economic indices presented here, we use 2006 as the base year. Taking our GOA shoreside price index as an example, the 2008 chained price index is given by  $I_{2006}^P(2008) = 100 * P_{2006}(2007) * P_{2007}(2008)$ . The 2009 chained price index is obtained by multiplying the 2008 index by the two-period price increment between 2008 and 2009,  $I_{2006}^P(2009) = 100 * I_{2006}^P(2008) * P_{2008}(2009)$ , thus chaining the index forward. To provide a concrete numerical example, suppose 2006 is our base year in which the index is equal to 100 and assume there was a 50% *increase* in aggregate prices in 2007, so that  $P_{2006}(2007) = 1.5$ . The chained price index in 2007 would be  $I_{2006}^P(2007) = 100 * I_{2006}(2006) * P_{2006}(2007) = 150$ . Now suppose there was a 50% *decrease* in aggregate prices between 2007 and 2008 ( $P_{2007}(2008) = 0.5$ ). The 2008 chained price index would now be  $I_{2006}^P(2008) = 100 * I_{2006}(2007) * P_{2007}(2008) = 75$ . Thus, the value of the index in 2008 makes sense with respect to both 2006 and 2007. That is, 2008 prices are 75% of their 2006 level and half their 2007 level. Notice also that the weights in the chain index  $w_{t-1}^k(t)$  are adapting to potential shifts in the value share that may be occurring due to swings in output or production. This is an important feature of the index in fisheries where output can change significantly based on changes in the stock and the TAC.<sup>2</sup>

The primary tools we will use to analyze market performance are Figures 5.2-5.13. The index figures in Figures 5.2-5.13 are designed to help the reader visualize changes in the indices and relate the changes to shifts in aggregate value, prices, and quantities. All indices use 2006 as the base year for the index. All calculations and statistics are made using nominal U.S. dollars (i.e., not

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<sup>2</sup>The alternative to a chain index is a fixed-base index that references each year to a single base year without considering the changes in the intervening periods. When output/production changes significantly over short periods, (e.g., changing TAC), the fixed base index can be quite sensitive to the base year chosen.

adjusted for inflation).<sup>3</sup> Aggregate indices are located in the upper-left panel and the value share decomposition of the aggregate index is below in the lower-left panels of the figures. Changes in the indices have been color coded to indicate the relevance in determining aggregate index movements. Following the notation above, the relevance of a change in the price index in year  $t$  is calculated by  $(year - on - year\%change) * (share\ weight) = (P_{t-1}^i - 1) * \tilde{w}^i(t)$  where  $\tilde{w}^i(t) = \frac{p_t^i * q_t^i}{\sum_i p_t^i * q_t^i}$  is the year  $t$  value share. When the value  $(year - on - year\%change) * (share\ weight)$  is roughly zero, indicating little to no change or influence on the aggregate index, it is colored blue. When this value is less than -0.1, the index is colored red to indicate that it has had a significant negative impact on the aggregate index. When this value is greater than 0.1, the index is colored green, indicating a significant positive impact on the aggregate index. Shades in between these colors indicate intermediate impacts. Changes in the value and quantity indices are similarly calculated by replacing  $P_{t-1}^i(t)$  with the value index and quantity index increments:  $V_{t-1}^i(t)$ , and  $Q_{t-1}^i(t)$ . The indices can take on these “significant colors” if the percentage change is large and/or the value share is large. The value share plot in the upper-right corner of each figure helps to discern the difference. For each sector and market, two decompositions are presented. The wholesale market is decomposed by species and product type, and the ex-vessel market is decomposed by species and gear type. To help relate the different decompositions, bar graphs in the lower-right panel of each figure show the composition of one factor (e.g., product type) for each relevant category of the other factors (e.g., species) as measured by production. The height of the bars shows the annual output in that market. Only the components of a factor with a value share greater than 1% have been plotted, although all prices and quantities were used in the construction of the aggregate index. Ex-vessel indices are constructed using catch that is counted against a federal total allowable catch (TAC).

To properly interpret the indices, the reader must realize that the indices are merely descriptive and characterize the state of the market relative to other periods, and display the co-movement of different species, product types, or gear types both individually and in aggregate. The indices have no inherent causal interpretation. For example, it would be wrong to assert from these indices that a change in surimi prices “caused” a change in pollock price. Nor could we say the opposite. We can say that they are connected, as surimi is a significant portion of the value from pollock in some regions, but causality is beyond the scope of indices. Carefully designed regression analysis is better suited for addressing such causality questions.

## References

- Coelli, T., and D. S. P. Rao, C. J. O’Donnell, G. E. and Battese, G. E., 2005, An introduction to efficiency and productivity analysis, Springer, New York.
- Diewert, W. E., and A. O. Nakamura, 1993, Essays in index number theory: volume 1, North Holland, Amsterdam.
- Fissel, B. 2014. Economic Indices for the North Pacific Groundfish Fisheries: Calculation and Visualization. NOAA Technical Memorandum NMFS-AFSC-279, 59 p. U.S. Department of Commerce.

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<sup>3</sup>U.S. nominal dollars are used so price indices capture unadjusted changes in prices throughout time, allowing them to be used as deflator indices. For readers comparing these indices to other figures in the SAFE denominated in inflation adjusted terms, this adjustment should be kept in mind.

Witherell, D. and M. Peterson, 2011, North Pacific Fisheries Management Council Groundfish Species Profiles, North Pacific Fisheries Management Council.

5.2. Economic Indices of the Groundfish Fisheries off Alaska

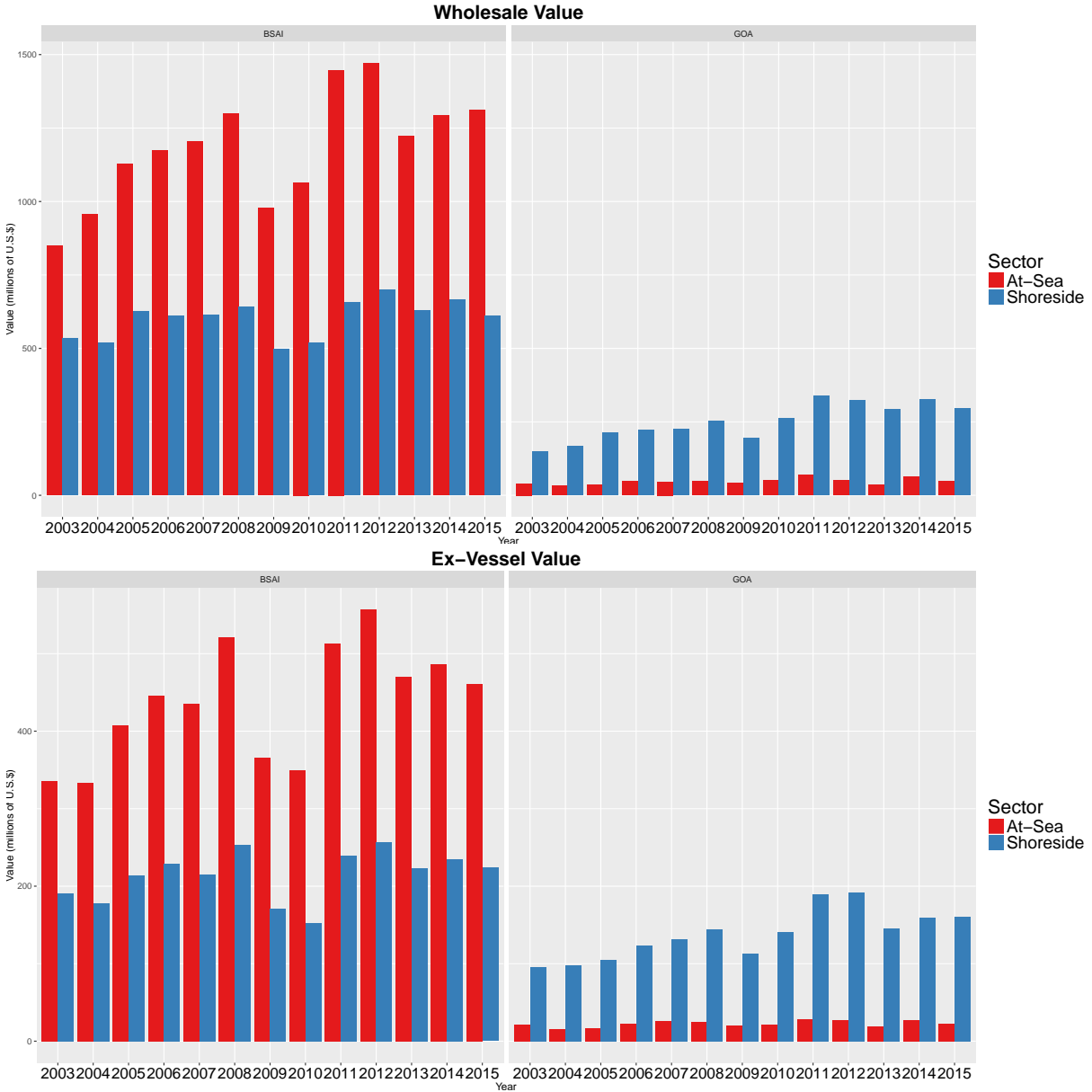


Figure 5.1: Wholesale and ex-vessel value by region and sector 2006-2015.

**Source:** NMFS Alaska Region’s Catch-accounting system (CAS) and Weekly Production Report (WPR) estimates; Alaska Department of Fish and Game (ADF&G) Commercial Operator’s Annual Report (COAR), National Marine Fisheries Service. P.O. Box 15700, Seattle, WA 98115-0070.

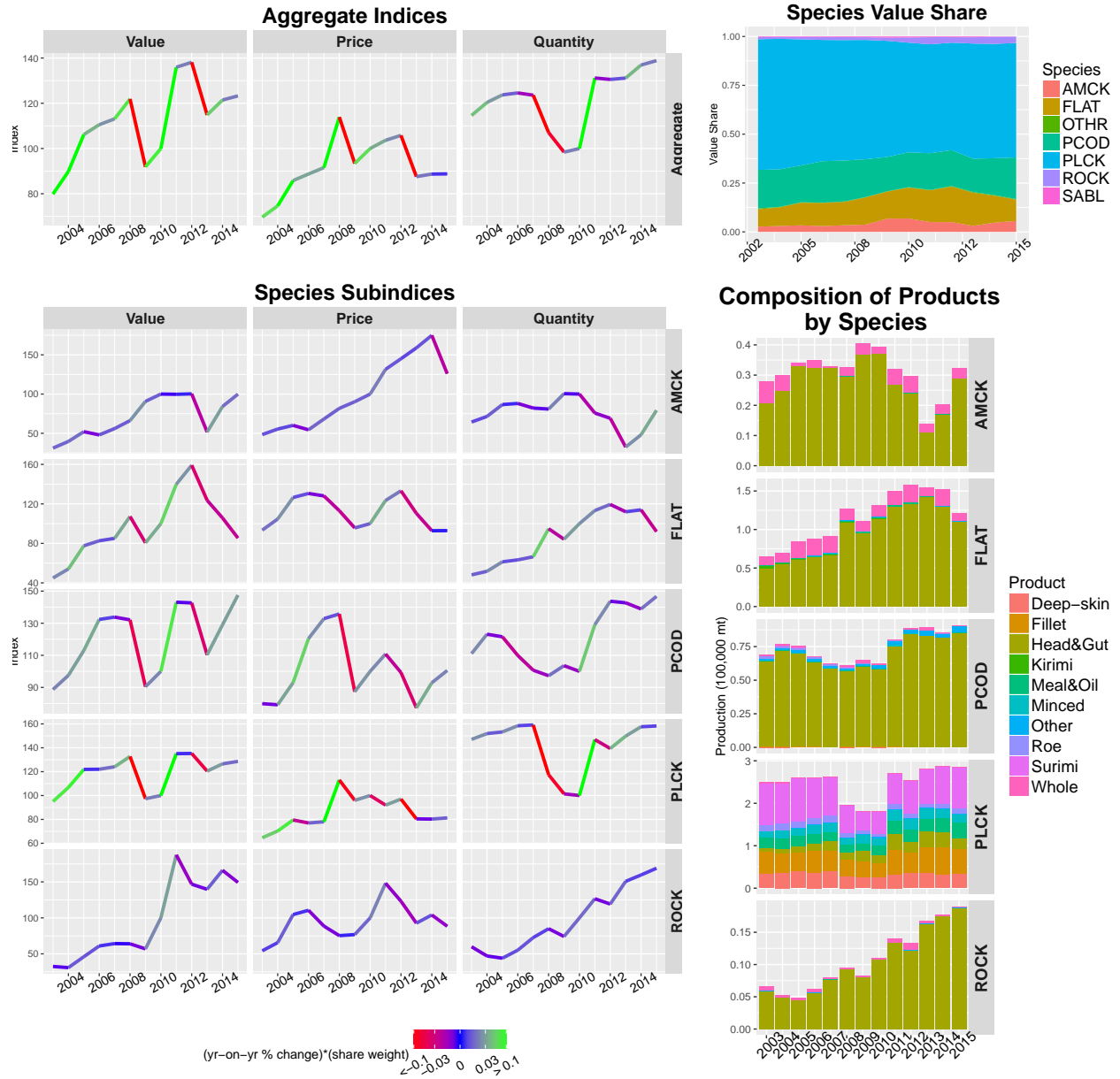


Figure 5.2: BSAI at-sea wholesale market: species decomposition 2006-2015 (Index 2013 = 100). **Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.1. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

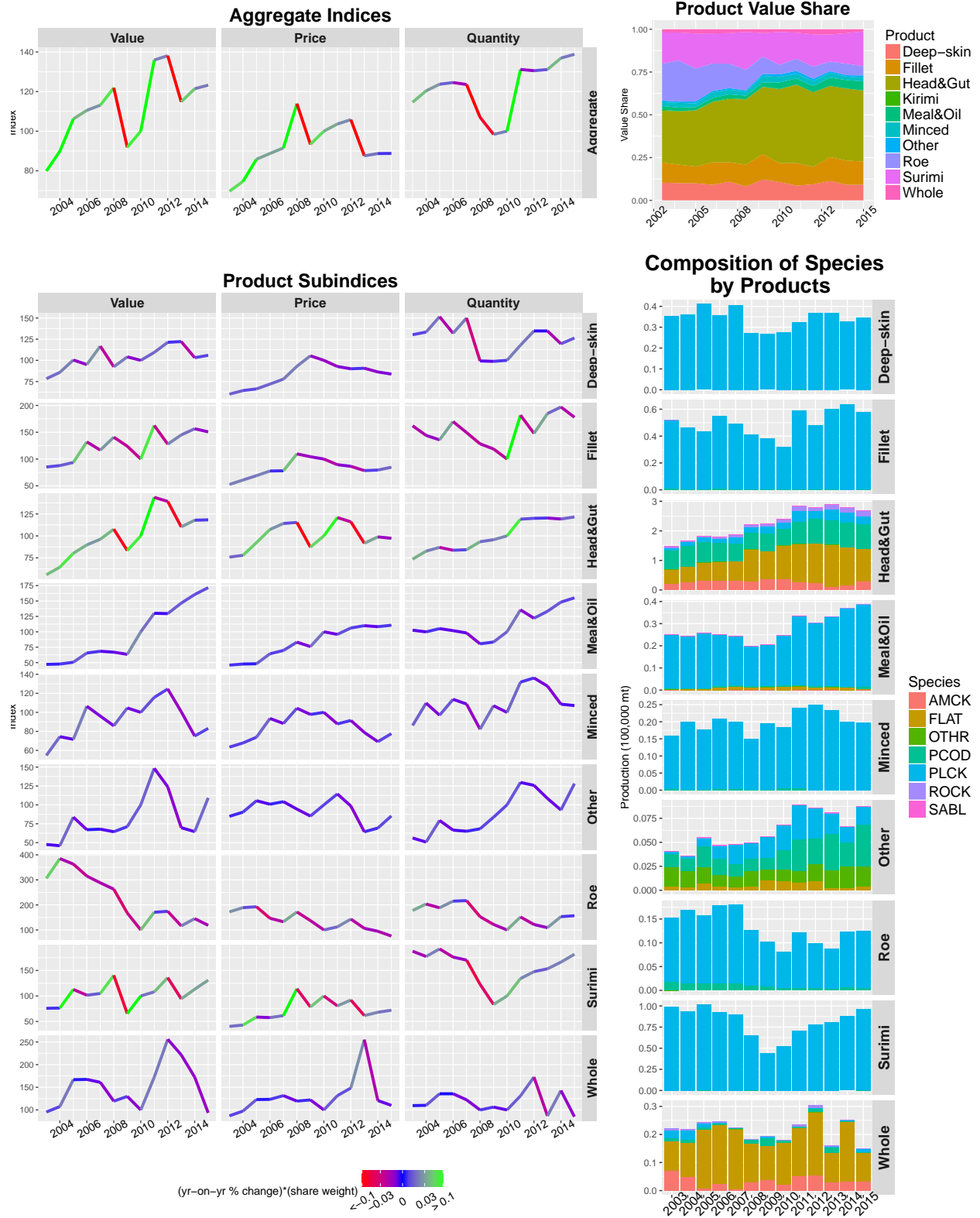


Figure 5.3: BSAI at-sea wholesale market: product decomposition 2006-2015 (Index 2013 = 100). **Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.2. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.



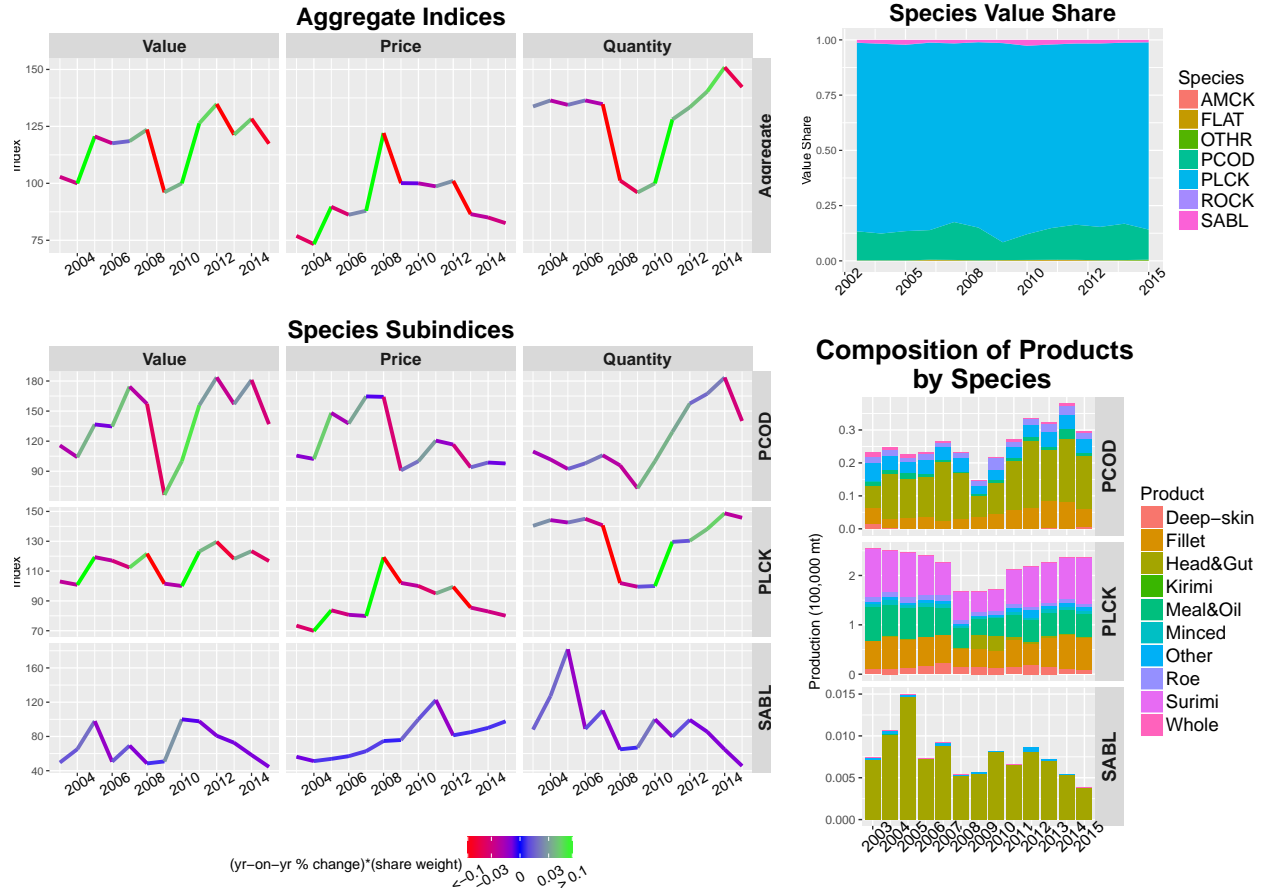


Figure 5.4: BSAI shoreside wholesale market: species decomposition 2006-2015 (Index 2013 = 100). **Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.3. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

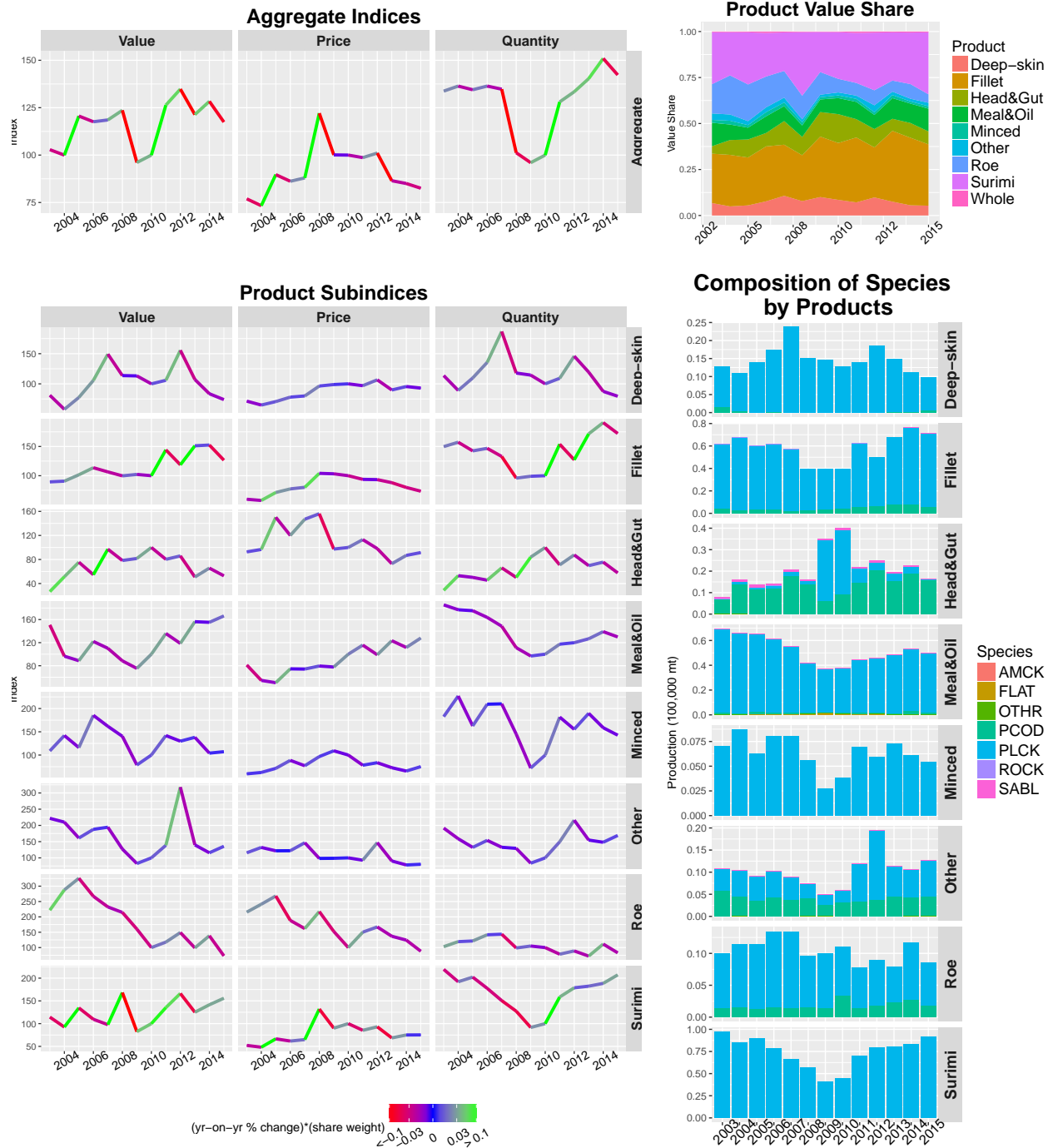


Figure 5.5: BSAI shoreside wholesale market: product decomposition 2006-2015 (Index 2013 = 100). **Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.4. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

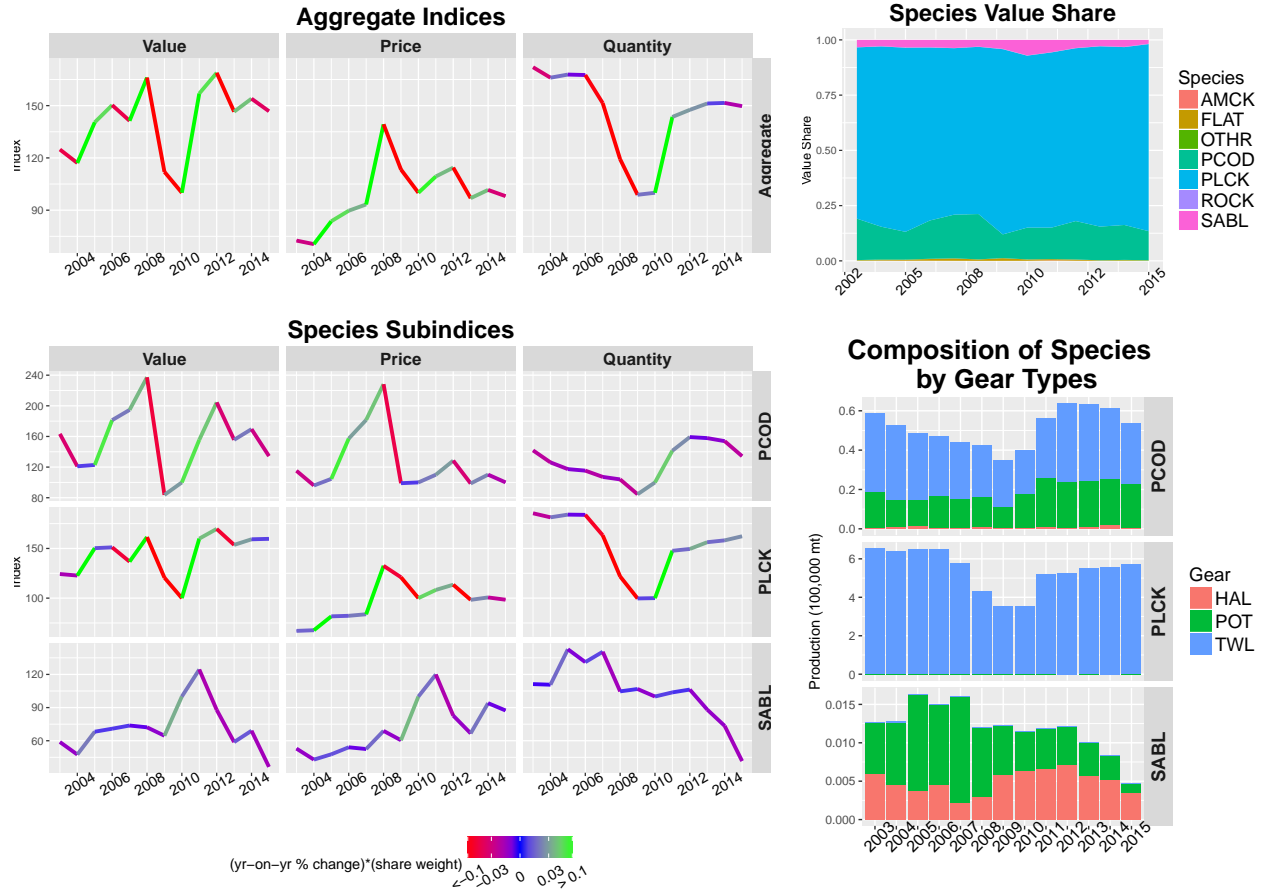


Figure 5.6: BSAI shoreside ex-vessel market: species decomposition 2006-2015 (Index 2013 = 100). **Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.5. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

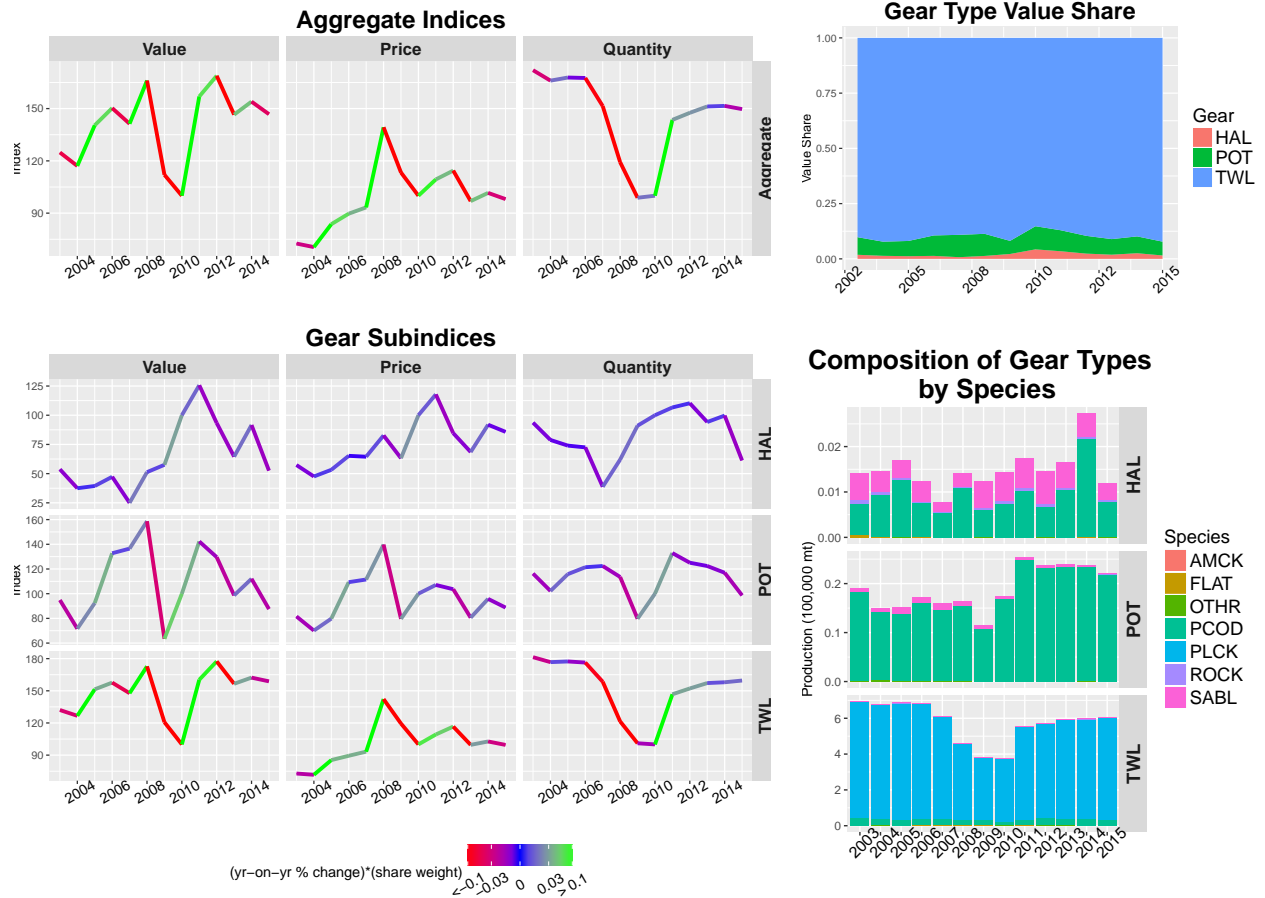


Figure 5.7: BSAI shoreside ex-vessel market: gear decomposition 2006-2015.  
**Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.6. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

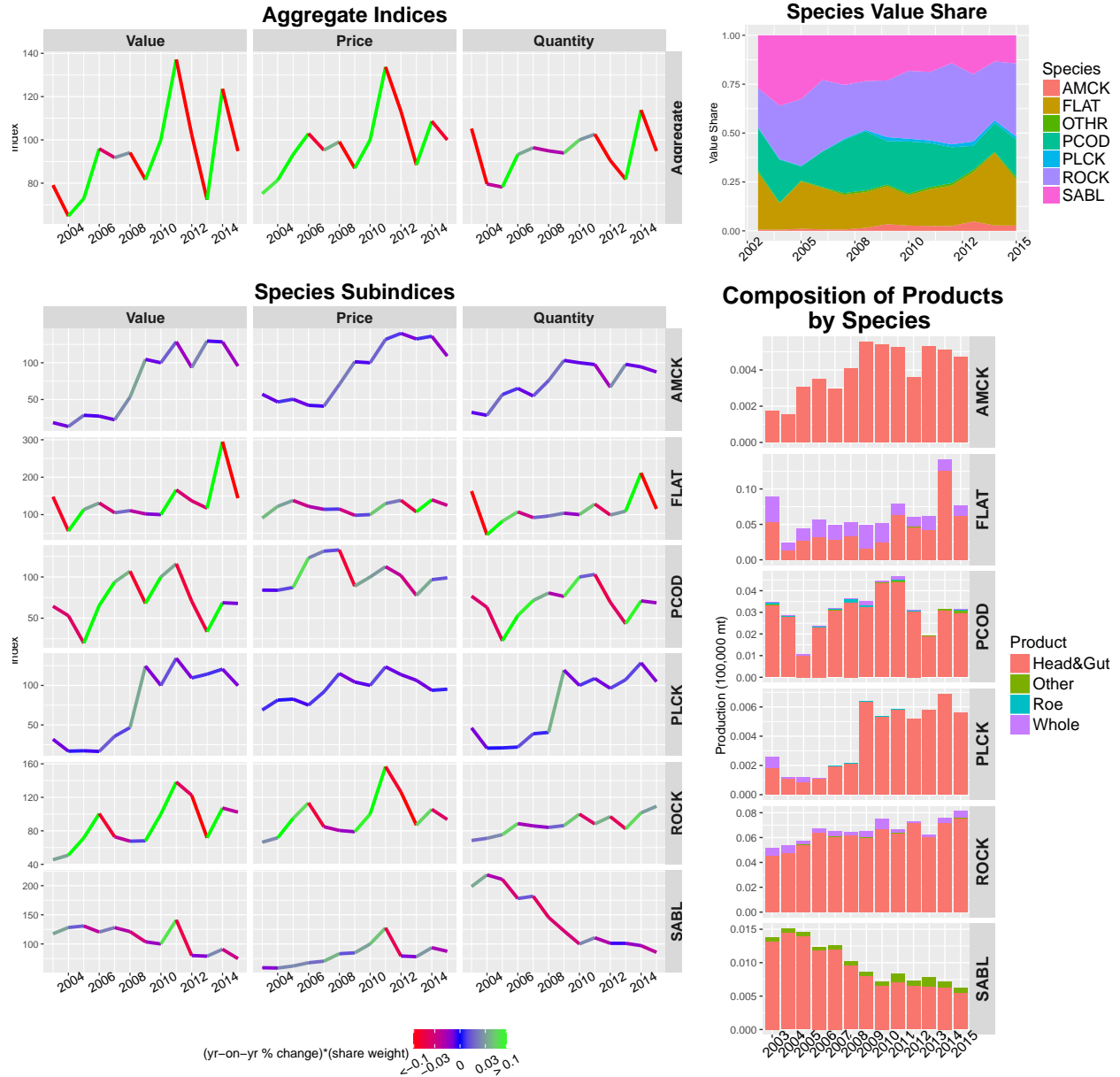


Figure 5.8: GOA at-sea wholesale market: species decomposition 2006-2015.

**Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.7. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

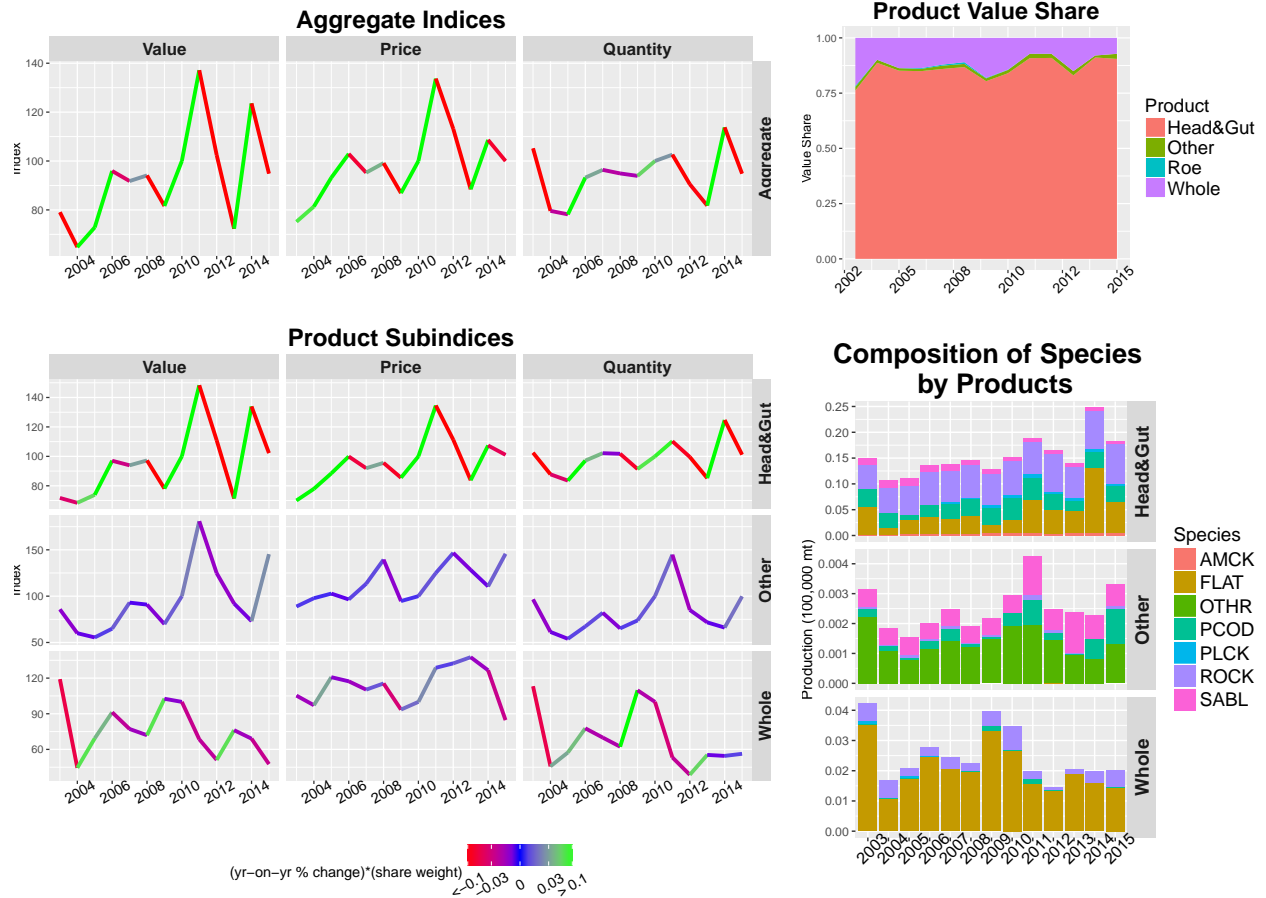


Figure 5.9: GOA at-sea wholesale market: product decomposition 2006-2015.

**Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.8. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

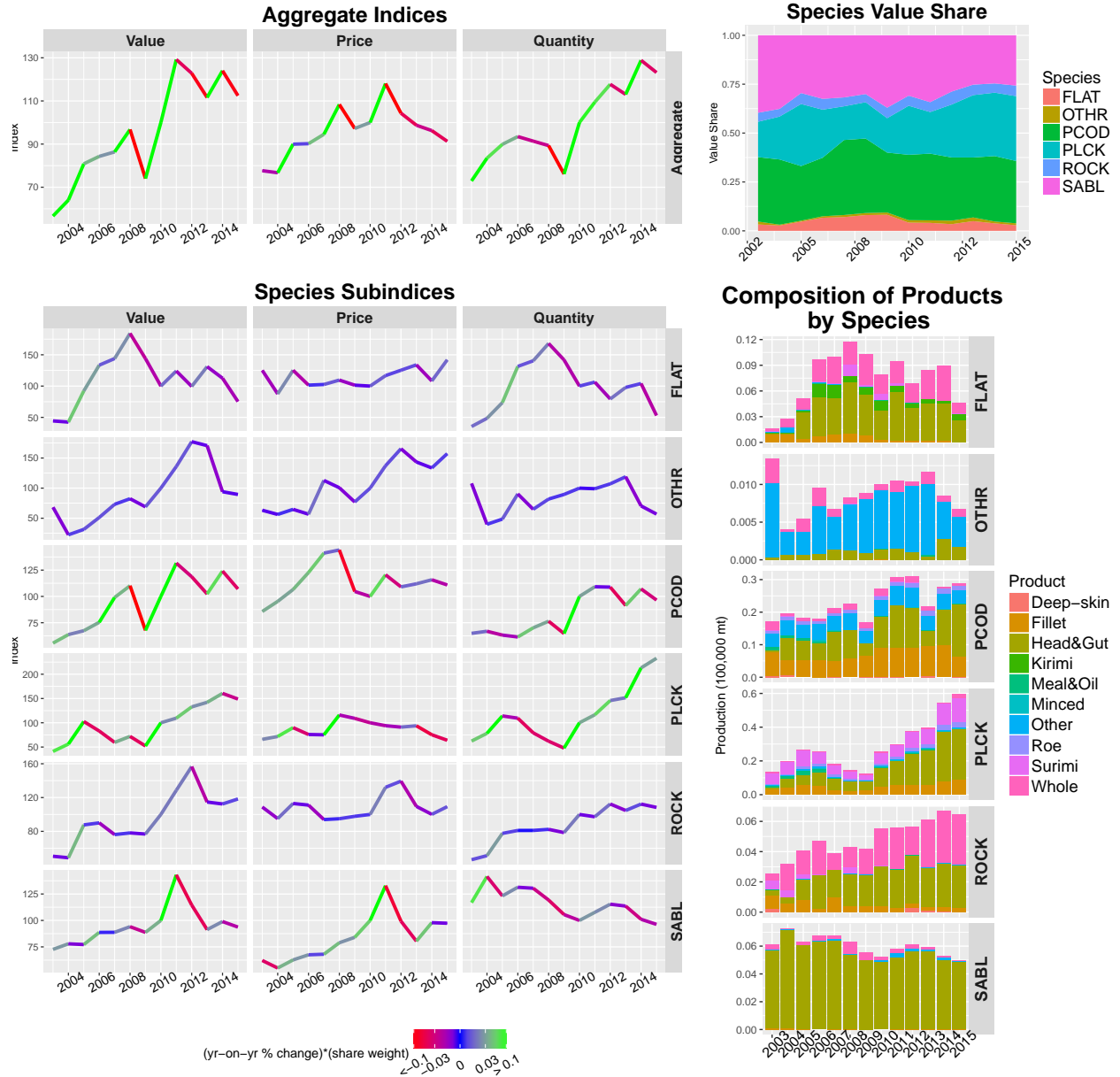


Figure 5.10: GOA shoreside wholesale market: species decomposition 2006-2015.  
**Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.9. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

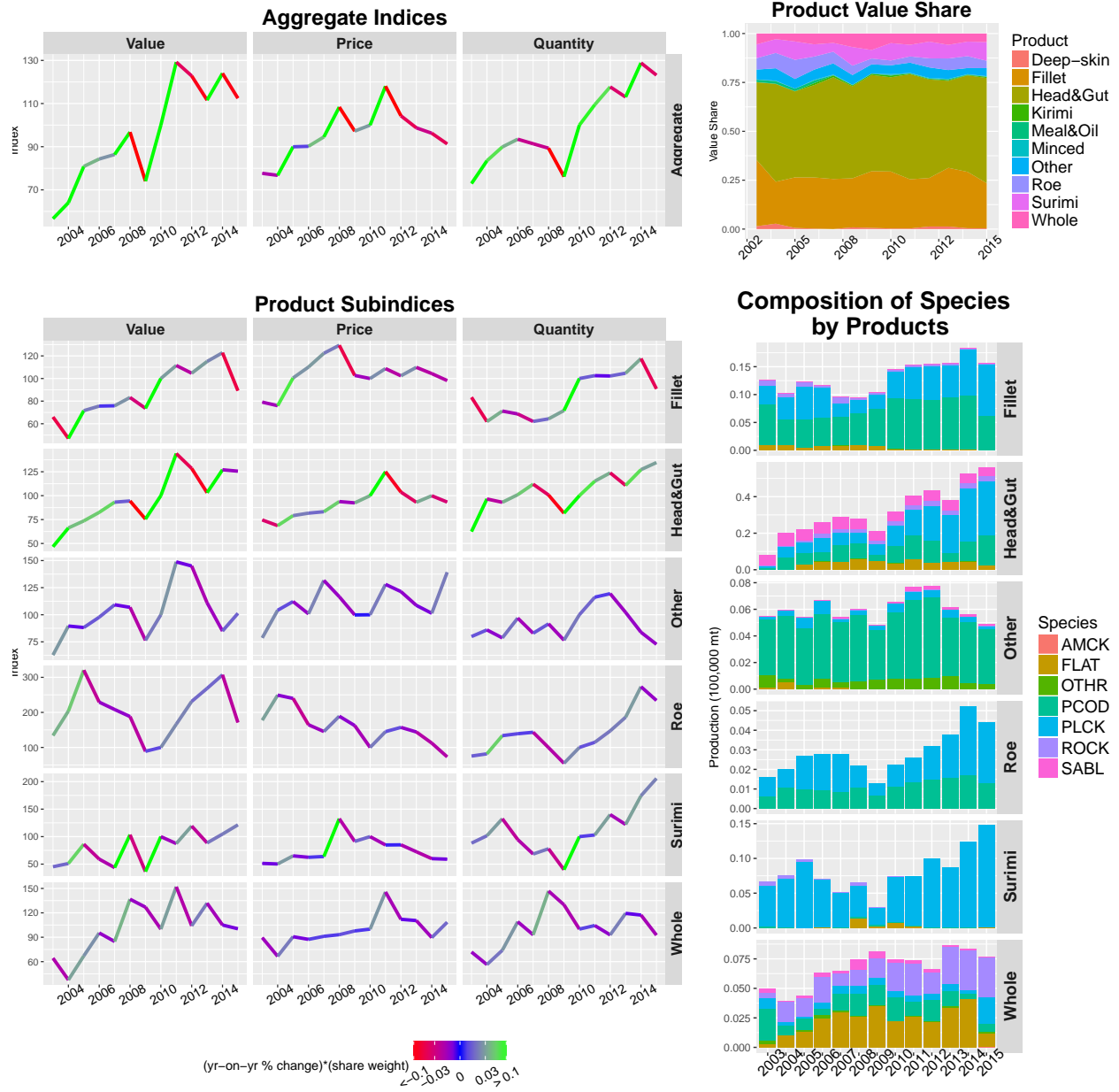


Figure 5.11: GOA shoreside wholesale market: product decomposition 2006-2015.  
**Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.10. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.



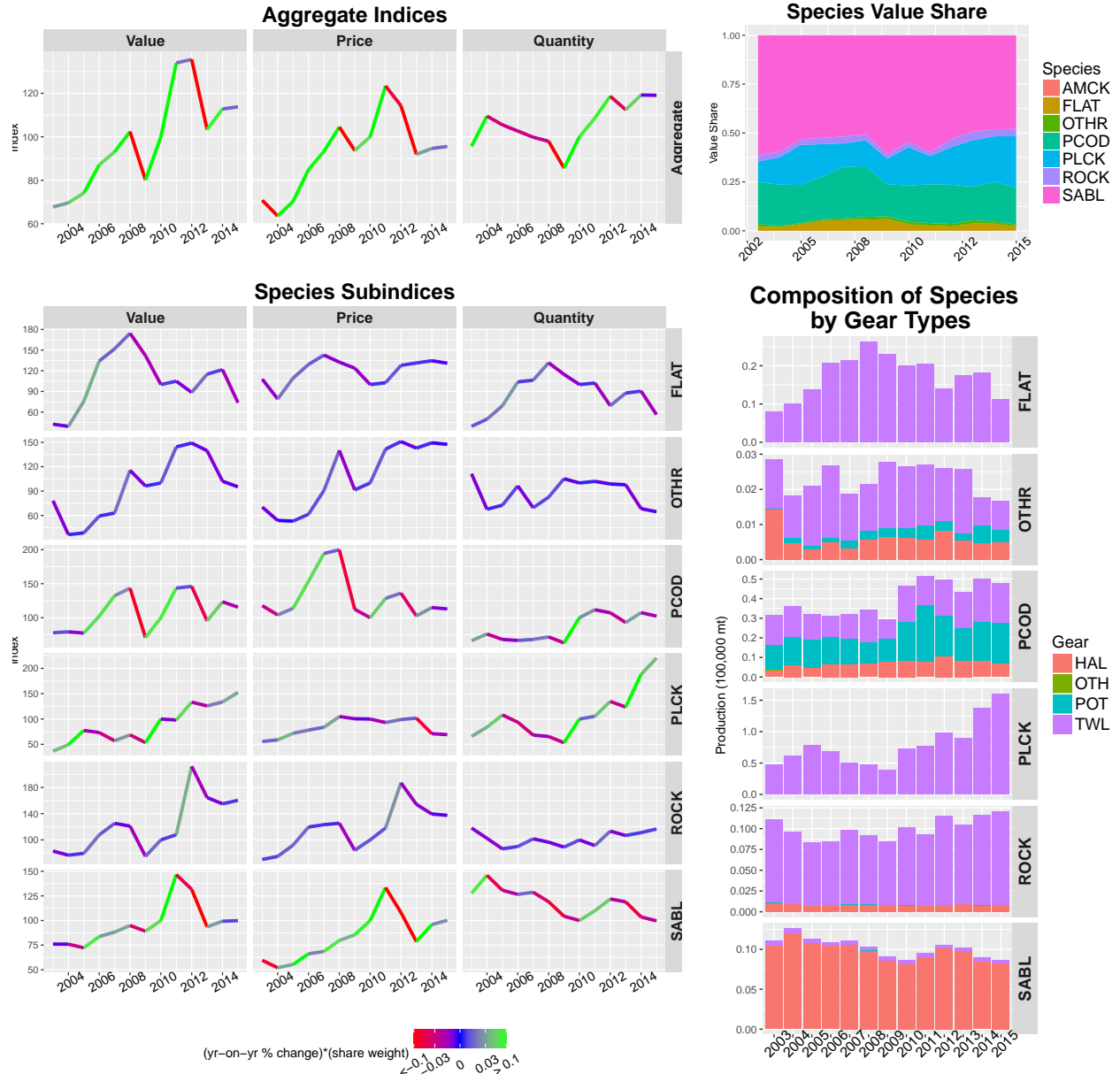


Figure 5.12: GOA shoreside ex-vessel market: species decomposition 2006-2015.  
**Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.11. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

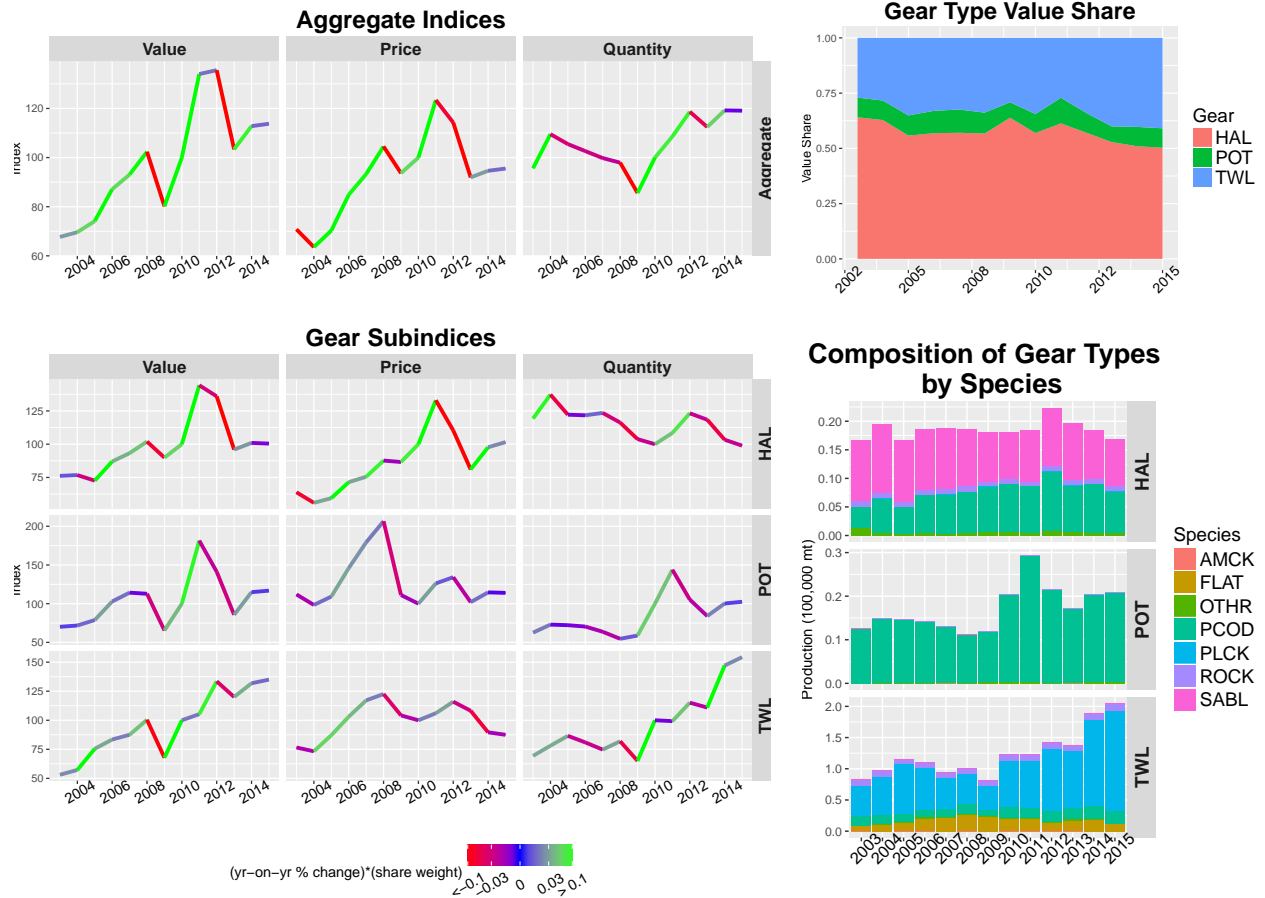


Figure 5.13: GOA shoreside ex-vessel market: gear decomposition 2006-2015 (Index 2013 = 100).  
**Notes:** Index values for 2010-2015, notes and source information for the indices are on Table 5.12. Index coloring indicates its influence on aggregate index movements, see Section 5.1.1 for details.

Table 5.1: Species Indices and Value Share for the BSAI At-Sea First-Wholesale Market 2010-2015.

Species	Index Type	2010	2011	2012	2013	2014	2015
Aggregate	Value	100.00	135.93	138.12	114.83	121.44	123.26
Aggregate	Price	100.00	103.63	105.80	87.57	88.70	88.78
Aggregate	Quantity	100.00	131.17	130.55	131.14	136.91	138.84
AMCK	Value	100.00	99.71	100.26	51.57	84.17	99.87
AMCK	Price	100.00	131.53	145.02	158.85	174.86	125.97
AMCK	Quantity	100.00	75.81	69.13	32.47	48.13	79.29
AMCK	Value Share	0.07	0.05	0.05	0.03	0.05	0.06
FLAT	Value	100.00	139.90	159.16	123.63	105.76	85.40
FLAT	Price	100.00	123.48	133.26	110.39	92.81	92.91
FLAT	Quantity	100.00	113.29	119.44	111.99	113.96	91.92
FLAT	Value Share	0.16	0.16	0.18	0.17	0.14	0.11
PCOD	Value	100.00	143.09	142.65	110.27	129.04	147.52
PCOD	Price	100.00	110.82	99.29	77.26	92.90	100.54
PCOD	Quantity	100.00	129.12	143.68	142.72	138.90	146.73
PCOD	Value Share	0.18	0.19	0.18	0.17	0.19	0.21
PLCK	Value	100.00	135.09	135.24	120.47	126.52	128.61
PLCK	Price	100.00	91.97	97.02	80.43	80.26	81.25
PLCK	Quantity	100.00	146.88	139.39	149.77	157.63	158.28
PLCK	Value Share	0.56	0.56	0.55	0.59	0.58	0.59
ROCK	Value	100.00	187.55	146.81	139.70	166.10	149.27
ROCK	Price	100.00	148.16	123.14	92.67	104.05	88.34
ROCK	Quantity	100.00	126.58	119.22	150.76	159.63	168.97
ROCK	Value Share	0.03	0.04	0.03	0.03	0.04	0.03

**Notes:** Species with a value share less than 1% were not included in this table. All groundfish species were used to calculate aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.2: Product Indices and Value Share for the BSAI At-Sea First-Wholesale Market 2010-2015.

Product	Index Type	2010	2011	2012	2013	2014	2015
Aggregate	Value	100.00	135.93	138.12	114.83	121.44	123.26
Aggregate	Price	100.00	103.63	105.80	87.57	88.70	88.78
Aggregate	Quantity	100.00	131.17	130.55	131.14	136.91	138.84
Deep-skin	Value	100.00	109.41	121.30	122.19	103.16	105.95
Deep-skin	Price	100.00	92.77	90.02	90.71	86.31	83.83
Deep-skin	Quantity	100.00	117.94	134.75	134.70	119.52	126.39
Deep-skin	Value Share	0.11	0.09	0.09	0.11	0.09	0.09
Fillet	Value	100.00	162.67	127.75	144.98	156.53	150.70
Fillet	Price	100.00	89.43	86.46	78.43	79.43	84.69
Fillet	Quantity	100.00	181.89	147.75	184.85	197.07	177.95
Fillet	Value Share	0.11	0.13	0.10	0.14	0.14	0.13
Head&Gut	Value	100.00	143.90	139.23	110.26	117.87	118.27
Head&Gut	Price	100.00	120.86	116.02	91.60	98.87	97.30
Head&Gut	Quantity	100.00	119.06	120.01	120.37	119.21	121.55
Head&Gut	Value Share	0.43	0.46	0.44	0.42	0.42	0.42
Meal&Oil	Value	100.00	130.05	129.57	146.56	160.55	171.68
Meal&Oil	Price	100.00	95.87	106.18	109.94	108.33	110.68
Meal&Oil	Quantity	100.00	135.66	122.03	133.31	148.21	155.11
Meal&Oil	Value Share	0.04	0.04	0.04	0.05	0.05	0.05
Minced	Value	100.00	115.79	124.59	100.71	75.13	83.16
Minced	Price	100.00	87.85	91.50	78.92	69.18	77.59
Minced	Quantity	100.00	131.81	136.17	127.60	108.61	107.17
Minced	Value Share	0.03	0.03	0.03	0.03	0.02	0.02
Other	Value	100.00	148.42	123.91	69.81	64.58	109.23
Other	Price	100.00	114.46	98.47	64.36	69.28	85.26
Other	Quantity	100.00	129.67	125.83	108.47	93.22	128.11
Other	Value Share	0.01	0.02	0.01	0.01	0.01	0.01
Roe	Value	100.00	170.51	174.38	116.13	145.25	118.46
Roe	Price	100.00	112.23	143.28	106.42	94.81	75.59
Roe	Quantity	100.00	151.92	121.70	109.13	153.20	156.73
Roe	Value Share	0.06	0.07	0.07	0.06	0.07	0.05
Surimi	Value	100.00	108.08	135.90	94.37	113.21	130.95
Surimi	Price	100.00	80.57	92.04	61.61	68.06	72.06
Surimi	Quantity	100.00	134.14	147.65	153.18	166.34	181.71
Surimi	Value Share	0.19	0.15	0.19	0.16	0.18	0.20
Whole	Value	100.00	172.26	256.01	221.58	172.39	93.65
Whole	Price	100.00	131.46	148.40	255.03	120.70	110.07
Whole	Quantity	100.00	131.04	172.51	86.88	142.83	85.08
Whole	Value Share	0.02	0.02	0.03	0.03	0.02	0.01

**Notes:** Products types 'Minced', 'Other' and those with a value share less than 1% were not included in this table. All product types were used to construct aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.3: Species Indices and Value Share for the BSAI Shoreside First-Wholesale Market 2010-2015.

Species	Index Type	2010	2011	2012	2013	2014	2015
Aggregate	Value	100.00	126.35	134.80	121.36	128.34	117.43
Aggregate	Price	100.00	98.68	101.06	86.49	85.01	82.53
Aggregate	Quantity	100.00	128.04	133.40	140.32	150.97	142.28
PCOD	Value	100.00	155.79	183.68	156.99	181.06	137.03
PCOD	Price	100.00	120.56	116.58	93.87	98.68	97.75
PCOD	Quantity	100.00	129.22	157.55	167.25	183.48	140.19
PCOD	Value Share	0.12	0.14	0.16	0.15	0.16	0.14
PLCK	Value	100.00	123.11	129.65	118.19	123.36	116.73
PLCK	Price	100.00	94.98	99.46	85.53	82.94	80.08
PLCK	Quantity	100.00	129.61	130.35	138.18	148.75	145.77
PLCK	Value Share	0.85	0.83	0.82	0.83	0.82	0.85
SABL	Value	100.00	97.68	80.84	72.62	58.33	44.50
SABL	Price	100.00	122.49	81.34	84.98	90.01	97.61
SABL	Quantity	100.00	79.75	99.38	85.45	64.81	45.59
SABL	Value Share	0.03	0.02	0.02	0.02	0.01	0.01

**Notes:** Species with a value share less than 1% were not included in this table. All groundfish species were used to calculate aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.4: Product Indices and Value Share for the BSAI Shoreside First-Wholesale Market 2010-2015.

Product	Index Type	2010	2011	2012	2013	2014	2015
Aggregate	Value	100.00	126.35	134.80	121.36	128.34	117.43
Aggregate	Price	100.00	98.68	101.06	86.49	85.01	82.53
Aggregate	Quantity	100.00	128.04	133.40	140.32	150.97	142.28
Deep-skin	Value	100.00	105.90	155.61	107.23	83.61	73.88
Deep-skin	Price	100.00	96.96	106.64	89.83	95.54	92.97
Deep-skin	Quantity	100.00	109.22	145.92	119.38	87.52	79.47
Deep-skin	Value Share	0.09	0.07	0.10	0.08	0.06	0.05
Fillet	Value	100.00	144.25	118.64	151.18	152.50	126.58
Fillet	Price	100.00	93.73	93.29	88.08	79.91	73.49
Fillet	Quantity	100.00	153.90	127.18	171.64	190.83	172.25
Fillet	Value Share	0.31	0.35	0.27	0.38	0.37	0.33
Head&Gut	Value	100.00	80.27	85.95	50.86	65.65	52.84
Head&Gut	Price	100.00	113.05	98.09	72.94	86.82	91.52
Head&Gut	Quantity	100.00	71.00	87.63	69.72	75.61	57.73
Head&Gut	Value Share	0.16	0.10	0.10	0.07	0.08	0.07
Meal&Oil	Value	100.00	135.84	118.63	156.30	155.23	166.28
Meal&Oil	Price	100.00	115.75	98.93	123.37	111.62	128.00
Meal&Oil	Quantity	100.00	117.36	119.92	126.70	139.07	129.90
Meal&Oil	Value Share	0.09	0.09	0.08	0.11	0.11	0.12
Minced	Value	100.00	141.93	129.85	138.13	104.10	107.23
Minced	Price	100.00	78.14	83.56	72.82	65.58	75.11
Minced	Quantity	100.00	181.64	155.39	189.68	158.73	142.76
Minced	Value Share	0.01	0.02	0.01	0.02	0.01	0.01
Other	Value	100.00	138.77	317.96	139.99	115.67	135.62
Other	Price	100.00	92.83	147.08	90.41	78.13	80.23
Other	Quantity	100.00	149.49	216.18	154.84	148.04	169.05
Other	Value Share	0.02	0.02	0.04	0.02	0.01	0.02
Roe	Value	100.00	117.87	149.04	99.00	138.52	73.10
Roe	Price	100.00	150.23	167.25	136.94	124.32	88.16
Roe	Quantity	100.00	78.46	89.11	72.29	111.43	82.92
Roe	Value Share	0.07	0.07	0.08	0.06	0.08	0.05
Surimi	Value	100.00	135.27	166.29	125.08	141.49	155.86
Surimi	Price	100.00	85.32	93.01	68.59	75.07	75.23
Surimi	Quantity	100.00	158.55	178.78	182.37	188.49	207.18
Surimi	Value Share	0.25	0.27	0.31	0.26	0.28	0.34

**Notes:** Products types 'Minced', 'Other' and those with a value share less than 1% were not included in this table. All product types were used to construct aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.5: Species Indices and Value Share for the BSAI Shoreside Ex-Vessel Market 2006-2015.

Species	Index Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AggregateValue		150.29	141.31	166.09	112.01	100.00	156.95	168.83	146.54	153.99	146.80
AggregatePrice		89.69	93.31	139.29	113.33	100.00	109.35	114.41	96.90	101.62	98.06
AggregateQuantity		167.56	151.44	119.25	98.84	100.00	143.53	147.57	151.22	151.54	149.70
PCOD	Value	181.33	194.66	237.19	83.69	100.00	155.58	204.44	155.62	169.52	134.39
PCOD	Price	157.17	181.57	228.21	99.00	100.00	110.04	128.42	98.60	110.16	100.08
PCOD	Quantity	115.37	107.21	103.93	84.54	100.00	141.39	159.20	157.83	153.89	134.29
PCOD	Value Share	0.17	0.20	0.20	0.11	0.14	0.14	0.17	0.15	0.16	0.13
PLCK	Value	151.11	136.75	161.47	120.61	100.00	159.89	169.66	153.61	159.23	159.68
PLCK	Price	82.20	83.77	132.53	121.00	100.00	108.25	113.49	98.28	100.69	98.40
PLCK	Quantity	183.83	163.25	121.84	99.68	100.00	147.70	149.50	156.29	158.14	162.27
PLCK	Value Share	0.78	0.75	0.76	0.84	0.78	0.79	0.78	0.82	0.80	0.85
SABL	Value	70.90	73.77	72.15	64.55	100.00	124.43	87.94	58.80	69.05	36.39
SABL	Price	54.07	52.52	68.93	60.45	100.00	119.92	82.74	66.67	94.00	87.39
SABL	Quantity	131.12	140.47	104.67	106.79	100.00	103.75	106.29	88.19	73.46	41.64
SABL	Value Share	0.03	0.04	0.03	0.04	0.07	0.06	0.04	0.03	0.03	0.02

**Notes:** Species with a value share less than 1% were not included in this table. All groundfish species were used to calculate aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.6: Gear Indices and Value Share for the BSAI Shoreside Ex-Vessel Market 2006-2015.

Gear	Index Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AggregateValue		150.29	141.31	166.09	112.01	100.00	156.95	168.83	146.54	153.99	146.80
AggregatePrice		89.69	93.31	139.29	113.33	100.00	109.35	114.41	96.90	101.62	98.06
AggregateQuantity		167.56	151.44	119.25	98.84	100.00	143.53	147.57	151.22	151.54	149.70
HAL	Value	47.28	24.99	51.28	57.54	100.00	125.67	93.33	64.54	91.60	52.60
HAL	Price	65.23	64.50	82.69	63.22	100.00	117.82	84.63	68.52	91.88	85.77
HAL	Quantity	72.49	38.75	62.01	91.03	100.00	106.67	110.27	94.19	99.70	61.33
HAL	Value Share	0.01	0.01	0.01	0.02	0.04	0.03	0.02	0.02	0.03	0.02
POT	Value	132.75	136.49	158.69	63.47	100.00	142.30	129.60	98.65	112.04	87.56
POT	Price	109.33	111.49	139.76	79.63	100.00	107.08	103.61	80.58	95.80	88.78
POT	Quantity	121.42	122.43	113.54	79.70	100.00	132.89	125.08	122.42	116.95	98.63
POT	Value Share	0.09	0.10	0.10	0.06	0.10	0.09	0.08	0.07	0.08	0.06
TWL	Value	157.63	147.76	172.79	120.72	100.00	160.33	177.46	156.55	162.29	158.82
TWL	Price	89.39	93.25	142.26	119.44	100.00	109.24	116.61	99.58	102.74	99.53
TWL	Quantity	176.35	158.45	121.46	101.07	100.00	146.76	152.18	157.21	157.96	159.58
TWL	Value Share	0.89	0.89	0.89	0.92	0.85	0.87	0.90	0.91	0.90	0.92

**Notes:** The Fisher index method was used to construct the indices. Further details on index construction and gear decomposition can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.



Table 5.7: Species Indices and Value Share for the GOA At-Sea First-Wholesale Market 2010-2015.

Species	Index Type	2010	2011	2012	2013	2014	2015
Aggregate	Value	100.00	137.15	102.42	72.31	123.57	94.84
Aggregate	Price	100.00	133.69	113.18	88.44	108.62	100.01
Aggregate	Quantity	100.00	102.59	90.49	81.77	113.76	94.84
AMCK	Value	100.00	128.59	93.58	129.59	128.39	95.46
AMCK	Price	100.00	131.79	139.95	132.36	136.00	109.15
AMCK	Quantity	100.00	97.57	66.87	97.90	94.40	87.46
AMCK	Value Share	0.03	0.03	0.02	0.05	0.03	0.03
FLAT	Value	100.00	166.17	136.88	117.12	294.95	143.94
FLAT	Price	100.00	129.62	138.23	107.22	139.66	124.82
FLAT	Quantity	100.00	128.20	99.02	109.23	211.19	115.32
FLAT	Value Share	0.16	0.19	0.21	0.25	0.37	0.24
PCOD	Value	100.00	116.02	70.59	33.60	68.72	67.90
PCOD	Price	100.00	112.51	101.72	77.63	96.77	98.93
PCOD	Quantity	100.00	103.12	69.40	43.28	71.01	68.64
PCOD	Value Share	0.27	0.23	0.18	0.12	0.15	0.19
PLCK	Value	100.00	134.33	109.44	114.21	120.59	99.78
PLCK	Price	100.00	123.51	113.65	106.48	93.81	95.19
PLCK	Quantity	100.00	108.76	96.29	107.26	128.55	104.82
PLCK	Value Share	0.01	0.01	0.01	0.02	0.01	0.01
ROCK	Value	100.00	138.27	122.51	71.66	107.24	102.28
ROCK	Price	100.00	156.71	126.33	86.89	105.69	93.57
ROCK	Quantity	100.00	88.23	96.97	82.47	101.47	109.30
ROCK	Value Share	0.35	0.35	0.42	0.34	0.30	0.37
SABL	Value	100.00	141.22	80.17	78.96	90.86	74.87
SABL	Price	100.00	127.63	79.27	78.12	93.57	87.42
SABL	Quantity	100.00	110.65	101.13	101.08	97.10	85.65
SABL	Value Share	0.18	0.19	0.14	0.20	0.13	0.14

**Notes:** Species with a value share less than 1% were not included in this table. All groundfish species were used to calculate aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.8: Product Indices and Value Share for the GOA At-Sea First-Wholesale Market 2010-2015.

Product	Index Type	2010	2011	2012	2013	2014	2015
Aggregate	Value	100.00	137.15	102.42	72.31	123.57	94.84
Aggregate	Price	100.00	133.69	113.18	88.44	108.62	100.01
Aggregate	Quantity	100.00	102.59	90.49	81.77	113.76	94.84
Head&Gut	Value	100.00	148.31	110.87	71.41	133.89	102.23
Head&Gut	Price	100.00	134.53	111.33	83.80	107.39	101.04
Head&Gut	Quantity	100.00	110.24	99.59	85.21	124.68	101.18
Head&Gut	Value Share	0.84	0.91	0.91	0.83	0.91	0.90
Other	Value	100.00	180.87	124.76	91.99	73.06	145.28
Other	Price	100.00	124.99	146.64	128.32	110.58	145.67
Other	Quantity	100.00	144.72	85.08	71.69	66.07	99.73
Other	Value Share	0.01	0.02	0.02	0.02	0.01	0.02
Whole	Value	100.00	68.50	51.16	76.18	69.03	47.65
Whole	Price	100.00	128.71	132.40	137.61	126.61	84.67
Whole	Quantity	100.00	53.22	38.64	55.36	54.52	56.28
Whole	Value Share	0.14	0.07	0.07	0.15	0.08	0.07

**Notes:** Products types 'Minced' and those with a value share less than 1% were not included in this table. All product types were used to construct aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.9: Species Indices and Value Share for the GOA Shoreside First-Wholesale Market 2010-2015.

Species	Index Type	2010	2011	2012	2013	2014	2015
Aggregate	Value	100.00	129.20	122.81	111.60	123.99	112.45
Aggregate	Price	100.00	118.04	104.32	98.74	96.24	91.29
Aggregate	Quantity	100.00	109.46	117.73	113.02	128.83	123.18
FLAT	Value	100.00	124.12	99.47	131.09	112.58	75.32
FLAT	Price	100.00	116.73	125.31	133.93	108.18	141.97
FLAT	Quantity	100.00	106.34	79.38	97.88	104.06	53.06
FLAT	Value Share	0.04	0.04	0.03	0.05	0.04	0.03
OTHR	Value	100.00	135.84	177.17	170.58	94.04	89.50
OTHR	Price	100.00	137.23	165.42	143.46	133.53	157.25
OTHR	Quantity	100.00	98.99	107.10	118.91	70.42	56.91
OTHR	Value Share	0.01	0.01	0.02	0.02	0.01	0.01
PCOD	Value	100.00	131.66	118.70	102.33	124.11	107.11
PCOD	Price	100.00	120.57	109.07	111.99	115.82	110.91
PCOD	Quantity	100.00	109.20	108.83	91.37	107.16	96.57
PCOD	Value Share	0.33	0.34	0.32	0.31	0.33	0.32
PLCK	Value	100.00	109.52	132.70	142.10	160.50	148.91
PLCK	Price	100.00	93.97	91.03	93.75	75.33	63.95
PLCK	Quantity	100.00	116.54	145.78	151.58	213.07	232.87
PLCK	Value Share	0.25	0.21	0.27	0.32	0.32	0.33
ROCK	Value	100.00	128.56	156.66	114.71	112.40	118.33
ROCK	Price	100.00	132.12	139.40	109.56	100.11	109.24
ROCK	Quantity	100.00	97.31	112.38	104.71	112.27	108.32
ROCK	Value Share	0.05	0.05	0.07	0.05	0.05	0.05
SABL	Value	100.00	143.07	114.57	91.32	98.94	93.73
SABL	Price	100.00	132.85	99.33	80.41	97.89	97.35
SABL	Quantity	100.00	107.69	115.34	113.56	101.08	96.29
SABL	Value Share	0.31	0.34	0.29	0.25	0.25	0.26

**Notes:** Species with a value share less than 1% were not included in this table. All groundfish species were used to calculate aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.10: Product Indices and Value Share for the GOA Shoreside First-Wholesale Market 2010-2015.

Product	Index Type	2010	2011	2012	2013	2014	2015
Aggregate	Value	100.00	129.20	122.81	111.60	123.99	112.45
Aggregate	Price	100.00	118.04	104.32	98.74	96.24	91.29
Aggregate	Quantity	100.00	109.46	117.73	113.02	128.83	123.18
Fillet	Value	100.00	111.54	104.68	115.07	122.79	89.24
Fillet	Price	100.00	108.78	102.39	109.89	104.36	98.19
Fillet	Quantity	100.00	102.54	102.24	104.72	117.67	90.89
Fillet	Value Share	0.29	0.25	0.25	0.30	0.29	0.23
Head&Gut	Value	100.00	144.02	128.48	103.10	127.07	125.62
Head&Gut	Price	100.00	125.07	103.73	93.09	99.88	93.30
Head&Gut	Quantity	100.00	115.15	123.87	110.75	127.22	134.63
Head&Gut	Value Share	0.48	0.54	0.50	0.44	0.49	0.54
Other	Value	100.00	148.78	144.96	111.02	84.99	101.27
Other	Price	100.00	128.04	121.36	108.65	101.37	139.18
Other	Quantity	100.00	116.20	119.45	102.18	83.84	72.77
Other	Value Share	0.05	0.05	0.05	0.05	0.03	0.04
Roe	Value	100.00	166.32	231.38	268.46	307.18	171.20
Roe	Price	100.00	145.11	157.19	144.12	112.39	73.11
Roe	Quantity	100.00	114.62	147.19	186.28	273.32	234.16
Roe	Value Share	0.02	0.03	0.05	0.06	0.06	0.04
Surimi	Value	100.00	87.39	119.27	88.58	104.62	121.41
Surimi	Price	100.00	84.84	85.10	72.52	60.00	59.00
Surimi	Quantity	100.00	103.01	140.15	122.15	174.37	205.78
Surimi	Value Share	0.09	0.06	0.09	0.07	0.07	0.10
Whole	Value	100.00	152.05	104.09	131.85	105.05	100.42
Whole	Price	100.00	145.64	112.08	110.48	89.57	108.46
Whole	Quantity	100.00	104.40	92.88	119.34	117.28	92.59
Whole	Value Share	0.05	0.06	0.04	0.06	0.04	0.04

**Notes:** Products types 'Minced' and those with a value share less than 1% were not included in this table. All product types were used to construct aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.11: Species Indices and Value Share for the GOA Shoreside Ex-Vessel Market 2006-2015.

Species	Index Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AggregateValue		87.12	93.08	102.35	80.18	100.00	134.01	135.57	103.38	112.80	113.76
AggregatePrice		84.88	93.27	104.52	93.66	100.00	123.41	114.26	91.94	94.62	95.53
AggregateQuantity		102.64	99.79	97.93	85.61	100.00	108.59	118.65	112.44	119.21	119.09
FLAT	Value	134.12	151.91	174.42	142.04	100.00	104.84	88.59	115.07	121.61	73.79
FLAT	Price	129.18	142.82	132.49	123.80	100.00	102.61	127.81	131.35	134.53	131.01
FLAT	Quantity	103.83	106.36	131.64	114.74	100.00	102.17	69.31	87.60	90.40	56.32
FLAT	Value Share	0.05	0.05	0.06	0.06	0.03	0.03	0.02	0.04	0.04	0.02
OTHR	Value	59.32	63.00	115.53	96.25	100.00	144.34	149.08	139.67	102.14	95.24
OTHR	Price	61.53	90.64	140.01	91.50	100.00	141.58	150.95	142.84	149.37	147.49
OTHR	Quantity	96.41	69.51	82.52	105.19	100.00	101.95	98.76	97.78	68.38	64.58
OTHR	Value Share	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01
PCOD	Value	102.26	132.40	143.39	70.79	100.00	143.51	146.07	95.29	123.44	115.46
PCOD	Price	153.56	194.44	199.83	112.41	100.00	128.47	136.14	102.58	114.88	112.88
PCOD	Quantity	66.59	68.10	71.75	62.97	100.00	111.71	107.29	92.90	107.46	102.28
PCOD	Value Share	0.22	0.26	0.26	0.16	0.19	0.20	0.20	0.17	0.20	0.19
PLCK	Value	73.26	57.02	68.69	53.43	100.00	97.98	133.39	125.83	133.66	152.46
PLCK	Price	78.20	83.59	104.87	100.48	100.00	93.06	99.00	101.78	71.08	69.20
PLCK	Quantity	93.68	68.22	65.50	53.18	100.00	105.28	134.74	123.63	188.04	220.31
PLCK	Value Share	0.17	0.12	0.13	0.13	0.20	0.14	0.19	0.24	0.23	0.26
ROCK	Value	107.67	125.24	121.08	74.89	100.00	107.94	212.27	164.63	155.07	160.34
ROCK	Price	119.71	123.25	125.40	84.18	100.00	118.18	187.14	154.26	139.53	137.50
ROCK	Quantity	89.94	101.62	96.56	88.96	100.00	91.34	113.43	106.72	111.14	116.61
ROCK	Value Share	0.03	0.04	0.03	0.02	0.03	0.02	0.04	0.04	0.04	0.04
SABL	Value	83.71	88.21	94.92	89.08	100.00	146.60	131.66	93.52	99.30	99.82
SABL	Price	66.17	68.57	79.74	85.39	100.00	133.46	108.03	78.63	95.87	100.17
SABL	Quantity	126.51	128.65	119.04	104.33	100.00	109.85	121.87	118.93	103.58	99.65
SABL	Value Share	0.52	0.52	0.51	0.61	0.55	0.60	0.53	0.49	0.48	0.48

**Notes:** Species with a value share less than 1% were not included in this table. All groundfish species were used to calculate aggregate indices and value share. The Fisher index method was used to construct the indices. Further details can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5.12: Gear Indices and Value Share for the GOA Shoreside Ex-Vessel Market 2006-2015.

Gear	Index Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
AggregateValue		87.12	93.08	102.35	80.18	100.00	134.01	135.57	103.38	112.80	113.76
AggregatePrice		84.88	93.27	104.52	93.66	100.00	123.41	114.26	91.94	94.62	95.53
AggregateQuantity		102.64	99.79	97.93	85.61	100.00	108.59	118.65	112.44	119.21	119.09
HAL	Value	86.99	93.26	101.96	89.91	100.00	144.28	135.94	95.96	100.97	100.45
HAL	Price	71.48	75.53	87.70	86.62	100.00	133.01	110.33	81.06	97.69	101.56
HAL	Quantity	121.71	123.48	116.26	103.80	100.00	108.47	123.22	118.38	103.36	98.90
HAL	Value Share	0.57	0.57	0.57	0.64	0.57	0.61	0.57	0.53	0.51	0.50
POT	Value	102.84	114.23	112.81	65.45	100.00	181.45	141.28	85.63	114.90	116.82
POT	Price	145.96	179.21	206.53	111.20	100.00	126.18	134.20	101.93	114.61	113.98
POT	Quantity	70.45	63.74	54.62	58.86	100.00	143.80	105.28	84.01	100.25	102.50
POT	Value Share	0.10	0.11	0.09	0.07	0.09	0.12	0.09	0.07	0.09	0.09
TWL	Value	83.42	87.51	100.41	67.76	100.00	105.25	133.53	120.04	131.82	134.99
TWL	Price	103.06	117.12	122.55	104.18	100.00	106.04	115.99	108.19	89.61	87.50
TWL	Quantity	80.94	74.72	81.93	65.04	100.00	99.26	115.13	110.96	147.10	154.28
TWL	Value Share	0.33	0.32	0.34	0.29	0.34	0.27	0.34	0.40	0.40	0.41

**Notes:** The Fisher index method was used to construct the indices. Further details on index construction and gear decomposition can be found in the text or by contacting Ben.Fissel@NOAA.gov.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

## A. ADDITIONAL ECONOMIC DATA TABLES

### A.1. Ex-vessel Value and Price Data Tables: alternative pricing based on CFEC fish tickets

These tables present ex-vessel prices and value utilizing prices derived from ADF&G fish tickets priced by the Alaska Commercial Fisheries Entry Commission (CFEC). This provides an alternative source of ex-vessel prices to the Commercial Operator Annual Report (COAR) purchasing data that has historically been used to assemble Tables 16-24. CFEC fish ticket prices reflect individual transactions reported on shoreside and mothership landing reports, adjusted by analysts with consideration to COAR buying data, and therefore may be subject to additional scrutiny. Work is ongoing to analyze and characterize differences between the two pricing methods, and we are working with industry to get their perspective on which source may best reflect the pricing conditions faced by their companies. Until we have finalized this inquiry we will retain the CFEC pricing in this appendix. Note that Tables 16.B-24.B are valid only for the years after 2003.

Table 16.B: Real ex-vessel value of the catch in the domestic commercial fisheries off Alaska by species group, 2004-2015; calculations based on CFEC fish tickets (\$ millions, base year=2015).

Year	Shellfish	Salmon	Herring	Halibut	Groundfish	Total
2004	202.3	311.4	17.1	206.0	638.5	1,375.3
2005	199.9	372.5	17.5	201.9	776.9	1,568.8
2006	163.3	363.0	11.4	223.0	824.8	1,585.5
2007	212.6	436.1	17.4	245.2	818.7	1,730.0
2008	284.2	454.0	28.1	229.3	995.1	1,990.8
2009	211.7	425.1	26.2	147.4	609.2	1,419.6
2010	248.8	561.8	23.8	216.0	710.8	1,761.3
2011	313.1	643.4	11.4	215.8	929.8	2,113.5
2012	329.2	549.8	22.4	149.5	970.5	2,021.3
2013	242.7	691.9	16.6	113.5	889.5	1,954.3
2014	245.1	548.1	11.5	107.1	821.5	1,733.4
2015	293.1	413.2	7.0	110.7	933.6	1,757.6

**Notes:** These estimates include the value of catch from both federal and state of Alaska fisheries. The data have been adjusted to 2015 dollars by applying the Producer Price Index for unprocessed and packaged fish by applying the Personal Consumption Expenditure Index at (<https://research.stlouisfed.org/fred2/series/PCEPI>)

**Source:** NMFS Alaska Region Blend and Catch-Accounting System estimates, At-Sea Production Report, Alaska Commercial Fisheries Entry Commission (CFEC) fish tickets, Fisheries of the United States (compiled and provided by the Alaska Fisheries Information Network (AKFIN)). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 17.B: Percentage distribution of ex-vessel value of the catch in the domestic commercial fisheries off Alaska by species group, 2004-2015; calculations based on CFEC fish tickets.

Year	Shellfish	Salmon	Herring	Halibut	Groundfish
2004	14.7 %	22.6 %	1.2 %	15.0 %	46.4 %
2005	12.7 %	23.7 %	1.1 %	12.9 %	49.5 %
2006	10.3 %	22.9 %	0.7 %	14.1 %	52.0 %
2007	12.3 %	25.2 %	1.0 %	14.2 %	47.3 %
2008	14.3 %	22.8 %	1.4 %	11.5 %	50.0 %
2009	14.9 %	29.9 %	1.8 %	10.4 %	42.9 %
2010	14.1 %	31.9 %	1.4 %	12.3 %	40.4 %
2011	14.8 %	30.4 %	0.5 %	10.2 %	44.0 %
2012	16.3 %	27.2 %	1.1 %	7.4 %	48.0 %
2013	12.4 %	35.4 %	0.8 %	5.8 %	45.5 %
2014	14.1 %	31.6 %	0.7 %	6.2 %	47.4 %
2015	16.7 %	23.5 %	0.4 %	6.3 %	53.1 %

**Notes:** These estimates report the distribution of the value of catch from both federal and state of Alaska fisheries.

**Source:** NMFS Alaska Region Blend and Catch-Accounting System estimates, At-Sea Production Report, Alaska Commercial Fisheries Entry Commission (CFEC) fish tickets, Fisheries of the United States. (compiled and provided by the Alaska Fisheries Information Network (AKFIN)). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.



Table 18.B: Ex-vessel prices in the groundfish fisheries off Alaska by area, gear, and species, 2011-2015; calculations based on CFEC fish tickets (\$/lb, round weight).

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska
		Fixed	Trawl	Fixed	Trawl	All Gear
Pollock	2011	0.141	0.161	0.172	0.142	0.143
	2012	0.146	0.170	0.161	0.157	0.158
	2013	0.166	0.170	0.155	0.147	0.149
	2014	0.114	0.129	0.131	0.134	0.134
	2015	0.094	0.115	0.102	0.138	0.135
Sablefish	2011	4.935	4.032	4.883	1.791	4.844
	2012	3.968	3.246	3.506	1.013	3.824
	2013	2.785	2.333	2.720	1.173	2.729
	2014	3.470	2.768	3.438	1.317	3.403
	2015	3.717	2.542	3.638	1.316	3.611
Pacific Cod	2011	0.319	0.299	0.218	0.224	0.246
	2012	0.342	0.310	0.194	0.238	0.239
	2013	0.277	0.237	0.327	0.203	0.279
	2014	0.292	0.262	0.186	0.214	0.217
	2015	0.316	0.254	0.472	0.205	0.368
Flatfish	2011	0.056	0.091	0.065	0.180	0.169
	2012	0.072	0.108	0.049	0.199	0.191
	2013	0.051	0.117	0.496	0.160	0.157
	2014	0.065	0.099	0.373	0.140	0.135
	2015	0.076	0.114	0.419	0.140	0.139
Rockfish	2011	0.697	0.259	0.526	0.345	0.316
	2012	0.801	0.265	0.501	0.289	0.290
	2013	0.816	0.196	0.579	0.213	0.221
	2014	0.776	0.212	0.570	0.238	0.237
	2015	0.722	0.212	0.608	0.226	0.230
Atka Mackerel	2011	0.016	0.364	0.151	0.265	0.267
	2012	0.131	0.386	0.152	0.293	0.295
	2013	*	0.366	0.318	0.322	0.324
	2014	*	0.372	0.327	0.356	0.357
	2015	*	0.363	0.100	0.357	0.357

**Notes:** 1) Prices are for catch from both federal and state of Alaska fisheries.

2) Prices do not include the value added by at-sea processing except for the value added by dressing fish at sea where the fish have not been frozen. The unfrozen landings price is calculated as landed value divided by estimated or actual round weight.

3) Trawl-caught sablefish, rockfish and flatfish in the BSAI and trawl-caught Atka mackerel in both the BSAI and the GOA are not well represented by on-shore landings. A price was calculated for these categories from product-report prices; the price in this case is the value of the product divided by the calculated round weight and multiplied by a constant 0.4 to correct for value added by processing.

4) The “All Alaska/All gear” column is the weighted average of the other columns.

Values not adjusted for inflation. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Catch Accounting System, Alaska Commercial Fisheries Entry Commission (CFEC) fish tickets, At-Sea Production Report, (compiled and provided by the Alaska Fisheries Information Network (AKFIN)). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 19.B: Ex-vessel value of the groundfish catch off Alaska by area, vessel category, gear, and species, 2011-2015; calculations based on CFEC fish tickets (\$ millions).

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska			
		Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	
Hook & Line	Sablefish	2011	105.0	8.3	113.4	7.4	4.6	12.0	112.4	12.9	125.3
		2012	94.5	6.1	100.6	6.1	4.1	10.2	100.6	10.2	110.8
		2013	64.5	4.2	68.7	3.6	2.9	6.5	68.0	7.1	75.2
		2014	69.4	4.3	73.7	4.1	1.5	5.6	73.4	5.9	79.3
		2015	71.5	3.6	75.1	3.0	1.0	3.9	74.5	4.5	79.0
	Pacific Cod	2011	10.7	3.4	14.1	0.8	49.5	50.3	11.4	52.9	64.4
		2012	13.1	1.6	14.7	0.7	46.2	46.9	13.8	47.8	61.6
		2013	6.6	2.4	9.0	0.7	93.6	94.2	7.2	95.9	103.2
		2014	9.0	2.0	11.0	1.4	42.0	43.4	10.4	44.0	54.5
		2015	7.9	4.8	12.7	0.5	149.8	150.3	8.4	154.6	162.9
	Flatfish	2011	0	0	0	*	0.3	0.3	0	0.3	0.3
		2012	0	0	0	*	0.3	0.3	0	0.3	0.3
		2013	0	*	0	*	0.8	0.8	0	0.8	0.8
		2014	0	*	0	*	0.7	0.7	0	0.7	0.7
		2015	0	0	0	*	1.1	1.1	0	1.1	1.1
	Rockfish	2011	1.3	0.1	1.4	0.1	0.1	0.2	1.4	0.2	1.7
		2012	1.8	0.1	2.0	0.1	0.2	0.3	1.9	0.3	2.2
		2013	2.1	0.1	2.2	0.1	0.1	0.2	2.1	0.2	2.4
		2014	1.7	0.1	1.8	0.1	0.1	0.2	1.7	0.2	1.9
		2015	1.6	0.1	1.7	0.1	0.1	0.2	1.7	0.2	1.9
All Species	2011	117.6	12.1	129.7	8.3	58.3	66.5	125.8	70.4	196.2	
	2012	110.4	8.0	118.3	6.8	56.0	62.8	117.2	64.0	181.2	
	2013	73.7	6.7	80.5	4.3	103.0	107.2	78.0	109.7	187.7	
	2014	80.6	6.5	87.1	5.5	51.1	56.6	86.1	57.6	143.7	
	2015	81.6	8.6	90.2	3.5	155.2	158.7	85.1	163.7	248.8	

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Table 19.B: Continued

		Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska			
	Year	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	
Pot	Pacific Cod	2011	33.3	*	33.3	18.2	1.3	19.5	51.5	1.3	52.7
		2012	28.7	*	28.7	19.9	2.2	22.0	48.6	2.2	50.8
		2013	18.3	-	18.3	16.5	*	16.5	34.7	*	34.7
		2014	25.2	-	25.2	22.3	2.8	25.1	47.5	2.8	50.2
		2015	26.2	-	26.2	18.1	4.8	22.9	44.3	4.8	49.1
	Pollock	2011	27.8	0.4	28.1	223.3	148.6	372.0	251.1	149.0	400.1
		2012	37.8	0.4	38.2	235.0	178.3	413.3	272.8	178.7	451.6
		2013	34.7	0.4	35.1	216.4	193.4	409.8	251.2	193.8	445.0
		2014	39.6	0.5	40.1	223.6	155.8	379.4	263.2	156.2	419.5
		2015	41.7	0.3	42.0	197.2	200.9	398.1	239.0	201.2	440.2
Trawl	Sablefish	2011	4.7	3.5	8.2	0	0.3	0.3	4.7	3.8	8.5
		2012	2.9	2.8	5.7	*	0.5	0.5	2.9	3.3	6.2
		2013	2.1	2.0	4.1	*	0.5	0.5	2.1	2.5	4.6
		2014	2.8	2.7	5.4	*	0.2	0.2	2.8	2.8	5.6
		2015	2.4	2.5	4.9	0	0.1	0.1	2.4	2.6	5.0
	Pacific Cod	2011	9.9	0.5	10.4	17.8	18.1	35.9	27.7	18.6	46.3
		2012	12.9	0.4	13.3	28.1	17.4	45.5	41.0	17.9	58.9
		2013	9.7	0.4	10.1	20.9	18.6	39.5	30.6	19.0	49.7
		2014	13.0	0.4	13.5	20.4	16.6	37.0	33.4	17.0	50.5
		2015	11.3	0.7	12.0	15.6	17.1	32.7	26.9	17.8	44.7
	Flatfish	2011	4.1	2.5	6.6	0.5	102.2	102.7	4.6	104.7	109.3
		2012	3.5	2.1	5.6	0.5	116.9	117.4	4.0	119.0	123.0
		2013	4.3	2.8	7.1	0.2	95.3	95.5	4.6	98.1	102.6
		2014	5.1	4.4	9.4	0.2	79.2	79.4	5.3	83.6	88.9
		2015	3.0	3.0	6.0	0.1	63.6	63.7	3.1	66.6	69.8

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Table 19.B: Continued

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska			
		Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	
Trawl	Rockfish	2011	2.9	8.7	11.5	0	20.4	20.5	2.9	29.1	32.0
		2012	6.1	8.1	14.2	0	16.8	16.8	6.1	24.9	31.0
		2013	4.2	4.8	9.0	0	15.8	15.8	4.2	20.5	24.8
		2014	4.3	7.3	11.6	0	18.0	18.0	4.4	25.3	29.7
		2015	4.6	7.4	12.0	0.1	18.6	18.7	4.7	26.0	30.7
	Atka Mackerel	2011	0	0.8	0.8	0.1	29.1	29.2	0.1	29.9	30.0
		2012	0	0.6	0.6	0	30.0	30.1	0	30.6	30.6
		2013	0	0.7	0.7	0	16.0	16.0	0	16.6	16.6
		2014	0	0.8	0.8	0	24.0	24.0	0	24.8	24.8
		2015	0	0.7	0.7	0	41.3	41.3	0	42.0	42.0
	All Species	2011	50.7	16.7	67.4	241.8	319.1	560.8	292.5	335.8	628.2
		2012	64.6	14.8	79.4	263.7	361.0	624.7	328.4	375.7	704.1
		2013	56.6	11.1	67.7	237.6	339.9	577.6	294.2	351.0	645.3
		2014	65.5	16.2	81.7	244.5	294.6	539.1	310.0	310.8	620.8
		2015	63.6	14.7	78.3	213.2	342.2	555.4	276.8	356.9	633.7
All Gear	Pollock	2011	27.8	0.4	28.2	223.3	150.4	373.7	251.1	150.8	401.9
		2012	37.9	0.4	38.3	235.0	179.9	414.9	272.9	180.3	453.2
		2013	34.8	0.4	35.2	216.4	194.9	411.4	251.2	195.3	446.6
		2014	39.6	0.5	40.1	223.6	157.3	381.0	263.3	157.8	421.1
		2015	41.8	0.3	42.1	197.2	202.3	399.6	239.0	202.6	441.6
Sablefish	2011	110.1	11.8	122.0	12.7	4.9	17.6	122.8	16.8	139.5	
	2012	97.4	8.9	106.3	6.1	4.6	10.7	103.5	13.5	117.0	
	2013	66.8	6.2	73.0	3.6	3.4	7.0	70.3	9.7	80.0	
	2014	72.1	7.0	79.1	4.1	1.7	5.8	76.2	8.7	84.9	
	2015	73.9	6.0	79.9	3.0	1.1	4.0	76.9	7.1	84.0	

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Table 19.B: Continued

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska				
		Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors	Catcher Vessel	Catcher Processor	All Sectors		
All Gear	Pacific Cod	2011	53.8	3.9	57.7	36.7	68.9	105.6	90.6	72.8	163.4	
		2012	54.7	2.0	56.8	48.6	65.8	114.4	103.4	67.8	171.2	
		2013	34.5	2.8	37.3	38.1	112.2	150.2	72.6	115.0	187.6	
		2014	47.2	2.5	49.7	44.1	61.4	105.5	91.3	63.8	155.2	
		2015	45.4	5.5	50.9	34.2	171.7	205.9	79.6	177.2	256.8	
		Flatfish	2011	4.1	2.5	6.6	0.5	102.6	103.0	4.6	105.1	109.7
			2012	3.5	2.1	5.6	0.5	117.2	117.7	4.0	119.3	123.3
			2013	4.3	2.8	7.1	0.2	96.1	96.3	4.6	98.9	103.5
			2014	5.1	4.4	9.4	0.2	79.9	80.1	5.3	84.3	89.5
			2015	3.0	3.0	6.0	0.1	64.7	64.8	3.1	67.7	70.9
		Rockfish	2011	4.2	8.8	13.0	0.1	20.6	20.7	4.3	29.3	33.6
			2012	8.0	8.2	16.1	0.1	17.0	17.1	8.1	25.2	33.2
			2013	6.3	4.9	11.2	0.1	15.9	16.0	6.4	20.8	27.2
			2014	6.0	7.4	13.4	0.1	18.1	18.2	6.1	25.5	31.6
			2015	6.2	7.5	13.7	0.1	18.7	18.9	6.3	26.2	32.6
		Atka Mackerel	2011	0	0.8	0.8	0.1	29.1	29.2	0.1	29.9	30.0
			2012	0	0.6	0.6	0	30.0	30.1	0	30.6	30.6
			2013	0	0.7	0.7	0	16.0	16.0	0	16.6	16.6
			2014	0	0.8	0.8	0	24.0	24.0	0	24.8	24.8
			2015	0	0.7	0.7	0	41.3	41.3	0	42.0	42.0
	All Species	2011	202.4	28.8	231.2	273.5	378.6	652.1	475.8	407.4	883.2	
		2012	204.0	22.7	226.8	290.5	419.2	709.6	494.5	441.9	936.4	
		2013	149.0	17.8	166.8	258.4	442.9	701.3	407.4	460.7	868.1	
		2014	171.9	22.7	194.6	272.4	348.5	620.8	444.3	371.2	815.4	
		2015	171.8	23.2	195.0	234.8	502.2	737.0	406.6	525.5	932.1	

**Notes:** These estimates include the value of catch from both federal and state of Alaska fisheries. Ex-vessel value is calculated using prices on Table 18b. Please refer to Table 18b for a description of the price derivation. All groundfish includes additional species categories. The value added by at-sea processing is not included in these estimates of ex-vessel value. Values not adjusted for inflation. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Catch Accounting System, Alaska Commercial Fisheries Entry Commission (CFEC) fish tickets, At-Sea Production Report (compiled and provided by the Alaska Fisheries Information Network (AKFIN)). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 20.B: Ex-vessel value of Alaska groundfish delivered to shoreside processors by area, gear and catcher-vessel length, 2006-2015; calculations based on CFEC fish tickets (\$ millions).

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
		<60	60-125	>=125	<60	60-125	>=125	<60	60-125	>=125
Fixed	2006	60.9	30.7	0.2	6.2	13.2	3.6	67.2	43.9	3.8
	2007	70.1	31.4	0	5.8	16.4	2.7	75.9	47.8	2.7
	2008	81.4	33.1	0.3	9.4	16.5	3.8	90.8	49.6	4.1
	2009	63.3	24.8	*	5.4	7.9	1.7	68.7	32.8	1.7
	2010	74.5	28.8	*	7.0	10.9	2.9	81.5	39.7	2.9
	2011	109.0	42.6	*	12.3	15.4	4.0	121.4	58.0	4.0
	2012	101.1	38.6	*	15.4	10.6	3.6	116.5	49.2	3.6
	2013	68.5	24.0	*	11.7	8.2	3.2	80.2	32.1	3.2
	2014	79.0	27.6	-	19.3	8.3	2.5	98.3	36.0	2.5
	2015	79.6	28.8	-	14.3	7.5	0.6	94.0	36.3	0.6
Trawl	2006	7.2	31.4	-	*	92.6	110.3	7.2	124.0	110.3
	2007	7.7	29.6	-	*	88.0	96.9	7.7	117.6	96.9
	2008	12.1	38.1	*	*	103.4	118.0	12.1	141.5	118.0
	2009	6.0	23.9	-	*	69.9	81.3	6.0	93.8	81.3
	2010	8.8	37.8	-	*	60.4	67.8	8.8	98.2	67.8
	2011	7.2	43.5	-	*	96.3	104.7	7.2	139.8	104.7
	2012	13.9	50.8	-	*	107.0	114.6	13.9	157.7	114.6
	2013	8.6	48.0	-	*	93.1	106.7	8.6	141.0	106.7
	2014	12.0	53.5	-	*	96.1	111.1	12.0	149.6	111.1
	2015	13.7	50.0	-	-	80.8	95.0	13.7	130.8	95.0
All Gear	2006	68.2	62.1	0.2	6.2	105.8	113.8	74.4	167.9	114.1
	2007	77.8	61.0	0	5.8	104.3	99.6	83.7	165.4	99.6
	2008	93.5	71.2	0.3	9.4	119.9	121.7	102.9	191.1	122.0
	2009	69.3	48.7	*	5.4	77.8	83.0	74.7	126.5	83.0
	2010	83.3	66.6	*	7.0	71.2	70.7	90.3	137.8	70.7
	2011	116.2	86.1	*	12.3	111.6	108.7	128.6	197.8	108.7
	2012	114.9	89.4	*	15.4	117.5	118.3	130.3	206.9	118.3
	2013	77.1	71.9	*	11.7	101.2	109.9	88.8	173.2	109.9
	2014	91.0	81.1	-	19.3	104.5	113.6	110.3	185.6	113.6
	2015	93.3	78.7	-	14.3	88.3	95.6	107.6	167.1	95.6

**Notes:** These estimates include only catch counted against federal TACs. Values not adjusted for inflation. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Catch-Accounting System and At-Sea Production Report, Alaska Commercial Fisheries Entry Commission (CFEC) fish tickets, ADF&G COAR production data (compiled and provided by the Alaska Fisheries Information Network (AKFIN)). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 21.B: Ex-vessel value per catcher vessel for Alaska groundfish delivered to shoreside processors by area, gear and catcher-vessel length, 2006-2015; calculations based on CFEC fish tickets (\$ thousands).

	Year	Gulf of Alaska			Bering Sea & Aleutian Islands			All Alaska		
		<60	60-125	>=125	<60	60-125	>=125	<60	60-125	>=125
Fixed	2006	61	245	60	96	210	296	65	295	316
	2007	67	283	9	81	282	222	71	339	224
	2008	75	315	75	120	271	376	82	376	369
	2009	62	256	*	78	168	210	66	275	187
	2010	72	303	*	103	227	320	77	345	288
	2011	98	463	*	172	275	497	109	496	442
	2012	91	471	*	241	230	403	104	464	363
	2013	74	324	*	149	174	358	84	328	358
	2014	84	395	-	379	198	276	103	387	276
	2015	84	423	-	228	198	100	97	417	100
Trawl	2006	279	641	-	*	1,285	4,241	279	1,305	4,241
	2007	286	644	-	*	1,222	3,728	286	1,321	3,728
	2008	432	866	*	*	1,477	4,213	432	1,590	4,213
	2009	213	542	-	*	1,043	3,011	213	1,103	3,011
	2010	352	879	-	*	974	2,513	339	1,227	2,513
	2011	300	967	-	*	1,416	3,878	300	1,704	3,878
	2012	578	1,080	-	*	1,646	4,094	578	1,923	4,094
	2013	332	1,090	-	*	1,432	3,953	332	1,720	3,953
	2014	446	1,244	-	*	1,576	4,115	446	1,847	4,115
	2015	526	1,162	-	-	1,283	3,519	526	1,615	3,519
All Gear	2006	67	381	60	92	790	2,995	72	724	3,001
	2007	74	402	9	74	809	2,621	78	738	2,622
	2008	85	494	60	113	922	3,203	92	889	3,129
	2009	67	358	*	71	689	2,371	72	639	2,305
	2010	80	501	*	97	648	1,964	85	726	1,911
	2011	104	648	*	169	900	3,105	114	1,014	3,019
	2012	103	709	*	223	1,059	3,196	116	1,118	3,112
	2013	83	626	*	145	904	3,054	92	978	3,054
	2014	96	737	-	364	1,014	3,155	114	1,085	3,155
	2015	98	729	-	228	875	2,897	111	1,013	2,897

**Notes:** These estimates include only catch counted against federal TACs. Values not adjusted for inflation. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Catch-Accounting System and At-Sea Production Report; Alaska Commercial Fisheries Entry Commission (CFEC) fish tickets, ADF&G COAR production data (compiled and provided by the Alaska Fisheries Information Network (AKFIN)). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 22.B: Ex-vessel value of the groundfish catch off Alaska by area, residency, and species, 2011-2015; calculations based on CFEC fish tickets (\$ millions).

	Year	Gulf of Alaska		Bering Sea & Aleutian Islands		All Alaska	
		Alaska	Other	Alaska	Other	Alaska	Other
Pollock	2011	10.7	17.4	66.5	307.2	77.3	324.7
	2012	14.8	23.5	71.0	343.9	85.8	367.4
	2013	12.1	23.0	71.2	340.2	83.3	363.2
	2014	16.8	23.3	62.2	318.8	79.0	342.1
	2015	17.1	25.0	76.1	323.4	93.2	348.5
Sablefish	2011	65.3	56.7	7.3	10.3	72.6	66.9
	2012	53.4	53.2	3.1	7.6	56.5	60.8
	2013	36.8	36.2	4.2	5.2	41.0	41.4
	2014	40.9	38.5	1.9	3.8	42.8	42.3
	2015	40.9	39.3	1.5	2.6	42.3	41.9
Pacific Cod	2011	42.2	15.5	25.8	79.8	68.0	95.4
	2012	41.9	14.8	26.9	87.5	68.8	102.3
	2013	25.1	12.2	39.1	111.1	64.2	123.4
	2014	36.8	12.9	27.3	78.2	64.1	91.1
	2015	40.5	10.4	53.5	152.4	94.0	162.7
Flatfish	2011	2.5	4.2	8.6	94.5	11.0	98.7
	2012	1.8	3.8	1.7	116.1	3.5	119.9
	2013	2.9	4.2	5.4	90.9	8.3	95.2
	2014	3.1	6.3	4.5	75.6	7.6	81.9
	2015	2.5	3.6	4.0	60.8	6.4	64.4
Rockfish	2011	2.1	10.9	0.6	20.1	2.6	31.0
	2012	3.9	12.2	0.1	17.0	4.0	29.2
	2013	3.4	7.7	0.2	15.8	3.6	23.5
	2014	3.2	10.2	0.1	18.1	3.3	28.3
	2015	3.1	10.6	0.6	18.3	3.7	28.9
Atka Mackerel	2011	0	0.8	0	29.2	0	30.0
	2012	0	0.6	0	30.1	0	30.6
	2013	0	0.7	0	16.0	0	16.6
	2014	0	0.8	0	24.0	0	24.8
	2015	0	0.7	0	41.3	0	42.0
All Groundfish	2011	124.4	106.7	109.3	542.8	233.8	649.5
	2012	117.5	109.5	104.4	605.3	221.9	714.8
	2013	81.5	85.6	121.2	582.4	202.7	668.0
	2014	102.3	92.6	97.4	523.5	199.7	616.0
	2015	105.3	90.0	136.1	600.9	241.4	690.9

**Notes:** These estimates include only catches counted against federal TACs. Ex-vessel value is calculated using prices on Table 18b. Please refer to Table 18b for a description of the price derivation. Catch delivered to motherships is classified by the residence of the owner of the mothership. All other catch is classified by the residence of the owner of the fishing vessel. All groundfish include additional species categories. For catch for which the residence is unknown, there are either no data or the data have been suppressed to preserve confidentiality. Values not adjusted for inflation.

**Source:** NMFS Alaska Region Catch Accounting System, Alaska Commercial Fisheries Entry Commission (CFEC) fish tickets, At-Sea Production Report (compiled and provided by the Alaska Fisheries Information Network (AKFIN)). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.



Table 23.B: Ex-vessel value of groundfish delivered to shoreside processors by processor group ,2011-2015; calculations based on CFEC fish tickets (\$ millions).

Region	2011	2012	2013	2014	2015
Bering Sea Pollock	247.7	262.8	230.2	247.4	209.1
AK Peninsula/Aleutians	12.0	19.7	14.9	14.1	11.4
Kodiak	79.0	87.7	68.8	80.6	76.0
South Central	44.3	36.5	26.0	28.6	30.1
Southeastern	41.9	39.9	26.2	28.3	30.5
All Regions	424.9	446.5	366.1	399.0	357.0

Table 24.B: Ex-vessel value of groundfish as a percentage of the ex-vessel value of all species delivered to shoreside processors by processor group, 2011-2015; calculations based on CFEC fish tickets (percent).

Region	2011	2012	2013	2014	2015
Bering Sea Pollock	59.2	64.2	63.3	67.0	60.2
AK Peninsula/Aleutians	4.4	7.2	5.8	4.7	4.3
Kodiak	43.7	49.2	41.5	54.0	54.1
South Central	17.0	15.6	9.7	14.4	14.9
Southeastern	13.9	15.4	8.2	12.0	15.7
All Regions	29.6	32.9	26.7	31.8	31.0

**Notes:** These tables include the value of groundfish purchases reported by processing plants, as well as by other entities, such as markets and restaurants, that normally would not report sales of groundfish products. Keep this in mind when comparing ex-vessel values in this table to gross processed-product values in Table 34. The data are for catch from both federal and state of Alaska fisheries. The processor groups are defined as follows: "Bering Sea Pollock" are the AFA inshore pollock processors including the two AFA floating processors. "AK Peninsula/Aleutian" are other processors on the Alaska Peninsula or in the Aleutian Islands. "Kodiak" are processors on Kodiak Island. "South Central" are processors west of Yakutat and on the Kenai Peninsula. "Southeastern" are processors located from Yakutat south. Values not adjusted for inflation.

**Source:** Alaska Commercial Fisheries Entry Commission (CFEC) fish tickets, ADFG intent to process (compiled and provided by the Alaska Fisheries Information Network (AKFIN)). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

## A.2. Expanded Economic Data Tables for Flatfish Fisheries

Table F1: Flatfish retained catch off Alaska by area, gear, and species, 2006-2015 (100 metric tons, round weight).

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
FIX	Flathead Sole	0.00	*	0.01	0.00	0.01	*	0.00	*	*	*
	Arrowtooth Rex Sole (GOA)	0.96	0.62	0.55	0.32	0.26	0.26	0.28	0.17	0.13	0.22
	Shallow-water Flatfish (GOA)	*	*	-	*	-	-	*	*	*	*
GOA	Deep-water Flatfish (GOA)	0.00	0.01	0.00	*	*	*	0.00	0.01	*	*
	Flathead Sole	28.04	28.34	30.82	35.45	36.62	26.33	20.01	24.83	23.98	18.59
	Arrowtooth Rex Sole (GOA)	159.35	150.44	204.60	128.08	142.87	237.46	153.45	160.58	328.17	170.76
TWL	Shallow-water Flatfish (GOA)	31.42	27.84	26.15	47.09	35.57	27.83	23.46	36.39	35.31	19.25
	Deep-water Flatfish (GOA)	71.66	80.89	85.41	83.40	52.55	37.82	37.91	52.79	43.08	29.70
	Flathead Sole	1.62	1.13	2.10	1.05	3.40	2.32	0.74	1.40	2.37	1.10

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Table F1: Continued

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
BSAI	FIX Yellowfin (BSAI)	0.47	0.17	0.13	0.09	*	0.04	-	-	-	0.18
	Rock Sole (BSAI)	0.01	0.01	0.00	*	0.01	0.00	-	-	-	*
	Flathead Sole	0.42	0.46	0.13	0.02	0.14	0.01	-	-	-	0.05
	Arrowtooth Kamchatka Flounder (BSAI)	12.58	5.73	4.54	3.84	6.12	3.51	-	-	-	0.91
	Turbot (BSAI)	-	-	-	-	-	0.25	-	-	-	0.13
	Flat Other (BSAI)	15.03	13.89	8.15	13.18	20.26	19.95	-	-	-	10.54
		0.09	0.03	0.16	*	0.01	0.21	-	-	-	*
		905.45	1,089.87	1,412.22	1,006.33	1,132.27	1,464.14	1,421.32	1,587.80	1,521.16	1,230.47
	TWL Rock Sole (BSAI)	286.09	279.98	459.47	435.37	501.59	561.03	708.96	565.76	497.71	443.30
Flathead Sole	135.58	136.74	221.95	175.22	183.04	117.36	96.19	157.88	151.12	100.72	
Arrowtooth Kamchatka Flounder (BSAI)	48.45	45.57	154.59	237.48	313.21	161.22	190.76	168.25	166.59	93.47	
Turbot (BSAI)	-	-	-	-	-	95.59	87.10	69.77	59.07	46.10	
Flat Other (BSAI)	2.75	3.16	13.92	27.35	18.80	15.84	25.69	7.79	7.61	10.30	
	38.13	55.32	94.69	101.61	110.61	175.16	140.92	151.81	166.82	141.23	

**Notes:** These estimates include only catch counted against federal TACs. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table F2: Real ex-vessel value of the catch flatfish off Alaska by area, gear, and species, 2006-2015; calculations based on COAR (\$1,000, base year = 2015).

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
FIX	Flathead Sole	0.4	*	0.7	0.0	1.3	*	0.0	*	*	*
	Arrowtooth Rex Sole (GOA)	94.1	91.6	32.7	12.0	46.0	27.1	14.0	0.7	7.0	16.1
	Shallow-water Flatfish (GOA)	*	*	-	*	-	-	*	*	*	*
	Deep-water Flatfish (GOA)	0.4	0.9	0.3	*	*	*	0.0	0.0	*	*
GOA	Flathead Sole	886.5	867.6	904.6	958.8	946.2	745.1	637.1	819.6	828.3	601.3
	Arrowtooth Rex Sole (GOA)	3,111.8	3,051.9	4,045.8	1,909.4	1,924.9	4,046.3	3,298.5	2,979.7	8,350.1	4,240.2
	Shallow-water Flatfish (GOA)	1,090.4	1,151.9	1,049.1	1,802.0	1,206.2	1,067.8	997.1	1,706.8	1,948.7	928.7
	Deep-water Flatfish (GOA)	3,386.7	4,205.0	4,515.9	3,377.9	1,830.9	1,821.1	1,826.2	2,409.5	1,980.8	1,296.5
TWL	Flathead Sole	88.0	28.7	47.0	21.8	80.4	49.0	17.6	32.1	59.1	24.6
	Arrowtooth Rex Sole (GOA)										
	Shallow-water Flatfish (GOA)										
	Deep-water Flatfish (GOA)										

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Table F2: Continued

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
BSAI	FIX Yellowfin (BSAI)	10.7	1.7	1.2	0.5	*	1.4	-	-	-	0.1
	Rock Sole (BSAI)	0.2	0.1	0.0	*	0.0	0.1	-	-	-	*
	Flathead Sole	9.8	4.6	1.3	0.1	0.5	0.3	-	-	-	0.0
	Arrowtooth Kamchatka Flounder (BSAI)	291.2	58.0	45.4	19.2	20.2	134.7	-	-	-	0.6
	Turbot (BSAI)	-	-	-	-	-	9.4	-	-	-	0.1
	Turbot (BSAI)	351.3	141.4	81.8	66.1	67.0	764.7	-	-	-	7.3
	Flat Other (BSAI)	2.2	0.3	1.6	*	0.0	8.0	-	-	-	*
	TWL Yellowfin (BSAI)	35,033.7	43,340.9	48,448.0	29,434.1	35,251.1	56,041.4	54,428.7	54,596.7	42,138.5	35,098.2
	Rock Sole (BSAI)	16,455.8	14,399.6	21,201.6	15,744.4	18,785.8	24,987.2	38,832.9	18,717.8	16,762.8	14,236.9
Flathead Sole	7,766.4	6,593.6	9,588.8	5,748.7	6,812.1	5,224.6	4,372.7	7,700.7	5,868.5	3,276.3	
Arrowtooth Kamchatka Flounder (BSAI)	1,502.4	1,066.0	5,278.6	6,105.0	8,238.8	6,099.4	8,825.4	5,696.8	7,399.2	3,760.4	
Turbot (BSAI)	-	-	-	-	-	3,676.5	4,764.6	2,108.9	2,385.8	1,679.1	
Turbot (BSAI)	194.4	138.6	1,380.9	2,782.1	2,202.5	2,484.1	3,404.0	753.2	795.7	1,140.0	
Flat Other (BSAI)	1,364.0	2,417.5	3,049.6	3,348.7	3,134.6	5,767.2	5,492.8	4,921.9	5,261.8	4,261.5	

**Notes:** These estimates include the value of catch from both federal and state of Alaska fisheries. The data have been adjusted to 2015 dollars by applying the GDP deflator from the Bureau of Labor Statistics.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table F3: Ex-vessel prices of flatfish off Alaska by area, gear, and species, 2006-2015; calculations based on COAR (\$/lb, round weight).

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
FIX	Flathead Sole	0.45	*	0.28	0.17	0.79	*	0.16	*	*	*
	Arrowtooth Rex Sole (GOA)	0.45	0.67	0.27	0.17	0.79	0.48	0.23	0.02	0.24	0.34
	Shallow-water Flatfish (GOA)	*	*	-	*	-	-	*	*	*	*
GOA	Deep-water Flatfish (GOA)	0.45	0.70	0.28	*	*	*	0.22	0.02	*	*
	Flathead Sole	0.14	0.14	0.13	0.12	0.12	0.13	0.14	0.15	0.16	0.15
	Arrowtooth Rex Sole (GOA)	0.09	0.09	0.09	0.07	0.06	0.08	0.10	0.08	0.12	0.11
TWL	Shallow-water Flatfish (GOA)	0.16	0.19	0.18	0.17	0.15	0.17	0.19	0.21	0.25	0.22
	Deep-water Flatfish (GOA)	0.21	0.24	0.24	0.18	0.16	0.22	0.22	0.21	0.21	0.20
	Flathead Sole	0.25	0.12	0.10	0.09	0.11	0.10	0.11	0.10	0.11	0.10

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Table F3: Continued

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
BSAI	FIX Yellowfin (BSAI)	0.10	0.04	0.04	0.02	*	0.15	-	-	-	0.00
	Rock Sole (BSAI)	0.10	0.05	0.04	*	0.02	0.17	-	-	-	*
	Flathead Sole	0.10	0.05	0.04	0.02	0.02	0.17	-	-	-	0.00
	Arrowtooth Kamchatka Flounder (BSAI)	0.10	0.05	0.04	0.02	0.02	0.17	-	-	-	0.00
	Turbot (BSAI)	0.11	0.05	0.05	0.02	0.02	0.17	-	-	-	0.00
	Flat Other (BSAI)	0.11	0.05	0.04	*	0.02	0.17	-	-	-	*
	Yellowfin (BSAI)	0.18	0.18	0.16	0.13	0.14	0.17	0.17	0.16	0.13	0.13
	Rock Sole (BSAI)	0.26	0.23	0.21	0.16	0.17	0.20	0.25	0.15	0.15	0.15
	Flathead Sole	0.26	0.22	0.20	0.15	0.17	0.20	0.21	0.22	0.18	0.15
BSAI	Arrowtooth Kamchatka Flounder (BSAI)	0.14	0.11	0.16	0.12	0.12	0.17	0.21	0.15	0.20	0.18
	Turbot (BSAI)	-	-	-	-	-	0.17	0.25	0.14	0.18	0.16
	Flat Other (BSAI)	0.32	0.20	0.45	0.46	0.53	0.71	0.60	0.44	0.47	0.50
	Yellowfin (BSAI)	0.16	0.20	0.15	0.15	0.13	0.15	0.18	0.15	0.14	0.14
	Rock Sole (BSAI)										
	Flathead Sole										
	Arrowtooth Kamchatka Flounder (BSAI)										
	Turbot (BSAI)										
	Flat Other (BSAI)										

**Notes:** 1) Prices are for catch from both federal and state of Alaska fisheries.

3) Trawl-caught flatfish in the BSAI and trawl-caught are not well represented by on-shore landings. A price was calculated for these categories from product-report prices; the price in this case is the value of the product divided by the calculated round weight and multiplied by a constant 0.4 to correct for value added by processing.

4) The "All Alaska/All gear" column is the weighted average of the other columns.

"\*" indicates a confidential value; "-" indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.



Table F4: Number of vessels that caught flatfish off Alaska by area, gear, and species, 2006-2015.

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GOA	FIX										
	Flathead Sole	4	1	5	4	4	3	4	3	2	2
	Arrowtooth	22	19	21	18	14	14	16	9	9	8
	Rex Sole (GOA)	1	1	-	1	-	-	1	1	1	1
	GOA										
	Shallow-water Flatfish (GOA)	2	4	6	8	4	4	7	5	3	3
GOA											
Deep-water Flatfish (GOA)	5	5	6	3	2	1	4	4	4	3	3
TWL	Flathead Sole	21	24	24	25	21	26	24	24	21	17
	Arrowtooth	26	25	23	26	23	26	28	25	21	19
	Rex Sole (GOA)	23	27	24	26	28	28	27	22	21	16
	GOA										
	Shallow-water Flatfish (GOA)	23	24	24	24	25	27	25	23	19	14
	GOA										
Deep-water Flatfish (GOA)	14	18	16	12	16	16	16	15	17	14	

Continued on next page.

Table F4: Continued

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
FIX	Yellowfin (BSAI)	11	6	7	4	1	5	-	-	-	6
	Rock Sole (BSAI)	10	7	6	3	5	6	-	-	-	2
	Flathead Sole	19	15	8	10	12	8	-	-	-	6
	Arrowtooth	32	24	25	22	19	17	-	-	-	15
	Kamchatka Flounder (BSAI)	-	-	-	-	-	8	-	-	-	12
BSAI	Turbot (BSAI)	33	26	23	26	30	21	-	-	-	11
	Flat Other (BSAI)	10	4	7	3	4	8	-	-	-	3
	Yellowfin (BSAI)	43	42	43	38	37	41	39	37	39	37
	Rock Sole (BSAI)	43	44	46	42	41	41	41	38	42	40
	Flathead Sole	44	46	44	41	41	43	44	40	41	42
TWL	Arrowtooth	40	43	39	39	38	41	40	39	38	40
	Kamchatka Flounder (BSAI)	-	-	-	-	-	31	34	31	31	32
	Turbot (BSAI)	35	43	37	39	36	39	37	34	36	37
	Flat Other (BSAI)	42	46	44	42	40	41	43	41	40	42

**Notes:** These estimates include only vessels fishing federal TACs. Based on federal permit files.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

### A.3. Expanded Economic Data Tables for Rockfish Fisheries

Table R1: Rockfish retained catch off Alaska by area, gear, and species, 2006-2015 (100 metric tons, round weight).

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GOA	Northern	0.02	0.01	0.01	0.00	0.00	*	*	0.00	0.00	*
	Other	3.03	3.38	3.56	3.45	3.08	2.46	2.84	3.02	1.67	2.06
	Popa	0.01	0.00	*	*	0.00	0.00	*	*	0.00	0.00
	FIX Rougheye	1.45	1.34	1.36	1.03	1.14	1.11	1.24	1.17	1.00	1.07
	Shortraker	1.71	1.59	1.93	1.51	1.53	1.23	1.67	1.34	1.25	1.25
	Dusky	0.19	0.35	0.19	0.11	0.10	0.14	0.12	0.25	0.19	0.27
	Thornyhead	3.87	3.70	3.30	3.20	3.15	3.23	4.25	4.85	4.69	4.75
	Northern	45.03	40.83	38.69	38.30	38.42	33.10	49.49	46.79	41.13	37.64
	Other	2.37	3.08	2.23	2.97	2.66	3.06	4.17	1.71	5.13	4.15
	Popa	125.27	124.71	119.48	120.98	149.68	132.88	141.95	121.78	159.88	180.13
TWL Rougheye	1.19	1.42	1.40	1.21	2.31	3.42	3.56	3.26	5.10	3.08	
Shortraker	3.40	3.46	2.91	2.49	1.72	3.05	3.01	2.73	3.17	2.63	
Dusky	22.51	32.58	35.67	29.89	29.82	24.44	38.39	29.69	29.46	26.07	
Thornyhead	2.97	3.68	3.18	2.52	1.79	2.14	1.41	1.99	4.61	3.17	
BSAI	Northern	0.01	0.00	*	0.11	0.67	0.01	0.05	0.03	0.02	0.01
	Other	1.67	1.28	1.21	1.67	1.91	1.48	1.71	1.42	1.17	1.02
	FIX Popa	*	0.04	*	0.00	0.01	0.01	0.01	0.00	0.03	0.01
	Rougheye	0.09	0.23	0.28	0.21	0.28	0.09	0.22	0.04	0.01	0.05
	Shortraker	0.49	0.30	0.24	0.37	0.72	0.36	0.33	0.12	0.13	0.18
	Northern	10.74	8.73	15.31	19.71	32.87	26.07	20.55	18.13	21.88	67.43
Other	2.00	2.27	2.91	2.59	3.85	6.02	6.02	4.66	5.98	4.28	
TWL Popa	106.20	155.55	169.58	144.74	173.35	232.68	233.51	308.08	313.80	300.15	
Rougheye	1.63	1.11	1.21	1.44	1.64	1.35	1.45	2.59	1.74	1.50	
Shortraker	0.81	1.32	0.78	0.99	1.57	2.63	2.57	2.49	0.93	0.94	

**Notes:** These estimates include only catch counted against federal TACs. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table R2: Real ex-vessel value of the catch rockfish off Alaska by area, gear, and species, 2006-2015; calculations based on COAR (\$1,000, base year = 2015).

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
GOA	Northern	2.5	1.7	0.3	0.2	0.3	*	*	0.0	0.2	*	
	Other	599.4	670.8	762.8	677.0	562.3	526.5	818.1	781.7	449.7	478.8	
	Popa	1.6	0.5	*	*	0.1	0.3	*	*	0.1	0.0	
	FIX	Rougheye	120.7	115.9	102.5	84.0	91.2	92.0	117.5	93.6	87.7	97.0
		Shortraker	138.8	125.7	166.1	116.4	118.7	106.9	185.1	131.3	138.5	126.2
		Dusky	16.4	18.9	13.4	6.7	5.9	10.2	11.3	19.6	19.0	22.1
		Thornyhead	779.2	756.4	695.4	615.0	615.8	649.8	859.3	1,037.5	882.4	870.8
TWA	Northern	1,559.8	1,446.9	1,482.9	733.5	1,010.1	1,079.3	2,873.5	2,087.0	1,595.2	1,472.4	
	Other	83.0	112.3	86.8	63.2	75.5	100.2	242.0	77.1	185.8	156.9	
	Popa	4,394.5	4,558.9	4,344.2	2,194.9	4,013.4	4,579.9	8,316.8	5,583.7	6,423.9	7,432.5	
	FIX	Rougheye	50.2	59.2	56.4	32.6	68.1	120.6	201.6	151.4	209.5	127.1
		Shortraker	129.6	128.1	119.6	56.8	53.5	110.8	173.7	126.5	129.9	107.7
		Dusky	775.8	1,162.5	1,380.7	779.5	836.5	824.6	2,227.2	1,313.0	1,154.3	1,031.5
		Thornyhead	162.1	195.5	186.6	111.3	116.4	138.0	132.0	157.2	385.2	228.4
BSAI	Northern	0.8	0.2	*	22.0	133.5	2.0	7.6	7.1	2.1	2.7	
	Other	269.4	178.6	221.4	341.8	384.2	244.3	261.9	311.2	167.1	187.4	
	FIX	Popa	*	5.3	*	0.4	1.3	1.9	1.1	0.8	4.5	1.4
		Rougheye	13.1	30.1	44.9	40.7	53.8	6.7	29.6	6.7	0.9	9.7
		Shortraker	74.4	41.0	39.2	72.1	139.2	55.4	49.5	24.0	15.9	32.7
		Northern	392.5	440.4	412.0	546.5	1,270.8	1,675.8	1,038.8	555.1	861.3	2,217.9
		Other	157.7	180.6	273.9	150.7	344.1	632.1	528.5	444.5	653.3	285.5
TWA	Popa	6,153.5	6,838.4	6,346.5	5,600.4	8,881.9	17,874.8	14,934.7	14,303.6	16,497.2	13,836.9	
	Rougheye	92.8	47.0	60.2	84.3	90.8	85.2	88.5	117.5	80.1	65.3	
	Shortraker	72.2	47.5	77.0	71.9	141.5	326.9	279.5	216.9	74.9	62.1	

**Notes:** These estimates include the value of catch from both federal and state of Alaska fisheries. The data have been adjusted to 2015 dollars by applying the GDP deflator from the Bureau of Labor Statistics.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table R3: Ex-vessel prices of rockfish off Alaska by area, gear, and species, 2006-2015; calculations based on COAR (\$/lb, round weight).

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GOA	Northern	0.70	0.70	0.21	0.30	0.50	*	*	0.36	0.26	*
	Other	0.90	0.90	0.97	0.89	0.83	0.97	1.30	1.17	1.22	1.06
	Popa	0.60	0.71	*	*	0.67	0.50	*	*	0.64	0.19
	FIX Rougheye	0.38	0.39	0.34	0.37	0.36	0.38	0.43	0.36	0.40	0.41
	Shortraker	0.37	0.36	0.39	0.35	0.35	0.39	0.50	0.44	0.50	0.46
	Dusky	0.40	0.24	0.33	0.29	0.27	0.32	0.42	0.36	0.44	0.37
	Thornyhead	0.91	0.93	0.96	0.87	0.89	0.91	0.92	0.97	0.85	0.83
	TWL	Northern	0.16	0.16	0.17	0.09	0.12	0.15	0.26	0.20	0.18
Other	0.16	0.16	0.18	0.10	0.13	0.15	0.26	0.20	0.16	0.17	
Popa	0.16	0.17	0.16	0.08	0.12	0.16	0.27	0.21	0.18	0.19	
Rougheye	0.19	0.19	0.18	0.12	0.13	0.16	0.26	0.21	0.19	0.19	
Shortraker	0.17	0.17	0.19	0.10	0.14	0.16	0.26	0.21	0.19	0.19	
Dusky	0.16	0.16	0.18	0.12	0.13	0.15	0.26	0.20	0.18	0.18	
Thornyhead	0.25	0.24	0.27	0.20	0.30	0.29	0.43	0.36	0.38	0.33	
BSAI	Northern	0.72	0.32	*	0.92	0.90	0.74	0.69	0.97	0.63	0.83
	Other	0.73	0.63	0.83	0.93	0.91	0.75	0.69	0.99	0.65	0.83
	FIX Popa	*	0.63	*	0.92	0.90	0.74	0.69	0.98	0.63	0.69
	Rougheye	0.68	0.60	0.73	0.88	0.88	0.35	0.62	0.82	0.48	0.83
	Shortraker	0.69	0.61	0.75	0.89	0.88	0.71	0.67	0.91	0.54	0.83
TWL	Northern	0.17	0.23	0.12	0.13	0.18	0.29	0.23	0.14	0.18	0.15
	Other	0.36	0.36	0.43	0.26	0.41	0.48	0.40	0.43	0.50	0.30
	Popa	0.26	0.20	0.17	0.18	0.23	0.35	0.29	0.21	0.24	0.21
	Rougheye	0.26	0.19	0.23	0.27	0.25	0.29	0.28	0.21	0.21	0.20
	Shortraker	0.40	0.16	0.45	0.33	0.41	0.56	0.49	0.40	0.36	0.30

**Notes:** 1) Prices are for catch from both federal and state of Alaska fisheries.

3) Trawl-caught rockfish in the BSAI and trawl-caught are not well represented by on-shore landings. A price was calculated for these categories from product-report prices; the price in this case is the value of the product divided by the calculated round weight and multiplied by a constant 0.4 to correct for value added by processing.

4) The “All Alaska/All gear” column is the weighted average of the other columns.

“\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; NMFS Alaska Region At-sea Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table R4: Number of vessels that caught rockfish off Alaska by area, gear, and species, 2006-2015.

	Species	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GOA	Northern	6	5	4	4	6	2	2	5	8	2
	Other	66	66	61	64	57	63	50	50	54	48
	Popa	5	4	2	3	5	5	3	3	4	4
	FIX Rougheye	49	48	46	41	37	39	40	37	34	33
	Shortraker	43	47	41	37	37	39	33	34	32	28
	Dusky	24	27	25	25	23	25	28	26	24	27
	Thornyhead	56	51	46	47	42	44	42	42	38	38
	TWL	Northern	17	19	21	24	24	26	24	25	22
Other		15	16	18	23	23	24	25	22	20	16
Popa		21	24	25	28	30	30	30	26	23	20
Rougheye		18	20	19	25	27	25	26	18	21	18
Shortraker		19	14	17	21	23	24	22	16	19	14
Dusky		21	23	23	25	27	26	27	24	20	17
Thornyhead		21	22	20	25	28	25	25	18	19	16
BSAI		FIX Northern	8	10	2	6	9	9	8	12	12
	Other	32	24	24	26	41	36	28	27	27	27
	Popa	2	6	3	6	10	10	7	9	14	12
	Rougheye	17	15	14	14	27	14	17	18	13	14
	Shortraker	16	19	20	24	30	22	22	18	20	13
TWL	Northern	32	34	26	30	29	37	31	29	30	34
	Other	36	40	40	34	33	42	41	34	32	38
	Popa	42	42	40	40	38	43	41	39	38	41
	Rougheye	23	26	24	20	19	26	25	18	25	26
	Shortraker	23	29	27	23	21	31	26	18	23	28

**Notes:** These estimates include only vessels fishing federal TACs. Based on federal permit files.

**Source:** NMFS Alaska Region Blend and Catch-accounting System estimates; CFEC gross earnings (fish tickets) file; NMFS Alaska Region groundfish observer data; NMFS Alaska Region permit data; CFEC vessel registration file. Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table R5: Rockfish first-wholesale production off Alaska by area, product, and species, 2006-2015 (1000 pounds, product weight).

	Product	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Northern	Whole Fish	896.65	*	180.17	217.65	618.56	*	*	173.14	694.71	*
	Head And Gut	4,451.72	3,573.35	3,913.16	3,754.17	3,886.95	3,850.43	5,098.92	4,836.73	4,060.14	3,849.23
	Other Products	174.10	235.39	56.91	584.27	309.88	44.04	238.59	156.86	55.72	*
Other	Whole Fish	435.94	558.33	558.01	529.48	393.74	361.38	472.39	548.78	308.00	341.43
	Head And Gut	60.14	63.58	155.21	120.87	98.61	219.45	170.28	79.73	133.79	348.60
	Other Products	28.97	48.55	31.33	35.46	47.96	218.50	51.49	109.13	97.25	59.43
GOA	Whole Fish	2,631.09	840.89	1,204.04	2,057.13	4,940.50	5,203.09	2,740.77	5,434.83	6,065.49	6,894.59
	Head And Gut	11,788.23	10,957.16	10,990.05	11,199.94	13,361.48	11,991.26	13,196.15	10,430.69	13,909.57	15,341.73
	Other Products	301.07	1,416.91	1,278.84	234.67	422.17	164.78	457.43	168.88	195.45	120.19
Rougheye	Whole Fish	81.25	87.10	54.26	43.18	34.02	41.03	33.13	53.55	48.96	21.07
	Head And Gut	159.78	177.72	146.64	169.33	229.08	391.84	373.25	343.82	542.66	325.31
	Other Products	35.29	45.73	61.18	31.55	45.46	36.01	34.49	32.03	28.73	49.91
Shortraker	Whole Fish	77.41	85.22	128.06	100.24	75.92	62.30	94.99	105.85	68.36	58.88
	Head And Gut	304.21	291.64	313.72	269.49	261.59	308.03	366.33	304.74	464.83	319.05
	Other Products	55.90	62.20	65.15	46.31	41.53	89.27	52.53	51.48	53.28	57.18
Dusky	Whole Fish	708.97	777.84	637.10	1,235.53	778.16	159.97	288.18	737.23	576.87	603.30
	Head And Gut	1,933.34	2,061.94	2,602.52	2,008.05	2,301.16	2,522.95	3,322.21	2,527.36	2,532.93	2,256.35
	Other Products	205.25	372.51	270.94	94.07	218.97	228.55	468.61	254.69	336.86	257.49

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Table R5: Continued

	Product	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GOA Thornyhead	Whole Fish	629.98	857.38	666.05	487.61	265.81	353.83	246.32	239.54	622.53	512.03
	Head And Gut	355.98	378.19	314.66	309.68	364.56	352.00	405.26	506.22	561.06	478.47
	Other Products	3.20	19.70	4.59	8.40	40.98	67.94	75.54	9.85	34.93	133.26
Northern	Whole Fish	164.89	*	*	-	*	6.57	*	*	4.51	*
	Head And Gut	988.46	698.88	1,316.35	1,664.03	3,441.15	2,768.41	2,162.38	1,664.77	2,690.48	7,914.13
	Other Products	30.47	9.18	1.89	3.03	4.05	3.77	22.56	9.14	30.95	21.83
BSAI Other	Whole Fish	81.53	125.26	202.23	214.72	302.49	482.00	241.96	560.15	542.81	218.05
	Head And Gut	310.68	273.44	261.21	419.89	443.44	592.44	656.52	307.78	444.49	407.20
	Other Products	31.76	34.64	16.99	9.88	10.15	6.26	9.42	9.08	13.60	6.76
Popa	Whole Fish	1,595.99	*	158.78	894.02	291.28	952.35	2,542.31	502.16	471.44	809.33
	Head And Gut	10,982.92	15,724.23	18,857.99	15,383.83	19,666.04	25,848.70	23,791.32	33,638.98	35,162.75	32,849.86
	Other Products	105.05	199.30	15.19	37.75	38.16	69.65	101.44	61.62	113.39	353.13
Roughey	Whole Fish	*	*	*	-	-	*	*	-	-	*
	Head And Gut	143.94	129.66	275.89	179.24	177.04	109.61	153.77	206.34	182.68	129.46
	Other Products	*	46.24	1.36	*	*	0.62	4.30	*	2.27	0.52
Shortraker	Whole Fish	*	*	*	-	*	-	*	-	*	*
	Head And Gut	88.96	199.60	78.38	95.74	200.99	245.82	251.47	225.85	94.75	68.55
	Other Products	5.55	24.94	4.05	2.67	12.06	17.92	12.99	10.32	1.96	7.59

**Notes:** These estimates include production from catch of both federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table R6: Real first-wholesale value of the catch of rockfish off Alaska by area, product, and species, 2006-2015 (\$1,000, base year = 2015).

	Product	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Northern	Whole Fish	596.1	*	107.2	110.8	339.4	*	*	123.3	413.2	*	
	Head And Gut	4,949.0	2,764.3	3,012.7	2,701.2	3,763.9	6,079.9	6,446.2	3,935.4	4,476.0	3,736.6	
	Other Products	256.7	474.4	82.1	1,414.3	527.4	92.1	967.6	407.6	113.2	*	
	Other	Whole Fish	777.8	926.4	875.0	1,072.0	731.1	700.5	1,065.4	1,361.5	741.0	748.6
		Head And Gut	73.6	80.9	174.9	125.3	129.7	271.4	151.7	104.4	112.5	640.9
		Other Products	83.8	134.4	66.3	96.1	138.1	730.5	170.1	441.9	326.2	234.9
	GOA	Whole Fish	1,997.5	582.1	764.7	1,048.4	3,956.5	4,537.1	2,341.3	3,406.5	3,660.0	4,980.0
		Head And Gut	14,343.2	9,084.1	9,590.1	10,018.3	15,322.1	20,387.9	19,932.4	11,131.8	15,673.2	16,252.0
		Other Products	539.7	2,659.4	1,808.0	487.2	697.1	444.2	1,804.8	493.4	383.9	284.0
Rougheye	Whole Fish	54.7	85.3	51.2	43.6	24.6	40.3	33.1	52.3	55.9	17.3	
	Head And Gut	229.9	175.7	188.9	259.8	323.6	495.1	490.5	538.9	469.8	259.8	
	Other Products	94.5	120.8	97.8	87.9	140.6	108.5	121.1	115.4	108.5	155.7	
Shortraker	Whole Fish	87.7	97.7	113.5	90.6	55.2	69.3	116.2	132.8	98.9	61.1	
	Head And Gut	516.4	392.0	572.3	448.1	490.3	693.1	702.3	451.6	827.6	494.6	
	Other Products	132.7	156.0	151.5	126.5	119.7	178.2	146.4	158.9	190.6	218.4	
Dusky	Whole Fish	466.5	534.6	348.1	654.9	442.1	215.8	189.3	918.2	378.1	643.1	
	Head And Gut	2,098.5	1,717.0	2,091.4	1,644.6	1,826.7	3,722.0	4,105.9	1,727.6	2,771.9	2,577.9	
	Other Products	383.5	709.3	415.5	197.5	435.5	657.0	1,750.7	613.2	546.3	508.5	

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Table R6: Continued

	Product	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GOA Thornyhead	Whole Fish	1,122.3	1,205.6	961.3	781.4	441.3	705.0	377.8	330.8	1,115.2	799.7
	Head And Gut	1,262.5	1,105.5	906.9	870.7	1,046.2	1,247.4	1,465.0	1,712.3	1,596.6	1,442.5
	Other Products	6.0	29.7	6.6	11.3	40.9	64.2	75.3	19.0	19.2	134.4
Northern	Whole Fish	96.8	*	*	-	*	6.3	*	*	4.1	*
	Head And Gut	809.4	808.7	802.2	1,043.4	3,051.1	4,044.4	2,459.3	1,160.1	2,482.1	5,925.3
	Other Products	8.3	3.4	0.1	1.1	2.3	4.1	12.3	9.0	24.8	19.0
BSAI	Other Whole Fish	182.3	244.5	423.5	424.0	623.7	1,015.9	523.4	825.6	1,117.5	371.1
	Head And Gut	726.7	513.5	466.9	651.1	846.4	1,206.0	1,221.5	549.0	544.3	558.4
	Other Products	14.1	30.8	15.5	7.6	10.8	13.5	3.3	27.6	7.3	8.8
Popa	Whole Fish	1,366.3	*	111.6	464.3	214.1	929.6	1,927.2	296.9	258.8	454.6
	Head And Gut	14,421.2	15,659.7	15,821.6	13,427.7	22,981.1	45,042.5	34,861.8	36,076.2	42,234.4	34,897.6
	Other Products	30.5	74.0	2.1	14.1	21.3	75.2	83.8	59.5	90.8	307.2
Roughey	Whole Fish	*	*	*	-	-	*	*	-	-	*
	Head And Gut	205.0	123.3	313.2	242.7	233.3	163.9	205.4	215.3	190.1	121.2
	Other Products	*	17.2	0.1	*	*	1.4	3.4	*	1.8	0.5
Shortraker	Whole Fish	*	*	*	-	*	-	*	-	*	*
	Head And Gut	190.1	369.8	179.5	181.6	388.2	623.3	566.5	426.8	169.1	97.8
	Other Products	4.6	12.6	4.0	2.4	20.9	45.3	18.4	14.8	1.8	7.6

**Notes:** These estimates include the value of products from catch of both federal and state of Alaska fisheries. The data have been adjusted to 2015 dollars by applying the GDP deflator from the Bureau of Labor Statistics.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table R7: First-wholesale prices of rockfish off Alaska by area, product, and species, 2006-2015 (\$/lb, product weight).

	Product	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Northern	Whole Fish	0.66	*	0.60	0.51	0.55	*	*	0.71	0.60	*	
	Head And Gut	1.11	0.77	0.77	0.72	0.97	1.58	1.26	0.81	1.10	0.97	
	Other Products	1.47	2.02	1.44	2.42	1.70	2.09	4.06	2.60	2.03	*	
	Other	Whole Fish	1.78	1.66	1.57	2.02	1.86	1.94	2.25	2.48	2.41	2.19
		Head And Gut	1.22	1.27	1.13	1.04	1.31	1.24	0.89	1.31	0.84	1.84
		Other Products	2.89	2.77	2.12	2.71	2.88	3.34	3.30	4.05	3.35	3.95
	GOA	Whole Fish	0.76	0.69	0.64	0.51	0.80	0.87	0.85	0.63	0.60	0.72
		Head And Gut	1.22	0.83	0.87	0.89	1.15	1.70	1.51	1.07	1.13	1.06
		Other Products	1.79	1.88	1.41	2.08	1.65	2.70	3.95	2.92	1.96	2.36
Rougheye	Whole Fish	0.67	0.98	0.94	1.01	0.72	0.98	1.00	0.98	1.14	0.82	
	Head And Gut	1.44	0.99	1.29	1.53	1.41	1.26	1.31	1.57	0.87	0.80	
	Other Products	2.68	2.64	1.60	2.79	3.09	3.01	3.51	3.60	3.78	3.12	
Shortraker	Whole Fish	1.13	1.15	0.89	0.90	0.73	1.11	1.22	1.25	1.45	1.04	
	Head And Gut	1.70	1.34	1.82	1.66	1.87	2.25	1.92	1.48	1.78	1.55	
	Other Products	2.37	2.51	2.33	2.73	2.88	2.00	2.79	3.09	3.58	3.82	
Dusky	Whole Fish	0.66	0.69	0.55	0.53	0.57	1.35	0.66	1.25	0.66	1.07	
	Head And Gut	1.08	0.83	0.80	0.82	0.79	1.48	1.24	0.68	1.09	1.14	
	Other Products	1.87	1.90	1.53	2.10	1.99	2.88	3.74	2.41	1.62	1.98	

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Table R7: Continued

	Product	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GOA Thornyhead	Whole Fish	1.78	1.41	1.44	1.60	1.66	1.99	1.53	1.38	1.79	1.56
	Head And Gut	3.55	2.92	2.88	2.81	2.87	3.54	3.62	3.38	2.85	3.02
	Other Products	1.87	1.51	1.43	1.34	1.00	0.94	1.00	1.93	0.55	1.01
Northern	Whole Fish	0.59	*	*	-	*	0.96	*	*	0.92	*
	Head And Gut	0.82	1.16	0.61	0.63	0.89	1.46	1.14	0.70	0.92	0.75
	Other Products	0.27	0.37	0.05	0.37	0.56	1.08	0.55	0.98	0.80	0.87
BSAI Other	Whole Fish	2.23	1.95	2.09	1.98	2.06	2.11	2.16	1.47	2.06	1.70
	Head And Gut	2.34	1.88	1.79	1.55	1.91	2.04	1.86	1.78	1.23	1.37
	Other Products	0.44	0.89	0.91	0.77	1.06	2.15	0.35	3.04	0.54	1.30
Popa	Whole Fish	0.86	*	0.70	0.52	0.74	0.98	0.76	0.59	0.55	0.56
	Head And Gut	1.31	1.00	0.84	0.87	1.17	1.74	1.47	1.07	1.20	1.06
	Other Products	0.29	0.37	0.14	0.37	0.56	1.08	0.83	0.97	0.80	0.87
Roughey	Whole Fish	*	*	*	-	-	*	*	-	-	*
	Head And Gut	1.42	0.95	1.14	1.35	1.32	1.50	1.34	1.04	1.04	0.94
	Other Products	*	0.37	0.06	*	*	2.24	0.78	*	0.80	0.92
Shortraker	Whole Fish	*	*	*	-	*	-	*	-	*	*
	Head And Gut	2.14	1.85	2.29	1.90	1.93	2.54	2.25	1.89	1.78	1.43
	Other Products	0.83	0.51	0.98	0.89	1.73	2.53	1.41	1.43	0.93	1.00

**Notes:** These estimates are based on data from both federal and state of Alaska fisheries. Prices based on confidential data have been excluded. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table R8: Number of processors that processed rockfish off Alaska by area, product, and species, 2006-2015.

	Product	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Northern	Whole Fish	6	2	6	6	6	3	3	5	4	2
	Head And Gut	15	12	14	18	20	20	22	20	18	14
	Other Products	6	8	6	5	7	6	7	7	8	3
Other	Whole Fish	19	24	25	26	25	22	22	24	24	23
	Head And Gut	25	26	33	31	32	30	32	26	22	23
	Other Products	14	15	13	14	16	17	19	18	20	19
GOA Popa	Whole Fish	8	8	8	7	15	11	8	8	8	7
	Head And Gut	18	18	19	23	24	23	24	20	16	15
	Other Products	6	8	6	6	6	6	6	7	6	4
Rougheye	Whole Fish	14	14	14	17	16	14	11	15	15	12
	Head And Gut	32	31	35	35	35	35	32	24	19	20
	Other Products	14	17	12	11	14	17	16	17	18	16
Shortraker	Whole Fish	13	13	14	14	14	13	10	11	14	11
	Head And Gut	33	28	34	38	38	35	31	27	20	18
	Other Products	17	20	18	17	15	23	22	19	17	19
Dusky	Whole Fish	8	9	8	13	11	11	10	10	10	10
	Head And Gut	17	15	19	21	24	23	25	23	20	16
	Other Products	9	13	11	9	12	12	13	12	16	13

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Table R8: Continued

	Product	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
GOA Thornyhead	Whole Fish	30	28	29	32	29	28	25	26	27	19
	Head And Gut	35	42	42	39	41	38	41	36	32	34
	Other Products	9	12	9	11	11	11	15	13	7	11
Northern	Whole Fish	5	1	2	-	2	4	3	2	4	3
	Head And Gut	12	11	7	14	12	15	14	14	10	13
	Other Products	6	12	6	7	9	12	10	11	11	12
BSAI Other	Whole Fish	12	13	16	18	14	20	23	15	15	14
	Head And Gut	38	36	26	33	38	38	34	28	28	24
	Other Products	16	17	19	17	17	12	12	17	14	14
Popa	Whole Fish	5	3	7	4	4	9	11	7	7	5
	Head And Gut	23	20	18	18	20	25	19	22	22	20
	Other Products	10	12	10	11	12	13	13	13	12	13
Rougheye	Whole Fish	1	2	2	-	-	2	2	-	-	1
	Head And Gut	19	15	14	17	21	19	18	15	14	13
	Other Products	3	9	4	1	2	4	7	3	7	8
Shortraker	Whole Fish	2	3	1	-	1	-	1	-	3	1
	Head And Gut	19	20	25	26	36	32	33	22	26	20
	Other Products	7	12	13	9	10	8	14	5	6	11

**Notes:** These estimates are based on data from both federal and state of Alaska fisheries. Based on federal permit files.

**Source:** NMFS Alaska Region At-sea and Shoreside Production Reports; and ADF&G Commercial Operators Annual Reports (COAR). Data compiled and provided by the Alaska Fisheries Information Network (AKFIN). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

#### A.4. Expanded Economic Data Tables for Fishmeal

Table M1: Gross wholesale value of groundfish fishmeal products in the fisheries off Alaska by species, region and sector, 2011-2015, (million dollars).

	Year	Gulf of Alaska	Bering Sea & Aleutian Islands	
		Shoreside	At-sea	Shoreside
Pollock	2011	0.13	39.29	43.09
	2012	*	40.04	38.75
	2013	*	40.67	52.22
	2014	*	49.14	46.98
	2015	*	54.01	56.03
Pacific cod	2011	0.02	0.90	1.50
	2012	0.00	0.44	0.39
	2013	*	0.82	1.55
	2014	0.09	0.68	3.62
	2015	0.28	1.41	1.84
Flatfish	2011	0.04	3.02	1.10
	2012	*	2.14	0.69
	2013	*	3.93	1.05
	2014	*	2.18	0.58
	2015	*	1.07	0.37
Other	2011	0.00	0.25	0.07
	2012	*	0.17	0.26
	2013	*	0.22	0.08
	2014	*	0.23	0.23
	2015	*	0.29	1.08

**Notes:** Fishmeal data in this table use COAR production reports, which for some sectors, may exclude some secondary fishmeal production carried out at processing facilities not covered by COAR. Because of these tables may under report fishmeal production and value for Alaska.

Species in “Other” include sablefish, atka mackerel, rockfish, skate, squid, octopus, shark, and sculpin. These estimates are for catch from both federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** At-sea and shoreside production reports and commercial operators annual report. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.



Table M2: Wholesale production of groundfish fishmeal products in the fisheries off Alaska by species, region and sector, 2011-2015, (1,000 metric tons product weight).

	Year	Gulf of Alaska	Bering Sea & Aleutian Islands	
		Shoreside	At-sea	Shoreside
Pollock	2011	0.11	22.58	30.23
	2012	*	21.08	31.44
	2013	*	20.98	32.89
	2014	*	23.25	33.60
	2015	*	26.45	34.59
Pacific cod	2011	0.01	0.58	0.96
	2012	0.00	0.48	1.04
	2013	*	0.47	1.02
	2014	0.14	0.49	2.49
	2015	0.15	0.81	1.06
Flatfish	2011	0.02	1.66	0.68
	2012	*	1.23	0.84
	2013	*	1.38	0.37
	2014	*	1.08	0.28
	2015	*	0.54	0.19
Other	2011	0.00	0.14	0.08
	2012	*	0.11	0.33
	2013	*	0.13	0.06
	2014	*	0.15	0.19
	2015	*	0.15	0.56

**Notes:** Fishmeal data in this table use COAR production reports, which for some sectors, may exclude some secondary fishmeal production carried out at processing facilities not covered by COAR. Because of these tables may under report fishmeal production and value for Alaska.

Species in “Other” include sablefish, atka mackerel, rockfish, skate, squid, octopus, shark, and sculpin. These estimates are for catch from both federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** At-sea and shoreside production reports and commercial operators annual report. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table M3: Wholesale price per pound of groundfish fishmeal products in the fisheries off Alaska by species, region and sector, 2011-2015, (dollars).

	Year	Gulf of Alaska	Bering Sea & Aleutian Islands	
		Shoreside	At-sea	Shoreside
Pollock	2011	0.53	0.79	0.65
	2012	*	0.86	0.56
	2013	*	0.88	0.72
	2014	*	0.96	0.63
	2015	*	0.93	0.73
Pacific cod	2011	0.71	0.70	0.71
	2012	0.77	0.42	0.17
	2013	*	0.79	0.69
	2014	0.29	0.63	0.66
	2015	0.81	0.79	0.79
Flatfish	2011	0.74	0.83	0.74
	2012	*	0.79	0.37
	2013	*	1.29	1.30
	2014	*	0.92	0.92
	2015	*	0.89	0.87
Other	2011	0.62	0.78	0.39
	2012	*	0.69	0.36
	2013	*	0.79	0.61
	2014	*	0.69	0.54
	2015	*	0.87	0.87

**Notes:** Fishmeal data in this table use COAR production reports, which for some sectors, may exclude some secondary fishmeal production carried out at processing facilities not covered by COAR. Because of these tables may under report fishmeal production and value for Alaska.

Species in “Other” include sablefish, atka mackerel, rockfish, skate, squid, octopus, shark, and sculpin. These estimates are for catch from both federal and state of Alaska fisheries. “\*” indicates a confidential value; “-” indicates no applicable data or value.

**Source:** At-sea and shoreside production reports and Commercial Operators Annual Reports (COAR) (compiled and provided by the Alaska Fisheries Information Network (AKFIN)). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

## A.5. Supplementary Data Tables

Table E.1: Global capture production and value of whitefish (cods, hakes, haddocks) 2010 - 2014 (1,000 metric tons product weight and million dollars)

Data	2010	2011	2012	2013	2014
Production	5966	6512	6504	6607	6612
Value	8978	9145	8869	8870	9394

**Notes:** Production and Value include capture and aquaculture.

**Source:** FAO. 2015. Fishery and Aquaculture Statistics. Global capture production 1950-2013 (FishStatJ). Yearbook of Fishery Statistics Summary tables, Appendix II - World fishery production: estimated value by groups of species (2006-2012); <ftp://ftp.fao.org/FI/STAT/summary/appIIybc.pdf>

Table E.2: Quantities and value of groundfish exports originating from Alaska and Washington by species (group), destination country, and product type 2012 - 2016 (through June 2015) (1,000 metric tons product weight and million dollars).

		2012		2013		2014		2015		2016		
	Product	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
Japan	Frozen Fillet	0.23	\$ 0.42	1.75	\$ 4.97	3.5	\$ 6.13	0.65	\$ 1.39	0.31	\$ 0.62	
	Frozen Surimi	0.14	\$ 0.32	0.9	\$ 2.81	0.28	\$ 0.66	1.13	\$ 3.26	0.18	\$ 0.53	
	Roe	67.6	\$ 159.7	56.23	\$ 115.84	71.89	\$ 156.83	81.83	\$ 186.38	28.6	\$ 67.24	
	Frozen Meat	7.62	\$ 46.83	6.54	\$ 42.54	11.21	\$ 67.72	10.46	\$ 72.21	5.17	\$ 37.88	
	Frozen Meat	-	\$ -	-	\$ -	0.61	\$ 3.25	0.27	\$ 1.53	0.04	\$ 0.22	
Alaska Pollock	Frozen Fillet	24.15	\$ 53.91	43.38	\$ 89.34	48.31	\$ 102.69	36.64	\$ 78.5	11.24	\$ 23.41	
	Frozen Surimi	8.87	\$ 22.38	5.06	\$ 11.8	5.2	\$ 13.41	6.4	\$ 14.61	3.48	\$ 7.72	
	Roe	1.43	\$ 3.07	3.3	\$ 6.61	3.07	\$ 6.85	3.94	\$ 9.71	2.13	\$ 4.89	
	Frozen Meat	0.55	\$ 4.55	0.9	\$ 6.19	0.75	\$ 5.05	0.5	\$ 3.84	0.21	\$ 1.58	
	Frozen Meat	-	\$ -	0.09	\$ 0.17	0.32	\$ 1.13	0.44	\$ 1.44	0.42	\$ 1	
South Korea	Frozen Fillet	0.86	\$ 1.71	2.59	\$ 4.72	6.1	\$ 11.01	9.77	\$ 18.17	3.05	\$ 6.05	
	Frozen Surimi	1.6	\$ 4	0.85	\$ 1.73	0.84	\$ 2.06	2.7	\$ 4.88	4.88	\$ 11.4	
	Roe	44.95	\$ 144.18	61.41	\$ 156.44	56.85	\$ 143.61	60.41	\$ 154.15	28.67	\$ 72.14	
	Frozen Meat	7.56	\$ 64.94	7.41	\$ 64.55	9.79	\$ 79.91	9.28	\$ 75.85	8	\$ 66.8	
	Frozen Meat	0.95	\$ 1.76	0.04	\$ 0.1	0.24	\$ 0.51	0.27	\$ 0.73	0.31	\$ 0.63	
Germany	Frozen Fillet	23.77	\$ 74.58	4.44	\$ 12.35	2.43	\$ 7.13	0.78	\$ 2.22	-	\$ -	
	Frozen Surimi	37.35	\$ 119.99	66.9	\$ 200.35	81.38	\$ 237.67	73.41	\$ 204.67	21.75	\$ 60.52	
	Roe	8.52	\$ 18.69	10.41	\$ 20.89	5.61	\$ 11.28	4.76	\$ 9.38	2.01	\$ 4.63	
	Frozen Meat	0.02	\$ 0.1	-	\$ -	-	\$ -	-	\$ -	-	\$ -	
	Frozen Meat	0.27	\$ 0.53	0.33	\$ 0.81	2.99	\$ 6.67	1.38	\$ 3.48	0.87	\$ 1.83	

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Table E.2: Continued

	Product	2012		2013		2014		2015		2016		
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
Alaska Pollock	Frozen	1.54	\$ 4.08	0.81	\$ 1.75	1.53	\$ 3.21	2.45	\$ 7.59	0.67	\$ 1.63	
	Fillet											
	Frozen	21.57	\$ 67.41	25.38	\$ 75.49	24.69	\$ 71.53	25.2	\$ 76.7	10.64	\$ 30.39	
	Surimi	4.47	\$ 13.76	2.35	\$ 6.11	2.67	\$ 6.5	3.26	\$ 8.18	1.25	\$ 3.07	
	Roe											
	Frozen	-	\$ -	-	\$ -	-	\$ -	0	\$ 0.01	-	\$ -	
	Meat											
	Frozen	0	\$ 0.01	0.14	\$ 0.27	0.21	\$ 0.47	-	\$ -	0.15	\$ 0.3	
		Frozen	11.24	\$ 27.26	10.74	\$ 26.04	7.82	\$ 18.85	2.65	\$ 5.97	2.98	\$ 6.7
Other	Fillet	9.95	\$ 29.43	14.23	\$ 41.37	18.05	\$ 51.16	13.71	\$ 33.4	5.05	\$ 11.85	
	Frozen											
	Surimi	23.97	\$ 55.3	25.74	\$ 53.7	20.61	\$ 45.09	17.23	\$ 38.78	12.57	\$ 29.1	
	Roe	0.15	\$ 1.45	0.11	\$ 0.96	0.01	\$ 0.11	-	\$ -	0.03	\$ 0.28	
	Frozen											
	Fresh	-	\$ -	-	\$ -	-	\$ -	-	\$ -	0.01	\$ 0.03	
	Meat											
Frozen	3.47	\$ 12.47	3.29	\$ 7.85	4.57	\$ 11.59	4.84	\$ 11.54	1.45	\$ 3.12		
Sablefish	Japan	Frozen	6.39	\$ 68.18	5.79	\$ 60.93	4.32	\$ 50.92	4.14	\$ 45.77	1.51	\$ 19.02
		Fresh	0.92	\$ 8.9	0.5	\$ 5.6	0.15	\$ 1.75	0.1	\$ 1.32	-	\$ -
	China	Frozen	0.67	\$ 6.3	0.53	\$ 6.89	0.47	\$ 7.42	0.77	\$ 13.02	0.41	\$ 6.84
		Fresh	0.47	\$ 4.28	0.27	\$ 3.16	0.1	\$ 0.8	0.07	\$ 0.65	-	\$ -
	South Korea	Frozen	0.14	\$ 1.09	0.04	\$ 0.46	0.04	\$ 0.57	0.06	\$ 0.95	0.03	\$ 0.37
		Fresh	0.02	\$ 0.1	0.01	\$ 0.17	-	\$ -	-	\$ -	-	\$ -
	Germany	Frozen	0.03	\$ 0.26	0.01	\$ 0.19	0.01	\$ 0.18	0.02	\$ 0.46	-	\$ -
		Fresh	-	\$ -	-	\$ -	0	\$ 0.03	0.01	\$ 0.01	-	\$ -
	Nether- lands	Frozen	0.01	\$ 0.08	0.05	\$ 0.48	0.07	\$ 0.83	0.05	\$ 0.73	0.01	\$ 0.13
		Fresh	-	\$ -	0.02	\$ 0.03	-	\$ -	0.02	\$ 0.18	-	\$ -
	Other	Frozen	0.87	\$ 8.67	0.85	\$ 11.54	0.65	\$ 10.11	0.83	\$ 12.78	0.26	\$ 4.37
		Fresh	0.15	\$ 1.25	0.08	\$ 0.87	0.13	\$ 1.25	0.05	\$ 0.42	-	\$ -

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Table E.2: Continued

	Product	2012		2013		2014		2015		2016	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Japan	Frozen Fillet	14.62	\$ 50.43	10.75	\$ 33.94	16.29	\$ 47.42	14	\$ 43.11	5.69	\$ 17.62
	Frozen	0.47	\$ 1.43	0.06	\$ 0.18	0.05	\$ 0.16	0.05	\$ 0.12	0.02	\$ 0.03
	Fresh	0.17	\$ 0.53	0.16	\$ 0.55	0.05	\$ 0.17	-	\$ -	0.01	\$ 0.04
	Salted   Dried	0.01	\$ 0.02	0.13	\$ 0.32	-	\$ -	0.07	\$ 0.18	-	\$ -
	Minced	0.06	\$ 0.13	0.02	\$ 0.05	0.08	\$ 0.12	-	\$ -	0.16	\$ 0.36
	Frozen										
Cod NSPF	Frozen Fillet	40.37	\$ 125.39	46.77	\$ 136.19	55.16	\$ 154.06	56.72	\$ 162.45	43.9	\$ 119.09
China	Frozen	4.24	\$ 13.2	0.98	\$ 3.87	0.76	\$ 3.04	1.49	\$ 4.21	0.91	\$ 2.48
	Fresh	4.71	\$ 14.15	0.19	\$ 0.53	0.03	\$ 0.08	0.02	\$ 0.07	-	\$ -
	Salted   Dried	1.57	\$ 4.03	2.52	\$ 6.03	1.33	\$ 3.29	0.92	\$ 2.48	0.59	\$ 1.65
	Minced	0.1	\$ 0.18	0.02	\$ 0.06	-	\$ -	0.15	\$ 0.24	-	\$ -
	Frozen										
South Korea	Frozen Fillet	4.61	\$ 13.7	7.69	\$ 21.38	5.34	\$ 12.26	8.9	\$ 22.92	5.71	\$ 16.06
	Frozen	0.05	\$ 0.11	-	\$ -	0.07	\$ 0.14	0.04	\$ 0.1	0.02	\$ 0.08
	Fresh	0.85	\$ 2.46	-	\$ -	0.05	\$ 0.08	0.02	\$ 0.05	0.05	\$ 0.1
	Salted   Dried	0.94	\$ 2.73	0.28	\$ 0.68	0.04	\$ 0.08	2.09	\$ 5.8	-	\$ -
	Minced	0.04	\$ 0.07	-	\$ -	-	\$ -	0.02	\$ 0.07	-	\$ -
	Frozen										
Germany	Frozen Fillet	3.04	\$ 11.01	2.85	\$ 9.04	2.89	\$ 10.19	2.75	\$ 8.75	0.75	\$ 2.09
	Frozen	0.05	\$ 0.18	0.03	\$ 0.07	-	\$ -	0.01	\$ 0.04	0.01	\$ 0.02
	Minced	-	\$ -	-	\$ -	-	\$ -	0.12	\$ 0.2	-	\$ -
	Frozen										

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Table E.2: Continued

		2012		2013		2014		2015		2016		
Product		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
Cod NSPF	Netherlands	Frozen	6.15	\$ 19.93	5.01	\$ 16.15	6.21	\$ 20.96	5.71	\$ 18.07	3	\$ 8.99
		Fillet	0.1	\$ 0.37	0.22	\$ 0.81	0.22	\$ 0.65	0.09	\$ 0.36	0.01	\$ 0.02
		Fresh	0.02	\$ 0.04	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	Other	Frozen	18.73	\$ 66.2	16.49	\$ 51.74	11.53	\$ 37.27	13.78	\$ 42.45	7.97	\$ 24.47
		Fillet	4.84	\$ 20.9	1.23	\$ 6.86	1.04	\$ 5.34	1.58	\$ 7.41	0.88	\$ 4.52
		Frozen	0.08	\$ 0.31	0.23	\$ 0.79	0.17	\$ 0.58	0.25	\$ 0.74	0	\$ 0.01
Fresh Salted   Dried Minced Frozen		0.39	\$ 1.17	0.51	\$ 1.45	2.44	\$ 6.58	0.61	\$ 1.82	0.18	\$ 0.33	
Yellowfin Sole	Japan	Frozen	0.32	\$ 0.4	0.03	\$ 0.04	0.02	\$ 0.03	0.05	\$ 0.08	-	\$ -
	China	Frozen	33.82	\$ 45.26	62.54	\$ 88.88	62.09	\$ 86.25	52.68	\$ 70.15	26.41	\$ 37.06
	South Korea	Frozen	10.58	\$ 13.09	9.38	\$ 12.77	10.02	\$ 12.26	12.38	\$ 15.35	6.29	\$ 7.82
	Other	Frozen	0.53	\$ 0.81	-	\$ -	0.01	\$ 0.01	0.04	\$ 0.06	-	\$ -
Flatfish NSPF	Japan	Frozen	2.44	\$ 3.92	3.95	\$ 7.54	5.27	\$ 9.81	2.65	\$ 4.67	2.17	\$ 3.9
		Fillet	0.01	\$ 0.03	0	\$ 0.01	0	\$ 0.02	0	\$ 0.01	-	\$ -
		Frozen	0.36	\$ 0.58	-	\$ -	0	\$ 0.01	-	\$ -	-	\$ -
		Fillet Fresh	0	\$ 0.01	-	\$ -	-	\$ -	-	\$ -	-	\$ -
	China	Frozen	16.47	\$ 28.1	34.56	\$ 57.74	38.4	\$ 64.56	34.57	\$ 53.55	20.35	\$ 31.55
		Fillet Frozen Fresh	0.03	\$ 0.12	0.21	\$ 0.85	0.04	\$ 0.21	0.12	\$ 0.59	0.02	\$ 0.08
		4.07	\$ 6.38	-	\$ -	0.01	\$ 0.07	0.02	\$ 0.04	0	\$ 0.03	

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Table E.2: Continued

		2012		2013		2014		2015		2016		
Product		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
Flatfish NSPF	South Korea	Frozen	4.03	\$ 5.85	1.48	\$ 2.35	0.96	\$ 1.58	3.74	\$ 6.86	1.9	\$ 3.44
		Fillet	0.06	\$ 0.24	0.26	\$ 0.97	0.22	\$ 0.65	-	\$ -	0	\$ 0.01
		Frozen	0.22	\$ 0.34	0.01	\$ 0.08	0.02	\$ 0.05	-	\$ -	-	\$ -
		Fresh	-	\$ -	0	\$ 0.01	-	\$ -	-	\$ -	0.04	\$ 0.09
	Nether-lands	Frozen	0.76	\$ 0.97	0.75	\$ 1.24	0.68	\$ 1.47	0.36	\$ 0.71	0.27	\$ 0.35
		Fillet	0.02	\$ 0.15	0.03	\$ 0.13	0.04	\$ 0.25	0	\$ 0.01	0.02	\$ 0.06
		Frozen	0.03	\$ 0.09	0.09	\$ 0.24	0.02	\$ 0.12	0	\$ 0.01	-	\$ -
	Fillet	0.17	\$ 1.39	0.15	\$ 1.25	0.07	\$ 0.55	0.06	\$ 0.49	0.06	\$ 0.46	
	Fresh	3.23	\$ 7.91	9.33	\$ 33.63	6.86	\$ 24.54	9.62	\$ 35.33	0.55	\$ 2.08	
Pac. Ocean Perch	Japan	Frozen	8.14	\$ 24.55	8.98	\$ 27.64	15.57	\$ 51.41	12.24	\$ 40.24	6.18	\$ 19.52
	China	Frozen	1.41	\$ 4.06	1.4	\$ 4.44	0.92	\$ 2.7	0.85	\$ 2.09	0.3	\$ 0.63
	South Korea	Frozen	-	\$ -	0.1	\$ 0.17	0.05	\$ 0.13	0.03	\$ 0.05	0.02	\$ 0.06
	Other	Frozen	11.45	\$ 24.7	7.79	\$ 21.69	12.63	\$ 35.07	22.05	\$ 61.46	9.42	\$ 26.16
Atka Mackerel	Japan	Frozen	5.86	\$ 11.2	2.5	\$ 6.95	3.74	\$ 10.4	6	\$ 16.79	2.12	\$ 5.89
	China	Frozen	2.42	\$ 3.92	2.24	\$ 5.83	2.81	\$ 7.18	1.93	\$ 5.69	1.42	\$ 3.83
	South Korea	Frozen	0.29	\$ 0.5	0.15	\$ 0.2	0.33	\$ 0.5	0.02	\$ 0.03	-	\$ -
	Other	Frozen	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -

**Notes:** Totals for China include Taipei and Hong Kong. Totals for "FLATFISH NSPF" include species "TURBOT GREENLAND", "PLAICE" and "SOLE ROCK"

**Source:** NOAA Fisheries, Fisheries Statistics Division, Foreign Trade Division of the U.S. Census Bureau, <http://www.st.nmfs.noaa.gov/commercial-fisheries/foreign-trade/index>.



Table E.3: Monthly Employment of Seafood Processing Workers in Alaska, 2011 - 2016.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2011	7300	9000	9400	8100	7200	13100	20400	18300	13400	7600	5600	3200	10200
2012	7700	9800	10300	8900	8200	13600	19500	16800	11400	7700	5700	3700	10300
2013	7600	9400	9600	9200	8300	13200	20400	17400	13100	8900	6600	4000	10600
2014	8700	10000	10000	10200	8200	14000	20900	17000	11500	6300	4600	3100	10400
2015	7900	9400	9600	8700	7500	13000	20600	17200	11900	7100	5200	3700	10200
2016	8300	9700	9700	9100	7700	13500	20800	-	-	-	-	-	-

**Notes:** Series code: 32311700.

**Source:** Alaska Department of Labor and Workforce Development, Research and Analysis Section, <http://live.laborstats.alaska.gov/ces/ces.cfm?at=01&a=000000&adj=0>.

Table E.4: Monthly Employment of Seafood Harvesting Workers in Alaska, 2008 - 2012.

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
All Species	2008	2738	3138	4511	4445	5572	17022	20447	13634	8226	4202	2708	602
	2009	2527	2817	3126	4874	5693	17609	20076	13687	7148	4593	2388	507
	2010	2668	3060	4005	5255	5685	18878	23128	15287	7759	4992	2887	850
	2011	2898	3214	4010	4723	5610	20101	23813	15574	7916	5721	2303	849
	2012	2923	3409	4609	5402	6163	19237	24761	16191	6988	5453	2274	853
Groundfish	2008	2034	2135	2348	1714	1514	1736	1647	1817	2182	1494	805	90
	2009	1834	1811	1728	1746	1686	1592	1383	1596	1738	1420	567	111
	2010	1448	1690	1773	1716	1660	1436	1214	1518	1929	1230	589	196
	2011	1571	1767	2108	1935	1663	1622	1341	1586	2321	1938	628	465
	2012	1774	2052	2626	2099	1954	1924	1580	1735	2230	1878	765	437
Halibut	2008	3	0	1066	1260	1859	2284	1866	2345	1865	1004	590	0
	2009	0	0	372	1274	1802	1955	1501	2033	1727	1385	514	0
	2010	0	0	1002	1355	1895	1963	1735	2147	1685	1280	480	0
	2011	0	0	774	1134	1929	2066	1595	1820	1553	1162	374	0
	2012	0	0	614	969	1694	1936	1530	1941	1464	1241	297	0
Salmon	2008	126	145	286	500	1603	12383	16308	8924	4014	306	148	126
	2009	72	157	182	449	1353	13452	16611	9565	3420	370	171	163
	2010	155	296	358	635	1629	14938	19608	11153	3945	479	259	193
	2011	193	225	381	607	1640	15882	20344	11869	3894	704	265	174
	2012	104	220	404	635	1575	14467	21130	12066	3103	528	266	121

**Notes:** See original data source for details.

**Source:** Alaska Department of Labor and Workforce Development, Research and Analysis Section, <http://live.laborstats.alaska.gov/seafood/statewide/AKAvgMonthlySpec.pdf>