## STOCK ASSESSMENT AND FISHERY EVALUATION REPORT FOR THE KING AND TANNER CRAB FISHERIES OF THE GULF OF ALASKA AND BERING SEA/ALEUTIAN ISLANDS AREA:

ECONOMIC STATUS OF THE BSAI KING AND TANNER CRAB FISHERIES OFF ALASKA, 2023

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## Time series and plots of data presented in this report are available at: https://akcrabsafe.psmfc.org

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# Abbreviations

### **Crab Fisheries**

AIG	Aleutian Islands golden king crab (East and West fisheries combined)
BBR	Bristol Bay red king crab
BSS	Bering Sea snow crab
BST	Bering Sea Tanner crab (East and West fisheries combined)
EAG	Eastern Aleutian Islands golden king crab
EBT	Eastern Bering Sea Tanner crab
NSR	Norton Sound red king crab
PIG	Pribilof Islands golden king crab
PIK	Pribilof Islands red and blue king crab
SMB	St. Matthew Island blue king crab
WAG	Western Aleutian Islands golden king crab
WAI	Western Aleutian Islands (Adak) red king crab
WBT	Western Bering Sea Tanner crab

### Other

ACA	Adak Community Allocation
ADF&G	Alaska Department of Fish & Game
AFSC	NMFS Alaska Fisheries Science Center
AKR	NMFS Alaska Regional Office
BSAI	Bering Sea and Aleutian Islands
CDQ	Community Development Quota
CFEC	Alaska Commercial Fisheries Entry Commission
COAR	Commercial Operators Annual Report
CP	Catcher/Processor (vessel type and/or industry sector)
CPC	Catcher/Processor Crew (Quota Share sector)
CPO	Catcher/Processor Owner (Quota Share sector)
CPUE	Catch per unit effort
$\operatorname{CR}$	Crab Rationalization
CV	Catcher vessel (vessel type and/or industry sector)
$\operatorname{CVC}$	Catcher Vessel Crew (Quota Share sector)
CVCP	Catcher Vessel + Catcher/Processor (collectively denotes crab industry
	sectors with harvesting activity components)
CVO	Catcher Vessel Owner (Quota Share sector)

TAC	Total Allowable Catch
SP	Shoreside Processor
	denotes shore-based crab processing sectors)
SFP	Shoreside Processor and Stationary Floating Processor (collectively
	processing activity components)
	Catcher/Processor (collectively denotes crab industry sectors with
SFCP	Shoreside Processor, Stationary Floating Processor, and
SAFE	Stock Assessment and Fishery Evaluation
RPUE	Revenue per unit effort
RCR	Registered Crab Receiver
RAM	NMFS Alaska Regional Office, Restricted Access Management Program
QS	Quota Share (harvesting QS)
PSMFC	Pacific States Marine Fisheries Commission
PQS	Processing Quota Share
NPFMC	North Pacific Fishery Management Council
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service (NOAA Fisheries)
MSA	Magnuson-Stevens Fishery Conservation and Management Act
LLP	License Limitation Program
IPQ	Individual Processing Quota
IFQ	Individual Fishing Quota
GHL	Guideline Harvest Limit
FMP	Fishery Management Plan
ESSRP	Economic and Social Sciences Research Program
EDR	Economic Data Report
CVOB	Catcher Vessel Owner Class B (Individual Fishing Quota type)
CVOA	Catcher Vessel Owner Class A (Individual Fishing Quota type)

## Chapter 1

# Economic Status Report Executive Summary: Bering Sea and Aleutian Islands Crab Fisheries, 2023

The Economic Status Report for BSAI Crab Fisheries, 2023 (Crab Economic SAFE) provides information about economic aspects of crab fisheries managed under the North Pacific Fishery Management Council's Fishery Management Plan for the Bering Sea/Aleutian Islands King and Tanner Crabs (FMP), and in particular, with more detailed and comprehensive economic data availability, for those FMP crab fisheries included in the BSAI Crab Rationalization (CR) Program.<sup>1</sup> Statistical indices are reported, in tabular and graphical form, for individual crab fisheries and for the CR Program or FMP crab fishery as a whole, regarding annual production, sales, revenue, and price indices in the crab harvesting and processing sectors; employment, income, and demographics of labor in both sectors; operating expenditures and indices of gross profitability in the harvest sector; crab harvesting and processing quota share leasing and sale market activity, and changes over time in crab quota holdings, quota entity ownership, and distributional aspects thereof; BSAI crab fleet composition, capacity, effort and efficiency; and volume and value of U.S. imports and exports of king and Tanner crab product. Generally, annual economic statistics are reported for calendar years up to 2022, the most recent year for which primary data sources are complete (encompassing the spring portion of the 2021/22 crab season and fall portion of the 2022/23 crab season). Where available, more current statistics and information are reported for calendar year 2023, crab season 2022/23, and crab season 2023/24. A new section of the document for 2023, Ex-vessel Revenue Nowcast Estimates and Summary of International Trade in King and Snow Crab, represents an effort to develop more current price and revenue information for the crab harvesting sector, with the goal of providing the Council, ADFG, industry and the public with economic information that is as current as possible, for use in the harvest specification and Total Allowable Catch (TAC)-setting processes; the section is presented for review and is expected to undergo further development in future editions of the report.

<sup>&</sup>lt;sup>1</sup>The Crab Economic SAFE is the primary channel for publication of aggregate data from the Crab Economic Data Report (EDR) program, a mandatory annual census involving reporting of detailed operational and economic information by owners and leaseholders of vessels and processing plants participating in CR program fisheries. In addition to EDR data, the SAFE report sources data from ADF&G fish tickets/eLandings, NMFS Alaska Region, Restricted Access Management (RAM) catch accounting, and ADF&G Commercial Operator's Annual Report (COAR).

This executive summary begins with an overview of the current management status of FMP crab fisheries. To provide an FMP-level overview of economic performance and historical context of BSAI crab fisheries as a whole, the executive summary includes *Report Card Metrics for the BSAI Crab Fisheries, 1991-2023,* similar to the corresponding *Report Card Metrics* section included annually in the Groundfish Economic SAFE Report.<sup>2</sup> This is followed by a summary of recent status and trends in three sets of primary economic performance indicators for the respective BSAI crab fisheries: gross volume and value of production, labor earnings and employment in the crab processing and harvesting sectors, and crab harvest quota leasing activity. More recent additions address the geographic distribution of harvest and processing sector employment in the CR Program fishery as a whole, at the level of specific communities of residence where possible, and a series of figures summarizing distributional aspects of quota share (QS) entity ownership within the Crab Rationalization harvesting QS pools. Status and trends in these indicators and metrics are reported for the most recent five years of available data in the executive summary, with references to longer time series and additional levels of detail reported in the body of the document.

### 1.1 Fishery Overview

As an indicator of the relative economic importance of Alaska crab fisheries to the state and U.S. economies, the 23.1 million tons (mt) of commercial catch of BSAI king and tanner crab in 2021 represented 0.60% of the 3.87 million metric tons (mt) total volume of U.S. commercial seafood landings, but a much greater proportion of value: at \$297 million ex-vessel value in 2021, BSAI crab accounted for 4.63% of \$4.62 billion total ex-vessel value of U.S. landings (NMFS, 2021). With respect to Alaska alone, BSAI crab fisheries accounted for 0.97% of total commercial landings volume of 2.38 million mt and 14.7% of \$2.92 billion total ex-vessel value produced in commercial fisheries off Alaska (Groundfish Economic SAFE, 2022).

As of publication of the 2023 edition of this report, the BSAI crab fishery as a whole faces an unprecedented resource and economic crisis. The two largest and most valuable BSAI crab fisheries historically, Bering Sea snow crab (BSS) and Bristol Bay red king crab (BBR) were simultaneously closed for the 2022/23 season, the first time in the management history of commercial crab fishing in the BSAI (see Figure 1.4 for a summary of TAC issuance and fishery closures for recent crab seasons, through 2023/24). This follows a consistent declining trend and low Total Allowable Catch (TAC) levels in the BBR fishery over several years, with closure of the fishery for the 2021/22 and 2022/23 seasons; the fishery opened for the 2023/24 season with a historically low TAC of 2.15 million pounds. The sustained decline in the BBR fishery has been coupled with the recent collapse in BSS fishery, beginning with the record low TAC issuance for the 2021/22 BSS fishery, followed by closure for the 2022/23 and 2023/24 seasons.

The BSAI crab industry, dependent communities, and other stakeholders currently face the prospect of a prolonged period of income and employment loss as a result of trends and closures in these and other crab fisheries. The scope and scale of potential structural changes within the crab industry and extended community that may ultimately be precipitated by the immediate crisis are unknown and difficult to anticipate with any clarity. These emerging changes occur in the context of broader changes in the Alaskan fishery and seafood economy associated with both local resource conditions, domestic and international market conditions, and ongoing socio-political pressures. As noted above, most data sources used to compile this report are lagged by a year or more; as such,

<sup>&</sup>lt;sup>2</sup>Link to Groundfish Economic SAFE Report

the economic status of the BSAI crab fisheries, as represented by the array of metrics and indices contained in the 2023 edition of this report represent an economic benchmark of sorts, from which future changes may be anticipated, assessed, and ultimately measured.

Of the 10 crab stocks and 11 fisheries managed under the FMP,<sup>3</sup> seven fisheries were open to targeted fishing and were actively prosecuted during 2022, including the reduced BSS fishery, both the Eastern and Western Bering Sea Tanner crab (EBT/WBT) fisheries, both Eastern and Western Aleutian Islands golden king crab (EAG/WAG) fisheries, and, outside of the Crab Rationalization Program, both Norton Sound red king crab (NSR) and Pribilof Islands golden king crab (PIG) fisheries. The EBT fishery was reopened to targeted fishing for the 2022/23 season after several years of closure. The Bristol Bay red king crab (BBR) fishery has not been declared by the Council to be overfished, however, the Alaska Department of Fish and Game (ADFG) closed the fishery for the 2021/22 and 2022/23 seasons due to low survey abundance. The Saint Matthew blue king crab (SMB) fishery has been closed to targeted fishing by ADFG for the 2016/17 and subsequent crab seasons; in October, 2018, the Council declared the SMB fishery to be overfished and adopted a rebuilding plan in June, 2020.<sup>4</sup>. The Norton Sound red king crab (NSR) fishery was opened to targeted fishing and resumed active operations during 2022; although declared open by ADFG for the 2020 and 2021 seasons, the principal buyer of commercial NSR landings suspended purchasing from the fishery and the fishery did not operate during those years (ADFG, 2022). The Western Aleutian red king crab fishery (WAI) has been closed since 2003/04, and the Pribilof Islands red and blue king crab have been closed since 1999, and are both currently designated overfished.

Subsequent to the 2022 calendar year, Council and ADFG management has largely maintained the status determinations and fishery closures in place during that year, with two notable exceptions. With mature female biomass estimates for the Bristol Bay red king crab stock exceeding required thresholds in 2023, ADFG opened the BBR fishery to targeted fishing for the 2023/24 season, with a TAC of 2.15 million pounds. Although the BSS fishery opened for the 2021/22 season, with a sharply reduced TAC issued by ADFG, the fishery was subsequently closed by ADFG for the 2022/23 and 2023/24 seasons. <sup>5</sup> The EBT, WBT, EAG and WAG fisheries remained open for the 2022/23 and 2023/24 seasons, and both NST and PIG fisheries remained opened for 2023. Further information on TAC/GHL issuance for all FMP crab fisheries from 2005 to 2023 is provided in the body of the report (see Figure 1.4).

<sup>&</sup>lt;sup>3</sup>There are currently 11 distinctly managed fisheries on the 10 crab stocks managed under the FMP; catch allocations and other management elements are administered separately for the Eastern and Western components of the Bering Sea Tanner crab stock, and for the Eastern and Western components of the Aleutian Islands golden king crab stock, and the Pribilof Island blue and red king crab stocks are managed collectively as a single fishery. For fisheries characterized by a small number of participating entities, individual statistics where indicated in Table 1.1, and elsewhere in the report, are suppressed due to confidentiality restrictions; this includes most values for the Pribilof Island golden king (PIG) crab fishery and the Norton Sound red king (NSR) crab fisheries, and statistics for both Aleutian Islands golden king crab fisheries and both Bering Sea Tanner crab fisheries are reported in aggregate, respectively. Values that are indicated as suppressed for a specific fishery are also excluded from values reported in aggregate over multiple crab fisheries. Except where noted, the suppressed values are sufficiently small that they have minimal effect on the accuracy of aggregate information at the level of precision reported here.

 $<sup>^{4}</sup>$ Issued as Amendment 50 to the FMP by NMFS in October, 2020 (85 FR 71272)

 $<sup>^{5}</sup>$ As a result of the 2021/22 stock assessment, the Council declared the Eastern Bering Sea snow crab stock overfished on October 19, 2021. The Council took final action on a preferred alternative rebuilding plan for the BSS fishery at its February, 2023 meeting.

## 1.2 Report Card Metrics for the BSAI Crab FMP Fisheries, 1991-2023

The following economic report card, shown in Figures 1.1 through 1.3, provides a broad, FMP-level overview across crab fisheries as a whole (inclusive of non-CR program crab fisheries), employing a selection of economic metrics, covering the years 1991 to 2023 (or the longest time-series and most recent year for which data are available). The report card is intended to provide synthesis and historical context regarding the current economic status of the BSAI crab fishery by illustrating the scale and direction of change over time across a representative set of metrics. The metrics selected to comprise the following report card are intended to represent, collectively, four general dimensions of dynamic social and economic conditions of concern to FMP crab fishery managers and stakeholders: the scale of the fishery, in terms of volume and value produced, and effort and participation in the fishery, over time and relative to the broader fishery economy of Alaska; the efficiency of the fishery in terms of output and value relative to production inputs; the economic, distributional and demographic structure of the fishery; and the relative dependence of key stakeholders on the fishery. No single, succinct set of metrics can fully capture these dimensions, among others that could be emphasized, and the set of metrics selected for inclusion is expected to change somewhat between editions of the Economic SAFE report. The following fifteen metrics are included in this report card:<sup>6</sup>

- 1) Active crab vessels, measured as the number of distinct vessels that participated in one or more BSAI crab fisheries during the calendar year, which represents the level of fishing effort assigned to the fishery and the scale of participation in the harvest sector.
- 2) Ex-vessel pounds landed, which measures the scale of physical production in the harvest sector.
- 3) Total potlifts, which measures the scale of the fishery in terms of number of incremental units of fishing effort expended.
- 4) Pounds landed per potlift (weighted average over all potlifts), which represents the technical efficiency of fishing effort, in terms of volume of physical production (retained, landed catch) per unit of fishing effort.
- 5) Ex-vessel value, which provides a gross measure of the scale of aggregate economic value of production from the fishery and of gross economic returns accruing to the harvest sector.
- 6) Price index, calculated as the weighted average ex-vessel value per pound over all ex-vessel sales, which measures changes in the average market value per unit of production.
- 7) Crew labor payment, which measures total cost of fishing labor on crab vessels (including captain pay), and represents the scale of lay-share earnings paid to labor in the harvest sector (available for CR program fisheries only).
- 8) Deck crew pay per day, calculated as total deck crew (excluding captains) lay-share settlement earnings, divided by total individual crew days-at-sea aggregated across the fleet in all crab fisheries, measures average daily earnings per crew member, and a comparable index of daily wage for crab crew comparable to wage rates in other occupations (available for CR program fisheries only).
- 9) Crew labor payment as share of ex-vessel gross revenue, measured as the percentage (%) of aggregate gross ex-vessel revenue of crab landings paid to crab fishing labor, providing an

 $<sup>^{6}</sup>$ All monetary values in the report card (metrics 5 though 8, 13), as elsewhere in the Economic SAFE Report (unless otherwise noted), are inflation-adjusted to 2022-equivalent dollars using the GDP-chaintype price index https://research.stlouisfed.org/fred2/series/GDPCTPI.

index of the distribution of economic benefits from crab fisheries to labor (available for CR program fisheries only).

- 10) Quota lease royalty cost as share of ex-vessel gross revenue, measured as the percentage (%) of aggregate gross ex-vessel revenue paid as lease royalties for crab quota (IFQ and CDQ pounds), providing an index of the relative distribution of economic benefits to crab quota share holders and an approximate index of economic rents in the fishery (available for CR program fisheries only).
- 11) Crab ex-vessel revenue share, measured as aggregate ex-vessel revenue value of crab landings, divided by total annual ex-vessel revenues across all fisheries (including non-crab fisheries) received by vessels participating in the crab fleet during the year, providing an index of dependence of participating vessels on crab fisheries. Note that this metric excludes other sources of vessel income, including tendering and vessel charters.
- 12) Count of active crab processing plants, which represents changes in the scale and structure of the crab processing sector.
- 13) First-wholesale revenue, measured as total gross revenue from sales of all finished crab product, providing a gross measure of the scale of aggregate economic value of crab processing sector output.
- 14) Processing labor hours, which represents the scale of the fishery in terms of number of incremental units of crab processing labor input (available for CR program fisheries only).
- 15) Crab first wholesale revenue share, measured as aggregate gross first-wholesale value of finished crab product output, divided by total annual first-wholesale value of production across all fisheries generated by processors that purchased crab landings, providing an index of dependence of participating processors on crab fisheries.

To provide more discernible visual detail on the range of variation over the period following implementation of the CR Program, for each metric, the figure pairs a plot of the full time series shown on the left, depicting the metrics' value and range of variation over the longer term (with 2006, the first full calendar year of the CR program marked by the vertical green line), and a plot of the 2006-to-current period for each metric shown on the right (note that the units for the vertical axes in Figures 1.1 through 1.3 are defined in the label shown above each respective metric). Green horizontal lines in both sets of figures show the mean (dashed) and range of one standard deviation above and below the mean (solid) of the metrics' value calculated over the post-CR reference period, and the color of plotted points indicates values within- (black), above- (red), and below- (blue) one standard deviation of the reference-period mean.

The count of active vessels has shown a long-term, structural decline over the reference period, particularly since 2016, generally following the direction of inter-annual variation exhibited by the relatively more volatile ex-vessel pounds landed metric. With 80 vessels participating in BSAI crab fisheries during 2022, this metric increased from historical lows during 2020 and 2021 due to the influx of active vessels participating in the NSR fishery during 2022, after two years of effective closure; noting that the NSR fishery is designated super-exlusive (i.e., vessels participating in the NSR fishery are excluded from participation in CR fisheries), the influx offset a decline to a historical low of 51 vessels participating in CR fisheries during 2022. Ex-vessel pounds landed sharply declined to a historical low of 11 million pounds landed, more than two standard deviations below the long term average. Fishing effort, as measured by total potlifts (metric 3), declined sharply to a historical low of 131 thousand in 2022, concurrent with a similarly sharp decline in pounds landed per potlift (metric 4) to 86 pounds. This low level of efficiency of effort is similar to low historical values during the pre-rationalization period; however, in contrast to the harvesting efficiencies achieved during most of the post-rationalization period prior to 2022, the pre-rationalization period was

characterized by much higher effort levels as measured by counts of active vessels and total potlifts.

Ex-vessel value of BSAI crab landings (metric 5) declined to a historical low of \$94 million in 2022, after exhibiting an increasing trend beginning in 2018 and approaching the upper bound of the post-CR standard range during 2021. This reflected the sharp decline in production, which was only party offset by the historically high value of the ex-vessel price index (metric 6), which reached a historic high of \$8.24 per pound in 2022, following a sustained period of price index values at or near the upper bound of the historical range.

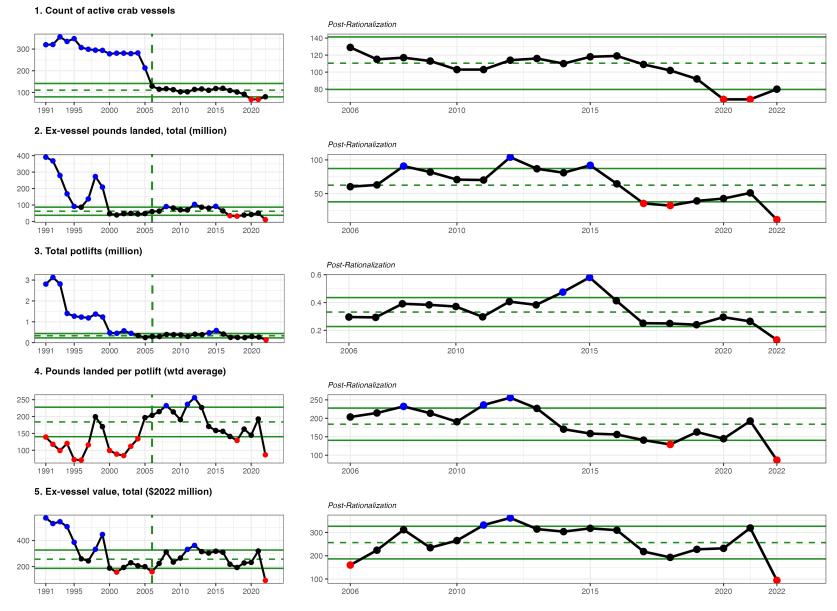
Crew labor payment (metric 7) corresponds closely to variation in the ex-vessel value metric, showing the same increasing trend from 2018 to 2021 when the metric approached the upper bound of the post-CR standard range, before plunging to more than two standard deviations below the period average, reaching \$17.6 million. Crew pay per day (metric 8) exhibited a somewhat more modest decline in 2022, similar in scale to the decline in production efficiency achieved by active vessels during 2022, falling from a relatively high level of \$2,400 in 2021 to a relative low of \$1,700; the relatively dampened effect was driven by the smaller number of participating crew as a result of fleet reduction in the CR fisheries. Crew labor pay as a share of ex-vessel value (metric 9) exhibited a moderate decline in 2022, indicating that the distribution of gross earnings toward labor continued the relative stability, within a narrow range of variation, observed since 2006. This occurred despite what were likely increased fishing costs in the 2021/2022 snow crab fishery associated with the extreme northerly spatial shift of fishing activity.

The distribution of ex-vessel gross toward QS holders, as measured by quota lease royalty costs as a percent of ex-vessel value (metric 10), declined somewhat more than crew labor share, but also remained quite stable during 2022. In contrast to crew labor settlements, which are typically paid on the basis of gross ex-vessel after deductions for fishing costs (e.g., fuel and provisions), quota lease royalties are typically paid as a direct share of ex-vessel receipts. As such, the relative stability of the royalty percent share indicator, observed for the crab fishery as a whole, is notable given the greater volume of leasing in the snow crab fishery due to fleet consolidation in 2022, and is likely the result of the greater proportion of golden king crab and Tanner crab landings in aggregate 2022 crab production, which are historically characterized by lower average lease rates than other CR program fisheries (see Figure 1.10 below). The concurrent decline in both crew and QS holder gross revenue share metrics equates directly to an increase in relative share of gross revenue accruing to vessel owners, averaged across all vessels and CR crab fisheries that were actively fished in 2022.

Crab ex-vessel revenue share (metric 11), representing the proportion of total annual ex-vessel revenues accruing to active crab vessels from all fisheries that were generated by crab fishing, has remained relatively stable over the post-CR period, but after a modest upward trend over the previous three years exhibited a sharp decline in 2022 to 82%. Again, this mirrors the change shown for gross ex-vessel value (metric 5) relative to the historical range of variation, but does indicate that active crab vessels did earn additional fishing revenue outside of crab fisheries during 2022. Note, however, that this metric does not provide any information regarding fishery earnings or condition of crab vessels that exited the crab fisheries during 2022.

Processing sector indicators demonstrate a similar pattern of historically extreme low values for 2022. The number of active plants processing crab landings (metric 12), which varied between 19 and 23 plants during the 2006 to 2013 period, has declined steadily since, reaching a historical low of 8 active plants during 2021, but increased to 10 plants in 2022 as a result of the NSR fishery resuming active fishing; this general decline suggests severe economic dislocation in dependent communities, and potentially a critical structural loss of processing capacity with implications for

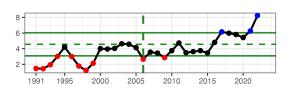
other fisheries. First-wholesale revenue (metric 13) declined sharply in 2022, reaching a historical low of \$118 million after the previous year's recovery from a four year period of relatively low values. Processing labor hours (metric 14) declined to a historical low in 2022, following a previous five-year period of sustained low values. Finally, crab first wholesale revenue share (metric 15), which has an average of 24% over the post-CR period up to 2020, increased to a time series high of 36% in 2021, reflecting the marked increase in crab product market prices during 2021, particularly relative to other seafood products. In 2022, this metric reversed the previous year's high, dropping to an extreme low of 10% for the time series.

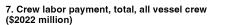


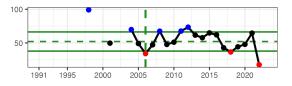
Note: See Figure 1.3 for footnotes.

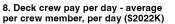
Figure 1.1: Report card metrics for BSAI FMP crab fisheries 1991-2022.

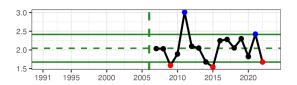
#### 6. Price index - wtd average, all ex-vessel sales (\$2022)



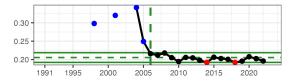




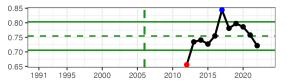


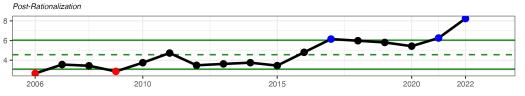


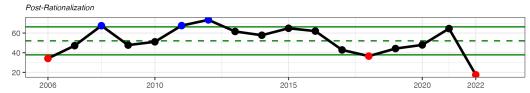
### 9. Crew labor payment as share of ex-vessel gross revenue (%)



### 10. Quota lease royalty cost as share of ex-vessel gross revenue (%)











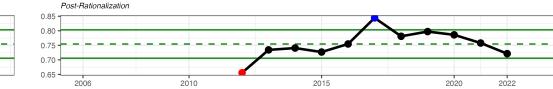
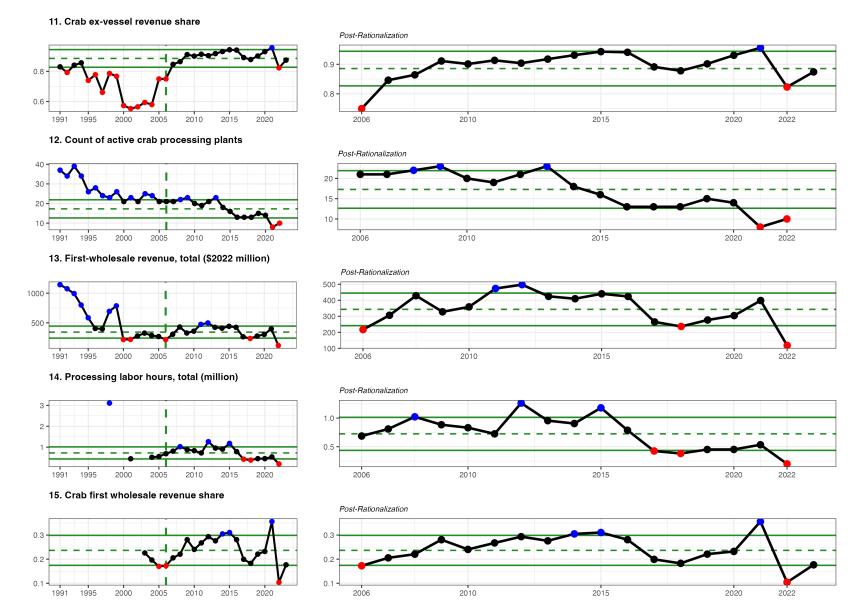


Figure 1.2: Report card metrics for BSAI FMP crab fisheries 1991-2022.

Note: See Figure 1.3 for footnotes.



Note: Green vertical line indicates the first full calendar year of implementation of the CR program. Green horizontal lines show the mean (dashed) and 1 standard deviation (solid) for the 2005-present reference period. Color of plotted values indicates values within (black), above (blue), and below (red) one standard deviation of the mean.

Figure 1.3: Report card metrics for BSAI FMP crab fisheries 1991-2022.

## 1.3 Summary Overview of Economic Status and Trends, BSAI Crab Fisheries

The following provides a summary overview of recent status and trends reported in detail within the main body of the Crab Economic SAFE Report, with figures and tabular summaries highlighting several key indicators of economic performance in the respective crab fisheries over the five year period ending with calendar year 2022, the most recent year for which primary economic data sources are available: gross volume and value of production; labor earnings and employment in CR program fisheries processing and harvesting sectors, including geographic distribution of harvest and processing sector employment and wages in the CR Program as a whole; and indices representing volume and value of lease transfers within the crab harvest quota lease market. Substantial additional detail on these aspects the economic status and performance is included in the full report, as well as additional content and analysis of: operating expenditures and indices of gross profitability in the harvest sector; crab harvesting and processing quota sale market activity and changes over time in crab quota holdings, quota entity ownership, and distributional aspects thereof; BSAI crab fleet composition, capacity, effort and efficiency; volume and value of U.S. imports and exports of king and Tanner crab product; and in a new section for 2023, nowcast estimates of ex-vessel prices and revenues by crab species, reporting through December, 2023.

As noted above, the economic metrics presented below through calendar year 2022 reflect the continued closure of the BBR fishery for the 2022/23 season, and the effects of the 90% TAC reduction in the BSS fishery for the 2021/22 season, for which fishing activity began in January, 2022, but excludes the subsequent closure of the BSS fishery for the 2022/23 season (see Figure 1.4 for a summary of TAC issuance and fishery closures for recent crab seasons, through 2022/23). As such, the results described below represent a five-year economic baseline of the Council's Crab FMP fisheries at the beginning of most extreme, currently ongoing economic and resource management crisis in the history of BSAI crab.

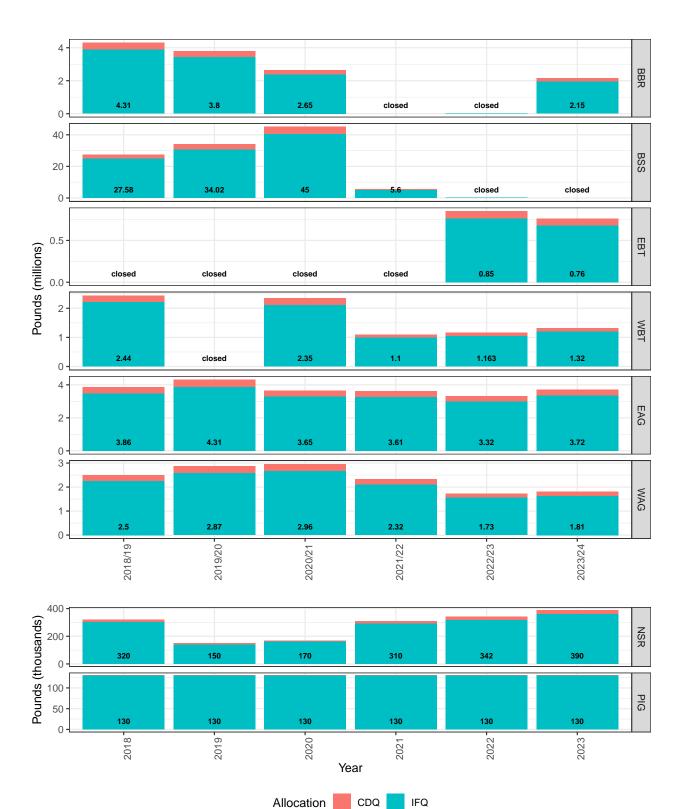


Figure 1.4: TACs/GHLs and management program allocations, BSAI crab fisheries

 $\label{eq:source} \textbf{Source} \text{ Numeric values indicate total TAC/GHL allocations (in millions or thousands of pounds) to directed fishing. All dollar values are adjusted for inflation to 2022-equivalent value.$ 

#### Fishery Production and Economic Value

The Bering Sea/Aleutian Islands (BSAI) crab fisheries managed under the FMP are currently (as of calendar year 2012) prosecuted by an active fleet of 77 catcher vessels and two catcher processors, and landed and processed at 10 processing facilities throughout the region. Across all fisheries managed under the BSAI Crab FMP during 2022, the total volume of ex-vessel landings was 11.1 million pounds (5.01 thousand metric tons (mt)), a 78% decline from the previous year. Processing sector finished production volume during 2022 was 7.2 million pounds (3.3 thousand mt) aggregated over all BSAI crab species and product forms, also declining 78% from the previous year. The effect of an aggregate decline in production volume across crab fisheries, combined with varying changes in market prices, produced an aggregate 73% decrease in ex-vessel revenue over all fisheries in 2022, totaling \$85.3 million for the year, and with aggregate first wholesale revenues decreasing by 73% to \$112.4 million.

Harvest and processing sector production statistics by crab fishery, including ex-vessel and first wholesale output, estimated revenue, and average prices are shown in Table 1.1 for calendar years 2018 through 2022 and summarized in Figure 1.5, with ex-vessel and first wholesale prices shown in Figure 1.6.

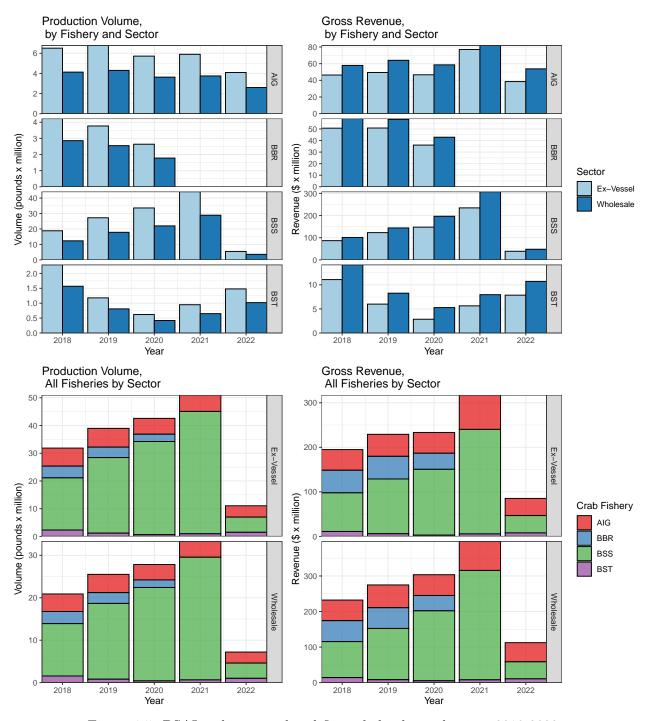
The overall decline in aggregate ex-vessel production during 2022 was driven mainly by the 83% decline in total catch landed in the BSS fishery, to 5.5 million pounds (2.5 thousand mt) in 2022, as well as the reduced landings in the AIG fishery, declining 31% to 4.1 million pounds (0.7 thousand mt). Similar to ex-vessel production, the 78% decline in 2022 processing sector output volume at the FMP-level was driven in the largest part by decreased production in the BSS fishery, with finished volume of 3.9 million pounds (2.0 thousand mt), declining 88% over the previous year, as well as a 31% decline in finished volume in the AIG fisheries, to 2.6 million pounds (1.0 thousand mt). The BST fisheries saw a 39% increase in landings in 2022, to 1.48 million pounds (670 mt), and a 57% increase in finished production volume, to 1.02 million pounds (461 mt).

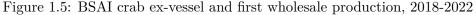
Among the unusual market dynamics arising from the global Covid-19 pandemic and evolving public health measures undertaken by various levels of government within the U.S. and internationally, global market values for premium seafood products, particularly shellfish, including Alaskan king and snow crab, surged beginning in late 2020. In broad terms, pandemic restrictions in most U.S. states beginning in mid-2020 reduced consumer access to restaurants and other food service outlets, while federal income support payments increased disposable incomes for many households, stimulating consumer demand for retail sales of premium seafood products that could be prepared and consumed at home. In contrast to most commodity seafood products oriented toward various food service sectors, units of frozen king and snow crab clusters packaged for food service could be more readily redirected toward retail warehouse outlets (e.g., Costco), facilitating conversion to retail market distribution throughout much of the first two years of the pandemic, during which consumer demand drove prices to unprecedented levels beginning in late 2020 through early 2022, followed by a declining trend beginning mid-2022.

As a result, ex-vessel and first-wholesale price records were set across all BSAI crab fisheries that were open to commercial harvest during 2021, and again in 2022 for the BSS fishery, but with the mid-year reversal in trend resulting in moderate declines in average prices over the year for the AIG and BST fisheries during 2022 (Figure 1.6). This period of record high market values notably excluded Bristol Bay red king crab, which closed for the 2021/22 and 2022/23 seasons, after a historically low TAC in 2019/20. Opening of the BBR fishery for 2023/24 comes amid indications

of strong ex-vessel price for king crab landings, though somewhat reduced from the 2021 peak (see Figure 4.17 of the full report).

As usual given the relative scale of the BSS fishery, the production-driven decline in gross revenues in both sectors, to \$38.9 ex-vessel (-83%) and \$47.9 first wholesale (-84%), drove the overall decline in 2022 earnings. Ex-vessel revenues in the AIG fisheries declined 50% from 2021, to \$38.5 million, and by 34% in the processing sector, to \$53.8 million. Ex-vessel revenues in the 2022 BST fisheries increased by 39% to \$7.9 million, and by 29% in the processing sector, to \$10.7 million.





**Note** (a) Revenue, (b) Volume, and (c) Weighted Average Price, 2018 - 2022; gross revenue and production volume by sector are presented in the upper pair of panels by individual crab fishery for comparison of within-fishery variation over time, and summarized over all fisheries in the lower panels to illustrate the variation in aggregate values and relative contribution of each fishery over time. Figure does not display information for NSR, SMB, and PIG fisheries due to confidentiality. All dollar values are adjusted for inflation to 2022-equivalent value. See Table 1.1 footnotes for details. The BBR fishery was closed for the 2021/22 season, the Eastern portion (EBT) of the BST fishery was closed for the 2016/17 through 2021/22 seasons, and the Western portion (WBT) of the BST fishery was closed for the 2016/17 and 2019/20 seasons.

Source ADF&G fish ticket data; eLandings; CFEC ex-vessel pricing; ADF&G Commercial Operator's Annual Report (COAR) data; NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

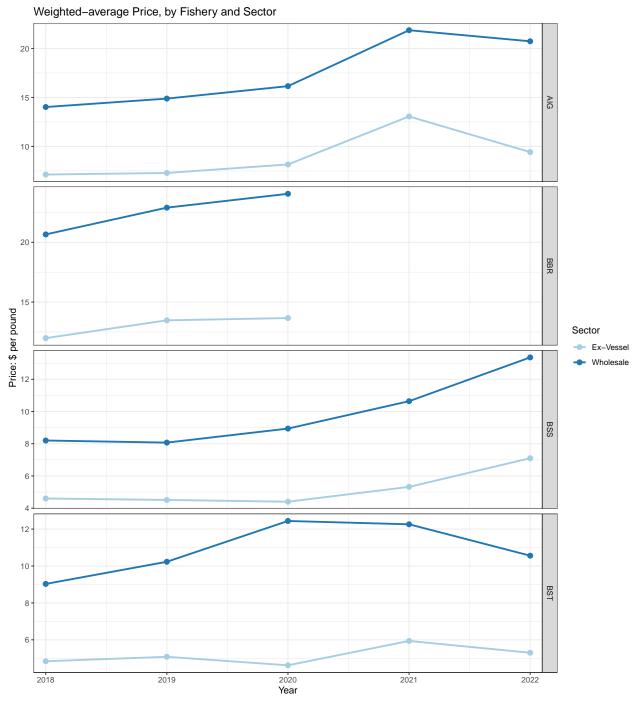


Figure 1.6: BSAI crab ex-vessel and first wholesale price, 2018-2022.

**Note** Ex-vessel and First Wholesale Weighted Average Price, 2018 - 2022. All dollar values are adjusted for inflation to 2022-equivalent value. See Table 1.1 footnotes for details. Figure does not display information for NSR, SMB, and PIG fisheries due to confidentiality.

**Source** ADF&G fish ticket data; eLandings; CFEC ex-vessel pricing; ADF&G Commercial Operator's Annual Report (COAR) data; NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

#### Employment and Income

A summary of employment and labor income indicators from the most recent employment data available for Crab Rationalization (CR) program fisheries is provided in Table 1.2 and depicted graphically in Figure 1.7, reporting results through calendar year 2023.<sup>7</sup>

During 2022, 79 vessels actively operated in one or more BSAI FMP crab fishery, increased from the historically low level of vessel participation at the FMP-level from the previous year; this increase in the number of vessels reflects the effective reopening of the NSR fishery during 2022, which is prosecuted by a distinct fleet from those participating in CR fisheries. Within CR program fisheries during 2022, however, only 51 vessels were active, a substantial decline from 67 vessels during 2021 to establish a new historical low. This 23% contraction in the fleet is relatively small compared to the 78% reduction in 2022 catch volume noted above. Of the 51 vessels active, the AIG fishery remained constant at five (four of which solely operate in AIG fisheries), while participation in the BSS fishery declined to 47, and vessels actively fishing in the 2022 BST fisheries increased slightly, from 20 to 21.

Based on the number of crew onboard participating vessels during each fishery (averaged over crew size values reported in eLandings catch accounting records for crab vessels), there were an estimated 476 crew positions in aggregate across all 51 vessels in CR fisheries during 2022, a 25% decline from the previous year, the lowest number of crew positions reported in CR fisheries to-date.<sup>8</sup> The number of distinct individuals employed as crew or captains on crab vessels operating in CR fisheries, as identified by crew license and CFEC operator permits reported in EDR data (Table 1.4), fell to 353 in 2022, a 31% decline from 511 in 2021, a new low for the number of individuals employed on-board crab vessels in the history of the CR program.

<sup>&</sup>lt;sup>7</sup>BSAI Crab Economic Data Report (EDR) data are collected for CR fisheries only. The NSR and Pribilof Island golden king (PIG) crab fisheries are managed by the State of Alaska under the FMP, but are not included in the CR program.

<sup>&</sup>lt;sup>8</sup>Regarding the 'All CR' aggregate values reported in Table 1.2, note that the count of vessels indicates the total number of distinct vessels operating in one or more crab fishery, while 'All CR' values reported for number of crew positions treats positions on a given vessel as distinct between fisheries, such that the a given crew position on a vessel is counted separately for each fishery in which the vessel operated.

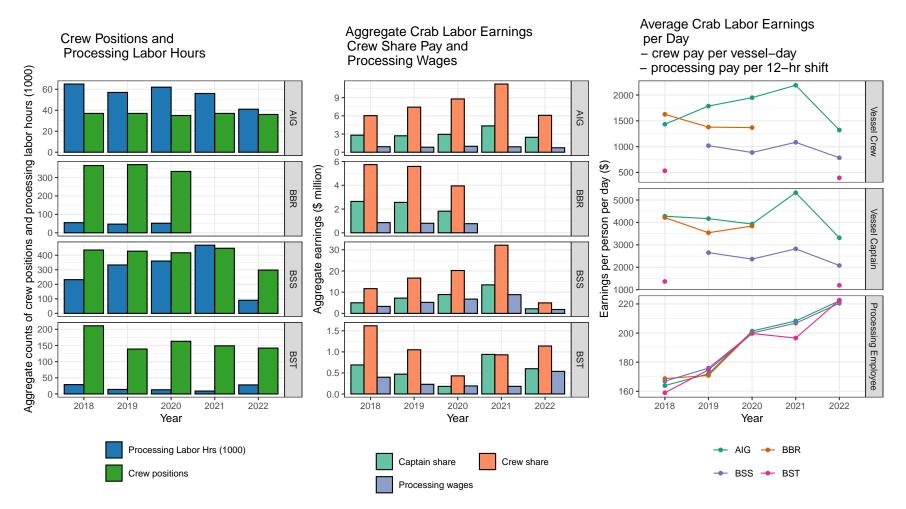


Figure 1.7: Harvest and processing employment and compensation, selected crab fisheries, 2018-2022.

Note All dollar values are adjusted for inflation to 2022-equivalent value. See Table 1.2 footnotes for details.

Source ADF&G fish ticket data; eLandings; CFEC ex-vessel pricing; ADF&G Commercial Operator's Annual Report (COAR) data; NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

Across CR fisheries in 2022, revenue-share payments to crab vessel crew members as a group totaled 12.2 million, with an additional 2.2 million paid to vessel captains, both declining by 72%. Aggregate crew and captain earnings in the BSS fishery each declined by 84%, to 4.6 million and 2.2 million, respectively. Aggregate crew earnings in the AIG fishery during 2022 declined by 46% to 6.1 million, and captain earnings declined by 43% to 2.5 million. Earnings in the BST fishery increased by 23% for crew members, to 1.14 million, while total captain labor earnings across the 21 active vessels declined by 36% to 600 thousand.

The number of active processing plants receiving deliveries from CR program crab fisheries also continued a long declining trend in 2022, falling to just five, the lowest number in the history of BSAI crab fisheries (compared to 19 active plants in CR fisheries as of 2006). Crab processing employment in 2022, as measured by hours of processing labor input at plants that received IFQ and CDQ crab landings, is estimated at 200 thousand labor hours, a 63% decline from 2021. Aggregate wages paid to crab processing line employees across all CR fisheries during 2022 declined by the same proportion, to \$3.8 million. The BSS fishery accounted for the largest share of processing labor hours and wages in 2022, at 131 thousand hours and \$2.5 million. Based on number of processing labor hours and wage payments in each CR fishery reported by crab processors, average hourly labor earnings over all CR fisheries in 2022 increased for a fourth consecutive year, by 9% to \$18.73 per hour.

The geographic distribution of employment and labor income in the crab harvest and processing sectors is critical to assessing associated economic effects of the current crab fishery closures on communities. Figure 1.8 and 1.9, and Table 1.4 and 1.5 report statistics for CR program harvest and processing sector employment and labor earnings, respectively, broken out by community or region of residence<sup>10</sup> for vessel crew members and processing workers, for 2018 through 2022. Statistics reported include counts of individual crew members (including captains) and processing employees by location of residence, the share (percentage) of total employment in the respective pools attributable to each location of residence, and the estimated amount of labor income flowing to communities/locations (see table notes for Tables 1.4 1.5 for details on data sourcing and computation methods for reported values). In order to show geographic distribution for Alaska residents in greater detail, Figures 1.8 and 1.9 include results across all community locations, with Alaska represented at the state level, and Alaska community-level results in a separate panel, broken out by individual Alaska community/region.

Over the 2018 to 2022 period, Alaska and Washington have alternated between first and second largest state-level source for crab fishing crew members, with Alaska residents averaging a 34% share of crab crew employment over the period, and Washington state residents averaging 39%. In 2022, 108 Alaska residents and 119 Washington state residents were employed as crew or captain on crab vessels during 2021, 31% and 34% of the 2022 crew labor pool, respectively, and accounting for an estimated \$5.52 million and \$5.58 million labor settlement earnings from 2022 crab fishing. Below state-level aggregates, the Seattle MSA represents the single largest source of residents employed

<sup>&</sup>lt;sup>9</sup>In addition to revenue-share payments, income is derived by some crew and many captains from royalties for harvesting quota shares held, either as initial issuance or more recent acquisition by either captain or crew. While this may become an increasingly important source of income as crab captains and crew members lose opportunities to participate in the fishery due to fleet contraction, there is no evidence to date that the proportion of CR fishery quota share pools held by crab crew members has changed in recent years, following a small amount of consolidation occurring during the initial years of the program. See Section 3.4 of the report for details and trends in QS sale transfer activity in the crew and owner QS pools.

<sup>&</sup>lt;sup>10</sup>Individual communities of residence are grouped by region where necessary, at the highest level of geographic detail that maintains data confidentiality.

as crab crew, averaging 20% of the labor pool per year over the five-year period, and with 72 crew members employed in 2022, accounting for \$3.04 million in crew labor earnings. Within the state of Alaska, Kodiak Island represented the single largest share of crab crew members as residents over the period, averaging 8% of the crab crew labor pool, but was surpassed by the Anchorage MSA in 2022, with 24 and 28 resident crew members each, 7% and 8% of the crew labor pool, respectively. However, as in previous years, Anchorage MSA-resident crab crew members accounted for substantially greater earnings in 2022, totaling an estimated \$1.66 million in 2022, compared to \$820 thousand in estimated earnings received by the slightly smaller number of Kodiak Island residents crewing in CR crab fisheries during the year, likely indicating that Anchorage residents collectively worked on vessels that accounted for a larger share of total crab landings and ex-vessel value during 2022.

The relative effect of fleet contraction on reduced employment and earnings at the community level is difficult to capture without consideration of the broader context of the degree of dependence of the affected communities and crew members on the crab fishery. With that caveat, the data reported above provide the basis for some comparison. Compared to an average 32% proportional decline in employment across all community groupings in 2022, Oregon communities (as a whole) other than Lincoln County saw the largest proportional decline in crab crew employment, declining 61% from 41 crew members in 2021 to 16 in 2022. This was followed by the Kodiak borough, which declined by 44% from 43 residents employed in 2021 to 24 in 2022.

In the processing sector during 2022, the state of Alaska accounted for the largest state-level share of individuals employed on crab processing lines, with 477 of a total 1,399 employees, representing 34%of the total 2022 labor pool population. This represented something of a shift from previous years, in which residents of locations other than Alaska, Oregon and Washington (including non-U.S. residents) represented the marginally largest share of the processing employee pool, averaging 34% of the pool over the 2018 to 2022 period, compared to an average for Alaska of 27% over the period. Alaska residents accounted for an estimated \$702 thousand in processing line wages earned in 2022. At 24% of a total \$2.9 million in 2022 processing line wages, Alaska residents accounted for a relatively smaller share of gross wages than of total processing line positions. This contrasts with other regions that received a relatively greater proportion of wages than positions, particularly Washington, which averaged a 5% differential between employment share and wage share (noting that this is an estimated effect over all crab processors, not indicative of any hourly wage differential between individual Alaska-resident and -nonresident employees). California has consistently declined in relative share of processing employee residence over the period, from 33% in 2018 (when it was the largest state/multi-region labor source) to 18% in 2022. Residents of Washington and Oregon averaged 14% and 1% of the processing labor pool over the period. Within the state of Alaska, Unalaska/Dutch Harbor represented the largest share of processing employees as residents, comprising 19% of the labor pool on average over the period, and 29% in 2021, with 412 individual residents employed in crab processing. This accounted for an estimated \$551 thousand in processing wages paid to Unalaska and Dutch Harbor residents, a 49% decline from the previous year. Anchorage MSA and Kodiak Island represented 2% and 3%, respectively, of the labor pool on average over the period, although Kodiak declined to less that 1% of the pool in 2021 and 2022, with only one Kodiak resident reported by crab processors, compared to 26 Anchorage MSA residents (2%) employed in 2022.

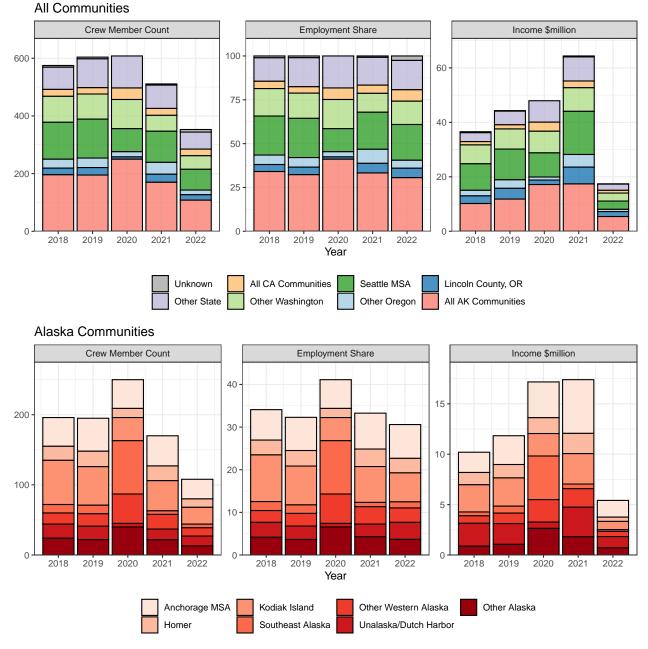
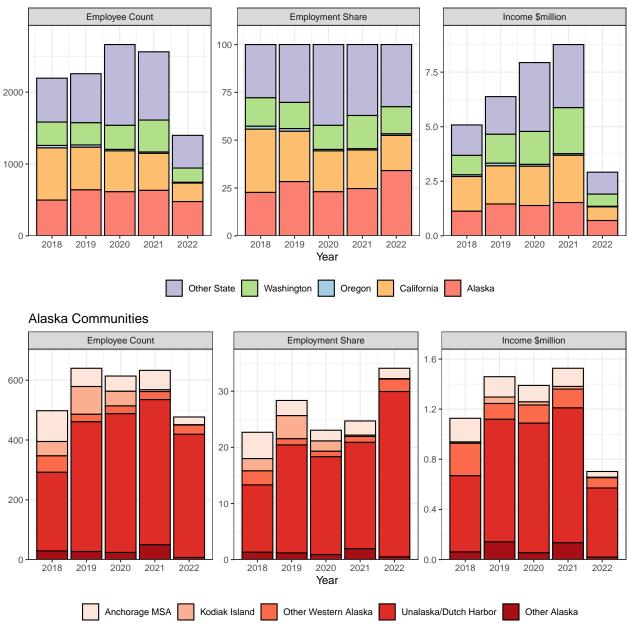


Figure 1.8: CR fisheries program - estimated crew employment and income, by community/region of residence.

Note Tabular data shown in Table 1.4.



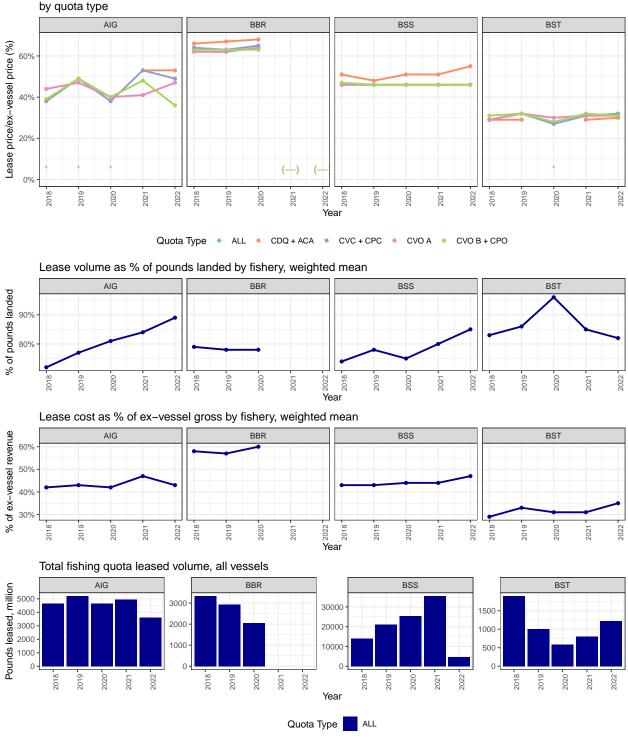
All Communities

Figure 1.9: CR fisheries program - estimated processing labor employment and income, by community/region of residence

Note Tabular data shown in Table 1.5.

#### IFQ Leasing

Summary indicators reporting on crab quota leasing activity are presented in Figure 1.10 and Table 1.3 for the 2018 to 2022 period. Results pertain to the segment of active crab vessels that participated in lease markets for the respective fisheries and quota types, noting that a segment of the fleet (approximately ten vessels per year) harvests only quota held by the vessel owner. Quota types are categorized as the following: catcher vessel owner (CVO) Class A IFQ ("A share"); catcher vessel owner Class B IFQ and catcher/processor owner (CPO) IFQ (B share); catcher vessel crew IFQ and catcher/processor crew IFQ (crew share), and Community Development Quota (CDQ). Indicators shown in Figure 1.10 include weighted average statistics for lease rates (lease price as percentage of ex-vessel price), and lease market total and vessel-level mean and median volume (pounds) and royalty cost of leased quota. As indicators of the scale of quota lease transfer, leased pounds as a proportion (%) of total pounds landed and lease cost as a proportion (%) of total ex-vessel gross revenue are calculated over all crab landings for the respective fishery, inclusive of landings by non-leasing vessels.



## Average lease rate (lease price as % of ex-vessel price), vessel median, by quota type

Figure 1.10: Crab harvest quota lease market indicators, selected crab fisheries, 2018-2022. Note All dollar values are adjusted for inflation to 2022-equivalent value. Asterisks indicate confidential data that are not plotted.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database. See Table 1.3 footnotes for details.

Most vessels active in CR program fisheries lease harvest quota for at least some portion of the crab that they catch and deliver to processors for ex-vessel sale (or, for catcher-processors, process onboard), while a segment of the fleet in the respective fisheries does not participate in the lease market, landing only harvest quota held by the vessel owner or otherwise not requiring royalty payment to QS holders. Through the end of 2021, the numbers of active vessels not reporting any quota leasing have remained quite consistent over time, at 1-2 AIG vessels per year, and varying between 10 and 12 vessels per year in the BSS and BBR fisheries; participation in BST quota leasing is more variable, from all 30 vessels with BST landings in 2018 reporting leased quota costs, to 17 out of 25 vessels active in the fishery during 2021. Of the 42 vessels active in the BSS fishery in 2022, 35 reported leasing one of more types of quota, and 17 of 21 vessels active in the BST fishery reported quota leases.

With substantially increased fleet consolidation in the BSS and BST fisheries during 2022, lease activity and quota consolidation exhibited substantial changes from the relatively stable conditions that have predominated over the previous several years. As a proportion of total pounds landed in the 2022 BSS fishery, and aggregating over all quota types, leased quota represented the highest proportion of total ex-vessel pounds landed in the available time series, increasing to 85% from 80% in 2021 and 75% in 2020. Aggregate lease costs as a share of total ex-vessel gross value of BSS landings increased to 47% in 2022 from a more consistent range of 43% to 44% over the previous four years. Weighted average lease rate, i.e., the share of ex-vessel value per pound landed paid as quota lease royalty, increased slightly in the BSS fishery in 22022, from 46% to 47% over all quota types, and with CDQ lease rate showing a greater increase, from 51% to 54%. In the BST fishery, leased quota represented 82% of total pounds landed in 2022, declining from 85% in 2021 and 96% in 2020, while lease royalty costs increased from 31% to 35% of aggregate ex-vessel value, and average lease rate increased from 31% to 35%. Somewhat in contrast, while the proportion of pounds leased increased in the AIG fishery in 2022, from 84% to 89%, the average lease rate declined substantially, from 47% to 41%, and aggregate lease costs declined as a percentage of ex-vessel value, from 47% in 2021 to 41% in 2022.

### 1.4 Analysis of Crab Quota Share Pools

In the design of the three-pie quota share system that comprises the core component of the CR program, the Council and NMFS created and allocated a relatively novel set of durable, transferable assets. Notwithstanding the formal designation of CR program Quota Share (QS) and Processor Quota Share (PQS) as granting revocable privileges rather than property rights, in principal, the market value of crab QS and PQS pools substantially capitalizes much of the expected stream of future economic rent value of the crab fishery resource (Holland, et al., 2015). Among other management imperatives expressed in its' Crab FMP, by specifying and continually amending a comprehensive system of regulatory controls that govern and constrain the eligibility to hold, transact in the sale or purchase of, and exercise use privileges of CR Program QS and PQS, the Council has demonstrated its interest in managing various distributional aspects of crab QS and PQS pools. Changes over time in the demographics of quota share pools, the composition of equity ownership of QS/PQS-holding entities, concentration of QS/PQS holdings, changes in QS/PQS market values, and other distributional factors and outcomes, are important dimensions of the management performance of the CR program and of the economic status of the crab fishery and affected stakeholders and communities.

The recent and ongoing closures of both the BBR and BSS fisheries, uncertain prospects for stock recovery and timelines for resumption of targeted fishing, and limited ability for crab vessel owners and processors to diversify into other fisheries and income streams, present an unprecedented crisis for crab fishery stakeholders. In addition to direct and indirect effects of income and employment losses on individuals and communities associated with the immediate crisis, the potential for prolonged low to negative cash flow for many crab vessel owners, quota holders, and crab fishery-dependent processors (particularly recent, more debt-encumbered ownership entrants) poses the potential for broad structural changes in the crab industry, including structural turnover and consolidation of QS/PQS ownership. Improved data and methods for monitoring the status of QS and PQS pools is critical effective and transparent evaluation of CR program performance, particularly with respect to National Standard 4.

#### Distribution of Quota Entity Ownership and Holdings in CR Program Harvest Quota Share Pools

Although CR Program QS and PQS holder registries are public information,<sup>11</sup> most PQS and CVO/CPO (vessel owner) QS is held by corporate entities, many of which were chartered specifically for the purpose of holding assignment of their owners' QS/PQS assets. This presents a significant barrier to effectively monitoring and analyzing comprehensive changes in various aspects of crab quota pools: QS entities are not mutually distinct, with a network of ownership interests that cut across multiple entities, and the ownership and equity distribution of a given QS entity can change independently of the amount of QS the entity holds. In contrast, eligibility to hold CVC/CPC (crew) QS (comprising only 3% of the overall QS pool) is limited to natural persons. As such, more transparent monitoring and analysis of the distribution of ownership within crab quota pools, and changes in ownership composition over time, requires decomposition of the ownership of each corporate (non-individual) QS entity according to its constituent, individual owners' equity shares. In principal, this enables identification of 100% of the fractional QS shares in each QS pool with distinct, individual (non-divisible) persons through all direct and indirect ownership interests.

Figures 1.11 through 1.15 display the results of QS entity decomposition, performed using annual QS holder account registries, and confidential equity share data reported by each QS entity in annual permit applications for issuance of IFQ pounds submitted to NMFS Alaska Region.<sup>12</sup> Figure 1.11 illustrates the number of distinct individual CVO/CPO QS entities identifiable in the annual public registries for each of the six principal CR fisheries, compared to the number of distinct, non-divisible owners, and the change of both from 2005 to 2022. The population of QS entities is comprised mostly of corporate entities (corporations, LLCs, Partnerships), with smaller numbers of CDQ groups and individual persons.

At the QS entity level, the BBR, BBS, EBT/WBT<sup>13</sup> pools are nearly identical in structure and fairly static over time. In 2006, there were 222, 209, and 225 corporate entities in each pool, and 30, 27, and 28 individuals, respectively. As of 2022, there were 200, 214, and 187 corporate entities, and 35, 48, and 36 individuals, respectively. In contrast, the EAG and WAG pools are distinctly

<sup>&</sup>lt;sup>11</sup>NMFS Alaska Region publishes annual CR Program QS and PQS Holder registries, annual IFQ/IPQ permit issuance, and other CR permit registries on its website; see https://www.fisheries.noaa.gov/alaska/commercial-fishing/permits-and-licenses-issued-alaska.

<sup>&</sup>lt;sup>12</sup>NMFS Annual Crab IFQ/IPQ Permit application forms are available online at here. Data curation and decomposition analysis is performed by Alaska Fisheries Information Network (AKFIN) staff; see Section 3.4.3 of the Economic SAFE for more detail.

 $<sup>^{13}</sup>$ The Bering Sea Tanner (BST) QS pools were initially issued for a consolidated fishery, but were split into EBT and WBT for the 2006/07 season, and all BST QS holders received equivalent QS shares in the respective fishery. Consequently, throughout most of the management history, the two pools are virtually (though not exactly) identical, and will be referenced collectively in this discussion as EBT/WBT.

different in structure, with much smaller populations commensurate with the small number of vessels in these fisheries historically. Both EAG and WAG pools started with 14 corporate and one individual holders in 2005; as of 2022, the WAG pool was comprised of 14 corporate and 8 individual holders, compared to 9 corporate and 2 individual EBT QS holders.

Results of entity decomposition using available equity share data, shown in the right panel of Figure 1.11, identifies a much larger number of distinct individual persons, as well as somewhat more dynamically varying population in the respective pools.<sup>14</sup> Between 2007 and 2022, the number of distinct individuals in the BBR pool has varied between 394 and 456, peaking in 2014, and the EBT/WBT pool has followed the same pattern with slightly fewer (5-10) individuals, while the number in the BSS pool has varied between 341 and 416, on average about 8% fewer than in the BBR pool. Collectively the EAG and WAG pools have varied between 17 and 38 individual owners over the period.

The number of non-divisible corporate entities remaining in the decomposed results for each of the EAG and WAG pools has varied between 0 and 1 since 2008. In the BBR, BSS, and EBT/WBT pools, non-divisible corporate entities increased from just below 20 in 2007 to 80 in 2008, then declined to the low-70s in 2014. This dropped to eight or fewer across pools in 2015, and as of 2022, stands at five each in the BBR and EBT/WBT pools and four in BSS. The elevation in the number of corporate entities from 2008 to 2014 was attributable to the indirect entry of a number of corporate (functionally non-divisible) investment-fund shareholders through incidental acquisition of minor equity interest in a small number of QS entities. As discussed below, this did not translate to a significant effect in the distribution of QS shares.

Within the vessel owner QS pools at initial issuance, there were two CDQ groups registered as QS entities in each of the BBR, BSS, and EBT/WBT pools, and one in each of the EAG and WAG pools. By 2008, this had increased to four and two, respectively, which has remained constant through 2022, with the exception of a fifth CDQ group entering the BBR, BSS, and EBT/WBT pools as a registered QS entity as of 2012. In the decomposition results, the number of CDQ groups identified as owning equity in QS holdings in each of the BBR, BSS, and EBT/WBT pools peaked at seven from 2008 through 2014, during which time four CDQ groups were registered QS entities and three additional groups held indirect, equity interest in the respective QS pools. As of 2020, five CDQ groups held interest in the BBR and EBT/WBT pools, and six in BSS, increasing to 40 in 2022. In brief, this is the result of entry of a new QS entity, owned by a consortium of 40 Western Alaska community non-profit organizations, holding QS shares purchased with CDQ group collaboration.

In addition to individuals, CDQ and associated community-based non-profit organizations (CDQ/Non Profit), and corporate owners in the decomposed results, a number of equity owners are non-divisible legal trusts and estates, none of which appear in the public registries of direct QS holding entities. Notably, the number of trust/estate entities holding equity in the BBR, BSS, and EBT/WBT pools has approximately tripled since initial issuance, growing from approximately 20 in each pool in 2006, to 60 or more as of 2022.

Figure 1.12 displays the change over time in the distribution of decomposed equity interest in QS pools by owner type: Individual, CDQ/Nonprofit, Corporate, Trust/Estate; where available equity interest does not sum to 100% for a given QS entity, the residual percentage of QS shares is

 $<sup>^{14}</sup>$ Note that the initial increase in number of individuals and offsetting decline in number of corporate owners from 2005 to 2006 across fisheries is partially an artifact of data quality limitations in the available equity share data for ownership of QS entities that were resolved by 2007)

assigned to Unknown. As noted above, data quality in the initial two years of the data series limits the completeness of the decomposition, and results shown for 2007 and later are more reliable for comparison across time.

Over the same period when the number of trust/estate entities tripled, the percentage of equity in QS pools collectively held by this owner category has more than tripled, from less than 2.5% in each of the pools in 2007, to nearly 10% in the BBR and EBT/WBT QS pools and 8% in the BSS pool in 2022. In addition to the increase in the proportion of equity in QS share pools held by trust/estate entities, CDQ groups and associated non-profit equity interest has approximately doubled over the post-CR period in the BBR, BSS and EBT/WBT pools, from approximately 12% each in 2007, to approximately 23% in BBR and EBT/WBT and 24% in BSS. CDQ ownership in the EAG pool varied little over the long term, starting at 31.5% in 2006, peaking at 36% in 2008, and returning to 31.5% as of 2022, while CDQ/Non-profit equity in the WAG pool gradually increased from 9% in 2007 until 2013, when it increased from 15.5% to 61.2% of the QS pool, remaining at that level through 2022.

The collective increase in equity interest in crab QS pools held by CDQ/Non-profit groups and trust/estate entities has been offset by the decline in equity held by individuals and non-divisible corporate entities. As noted above, the sharp decline in corporate equity between 2005-2006 and 2007 shown in Figure 1.15 is largely a data quality effect. However, as of 2007, corporate equity share remained at approximately 4% across the BBR, BSS, and EBT/WBT pools, from which it has gradually tapered to 1% or less as of 2022. Individual-owned equity in these pools has declined over the same period from approximately 80% of each to 67% as of 2022.

Collectively, this represents a shift to-date in the BBR, BSS and EBT/WBT vessel owner QS pools of approximately 16% of the equity interest held by individuals and corporate owners, to trust/estate entities and CDQ/Non-profit organizations. Figure 1.13 displays a visual depiction of distinct, decomposed equity holdings in the BBR, BSS, EAG, and WAG QS pools held by the populations of distinct owners, distinguished by individuals and non-individual entity types, in 2007 and 2022. This figure<sup>15</sup> combines the owner count information shown in the right panel of Figure 1.11 with the distribution of equity by owner-type shown for QS share pools in Figure 1.12, indicated by the number and color of tiles within a plot, respectively. In addition, the size of individual tiles indicates the relative size of distinct, decomposed equity holdings that are constrained by (i.e., equal to or larger than) QS use caps applicable to the respective entity types.<sup>16</sup>

With respect to the types of owners as categorized here, Figure 1.13 provides an integrated view of the structure of ownership and relative distribution of distinct, decomposed units of QS holdings, within and between owner categories and QS pools, over time (note that EBT/WBT pools are not shown). As of 2007, there was one corporate entity in the BBR pool constrained by QS use caps, and four individual owners with QS shares in excess of the use cap; as of 2022, there were four capped individual owners and one CDQ group, whereas in the BSS pool, there were five capped individual holders and one capped CDQ group. <sup>17</sup> A generally similar transition has occurred in the BSS QS pool; in both cases, only one large "Individual" holding in excess of the use cap remains in 2022, and otherwise, no obvious indication of a distributional shift toward or away from increased consolidation within the "Individual" segment of the owner population. In contrast, all

<sup>&</sup>lt;sup>15</sup>Treemap figure generated using R package 'treemapify'; Wilkins and Rudis (2021).

 $<sup>^{16}\</sup>mathrm{QS}$  and IFQ use caps are specified at 50 CFR 680.42 here.

<sup>&</sup>lt;sup>17</sup>The smallest tiles in each plot shaded to indicate constrained status under QS use caps are generally indicative of the cap-limit; larger shaded tiles are associated with initial issues with exempted status under use cap limits.

of the original CDQ groups have increased their holdings substantially, while roughly maintaining the relative distribution of their original holdings. The recent entry of a new CDQ-associated QS holder, owned by a consortium of smaller community-based non-profit entities, is shown in the figure grouped with the CDQ/Non-profit; not formally a CDQ group and subject to the lower QS cap that applies to individual QS holders, the organization of smaller equity interests demonstrates the potential for community-affiliated acquisition of QS beyond use cap limits, and the structural effect on the ownership pool that results. Similarly, the increase in the number of trust/estate-owned QS holdings, and the increased size of the largest such holdings, appears to be a relatively pronounced structural change in the BBR and BSS pools (with similar results in the EBT/WBT pools, not shown). Although no single trust/estate-owned QS holding has reached the 1% use cap for individual QS, the growth of this segment QS ownership structures likely represents, to some degree, conveyance of equity in initial issuance QS holders, some of which may have been capped, from the original owners to beneficiaries of their estates; however, this is obscured by the non-public nature of this type of legal entity.

#### Active/Inactive QS Ownership

Figures 1.14 and 1.15 report on trends and current (as of 2022) status of CVO/CPO QS pools with regard to the degree of joint interest in QS pools and active crab fishing vessels, using QS and crab vessel ownership decomposition results. For the purpose of this analysis, "Active QS owner", in a given QS pool during a given year, is defined as a distinct QS equity owner that meets at least one of the following conditions during the year that QS is owned: 1) held ownership interest in a vessel that made landings in any CR program crab fishery during the year of QS ownership, or 2) participated in the IFQ crab fishery as a crab vessel gear operator. By extension, "Inactive QS owner" is defined as as a distinct QS equity owner that does not meet either of these conditions. Note that this method of characterizing "Active" is implemented for this analysis solely for the purpose of illustrating an additional distributional dimension of QS holdings that is facilitated with QS decomposition data. This is not a formal eligibility criteria for QS holders defined in CR program regulations, and these results are not intended to assess compliance with CR program quota management rules. Also note that this analysis is applied to CVO/CPO QS pools, and has no bearing on active participation requirements applying to CR Crew (C) share holders under 50 CFR 680.40-680.44.

Figure 1.14 reports the number of distinct owners in each QS pool over time, distinguishing between the number of owners meeting the respective "Active" conditions gear operator and vessel owner, the number meeting either condition, and the count of "Inactive" QS owners. As in the previous discussion, trends and status of active ownership are similar between BBR, BSS, and EBT/WBT pools. Active QS owner status through vessel ownership interest, though less clearly indicative of working engagement in the fishery than gear operators, does provide a tractable means of drawing a distinction between active and inactive QS owners using available data. The elevated number of "active" vessel owners shown in Figure 1.14 Also note that, due to incomplete data on vessel ownership decomposition, the results of the analysis represent the estimated minimum share of the QS pool held by active QS owners.

Across the BBR, BSS, and EBT/WBT pools, the number of CVO/CPO QS owners active as gear operators has been low relative to the number active as vessel owners, and has steadily trended downward over time, e.g., from 34 owners in the BBR QS pool during 2007 to 20 during 2020, compared to 205 vessel owners in 2007 and 195 in 2020, in contrast to a steady increase in the number of inactive QS owners over time, increasing from 251 to 313 in the BBR pool over the same period. Continuing a trend since 2020, counts of both active gear operators and active vessel

owners in these QS pools declined sharply during 2022, with a corresponding increase in inactive QS owners, as a result of the unprecedented level of fleet consolidation occurring during 2022. The relative distribution of active versus inactive QS owners in the EAG and WAG pools is distinctly different: within a much smaller active fleet, and smaller populations of vessel and QS equity owners, the level of inactive QS ownership is substantially lower than that of active QS/vessel ownership. The EAG QS pool exhibits the highest relative proportion of active gear operators beginning in 2016, with an average of 6 gear operators compared to an average 13 inactive owners is the EAG QS pool.

Figure 1.15 displays the corresponding results for the proportion of equity in the six QS pools between active (inclusive of both gear operator and vessel ownership criteria) and inactive owners. Consistent with the results discussed above regarding QS owner populations and proportional ownership between owner/entity types, the relative distribution of equity in the QS pools is much less variable over time than population counts. Across the BBR, BSS, and EBT/WBT pools between 2007 and 2020, the proportion of QS equity held by inactive owners varied between 33%and 42%, with a moderate increasing trend: inactive ownership in the BBR and BSS pools increased by 9% over that period, from 36% to 39% inactive in the BBR pool and from 34% to 37% in the BSS pool, and similar change in the EBT/WBT pools. The effect of fleet consolidation in active fisheries during 2021 and 2022 is reflected in the sharp increase in inactive QS ownership in these QS pools for 2022: with a year-on-year proportional increase of 49% in the BBR pool, inactive ownership increased from 45% to 66%, and the BSS, EBT and WBT pools some even larger year-on-year shifts, all of which saw the largest year-on-year proportional increase to date in 2022. The EAG and WAG QS pools have seen an increase over time, and much higher, distribution of QS equity toward active ownership until 2021; this trends reversed in 2022, with inactive QS equity increasing from 15% to 29% in the EAG pool and from 5% to 18% in WAG pool.

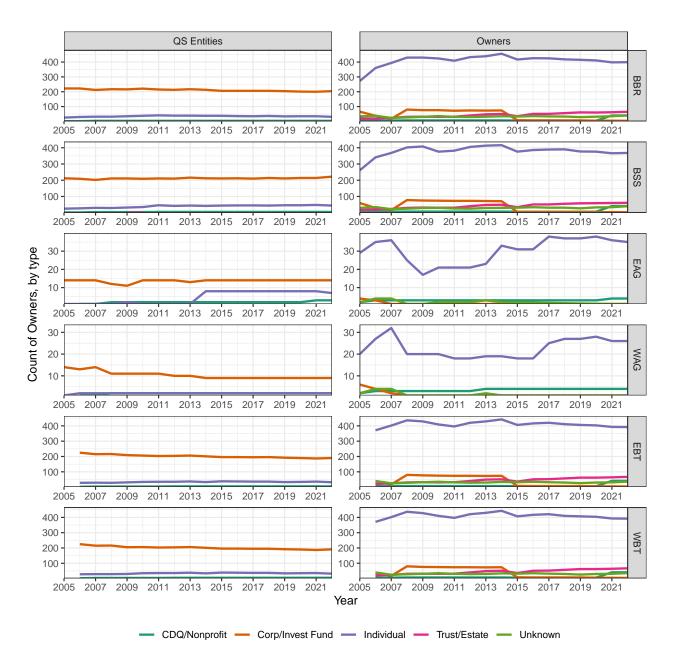


Figure 1.11: CVO/CPO QS ownership decomposition - QS entity and owner counts by owner type and crab fishery.

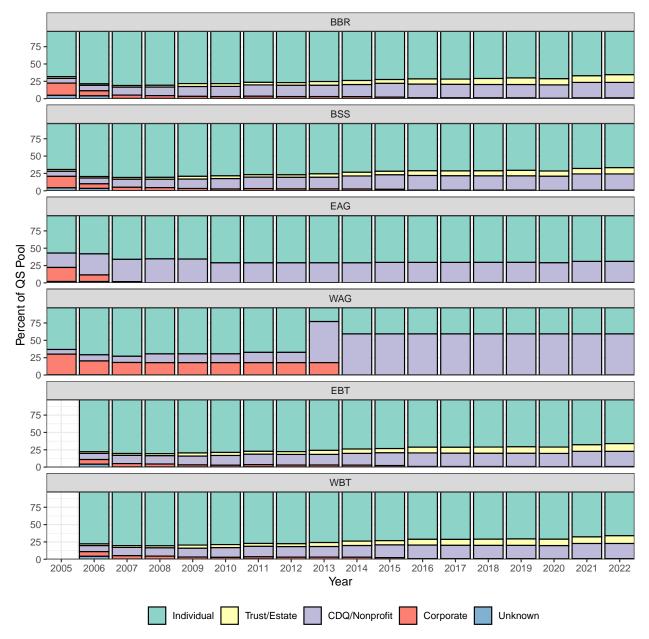


Figure 1.12: CVO/CPO QS ownership decomposition - QS equity distribution by owner type and crab fishery.

Note Bering Sea Tanner (BST) crab quota was initially issued for the 2005/2006 season; for subsequent seasons, the pool was split into Eastern and Western BST quota (EBT, WBT).

 $\label{eq:source_NMFS} {\it Source NMFS Alaska Region - Restricted Access Management, crab IFQ quota holdings and company ownership data; Alaska Fisheries Information Network (AKFIN). Tabular data reported in Table 5.40$ 

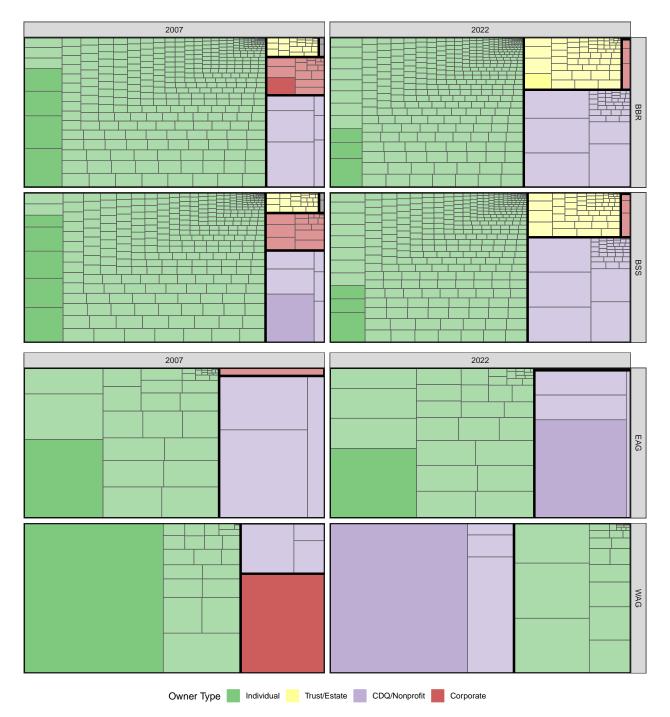
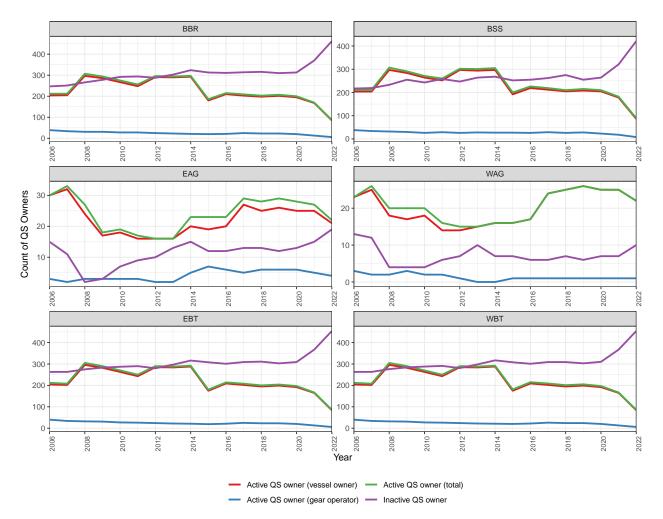
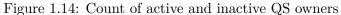


Figure 1.13: CVO/CPO QS ownership decomposition - QS owner-equity distribution by owner type: BBR, BSS, EAG, and WAG QS Pools

**Note** Darker shading within a given tone/entity category indicates entities whose holdings exceed the respective use caps for the fishery. 2007 is shown as the earliest reference year, as data quality issues in the historical company ownership data result in a significant number of "unknown" entities in the decomposition of direct QS holders.

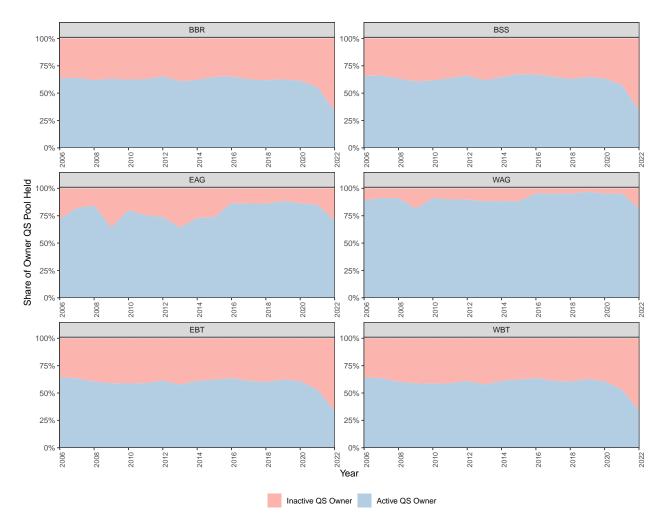
Source NMFS Alaska Region - Restricted Access Management, crab IFQ quota holdings and company ownership data.

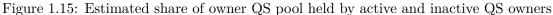




**Note** Active QS owners are decomposed owners of CVO/CPO QS that meet at least one of the following requirements during the year that QS is owned: 1) held ownership interest in a vessel that made landings in any CR program crab fishery during the year of QS ownership; 2) participated in the IFQ crab fishery as a gear operator. Due to incomplete data on decomposed QS and vessel ownership, these plots show the estimated minimum share of the QS pool held by active QS owners.

Source: NMFS Alaska Region - Restricted Access Management, crab IFQ quota holdings, vessel ownership, company company ownership data; eLandings landing reports.





Note Active QS owners are decomposed owners of CVO/CPO QS that meet at least one of the following requirements during the year that QS is owned: 1) held ownership interest in a vessel that made landings in any CR program crab fishery during the year of QS ownership; 2) participated in the IFQ crab fishery as a gear operator. Due to incomplete data on decomposed QS and vessel ownership, these plots show the estimated minimum share of the QS pool held by active QS owners.

Source: NMFS Alaska Region - Restricted Access Management, crab IFQ quota holdings, vessel ownership, company company ownership data; eLandings landing reports.

				Harvestin	g Sector: Ex-	-Vessel Stat	Processing Sector: First Wholesale Statistics <sup>2</sup>						
		Vessel	s CFEC permits	Landed volume 1000t	Landed volume million lbs	Buyers	Gross revenue \$million	Average price \$/lb	Plants	Finished volume, 1000t	Finished volume, million lbs	Gross revenue \$million	Average price \$/lb
	2018	101	231	14.45	31.87	20	\$ 194.91	-	13	9.48	20.90	\$ 232.30	-
	2019	91	194	17.69	38.99	21	\$ 229.17	-	15	11.57	25.52	\$ 274.80	-
	2020	67	154	19.36	42.69	23	\$ 234.20	-	14	12.63	27.85	303.58	-
	2021	67	108	23.14	51.02	17	317.75	-	8	15.12	33.33	397.95	-
ALL	2022	79	105	5.01	11.05	16	\$ 85.28	-	10	3.26	7.20	\$ 112.42	-
	2018	5	14	2.95	6.51	11	\$ 46.37	\$ 7.13	5	2	4.13	\$ 57.90	\$ 14.02
	2019	5	16	3.08	6.78	11	\$49.40	\$ 7.29	5	2	4.30	\$ 64.04	\$ 14.88
	2020	5	14	2.59	5.72	12	46.66	\$ 8.16	6	2	3.63	58.58	\$ 16.15
	2021	5	17	2.68	5.90	10	\$ 77.06	\$ 13.06	4	2	3.75	\$ 81.88	\$ 21.86
AIG	2022	5	12	1.85	4.09	9	38.52	\$ 9.42	3	1	2.60	53.78	\$ 20.73
	2018	55	62	1.92	4.23	15	\$ 50.70	\$ 11.98	10	1	2.86	\$ 59.01	\$ 20.66
	2019	56	65	1.71	3.77	14	50.83	13.47	9	1	2.55	58.34	\$ 22.90
BBR	2020	47	54	1.20	2.64	16	36.08	13.66	9	1	1.78	\$ 42.88	\$ 24.06
	2018	63	78	8.55	18.84	13	\$ 86.75	\$ 4.60	8	6	12.34	\$ 101.23	\$ 8.20
	2019	61	77	12.36	27.26	13	122.95	\$ 4.51	8	8	17.86	\$ 144.16	8.07
	2020	59	77	15.24	33.61	13	\$ 147.78	\$ 4.40	8	10	22.01	\$ 196.84	8.94
	2021	62	82	20.02	44.14	13	\$ 234.59	\$ 5.32	8	13	28.91	\$ 307.66	\$ 10.64
BSS	2022	42	47	2.48	5.48	10	38.91	\$ 7.10	7	2	3.59	\$ 47.92	13.36
	2018	30	34	1.04	2.29	14	\$ 11.09	\$ 4.84	8	1	1.57	\$ 14.16	\$ 9.03
	2019	18	22	0.54	1.18	10	\$ 6	5.08	8	0	0.81	8.27	\$ 10.23
	2020	25	26	0.28	0.62	9	\$ 2.86	\$ 4.62	5	0	0.42	5.28	\$ 12.44
	2021	20	25	0.43	0.95	11	\$ 5.64	5.94	6	0	0.65	\$ 7.96	\$ 12.26
BST	2022	21	27	0.67	1.48	10	\$ 7.86	5.30	7	0	1.02	\$ 10.72	10.56
	2018	34	71	*	*	1	*	*	1	*	*	*	*
	2019	25	32	*	*	1	*	*	1	*	*	*	*
	2020	1	1	*	*	0	*	*	0	0	0	\$ 0	\$ 0
	2021	1	3	*	*	0	*	*	0	0	0	\$ 0	\$ 0
NSR	2022	28	36	*	*	2	*	*	1	*	*	*	*

Table 1.1: BSAI crab harvesting and processing sector output – production volume, gross revenue, and average price

				Harvestin	g Sector: Ex-	-Vessel Stat	$istics^1$		Processing Sector: First Wholesale $\rm Statistics^2$				
			CFEC permits	Landed volume 1000t	Landed volume million lbs	Buyers	Gross revenue \$million	Average price \$/lb	Plants	Finished volume, 1000t	Finished volume, million lbs	Gross revenue \$million	Average price \$/lb
	2018	1	2	*	*	1	*	*	1	*	*	*	*
	2019	2	2	*	*	2	*	*	2	*	*	*	*
	2020	4	4	0.05	0.11	3	\$ 0.82	\$ 7.71	3	0	0.07	0.87	\$ 12.83
	2021	4	4	0.02	0.03	3	0.47	\$ 14.01	2	*	*	*	*
PIG	2022	3	3	*	*	2	*	*	2	*	*	*	*

Table 1.1: BSAI crab harvesting and processing sector output – production volume, gross revenue, and average price (continued)

<sup>1</sup> Except where noted, ex-vessel results reflect total commercial sales volume and value across all management programs (LLP/open access, IFQ, CDQ, ACA), inclusive of all harvesting sector production (CV, CP, and catcher-sellers); ex-vessel average price results are sourced from CV sector EDR data for CR program fisheries and from CFEC gross earnings estimates for non-CR fisheries; ex-vessel value of CP and catcher-seller landings are incorporated in revenue total using average CV ex-vessel price as a proxy per-pound value, multiplied by pounds of live catch

<sup>2</sup> Counts of buyers include CPs landing and processing their own crab, but exclude catcher sellers (NSR fishery only) processing sector results are inclusive of all CP and shoreside processor output. CR program fisheries finished volume and gross first wholesale revenue and price for 2015 to current are sourced from calendar year sales reported in crab processor EDR data; production volume for non-CR fisheries is estimated from ex-vessel landings volume adjusted using average product recovery rate (PRR), with price and revenue derived from COAR gross earnings estimates

Note Data shown for all BSAI crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by "\*", and data not available where indicated by "-". Statistics reported for "All BSAI Fisheries" reflect information aggregated over all FMP crab fisheries, excluding fishery-level confidential information suppressed where indicated by "\*". Landings and ex-vessel revenue suppressed in years where CDQ fishery landings are confidential. Data for Norton Sound red king crab are aggregated over the summer and winter commercial fisheries.

Source ADF&G fish ticket data; eLandings; CFEC ex-vessel pricing; ADF&G Commercial Operator's Annual Report (COAR) data; NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

		Cre	w positio	$ns^1$	Crew	$v \text{ share}^2$	Captain	share	Proces	sing labor	$hours^3$	Process	ing labor pay	$ment^4$
		Vessels	Total	Vessel median	Total \$million	Vessel median \$1,000	Total \$million	Vessel median \$1,000	Plants	Total 1,000 hrs	Plant median 1,000 hrs	Median \$/hour	Total \$million	Plant median, \$1,000
	2018	67	1,049	-	\$ 25.06	-	\$ 11.14	-	8	381.70	29.90	\$ 13.67	\$ 5.46	\$ 214.92
	2019	67	974	-	\$ 30.71	-	\$ 12.94	-	7	451.65	51.95	14.53	\$ 7.05	\$ 413.86
All	2020	64	948	-	\$ 33.37	-	\$ 13.84	-	7	486.28	56.43	\$ 16.73	8.67	618.65
$\mathbf{CR}$	2021	66	633	-	\$ 44.33	-	18.73	-	6	534.37	74.54	17.17	\$ 9.99	985.47
Fisherie	s 2022	51	476	-	12.17	-	\$ 5.22	-	5	158.64	30.17	\$ 18.73	\$ 3.11	394.78
	2018	5	37	7	\$ 6.03	\$ 1,152.21	\$ 2.81	\$ 443.66	5	64.96	8.23	\$ 13.66	\$ 0.91	\$ 142.40
	2019	5	37	7	7.43	1,360.09	\$ 2.71	\$ 510.70	3	57.48	18.39	\$ 14.33	0.83	278.76
	2020	5	35	7	8.78	1,265.34	2.95	591.12	4	61.67	12.29	16.78	0.98	206.87
	2021	5	37	7	\$ 11.24	1,841.31	\$ 4.34	815.04	4	55.99	11.79	17.36	0.89	\$ 211.88
AIG	2022	5	36	7	\$ 6.08	\$ 949.23	\$ 2.46	346.58	3	41.10	10.50	\$ 18.51	0.74	\$ 166.11
	2018	55	365	6	\$ 5.74	\$ 93.17	\$ 2.64	\$ 45.65	7	55.27	5.38	\$ 14.06	\$ 0.86	\$ 54.88
	2019	56	370	6	5.59	\$ 90.01	2.56	\$ 41.39	6	47.29	6.21	\$ 14.24	\$ 0.80	82.58
BBR	2020	47	333	6	3.95	\$ 78.02	\$ 1.82	\$ 37.22	6	52.24	6.90	16.72	0.77	\$ 87.60
	2018	63	436	6	\$ 11.67	\$ 159.92	<b>\$</b> 5	\$ 74.98	6	232.43	30.48	\$ 13.91	\$ 3.29	\$ 188.58
	2019	61	428	6	16.65	\$ 226.79	\$ 7.20	\$ 110.48	6	332.59	45.70	\$ 14.66	5.19	347.63
	2020	59	417	6	\$ 20.22	\$ 302.28	8.89	138.12	6	359.54	50.53	16.67	\$ 6.73	472.48
	2021	62	448	6	\$ 32.16	463.58	\$13.46	195.51	6	468.95	61.83	17.23	\$ 8.84	\$ 731.06
BSS	2022	42	298	6	\$ 4.95	\$ 89.46	\$ 2.16	\$ 45.20	5	89.96	14.37	\$ 18.37	\$ 1.84	\$ 157.01
	2018	30	211	6	\$ 1.62	\$ 43.76	\$ 0.69	\$ 21.26	6	29.04	2.01	\$ 13.25	\$ 0.40	\$ 25.91
	2019	18	139	6	1.05	\$ 45.15	0.47	17.95	6	14.29	1.61	\$ 14.56	\$ 0.23	\$ 24.94
	2020	25	163	6	0.43	\$ 14.46	\$ 0.18	6.78	5	12.83	2.73	\$ 16.64	0.19	\$ 45.40
	2021	20	149	6.50	0.93	\$ 34.14	0.94	\$ 15.43	5	9.43	1.01	\$ 16.38	0.18	\$ 19.33
BST	2022	21	142	6	\$ 1.14	\$ 43.45	0.60	\$ 15.85	5	27.58	4.53	18.55	0.54	\$ 78.35

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Table 1.2: CR Program	tisheries crew and	nrocessing sector	employment and	1 earning
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<sup>1</sup> Crew positions total and median summary statistics are calculated from vessel-level observations derived from eLandings crew size reporting, averaged over all landings in the respective fishery reported by each active vessel

<sup>2</sup> Crew and captain payments reflect amounts paid for labor during the crab fishery and include all post-season adjustments, bonuses, and deductions for shared expenses such as fuel, bait, and food and provisions; payments for IFQ royalties, labor outside of crab fishery, health/retirement or other benefits are excluded.

<sup>3</sup> Processing labor hours reflect hours worked by processing-line employees working at shoreside and floating processor sectors only, excluding processing employees on catcher/processors and salaried workers employed in the processing sectors

<sup>4</sup> Pay per hour statistics reflect only the shoreside and floating processing sectors; all other processing labor pay statistics are reported inclusive of catcher/processors

Note Data shown for all BSAI crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by "\*", and data not available where indicated by "-".

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database, and Crew positions from eLandings.

			Vessels	Lease (perce ex-vesse	ent of		ınds Leas 000 pound			Cost (\$ 1000)		Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gross
				Median	Wtd mean	Total	Median	Mean	Total	Median	Mean	Wtd mean	Wtd mean
		2018	4	45~%	44~%	$4,\!674.25$	1,180.12	1,168.56	\$ 14,624.69	\$ 3,502.96	3,656.17	72~%	42~%
		2019	4	48~%	47~%	$5,\!197.49$	1,265.37	$1,\!299.37$	\$ 17,626.96	3,853.78	4,406.74	77~%	43 %
		2020	4	41~%	43~%	$4,\!644.75$	1,068.35	1,161.19	\$ 16,104.61	3,657.93	4,026.15	81 %	42 %
	All	2021	4	46~%	47~%	4,941.48	1,131.43	1,235.37	\$ 29,728.11	\$ 7,285.77	7,432.03	84 %	47~%
	Quota	2022	4	44~%	41~%	$3,\!625.59$	775.41	906.40	\$ 14,145.64	\$ 2,345.99	3,536.41	89~%	43~%
		2018	4	44 %	48 %	2,763.35	776.44	690.84	\$ 9,260.87	\$ 2,547.30	\$ 2,315.22	-	-
		2019	4	47~%	51~%	3,129.09	889.97	782.27	\$ 11,426.93	\$ 3,015.17	2,856.73	-	-
		2020	4	40~%	47~%	2,969.56	829.97	742.39	\$ 11,050.42	\$ 2,907.10	\$ 2,762.61	-	-
	CVO	2021	4	41 %	50~%	2,901.33	851.31	725.33	\$ 20,233.86	\$ 5,555.38	\$ 5,058.47	-	-
	А	2022	4	47~%	46~%	2,010.99	324.55	502.75	\$ 8,647.67	\$ 1,240.07	\$ 2,161.92	-	-
		2018	4	39~%	$35 \ \%$	1,524.74	220.77	381.18	\$ 3,986.78	\$ 817.23	\$ 996.69	_	_
		2019	4	49~%	37~%	1,634.68	266.18	408.67	\$ 4,651.35	\$ 1,072.49	\$ 1,162.84	-	-
	CVO	2020	4	$40 \ \%$	35~%	1,439.82	207.27	359.96	\$ 4,155.04	\$ 798.12	\$ 1,038.76	-	-
	B +	2021	4	48 %	38~%	1,431.29	175.03	357.82	\$ 6,574.14	\$ 1,354.84	\$1,643.53	-	-
	CPO	2022	4	36~%	31~%	$1,\!231.05$	161.09	307.76	\$ 3,797.15	\$ 769.43	\$ 949.29	-	-
		2018	3	38~%	37~%	91	15.65	30.33	\$ 308.55	\$ 43.81	\$ 102.85	-	-
		2019	4	49~%	49~%	145.37	31.45	36.34	587.09	129.95	146.77	-	-
	CVC	2020	3	38~%	40~%	113.55	18.69	37.85	\$ 383.88	\$ 54.72	\$ 127.96	-	-
	+	2021	4	53~%	52~%	120.65	29.97	30.16	\$ 841.88	\$ 226.43	\$ 210.47	-	-
	CPC	2022	3	49~%	52~%	51.37	22.67	17.12	\$ 256.70	\$ 123.43	\$ 85.57	-	-
		2018	2	*	*	*	*	*	*	*	*	-	-
		2019	2	*	*	*	*	*	*	*	*	-	-
	CDQ	2020	2	*	*	*	*	*	*	*	*	-	-
	+	2021	3	53~%	46~%	488.21	233.98	162.74	\$ 2,078.24	\$ 404.58	\$ 692.75	-	-
AIG	ACA	2022	3	53~%	48~%	332.18	86.50	110.73	\$ 1,444.12	\$ 352.89	\$ 481.37	-	-
		2018	45	63~%	65 %	3,328.31	47.95	73.96	\$ 25,795.74	\$ 387.06	\$ 573.24	79 %	58 %
	All	2019	46	63~%	64~%	2,937.66	42.23	63.86	\$ 25,338.88	359.72	\$ 550.85	78~%	57 %
	Quota	2020	38	64~%	64~%	2,060.68	41.31	54.23	\$ 18,108.35	\$ 337.60	\$ 476.54	78~%	60 %

Table 1.3: Crab harvest quota lease activity, volume, cost, and average lease prices and rates, CR Program fisheries

			Vessels	Lease (perce ex-vesse	ent of		unds Leas 00 pound		Cost (\$ 1000			Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gross
				Median	Wtd	Total	Median	Mean	Total	Median	Mean	Wtd	Wtd
					mean							mean	mean
		2018	42	62~%	64 %	2,503.37	41.08	59.60	\$ 19,094.70	\$ 317.05	\$ 454.64	-	-
	CVO	2019	42	62~%	63~%	2,164.44	34.61	51.53	18,198.62	295.23	\$ 433.30	-	-
	А	2020	36	64~%	64~%	1,577.71	33.47	43.83	13,660.53	\$ 287.37	379.46	-	-
	CVO	2018	39	63~%	65 %	358.37	5.81	9.19	\$ 2,889.99	\$ 44.69	\$ 74.10	-	-
	B +	2019	42	63~%	67~%	365.83	7	8.71	3,414.22	61.87	\$ 81.29	-	-
	CPO	2020	35	63~%	64~%	203.03	4.35	5.80	\$ 1,825.74	\$ 37.31	\$ 52.16	-	-
	CVC	2018	35	64 %	67~%	109.13	3	3.12	\$ 882.47	\$ 24.80	\$ 25.21	-	-
	+	2019	35	63~%	65~%	92.52	2.54	2.64	\$ 844.58	\$ 24.74	\$ 24.13	-	-
	CPC	2020	33	65~%	62~%	60.36	1.55	1.83	\$ 542.75	\$ 14.17	\$ 16.45	-	-
	CDQ	2018	6	66 %	67 %	357.44	70.88	59.57	\$ 2,928.57	\$ 566.77	\$ 488.10	-	_
	+	2019	6	67~%	68~%	314.86	54.43	52.48	\$ 2,881.46	\$ 480.22	\$ 480.24	-	-
BBR	ACA	2020	5	68~%	68~%	219.59	47.66	43.92	\$ 2,079.34	\$ 439.38	\$ 415.87	-	-
		2018	52	47 %	48 %	14,030.42	187.35	269.82	\$ 31,003.45	\$ 394.40	\$ 596.22	74 %	43 %
		2019	51	46~%	48~%	21,151.14	303.24	414.73	45,488.85	670.54	891.94	78~%	43~%
		2020	47	46~%	50~%	25,347.84	429.27	539.32	55,689.04	959.44	\$ 1,184.87	75 %	44 %
	All	2021	51	46~%	47~%	35,392.48	540.71	693.97	89,519.52	\$ 1,332.69	\$ 1,755.28	80 %	44 %
	Quota	2022	35	46~%	48~%	$4,\!629.02$	108.28	132.26	15,996.61	\$ 355.35	\$ 457.05	85 %	47~%
		2018	48	46 %	47 %	10,046.25	152.56	209.30	\$ 21,597.62	\$ 325.24	\$ 449.95	-	-
		2019	48	46~%	47~%	15,318.28	234.57	319.13	32,124.93	\$ 496.38	669.27	-	-
		2020	45	46~%	49~%	$18,\!443.06$	338.02	409.85	39,630.32	\$ 712.05	880.67	-	-
	CVO	2021	49	46~%	46~%	$25,\!135.09$	428.24	512.96	61,300.70	1,015.76	1,251.03	-	-
	А	2022	33	46~%	47~%	$3,\!369.15$	86.76	102.10	11,359.24	\$ 276.01	\$ 344.22	-	-
		2018	42	47~%	48~%	2,091.39	31.87	49.80	\$ 4,885.15	\$ 71.33	\$ 116.31	-	-
		2019	45	46~%	47~%	$3,\!094.09$	43.60	68.76	6,886.24	\$ 95.71	153.03	-	-
	CVO	2020	41	46~%	53~%	$3,\!584.52$	55.03	87.43	8,442.43	\$ 128.15	\$ 205.91	-	-
	B +	2021	39	46~%	50~%	4,913.15	91.75	125.98	13,379.13	\$ 220.97	\$ 343.05	-	-
	CPO	2022	33	46~%	51~%	625.05	14.79	18.94	2,230.93	\$ 50.86	\$ 67.60	-	-

Table 1.3: Crab harvest quota lease activity, volume, cost, and average lease prices and rates, CR Program fisheries (continued)

			Vessels	Lease (perce ex-vesse	ent of		unds Leas )00 pound			Cost (\$ 1000)		Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gros
				Median	Wtd mean	Total	Median	Mean	Total	Median	Mean	Wtd mean	Wtd mean
		2018	36	46~%	50~%	500.19	11.96	13.52	\$ 1,199.04	\$ 29.56	\$ 33.31	-	-
		2019	37	46~%	49~%	704.22	17.51	19.03	1,657.54	\$ 43.44	\$ 44.80	-	-
	CVC	2020	34	46~%	50~%	829.43	21.45	24.39	1,920.97	\$ 49.63	\$ 56.50	-	-
	+	2021	33	46~%	49~%	1,233.80	31.61	37.39	3,388.31	\$ 80.63	\$ 102.68	-	-
	CPC	2022	29	46~%	49~%	124.27	3.83	4.29	\$ 455.12	\$ 13.66	15.69	-	-
		2018	6	$51 \ \%$	51 %	1,392.59	228.12	232.10	\$ 3,321.65	\$ 552.06	\$ 553.61	-	-
		2019	8	48~%	51~%	$2,\!034.55$	227.54	254.32	\$ 4,820.15	\$ 541.93	602.52	-	-
	CDQ	2020	8	51~%	51~%	$2,\!490.83$	294.37	311.35	5,695.33	\$ 696.27	711.92	-	-
	+	2021	12	51~%	51~%	4,110.45	233.83	342.54	\$ 11,451.38	\$ 667.40	954.28	-	-
BSS	ACA	2022	4	55~%	54~%	510.55	110.95	127.64	1,951.32	\$ 453.84	487.83	-	-
		2018	30	31~%	31~%	1,891.37	53.97	63.05	\$ 2,860.15	\$ 82.48	\$ 95.34	83 %	29~%
		2019	16	32~%	33~%	1,010.27	41.65	63.14	1,696.84	69.99	106.05	86 %	33~%
		2020	17	30~%	32~%	592.23	21.68	34.84	\$ 857.81	\$ 25.87	\$ 50.46	96 %	31~%
	All	2021	17	29~%	32~%	806.02	38.85	47.41	1,508.35	\$ 53.88	\$ 88.73	85 %	31~%
	Quota	2022	17	32~%	35~%	$1,\!221.41$	50.60	71.85	\$ 2,224.03	\$ 92.38	\$ 130.83	82~%	35~%
		2018	28	29~%	30~%	$1,\!394.36$	44.26	49.80	\$ 2,030.98	\$ 61.15	\$ 72.54	-	-
		2019	15	32~%	33~%	691.37	32.05	46.09	1,174.47	\$ 60.01	\$ 78.30	-	-
		2020	17	30~%	32~%	487.52	19.38	28.68	\$ 702.24	\$ 25.60	\$ 41.31	-	-
	CVO	2021	13	31~%	31~%	556	43.86	42.77	1,023.39	\$ 73.98	\$ 78.72	-	-
	Α	2022	16	31~%	36~%	911.97	44.05	57	\$ 1,645.28	\$ 72.13	\$ 102.83	-	-
		2018	26	31~%	35~%	244.16	5.44	9.39	\$ 428.71	\$ 7.98	16.49	-	-
		2019	14	32~%	33~%	145.52	4.69	10.39	\$ 243.73	\$ 7.40	\$ 17.41	-	-
	CVO	2020	9	28~%	27~%	51.37	3.41	5.71	\$ 69.16	\$ 3.74	\$ 7.68	-	-
	B +	2021	13	32~%	34~%	125.11	8.31	9.62	\$ 251.33	\$ 15.82	19.33	-	-
	CPO	2022	16	31~%	34~%	158.08	6.03	9.88	\$ 297.40	\$ 11.24	\$ 18.59	-	-
		2018	22	29~%	30~%	53.59	1.66	2.44	\$ 77.66	\$ 2.31	\$ 3.53	-	-
		2019	14	32~%	32~%	41.67	1.26	2.98	\$ 69.14	\$ 1.98	\$ 4.94	-	-
	CVC	2020	9	27~%	28~%	13.68	1.30	1.52	\$ 17.73	\$ 1.45	1.97	-	-
	+	2021	10	31~%	34~%	32.52	2.42	3.25	\$ 65.34	\$ 4.15	6.53	-	-
	CPC	2022	14	32~%	40~%	57.03	1.63	4.07	\$ 113.89	\$ 3.24	8.14	-	-

Table 1.3: Crab harvest quota lease activity, volume, cost, and average lease prices and rates, CR Program fisheries (continued)

			Vessels	Lease rate (percent of ex-vessel price)		Pounds Leased (1000 pounds)		С	Cost (\$ 1000)		Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gross	
				Median	Wtd mean	Total	Median	Mean	Total	Median	Mean	Wtd mean	Wtd mean
		2018	5	$29 \ \%$	31~%	199.27	43.90	39.85	\$ 322.81	\$ 68.61	\$ 64.56	_	_
		2019	3	29~%	32~%	131.70	46.34	43.90	\$ 209.49	\$ 67.41	69.83	-	-
	CDQ	2020	1	*	*	*	*	*	*	*	*	-	-
	+	2021	3	$29 \ \%$	29~%	92.39	34.64	30.80	\$ 168.29	\$ 44.34	\$ 56.10	-	-
BST	ACA	2022	4	30~%	32~%	94.33	24.94	23.58	\$ 167.45	\$ 43.39	\$ 41.86	-	-

Table 1.3: Crab harvest quota lease activity, volume, cost, and average lease prices and rates, CR Program fisheries (continued)

Notes Asterisks indicate data suppressed due to confidentiality All dollar values are adjusted for inflation to 2022-equivalent value. Harvest quota types are categorized in this report as the following: CVO A (catcher vessel owner Class A IFQ), CVO B + CPO (catcher vessel owner Class B IFQ and catcher/processor owner IFQ), and CVC + CPC (catcher vessel crew IFQ and catcher/processor crew IFQ). Statistics reported represent results pooled over all quota types and/or regional designations within each category. Lease data shown represent arms-length lease transactions reported by vessel owners in the Crab EDR. Vessels column shows total count of vessel-level observations where both pounds and cost of quota leased were reported as non-zero values, noting that a segment of active vessels do not report leasing quota of any type, i.e., harvest only quota held by the vessel owner. Lease rate statistics by fishery and quota type are calculated as the median and weighted mean, respectively, of the ratio of quota lease cost per pound to ex-vessel revenue per pound, over all observations where all four elements were reported as non-zero values. Lease pounds as **Source** NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

		Year	Crew Member Count	Employment Share	Income \$millio
		2018	41	7.13~%	\$ 2.0
		2019	47	7.78~%	\$ 2.8
		2020	41	6.74~%	\$ 3.5
	Anchorage	2021	43	8.41 %	\$ 5.3
	MSA	2022	28	7.93~%	\$ 1.6
		2018	20	3.48~%	\$ 1.2
		2019	22	3.64~%	\$ 1.3
		2020	13	2.14~%	\$ 1.5
		2021	21	4.11~%	\$
	Homer	2022	12	3.40~%	\$ 0.4
		2018	63	10.96~%	\$ 2.7
		2019	55	9.11~%	\$ 2.8
		2020	33	5.43~%	\$ 2.2
	Kodiak	2021	43	8.41~%	\$ 3.0
	Island	2022	24	6.80 %	\$ 0.8
		2018	20	3.48~%	\$ 2.2
		2019	19	3.15~%	\$ 2.0
		2020	5	0.82~%	\$ 0.6
	Unalaska/Dutch	2021	15	2.94~%	\$ 2.9
	Harbor	2022	14	3.97~%	\$ 1.1
		2018	16	2.78 %	\$ 0.7
		2019	18	2.98~%	\$ 1.0
	Other	2020	42	6.91~%	\$ 2.2
	Western	2021	21	4.11 %	\$ 1.8
	Alaska	2022	12	3.40~%	\$ 0.5
		2018	12	2.09~%	\$ 0.3
		2019	12	1.99~%	\$ 0.6
		2020	76	12.50~%	\$ 4.3
	Southeast	2021	5	0.98~%	\$ 0.4
	Alaska	2022	5	1.42~%	\$ 0.1
		2018	24	4.17 %	\$ 0.8
		2019	22	3.64~%	\$ 1.0
		2020	40	6.58~%	\$ 2.6
	Other	2021	22	4.31 %	\$ 1.8
	Alaska	2022	13	3.68~%	\$ 0.7
		2018	196	34.09 %	\$ 10.2
		2019	195	32.28~%	\$ 11.8
		2020	250	41.12 %	\$ 17.1
		2021	170	33.27~%	\$ 17.4
Alaska	Total	2022	108	30.59~%	\$ 5.4
		2018	24	4.17 %	\$ 1.2
		2019	22	3.64~%	\$ 1.5
		2020	40	6.58~%	\$ 3.3
	All	2021	24	4.70 %	\$ 2.4
California	Communities	2022	23	6.52~%	\$

Table 1.4: CR Program fisheries estimated crew employment and income, by community of residence

		Year	Crew Member Count	Employment Share	Income \$millio
		2018	23	4 %	\$ 2.8
		2019	26	4.30~%	\$ 3.9
		2020	8	1.32~%	\$ 1.6
	Lincoln	2021	28	5.48~%	\$ 6.1
	County	2022	19	5.38~%	\$ 1.8
-		2018	31	5.39~%	\$ 2.0
		2019	33	5.46~%	\$ 3.1
		2020	18	2.96~%	\$ 1.1
	Other	2021	41	8.02~%	\$ 4.6
-	Oregon	2022	16	4.53~%	\$ 0.8
		2018	54	9.39~%	\$ 4.8
		2019	59	9.77~%	\$ 7.0
		2020	26	4.28~%	\$ 2.7
		2021	69	13.50~%	\$ 10.8
Oregon	Total	2022	35	9.92 %	\$ 2.6
		2018	128	22.26~%	\$ 9.7
		2019	135	22.35~%	\$ 11.2
		2020	80	13.16~%	\$ 8.8
	Seattle	2021	108	21.14~%	\$ 15.8
-	MSA	2022	72	20.40 %	\$ 3.0
		2018	90	15.65 %	\$ 6.9
		2019	87	14.40~%	\$ 7.3
		2020	101	16.61 %	\$ 7.9
	Other	2021	55	10.76~%	\$ 8.6
-	Washington	2022	47	13.31~%	\$ 2.9
		2018	218	37.91~%	\$ 16.6
		2019	222	36.75~%	\$ 18.6
		2020	181	29.77~%	\$ 16.8
		2021	163	31.90~%	\$ 24.5
Washington	Total	2022	119	33.71~%	\$ 5.9
		2018	77	13.39~%	\$ 3.2
		2019	100	16.56~%	\$ 5.0
		2020	111	18.26~%	\$ 7.8
Other		2021	81	15.85 %	\$ 8.8
State		2022	59	16.71 %	\$ 2.2
		2018	6	1.04 %	\$ 0.3
		2019	6	0.99%	\$ 0.1
Unknown		$2021 \\ 2022$	4 9	$\begin{array}{c} 0.78 \% \\ 2.55 \% \end{array}$	\$ 0.3 \$ 0.1
		$2018 \\ 2019$	575 $604$	$100 \ \%$ $100 \ \%$	\$ 36.5 \$ 44.3
				100% 100%	5 44.3 \$ 47.9
All		$2020 \\ 2021$	608 511	100% 100%	5 47.9 \$ 64.3
All Locations			511 252		
Locations	-	2022	353	100 %	\$ 17.4

Table 1.4: CR Program fisheries estimated crew employment and income, by community of residence *(continued)* 

**Note** 'Employee count' reports the number of individual vessel crew members across all CR Crab fisheries identified as residents of the listed community or location. 'Employment share' reports the proportion of the total vessel employment pool associated by residence with the listed community or location. 'Income' (reported in \$million, inflation-adjusted to 2022-equivalent value) is

the estimated amount of vessel labor income, by community/location of residence, that is distributed to vessel crew members in aggregate. This estimate is derived by apportioning vessel-level fishing crew and captain labor payments among crew members reported in the EDR and CFEC gear operator permit holders with recorded landings of CR crab, then aggregating payments by community of residence. This method does not control for differential pay rates across positions, apart from deck crew and captain (or vessel master), or other differentiating factors, such as experience or length of employment.

captain (or vessel master), or other differentiating factors, such as experience or length of employment. **Source** NMFS AFSC BSAI Crab Economic Data Report (EDR) database, ADFG commercial crew license database, and CFEC gear operator permit database; source data and compilation are provided by the Alaska Fisheries Information Network (AKFIN).

		Year	Employee Count	Employment Share	Income \$millio
		2018	103	4.69~%	\$ 0.1
		2019	61	2.70~%	\$ 0.1
		2020	51	1.92~%	\$ 0.1
	Anchorage	2021	65	2.54~%	\$ 0.1
	MSA	2022	26	1.86~%	\$ 0.0
		2018	48	2.19 %	\$ 0.0
		2019	93	4.12 %	\$ 0.0
	TZ 1. 1	2020	49	1.84 %	\$ 0.0
	Kodiak	2021	6	0.23 %	\$ 0.0
	Island	2022	1	0.07~%	\$
		2018	263	11.98 %	\$ 0.6
		2019	434	19.23~%	\$ 0.9
		2020	464	17.42~%	\$ 1.0
	Unalaska/Dutch	2021	485	18.93~%	\$ 1.0
	Harbor	2022	412	29.45~%	\$ 0.5
		2018	55	2.51 %	\$ 0.2
		2019	25	1.11 %	\$ 0.1
	Other	2020	26	0.98~%	\$ 0.1
	Western	2021	27	1.05~%	\$ 0.1
	Alaska	2022	31	2.22~%	\$ 0.0
		2018	29	1.32~%	\$ 0.0
		2019	27	1.20 %	\$ 0.1
		2020	24	0.90 %	\$ 0.0
	Other	2021	50	1.95~%	\$ 0.1
	Alaska	2022	7	0.50~%	\$ 0.0
		2018	498	22.69~%	\$ 1.1
		2019	640	28.36~%	\$ 1.4
		2020	614	23.06~%	\$ 1.3
	<b>T</b> 1	2021	633	24.71 %	\$ 1.5
Alaska	Total	2022	477	34.10~%	\$ 0.7
		2018	727	33.12 %	\$ 1.5
		2019	595	26.36~%	\$ 1.7
		2020	570	21.40 %	\$ 1.8
~	CA	2021	517	20.18~%	\$ 2.1
California	Communities	2022	258	18.44~%	\$ 0.6
		2018	34	1.55 %	\$ 0.0
		2019	31	1.37~%	\$ 0.1
	67	2020	20	0.75~%	\$ 0.0
~	OR	2021	18	0.70 %	\$ 0.0
Oregon	Communities	2022	12	0.86~%	\$ 0.0
		2018	325	14.81 %	\$ 0.8
		2019	308	13.65~%	\$ 1.5
		2020	334	12.54~%	\$ 1.5
	WA	2021	444	17.33~%	\$ 2.1
Washington	Communities	2022	197	14.08~%	\$ 0.5

Table 1.5: CR Program fisheries estimated shoreside and floating processor processing crew employment and income, by community of residence

	Year	Employee Count	Employment Share	Income \$million
	2018	611	27.84 %	\$ 1.40
	2019	683	30.26~%	\$ 1.73
	2020	1,125	42.25~%	\$ 3.15
Other	2021	950	37.08~%	\$ 2.89
State	- 2022	455	32.52~%	\$ 1.01
	2018	2,195	100 %	\$ 5.08
	2019	2,257	$100 \ \%$	6.38
	2020	2,663	$100 \ \%$	\$ 7.94
All	2021	2,562	$100 \ \%$	\$ 8.76
Locations	- 2022	1,399	100~%	\$ 2.92

Table 1.5: CR Program fisheries estimated shoreside and floating processor processing crew employment and income, by community of residence *(continued)* 

			Count of QS Holders				Share of QS Pool Held			
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	
	2018/19	198	23	203	316	0.61	0.04	0.62	0.38	
	2019/20	202	23	207	310	0.62	0.04	0.63	0.37	
	2020/21	195	20	200	313	0.61	0.03	0.61	0.39	
	2021/22	168	13	170	370	0.55	0.02	0.55	0.45	
BBR	2022/23	85	6	87	462	0.33	0.01	0.34	0.66	
	2018/19	205	26	210	275	0.62	0.04	0.63	0.37	
	2019/20	208	28	215	255	0.64	0.04	0.65	0.35	
	2020/21	205	23	210	264	0.63	0.03	0.63	0.37	
	2021/22	178	18	182	321	0.57	0.02	0.57	0.43	
BSS	2022/23	86	8	89	421	0.34	0.01	0.34	0.66	
	2018/19	195	23	200	311	0.59	0.04	0.60	0.40	
	2019/20	199	23	204	303	0.62	0.04	0.62	0.38	
	2020/21	192	20	197	309	0.60	0.04	0.61	0.39	
	2021/22	165	13	167	367	0.53	0.03	0.53	0.47	
EBT	2022/23	84	6	86	454	0.33	0.02	0.34	0.66	
	2018/19	195	24	201	309	0.60	0.05	0.60	0.40	
	2019/20	199	24	205	303	0.62	0.05	0.63	0.37	
	2020/21	192	20	197	310	0.60	0.04	0.61	0.39	
	2021/22	165	13	167	367	0.53	0.03	0.53	0.47	
WBT	2022/23	84	6	86	454	0.34	0.02	0.34	0.66	
	2018/19	25	6	28	13	0.86	0.07	0.86	0.14	
	2019/20	26	6	29	12	0.88	0.08	0.88	0.12	
	2020/21	25	6	28	13	0.86	0.08	0.86	0.14	
	2021/22	25	5	27	15	0.85	0.08	0.85	0.15	
EAG	2022/23	21	4	22	19	0.71	0.07	0.71	0.29	
	2018/19	25	1	25	7	0.95	0	0.95	0.05	
	2019/20	26	1	26	6	0.97	0	0.97	0.03	
	2020/21	25	1	25	7	0.95	0	0.95	0.05	
	2021/22	25	1	25	7	0.95	0	0.95	0.05	
WAG	2022/23	22	1	22	10	0.82	0	0.82	0.18	
	2018/19	160	13	162	169	0.63	0.03	0.63	0.37	
	2019/20	164	14	167	151	0.66	0.03	0.67	0.33	
	2020/21	161	12	164	152	0.64	0.03	0.64	0.36	
	2021/22	138	9	140	211	0.57	0.01	0.57	0.43	
SMB	2022/23	71	5	73	248	0.37	0.01	0.38	0.62	

Table 1.6: Estimated active and inactive QS owners and share of QS pool held

	Season		Count of QS	Holders		Share of QS Pool Held			
		Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive
	2018/19	144	14	147	139	0.55	0.05	0.56	0.44
	2019/20	142	15	146	134	0.53	0.06	0.54	0.46
	2020/21	148	11	151	140	0.57	0.05	0.58	0.42
	2021/22	130	7	132	176	0.51	0.03	0.51	0.49
PIK	2022/23	75	1	75	236	0.35	0	0.35	0.65
	2018/19	53	7	55	41	0.84	0.01	0.85	0.15
	2019/20	52	7	54	40	0.84	0.01	0.85	0.15
	2020/21	51	6	53	37	0.85	0.01	0.86	0.14
	2021/22	32	5	34	68	0.80	0.01	0.81	0.19
WAI	2022/23	20	2	20	82	0.76	0	0.76	0.24

Table 1.6: Estimated active and inactive QS owners and share of QS pool held (continued)

Note Active QS owners are decomposed owners of CVO/CPO QS that meet at least one of the following requirements during the year that QS is owned: 1) held ownership interest in a vessel that fished for BSAI crab during the year of QS ownership; 2) participated in the IFQ crab fishery as a gear operator. Due to incomplete data on decomposed QS and vessel ownership, these plots show the estimated minimum share of the QS pool held by active QS owners.

Source NMFS Alaska Region - Restricted Access Management, crab IFQ quota holdings, vessel ownership, company company ownership data; eLandings landing reports.

			BBR			BSS	
Season	Type	QS Entities - Count	Owners - Count	Owners - QS Percent	QS Entities - Count	Owners - Count	Owners - QS Percent
	Individual	37	418	67.99~%	44	390	68.26~%
	Corp/Invest Fund	206	7	1.08~%	214	4	0.94~%
	CDQ/Nonprofit	4	5	19.34~%	5	6	20.64~%
	Trust/Estate	-	56	8.60~%	-	55	7.15~%
2018/19	Unknown	-	33	0.01~%	-	31	0 %
	Individual	34	415	67.17~%	46	377	67.62~%
	$\operatorname{Corp}/\operatorname{Invest}$ Fund	204	7	1.05~%	211	4	0.94 %
	CDQ/Nonprofit	4	5	19.34~%	5	6	20.64~%
	Trust/Estate	-	61	9.43~%	-	58	7.78~%
2019/20	Unknown	-	29	0.01~%	-	27	0 %
	Individual	35	411	68.33~%	46	376	68.53~%
	m Corp/Invest Fund	201	5	0.53~%	214	3	0.41 %
	CDQ/Nonprofit	4	5	19.35~%	5	6	20.65~%
	Trust/Estate	-	60	8.79~%	-	59	7.40~%
2020/21	Unknown	-	32	0.01~%	-	33	0.01~%
	Individual	35	398	64.09~%	48	366	64.88 %
	Corp/Invest Fund	200	5	1.01~%	214	4	0.94~%
	CDQ/Nonprofit	4	40	22.42~%	5	41	23.34~%
	Trust/Estate	-	62	9.47~%	-	60	7.81~%
2021/22	Unknown	-	35	0.01~%	-	34	0.01~%
	Individual	31	399	62.53~%	44	368	63.72~%
	$\operatorname{Corp}/\operatorname{Invest}$ Fund	204	4	1 %	222	3	0.94~%
	CDQ/Nonprofit	4	40	22.41~%	5	41	23.32~%
	Trust/Estate	-	65	11.03~%	-	61	8.97~%
2022/23	Unknown	-	41	0.04~%	-	40	0.03~%

Table 1.7: CVO/CPO entity decomposition by entity type, BBR and BS	BSS QS 1	pools
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Note Statistics shown for Owner QS report combined crab catcher vessel and catcher/processor owner (CVO and CPO) quota share pools, and report the number of distinct QS entities ('Entities''), and number of distinct individuals and equity owners of QS entities ('Owners'') obtained by decomposition of ownership information reported to NMFS in Annual IFQ Permit applications, and summed percentages of QS pool shares collectively by Entities and Owners, categorized by type – Individual, CDQ Group/Non-profit, Corporate, Trust/Estate, and Unknown (rounding error and incomplete company ownership data, particularly in the early years of the CR program, result in residual shares that are assigned to "Unknown" entities).

Source NMFS Alaska Region - Restricted Access Management, Quota Share holder files; Alaska Fisheries Information Network (AKFIN).

# Chapter 2

# Introduction

This report provides statistics on economic activity in commercial crab fisheries managed under the North Pacific Fishery Management Council's *Federal Fishery Management Plan For Bering Sea/Aleutian Islands King and Tanner Crabs* (FMP), with substantial additional detail available for active fisheries managed under the Crab Rationalization Program. The report is produced as part of the annual *Stock Assessment and Fishery Evaluation For The King and Tanner Crab Fisheries Of The Bering Sea and Aleutian Islands Regions* (SAFE), and is provided as a reference source for information on status and trends in social and economic dimensions of fisheries managed under the FMP to support evaluation of management and regulatory decision making.

Across all fisheries managed under the FMP, total volume of commercial ex-vessel landings in 2022 was 11.05 million pounds (5.01 thousand metric tons (mt)), with an estimated gross ex-vessel revenue value of \$85.3 million. Total sales of finished crab production reported by processors in 2022 across all FMP crab species and product forms was 7.2 million pounds (3.26 thousand mt), with an estimated first wholesale value of \$112.4 million (F.O.B Alaska). As an indicator of the relative economic importance of Alaska crab fisheries to the state and U.S. economies, the 23.1 million mt tons of commercial catch of BSAI king and tanner crab in 2021 represented 0.60% of the 3.87 million mt total volume of U.S. commercial seafood landings; the \$297 million ex-vessel value of BSAI crab accounted for 4.63% of \$4.62 billion total ex-vessel value of U.S. landings (NMFS, 2021). With respect to Alaska alone, BSAI crab fisheries accounted for 0.97% of total commercial landings volume of 2.38 million mt and 14.7% of \$2.92 billion total ex-vessel value produced in commercial fisheries off Alaska (Groundfish Economic SAFE, 2022).

The North Pacific Fishery Management Council (Council) has identified maximizing the social and economic benefits to the nation over time as one of seven management objectives in the FMP, which include, but are not limited to:

"profits, income, employment, benefits to consumers, and less tangible or less quantifiable social benefits such as the economic stability of coastal communities" (NPFMC, 2011; pp. 28-29).

The Council further stipulated that, in the selection of management measures, specific examination of socioeconomic metrics will include: the value of crab harvested (less deadloss), both during the season for which measures are considered, as well in the future based on value as reproductive as well as harvestable stock; subsistence harvests; and economic impacts on coastal communities, "... accomplished by considering, to the extent that data allow, the impact of management alternatives on the size of the catch during the current and future seasons and their associated prices, harvesting costs, processing costs, employment, the distribution of benefits among members of the harvesting, processing and consumer communities, management costs, and other factors affecting the ability to maximize the economic and social benefits as defined in this section."

The information presented in this report is provided as an annual summary of the economic status of the BSAI crab fisheries in terms of the magnitude and distribution of benefits produced by the fisheries, as broadly outlined in the FMP, in the context of the most recent period for which data are available, and the flow of benefits as produced over time. The report is not intended to provide a dedicated analysis of any specific management measure, either prospectively or retrospectively, but is expected to facilitate greater access to social and economic indices of fishery performance, support preparation and use of such information in more targeted analyses, and over time, develop improved social and economic metrics for effective monitoring and evaluation of management goals and objectives. The report consolidates relevant information published in annual management reports by Alaska Department of Fish and Game and NOAA Fisheries Alaska Region, supplemented with additional analysis and information derived from primary data collected annually by the State of Alaska's Commercial Fisheries Entry Commission, NOAA Fisheries Alaska Fisheries Science Center, and Pacific States Marine Fisheries Commission.

Chapter 3 of this report presents summary statistics and discussion of social and economic status and trends in commercial fisheries encompassed under the following categories: i) economic output; ii) income and employment; iii) harvest sector operating costs and net income; iv) use and distribution of ownership in quota share allocations and other fishery capital assets; v) fishing and processing capacity and effort, and vi) international trade in crab commodities. Within each of these topics, current status is represented in terms of annual averages and totals for the most recent five to seven years of data available. In most cases, the most recent period for which data are presented is two calendar years prior to the date of publication, or the crab fishery season prior to the current season as of the date of publication. All monetary values are inflation-adjusted to 2022-equivalent U.S. dollar terms using the GDP chain-type index (BEA; https://fred.stlouisfed.org/series/GDPCTPI). See below for additional introductory notes regarding data sources and reporting conventions used in this document.

Chapter 4 of this report, *Ex-vessel Revenue Nowcast Estimates and Summary of International Trade in King and Snow Crab*, is a new addition for the 2023 edition. This new section represents an effort to develop more current price and revenue information for the crab harvesting sector, with the utimate goal of providing the Council, ADFG, industry and the public with economic information that is as current as possible, for use in the harvest specification and Total Allowable Catch (TAC)-setting processes. The section is presented for review and is expected to undergo further development in future editions of the report, initially to encompass price and revenue nowcasts for the crab processing sector, with integration of price and revenue nowcast estimates by fishery and sector integrated with other sections of the report in order to provide managers, analysts, industry and other stakeholders with improved access to the most timely information and indicators describing the current economic status of BSAI crab fisheries in advance of the annual harvest specification and management decision making process.

## 2.1 Fishery Overview

Ten crab stocks are currently managed under the BSAI crab FMP: four red king crab (*Paralithodes camtschaticus*) stocks: Bristol Bay, Pribilof Islands, Norton Sound, and Adak (*Western Aleutians*); two blue king crab (*Paralithodes platypus*) stocks: Pribilof District and St. Matthew Island; two golden (or brown) king crab (*Lithodes aequispinus*) stocks: Aleutian Island and Pribilof Islands; Bering Sea Tanner crab (*Chionoecetes bairdi*), and Bering Sea snow crab (*Chionoecetes opilio*). These ten crab stocks are targeted in eleven fisheries, managed by NOAA Fisheries and the State of Alaska (SOA)as distinct units: Bristol Bay red king crab, Bering Sea snow crab, Eastern Aleutian Islands golden king crab, Western Aleutian Islands golden king crab, separate fisheries for the Eastern- and Western- components of the Bering Sea Tanner stock, and a single combined fishery for Pribilof Islands red and blue king crab Eastern.

Management of these stocks is shared between NMFS and SOA under terms set forth in the FMP, which defines management measures within three categories:

- 1. Those that are fixed in the FMP and require FMP amendment to change;
- 2. Those that are framework-type measures that the state can change following criteria set out in the FMP; and
- 3. Those measures that are neither rigidly specified nor frameworked in the FMP.

Under the shared state and federal management structure specified in the FMP, decisions regarding management of crab stocks that are reserved to the Council and NMFS under the FMP Annual OFL and ACL status determinations are made by NMFS with Council input subject to federal requirements under the Magnuson-Stevens Reauthorization Act; as the findings of scientific assessments, stock status determinations and not in themselves considered to be management decisions.

Amendments to the FMP itself (Category 1 measures) pertain to changes in the federal regulatory framework under which the crab fisheries are managed, and are thus reserved to the Council and NMFS. Such changes typically involve measures of sufficient scope that they require federal rulemaking and call for preparation of dedicated socioeconomic analyses of decision alternatives, typically in the form of a combined Environmental Impact Statement or Environmental Assessment, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis (EIS or EA/RIR/IRFA; e.g. NMFS, 2004). Category 2 and 3 measures are deferred to the State subject to terms of the FMP. Annual OFL and ACL stock status determinations are approved by the Council and NMFS Alaska Regional Office under the FMP in conformance with the Magnuson Stevens Act. As the findings of scientific assessments, status determinations and not in themselves considered to be management decisions. Although these determinations set the upper bound on total catch of FMP crab stocks, including both directed fishing and bycatch in other fisheries, decisions with respect to annual Total Allowable Catch (TAC) and GHL (Guideline Harvest Level) levels for directed fishing are designated Category 2 measures deferred in the FMP to the state. TACs are set for crab fisheries managed under the Crab Rationalization Program, described in further detail below, while GHLs are set by the state for the Pribilof Islands golden king crab and Norton Sound red king crab fisheries.

Of the 10 crab stocks and 11 fisheries managed under the FMP,<sup>1</sup> seven fisheries were open to

 $<sup>^{1}</sup>$ There are currently 11 distinctly managed fisheries on the 10 crab stocks managed under the FMP; catch

targeted fishing and were actively prosecuted during 2022, including the reduced BSS fishery, both the Eastern and Western Bering Sea Tanner crab (EBT/WBT) fisheries, both Eastern and Western Aleutian Islands golden king crab (EAG/WAG) fisheries, and, outside of the Crab Rationalization Program, both Norton Sound red king crab (NSR) and Pribilof Islands golden king crab (PIG) fisheries. The EBT fishery was reopened to targeted fishing for the 2022/23 season after several years of closure. The Bristol Bay red king crab (BBR) fishery has not been declared by the Council to be overfished, however, the Alaska Department of Fish and Game (ADFG) closed the fishery for the 2021/22 and 2022/23 seasons due to low survey abundance. The Saint Matthew blue king crab (SMB) fishery has been closed to targeted fishing by ADFG for the 2016/17 and subsequent crab seasons; in October, 2018, the Council declared the SMB fishery to be overfished and adopted a rebuilding plan in June, 2020.<sup>2</sup>. The Norton Sound red king crab (NSR) fishery was opened to targeted fishing and resumed active operations during 2022; although declared open by ADFG for the 2020 and 2021 seasons, the principal buyer of commercial NSR landings suspended purchasing from the fishery and the fishery did not operate during those years (ADFG, 2022). The Western Aleutian red king crab fishery (WAI) has been closed since 2003/04, and the Pribilof Islands red and blue king crab have been closed since 1999, and are both currently designated overfished.

Subsequent to the 2022 calendar year, Council and ADFG management has largely maintained the status determinations and fishery closures in place during that year, with two notable exceptions. With mature female biomass estimates for the Bristol Bay red king crab stock exceeding required thresholds in 2023, ADFG opened the BBR fishery to targeted fishing for the 2023/24 season, with a TAC of 2.15 million pounds. Although the BSS fishery opened for the 2021/22 season, with a sharply reduced TAC issued by ADFG, the fishery was subsequently closed by ADFG for the 2022/23 and 2023/24 seasons. <sup>3</sup> The EBT, WBT, EAG and WAG fisheries remained open for the 2022/23 and 2023/24 seasons, and both NST and PIG fisheries remained opened for 2023. Further information on TAC/GHL issuance for all FMP crab fisheries from 2005 to 2023 is provided in the body of the report (see Figure 3.1 and Table 5.1).

#### 2.1.1 BSAI Crab Rationalization Program

In March 2005, NMFS issued a final rule to implement the Crab Rationalization (CR) Program as Amendments 18 and 19 to the BSAI Crab FMP. The CR Program went into effect with the 2005/2006 crab season that began in August 2005, which affects the following fisheries: Bristol Bay red king crab (BBR), Bering Sea snow crab (BSS), Eastern Bering Sea Tanner crab (EBT), Western Bering Sea Tanner crab (WBT), Pribilof blue and red king crab (PIK), St. Matthew Island blue king crab (SMB), Western Aleutian Islands golden king crab (WAG), Eastern Aleutian Islands golden king crab (WAI). Two fisheries managed under the BSAI crab FMP, Norton Sound red king crab (NSR) and Pribilof Islands golden king crab (PIG), are excluded from the CR Program.

The CR Program allocates BSAI crab resources to qualifying harvesters, vessel crew members, processors, and Western Alaska coastal communities. Under terms of FMP Amendments 18 and

allocations and other management elements are administered separately for the Eastern and Western components of the Bering Sea Tanner crab stock, and for the Eastern and Western components of the Aleutian Islands golden king crab stock, and the Pribilof Island blue and red king crab stocks are managed collectively as a single fishery.

 $<sup>^2\</sup>mathrm{Issued}$  as Amendment 50 to the FMP by NMFS in October, 2020 (85 FR 71272)

 $<sup>^{3}</sup>$ As a result of the 2021/22 stock assessment, the Council declared the Eastern Bering Sea snow crab stock overfished on October 19, 2021. The Council took final action on a preferred alternative rebuilding plan for the BSS fishery at its February, 2023 meeting.

19 and subsequent amendments, harvest and processing privileges in the CR fisheries are granted as long-term percentage shares, designated as harvest quota share (QS) and processor quota share (PQS). Subject to annual application requirements, annual allocations proportional to QS and PQS percentages are issued to participating share holders as Individual Fishing Quota (IFQ) and Individual Processing Quota (IPQ) permits, granting pound-denominated quantities of catch and processing shares of the annual Total Allowable Catch (TAC). The harvest component of the CR fisheries is divided between the QS/IFQ component, representing 90% of the annual TAC, and the remaining 10% allocated as Community Development Quota (CDQ) or, for Western Aleutian Islands golden king crab fishery, Adak Community Allocation (ACA) quota. Under the three-pie allocation system that is unique to the CR Program, a portion of the harvest shares issued as IFQ are subject to a share matching requirement, wherein subject IFQ must be sold to qualified crab buyers holding shares of IPQ, with additional delivery requirements designating a portion of share-matched IFQ for delivery to specified regions within the BSAI. Specifically, IFQ allocations issued to catcher vessel owners (CVO-IFQ) are issued as 90 % Class A IFQ, subject to regional delivery requirements and share-matching, and the remaining 10% designated Class B IFQ are exempt from share matching and regional delivery requirements. All other QS/IFQ pools, including those issued to catcher/processor owners, catcher/processor crew members, and catcher vessel crew members, as well as CDQ and ACA allocations, are exempt from regional delivery and share matching requirements.

In this report the terms "BSAI crab" and "FMP crab" are interchangeably used to denote the collective commercial crab fisheries associated with the ten crab stocks currently managed under the BSAI crab FMP, and "CR crab" to denote those fisheries included in the CR program, inclusive of all QS/PQS, CDQ, and ACA allocations; and the term "IFQ fisheries" to denote specifically the QS/IFQ and PQS/IPQ allocation fisheries within the program. All other crab stocks in waters off Alaska are exclusively managed by the State and are outside the scope of this report.

This overview outlines the key details regarding the structure of BSAI crab management and the CR program as referenced in this report. For detailed information regarding the regulatory structure of BSAI crab fisheries and recent management actions, readers are referred to the FMP, NMFS Alaska Region's Annual Bering Sea and Aleutian Islands Crab Rationalization Program webpage, and the Council's Crab Rationalization webpage (website address URL's and links to other useful references regarding the CR Program are provided below). The Council completed its 10 Year Review of the CR Program during 2016, and readers are directed to the review for a comprehensive analysis of the performance of the CR program over the 2005 to 2014 period (NPFMC, 2017). Several elements of annual CR program administration of importance to economic status of the fisheries are publicly reported on the NMFS AKR CR program webpage, including annual reports of QS/PQS entity holdings and IFQ/IPQ annual allocations; harvest cooperative formation, membership, and IFQ assignment by fishery; initiation and outcomes of arbitration proceedings between harvesters and processors; safety and regulatory compliance by program participants; loan issuance under the NMFS Fisheries Finance Program; and CRP cost recovery fee assessment and collection.

Additional information on BSAI crab fisheries is available from NOAA Fisheries Alaska Regional Office (AKR), the North Pacific Fishery Management Council (NPFMC), and the Alaska Department of Fish & Game (ADF&G). Readers seeking more extensive discussion of fishery history and management may find the following resources particularly useful:

- NOAA Fisheries Alaska Region
  - BSAI Crab Fisheries: https://alaskafisheries.noaa.gov/fisheries/crab

- BSAI Crab Rationalization (includes history of relevant amendments to the FMP): https://alaskafisheries.noaa.gov/fisheries/bsai-crab-rationalization; see especially the Frequently Asked Questions for an overview of CR program provisions and definition of terms (https://alaskafisheries.noaa.gov/sites/default/files/crabratfaq052616.pdf)
- NPFMC
  - BSAI Crab FMP: http://www.npfmc.org/wp-content/PDFdocuments/fmp/CrabFMPOct11. pdf
  - Bering Sea and Aleutian Islands Crab Rationalization Program: http://www.npfmc.org/ crabrationalization/
  - BSAI Crab Plan Team: http://www.npfmc.org/fishery-management-plan-team/bsai-crab-plan-team/
- ADF&G Shellfish Management
  - Westward Region, Bering Sea & Aleutian Islands Area Shellfish: http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareaaleutianislands.shellfish
  - Arctic-Yukon-Kuskokwim Region, Norton Sound and Kotzebue Shellfish (for information on the Norton Sound red king crab fishery): http://www.adfg.alaska.gov/index. cfm?adfg=commercialbyareanortonsound.shellfish

### 2.2 Data Sources

The current report summarizes information available to date, largely comprising data reported through 2023 for the 2022 calendar year, spanning the end of the 2021/2022 and beginning of the 2022/2023 crab seasons. All data sources are subject to revision as data errors at the observation-level are identified and corrected. Data for the most recent period available for all sources, but particularly from BSAI Crab Economic Data Report (EDR) data, is presented on a preliminary basis and may change significantly in the next annual release of the report, or in an amended version of the current report.

This document is the primary channel for publication of aggregate data from the Crab EDR program administered by NMFS Alaska Fisheries Science Center, Economic and Social Sciences Research Program (AFSC, ESSRP). The EDR program is a mandatory census involving reporting of detailed operational and financial information by owners and leaseholders of vessels and processing plants participating in CR program fisheries. The EDR program was designed by the Council as a component of the Crab Rationalization Program to improve its ability to monitor and assess achievement of social and economic objectives of management set forth in the FMP. Broadly speaking, the objectives of this reporting requirement are to monitor the economic performance of the rationalization program in terms of changes in the efficiency and profitability of the fisheries, and economic stability for harvesters, processors, and coastal communities, as a result of the rationalization of the fisheries and in response to ongoing management decisions. The EDR reporting requirement was implemented in 2005, with baseline data submission required retroactively for 1998, 2001, and 2004, and subsequently, on an annual basis, for calendar year crab fishing and processing activities for 2005 to present. Revised EDR reporting requirements

implemented under Amendment 42 (78 FR 36122, June 17, 2013) to the FMP went into effect during 2013 for 2012 and subsequent calendar year data.

The current Economic Status Report focuses on reporting summary statistics for reported values across EDR data elements identified as sufficiently accurate for public reporting. Several key elements in the EDR data collection prior to 2012 were limited by data quality have not been used in analysis of the CR program (AFSC, 2011) and have been withheld from the current report. These include quantity and cost of fuel used in the fishery, prices and costs for leasing of Individual Fishing Quota (IFQ), and spending for factor inputs by individual location. Given the importance of these elements in examining changes in profitability and distribution of income generated by and within the fishery, these data quality issues have limited the analysis of several key performance metrics for the fishery. Revised data collection protocols implemented for 2012 and subsequent reporting years have corrected errors associated with quantity and cost of fuel and prices and costs for leasing of crab fishing quota, and data reported for 2012 forward are presented in the current report; data reported previous to 2012 continue to be withheld due to data quality limitations. Several data elements were eliminated under revised EDR protocols, most notably all operating and capital cost elements for the crab fishing vessel and processing sectors, with the exception of fishing crew wages, processing labor wages, aggregate salary expenses, lease expenses for fishing quota (IFQ and CDQ/ACA quota) and processing quota (IPQ), vessel expenses for fuel, bait, and food and provisions, and payments for custom processing of crab purchased but not processed by the buyer submitting the EDR.

Varying degrees of coverage error apply to EDR data collected retroactively in 2005 for calendar years 1998, 2001, and 2004, as well as for certain processing-sector reporting elements in all years of the data collection. The historical (pre-2005) reporting requirement was tied to issuance of fishing and processing quota in the rationalized fishery. As such, the historical data may exclude operations that participated in the crab fisheries in 1998, 2001, and/or 2004 but did not anticipate receiving quota in the rationalized fishery. Additionally, because purchasers of CR crab that do not process any crab in their own facility are exempt from EDR reporting requirements, the data collection does not represent a full census of activity, revenue, and costs in the processing sector.

A number of other sources in addition to the EDR database have been utilized to compile the statistics presented in this report. ADF&G fish tickets document commercial harvest from Alaska commercial fishery resources, including all BSAI crab fisheries. Since implementation of the crab rationalization program in 2005/06, NMFS Alaska Region, Restricted Access Management (RAM) division has maintained accounting of landings, quota usage, and quota disposition in the IFQ crab fisheries. The ADF&G Commercial Operator's Annual Report (COAR) provides data on statewide crab production differentiated by crab species, product, and process type; and is additionally used by the Alaska Commercial Fisheries Entry Commission (CFEC) to estimate crab ex-vessel pricing. Regular reporting on BSAI crab fisheries cited in this document include the Bering Sea and Aleutian Islands Crab Rationalization Program Report, published annually (through the 2011/2012 crab seasons) by NMFS Alaska Region, RAM Division; and area management reports published by ADF&G.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup>With the exception of Norton Sound red king crab, all fisheries included in the BSAI crab FMP are managed as part of the ADF&G Westward Region, Bering Sea/Aleutian Islands Management Area, with annual reporting on these fisheries available in the Annual Management Report for the Commercial and Subsistence Shellfish Fisheries of the Aleutian Islands, Bering Sea and the Westward Region's Shellfish Observer Program link. Norton Sound red king crab is managed as part of the Norton Sound and Kotzebue Management Area within the Artic-YukonKuskokwim Region; reporting is provided in Annual Management Report Norton Sound, Port Clarence, and Kotzebue link. The Program Report provides information on the annual management of the CR program fisheries, and particularly the

### 2.3 Data Conventions

Under the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (P.L. 109-479), fishery information required to be submitted under Fishery Management Plans, including landings data, is confidential. NOAA Administrative Order (NAO) 216-100 is the principal guidance for NOAA Fisheries employees on protocols for handling confidential data. To assure confidentiality, data must be structured or aggregated so that the identity of the submitter cannot be determined from the present release of the data or in combination with other releases. "Submitter" is applied in context for the specific data presented. Data provided by the State of Alaska are treated consistent with the Memorandum of Understanding between NMFS and the State of Alaska regarding data sharing. Due to the sensitive nature of financial information reported in this document, confidentiality protocols have been interpreted conservatively and may result in greater suppression of statistical information representing contributions from low numbers of reporting units. Data cited in this report have been aggregated across individual reporting entities by year and management unit so as to satisfy confidentiality requirements, while maximizing detail and comparability of statistics both within and among tables and figures.

All price, revenue, and other monetary values in the report, unless otherwise noted. The Gross Domestic Production (GDP) chain-type price index (https://research.stlouisfed.org/fred2/ series/GDPCTPI) accounts for change in the general price level of US domestic production of all goods and services, and is used in this report to deflate estimates of production revenues and costs reported for the crab processing sector, and with some exceptions, for costs and revenues in the harvest sector. Where noted, the Personal Consumption Expenditures (PCE) chain-type price index (https://fred.stlouisfed.org/series/PCEPI)) is used to deflate estimates of income accruing to vessel owners and crew in the harvest sector. GDP and CPI Index values from 1991 to 2022 are provided in Table 5.52 of Section 6.5

Some notable discontinuities and other limitations in source data limit comparability of statistics between tables or in time series within some tables. In particular, discontinuation or revision of several capital and operating expenditure data elements are reflected in the current report, with data series for the affected data elements terminating at 2011 or beginning at 2012. To replace data previously provided by EDR reporting of days active in crab fisheries in the EDR (days fishing, days steaming and offloading, and days processing; discontinued for 2012 and subsequent years), data collected by ADF&G is incorporated in the current report. However, as the replacement data set (Confidential Interview Form (CIF) data) is only available beginning 2008, all statistics presented on a daily pro-rata basis in the report use CIF data where available, and EDR data otherwise. The calendar-year basis by which most statistics in this report are presented is incongruent with the July-to-June management season of BSAI crab fisheries, resulting in some statistics presented on a fishery-year basis where disaggregation to the calendar-year is infeasible with available data. Declining participation in CR program fisheries following rationalization has reduced the number of reporting entities in some strata below minimum thresholds for nondisclosure, necessitating aggregation across strata in order to maximize use and dissemination of available data. EDR data

IFQ fishery component of the program. ADF&G fishery management reports provide information on fishery history, management, and stock status, in addition to detailed information on fishing activity occurring in the most recent fishing season. Citations for these and other sources used in compiling this report are provided in figure and table footnotes and in the References section.

<sup>&</sup>lt;sup>5</sup>Previous editions of the report used U.S. Bureau of Labor Statistics Producer Price Index for unprocessed and packaged fish to adjust for inflation, but for consistency with the Groundfish Economic SAFE document, this and subsequent editions of the report use the GDP deflator.

for the Eastern and Western Aleutian Islands golden king crab fisheries are reported together in aggregate, even though the fisheries are prosecuted by partially distinct fleets and managed as distinct fisheries. Users should also note the discontinuity in presentation of EDR statistics by industry sector between 2009 and earlier years: due to low participation in the catcher/processor sector, EDR data from 2009 forward are presented with aggregations over the catcher/processor and catcher vessel sectors for statistics related to harvesting activity; and over the catcher/processor, shoreside processor, and floating processor sectors for statistics related to processing activity. Users should also note that the validation process for EDR data and finalization of the dataset may take several months following the EDR submission deadline, and statistical values for the most recent period published in the report may be subject to revision in the next annual edition.

Users of this report are strongly encouraged to consult table and figure footnotes, which provide citations of data sources, interpretive guidance, and discussion of data limitations and qualifications in addition to those already noted above and/or in discussion text accompanying figures and tables. Figures for selected results are accompanied by cross-references to the relevant tabular data; more extensive footnotes are provided with tabular data in order to conserve space. Users should also note the abbreviation and notation conventions used in tabular and graphical presentations of data in this report:

*	Data suppressed to prevent disclosure of confidential information
n/a or -	Not applicable
_	No data available (data not collected, no observations in reported data, or available data are insufficient for public reporting).
2005 or 05	Calendar year, or FMP crab fishing season that occurred
wholly within calendar year	
2005/06 or 05/06	FMP crab fishing year
lbs	Pounds
mt or t	Metric tons
obs or observations for measure of interest	Number of observations with value $> 0$
sd	Standard deviation
\$	US dollars; inflation-adjusted to 2019-equivalent value
(blank)	Statistic not calculated; in some tables, certain statistics (e.g. mean or median) are calculated only for a subset of categories or strata, such that columns or rows in a portion of the table are left blank.

Abbrevations and notations used in tables and figures

## Chapter 3

# Economic Status and Trends in BSAI Crab Fisheries

The following section presents information on the economic status of BSAI crab commercial fisheries in terms of economic output, income, and employment; operating and production costs; use and distribution of ownership in quota share allocations and other fishery capital assets; fishing and processing capacity and effort; and international trade in crab commodities. Data are summarized as aggregate totals and/or averages calculated over relevant economic units, primarily at the level of harvesting and processing sectors within individual crab fisheries, with mean and/or median values representing the average value across individual vessels and processing facilities within the respective sector with additional levels of stratification as appropriate, and/or aggregated over some or all crab fisheries. The presentation is largely limited to these descriptive statistics, with measures of variability and/or uncertainty for selected variables where supported by available data. Depending on the data source, results are reported by calendar year (denoted as a single year; for example, 2020), or crab fishery year (spanning July-June and denoted, for example, as 2019/20). Generally, annual economic statistics are reported for calendar years up to 2022, the most recent year for which primary data sources are complete (encompassing the spring portion of the 2021/22crab season and fall portion of the 2022/23 crab season). Where available, more current statistics and information are reported for calendar year 2023, crab season 2022/23, and crab season 2023/24.

As many of the key data sources are reported on an annual basis, current status and trends are framed in the context of inter-annual variation, with a focus on the most recent five to seven years of the crab fishery, with longer time series presented where available and longer historical perspectives noted where relevant, particularly with regard to pre- and post-rationalization comparisons, and structural changes developing in the crab industry subsequent to Crab Rationalization (CR) program implementation where indicated. To the extent that descriptive statistics indicate a sustained directional change in magnitude or distribution of economic benefits, discussion of potential trends and associated management and/or market changes is limited to qualitative description of observed changes over time. Statistical tests to assess significant differences in measured values of the descriptive statistics or attribute causality to management or market factors, or models to forecast changes in status of the fisheries in the future, are not employed in the presentation.

As detailed in the 2021 Crab Stock Assessment and Fishery Evaluation Report link, poor and declining abundance and recruitment trends across BSAI crab stocks that have historically

accounted for nearly all of the commercial production volume and value in FMP crab fisheries, in conjunction with increased uncertainty in stock assessments associated with rapid, ongoing changes in the climatic and ecological conditions affecting the marine environment of the BSAI, and the suspension of the EBS trawl survey data for 2020 due to the COVID-19 pandemic, resulted in OFL and ABC specifications adopted by the Council in October, 2021 for the 2021/22 crab season that collectively were at historically low levels at the time. Commensurate with Council action on ABC and OFL specifications, Crab Plan Team recommendations, and a conservative management strategy in light of elevated scientific uncertainty, ADF&G announced moderate to severe reductions in 2021/2022 season TACs and closure of the BBR fishery. The sustained decline in the BBR fishery over several years and subsequent closure for the 2022/23 season has been coupled with the sudden collapse of the EBS snow crab stock, resulting in the 88% reduction to record low TAC issuance for the 2021/22 BSS fishery, followed by closure for the 2022/23 and 2023/24 seasons. As of publication of the 2023 edition of this report, the BSAI crab fishery as a whole faces an unprecedented resource and economic crisis.

The BSAI crab industry, dependent communities, and other stakeholders currently face the prospect of a prolonged period of income and employment loss as a result of trends and closures in these and other crab fisheries. The scope and scale of potential structural changes within the crab industry and extended community that may ultimately be precipitated by the immediate crisis are unknown and difficult to anticipate with any clarity. These emerging changes occur in the context of broader changes in the Alaskan fishery and seafood economy associated with both local resource conditions, domestic and international market conditions, and ongoing socio-political pressures. As noted above, most data sources used to compile this report are lagged by a year or more; as such, the economic status of the BSAI crab fisheries, as represented by the array of metrics and indices contained in the 2023 edition of this report represent an economic benchmark of sorts, from which future changes may be anticipated, assessed, and ultimately measured.

Given the retrospective nature of this report, necessitated by the *post-hoc* data collection and production timelines for principal data sources, the authors wish to acknowledge the untimeliness of the information presented below, in light of the historically low TAC levels issued for the recent and current crab seasons, and elevated concerns among industry and the public regarding the current status and outlook for BSAI crab fisheries. It is clear that the diminished physical production in the harvesting and processing sectors in 2021 and 2022, and yet to be assessed for 2023 and 2024, will continue to be in sharp decline relative to the historical baseline up to calendar year 2020 that is documented herein. These and other recent changes and trends, including the effects of the COVID-19 pandemic, clearly have critical implications for the current status of BSAI crab fisheries, and that of direct and indirect participants in the crab harvesting and processing sectors. This includes vessel and processing plant owners and managers, crew members and employees, and quota share holders, as well as material and service suppliers and other businesses, municipal governments and services, and other entities and institutions in affected communities.

It can be anticipated that short-term structural adjustment within both industry sectors, to minimize costs and maintain operating efficiency at reduced production levels, will result in immediate contraction in the active fleet, and potentially in the engagement of processing plants in crab production. Any such structural adjustment, however ultimately resolved, will have immediate distributional effects within and between the respective industry sectors, with community-level effects, including direct effects on employment and income, and may accelerate or precipitate longer-term structural and distributional changes. The immediate short-term structural adjustments to recent TAC reductions and fishery closures are captured to some extent in metrics

reported through 2022 in this report. As data become available and additional analytical metrics developed, it is the authors' intent that future updates of this report will provide the basis for more timely assessment of the short-term effects of TAC and production changes, propagating through the range of metrics reported below, and augmented with more comprehensive metrics of economic risk and performance.

#### 3.1 Economic Output

#### 3.1.1 Annual TAC/GHL, Landings, and Finished Product Volume

Crab season Total Allowable Catch (TAC) and Guideline Harvest Limit (GHL) levels are reported by crab fishery in Table 5.1 and summarized graphically in Figure 3.1, including TACs issued for 2022/23 and 2023/24. TACs in the BBR fishery declined steadily from the 9.99 million pounds issued for the 2014/15 season, to 2.65 million pounds issued for 2020/21, representing the lowest TAC since the last closure of the fishery in 1995/96. The fishery was subsequently closed for 2021/22and 2022/23 seasons, and was opened for the 2023/24 season with a TAC of 2.15 million pounds. After reaching a historical low (to that point) of 19 million pounds issued for the 2017/18 season, TACs in the BSS fishery trended successively upward over the following three seasons, reaching 45 million pounds for the 2020/21 season, before declining by 90% to 5.6 million pounds for 2021/22, followed by closure for 2022/23 and 2023/24 seasons. The 2022/23 closures represent the first time in the management history of commercial crab fishing in the BSAI that both the BBR and BSS fisheries, comprising the principal target and income source for largest segment of the BSAI crab fleet, have been simultaneously closed. TACs in both EAG and WAG fisheries intermittently saw small incremental increases up through the 2015/16 season, reaching 3.31 million pounds in the EAG fishery and 2.98 million pounds in the WAG fishery. The latter was reduced to 2.24 million pounds for the 2016/17 season, and has incrementally increased over successive seasons, to 2.96 million pounds for the 2020/21 season, successively declining to 1.73 million pounds for 2022/23. and increasing to 1.81 million pounds for 2023/24. TAC in the EAG fishery peaked at 4.31 million pounds for the 2019/20 season, declining successively over the following three seasons, to 3.32million pounds for 2022/23, and increasing for 2023/24 to 3.72 million pounds.

Reductions in the BTW fishery TAC in 2017/18 and 2018/19 were followed in 2019/20 with closure of the fishery under ADF&G's harvest management strategy, but reopened for 2020/21 with a TAC of 2.35 million pounds, which was reduced for 2021/22 to 1.1 million pounds, followed by marginal increases to 1.16 million pounds for 2022/23 and 1.32 million pounds for 2023/24. The EBT fishery opened for the 2022/23 season for the first time since 2015/16, with a much-reduced TAC of 850 thousand pounds, followed by 760 thousand pounds issued for 2023/24. The Norton Sound red king crab (NSR) fishery was opened to targeted fishing with a TAC of 342 thousand pounds, and resumed active operations during 2022, with a TAC of 390 thousand pounds issued for 2023; although declared open by ADFG for the 2020 and 2021 seasons, the principal buyer of commercial NSR landings suspended purchasing from the fishery and the fishery did not operate during those years (ADFG, 2022).

The Saint Matthew blue king crab (SMB) fishery has been closed to targeted fishing by ADFG for the 2016/17 and subsequent crab seasons through 2023/24. The Western Aleutian red king crab fishery (WAI) has been closed since 2003/04, and the Pribilof Islands red and blue king crab have been closed since 1999; all three stocks are currently designated overfished.

As of the 2015/16 crab season, allowable catch quantities in all BSAI crab fisheries open to targeted fishing had reached full exploitation (i.e., 98-100 percent of total allocation landed), including the WBT, which previously varied below 50% during some seasons (Table 5.1). Since the 2010/11 crab season, all FMP crab fisheries that were considered in-development following periods of extended closures (including both BST fisheries and the SMB fishery) maintained greater than 75% exploitation of allowable catch during open seasons prior to subsequent closures in the SMB and EBT fisheries; recent open seasons in the EBT and WBT fisheries have exhibited low exploitation rates, e.g. 62% exploitation in the 2020/21 WBT fishery.

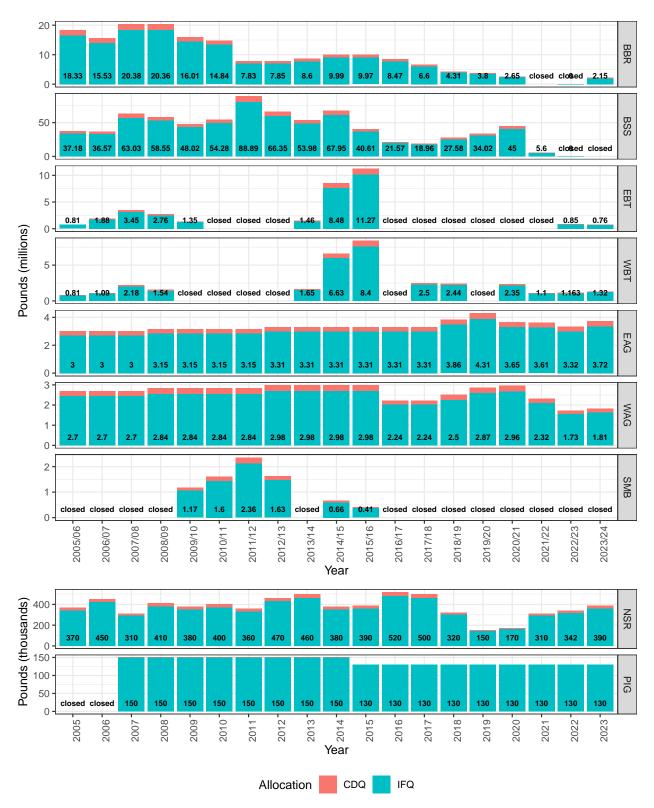


Figure 3.1: TACs/GHLs and management program allocations, BSAI crab fisheries

**Source** ADF&G. Tabular data available in Table 5.1 Numeric values indicate total TAC/GHL allocations (in millions or thousands of pounds) to directed fishing. All dollar values are adjusted for inflation to 2022-equivalent value.

Across all fisheries managed under the BSAI Crab FMP during 2022, the total volume of ex-vessel

landings was 11.1 million pounds (5.01 thousand metric tons (mt)), a 78% decline from the previous year. The overall decline in aggregate ex-vessel production during 2022 was driven mainly by the 83% decline in total catch landed in the BSS fishery, to 5.5 million pounds (2.5 thousand mt) in 2022, as well as the reduced landings in the AIG fishery, declining 31% to 4.1 million pounds (0.7 thousand mt).

Processing sector finished production volume during 2022 was 7.2 million pounds (3.3 thousand mt) aggregated over all BSAI crab species and product forms, also declining 78% from the previous year. Similar to ex-vessel production, the 78% decline in 2022 processing sector output volume at the FMP-level was driven in the largest part by decreased production in the BSS fishery, with finished volume of 3.9 million pounds (2.0 thousand mt), declining 88% over the previous year, as well as a 31% decline in finished volume in the AIG fisheries, to 2.6 million pounds (1.0 thousand mt). The BST fisheries saw a 39% increase in landings in 2022, to 1.48 million pounds (670 mt), and a 57% increase in finished production volume, to 1.02 million pounds (461 mt).

Figures 3.2 and 3.3 summarize 1998 to 2022 annual (calendar year) values for total landed live catch and gross ex-vessel revenue (detailed in Tables 5.4 to 5.6). Finished production volume and first wholesale value are reported in Tables 5.7 to 5.9 for all crab fisheries managed under the BSAI crab FMP. Figure 3.3 displays production and revenue time series in separate vertical bar graphs for each fishery (note that the vertical scales vary by fishery). To enable clearer comparison of the relative contribution of individual fisheries over time (graphed separately for harvesting and processing sectors), Figure 3.2 displays values of revenue and volume, respectively, aggregated over all crab fisheries and color coded by fishery in proportional area of vertical bars.

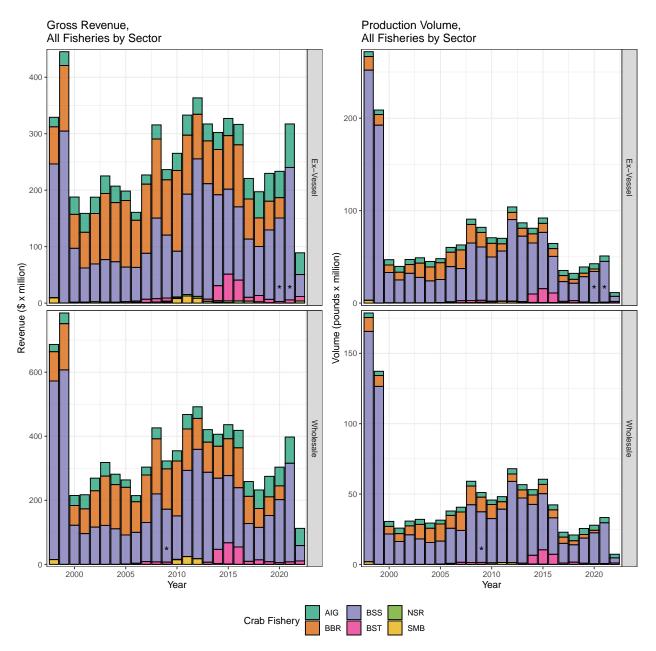


Figure 3.2: Ex-vessel and first wholesale gross revenue and production volume, by calendar year, FMP crab fisheries

**Source** ADF&G fish tickets, eLandings, CFEC pricing based on COAR buying reports. Data shown by calendar year. Tabular results are shown in Tables 5.4 and 5.7. Asterisks indicate data for one or more fisheries were not plotted due to confidentiality. Includes commercial harvest from general, IFQ, and CDQ management programs and commercial pounds harvested by catcher/processors; NSR is not included in production volume and value. All dollar values are adjusted for inflation to 2022-equivalent value.

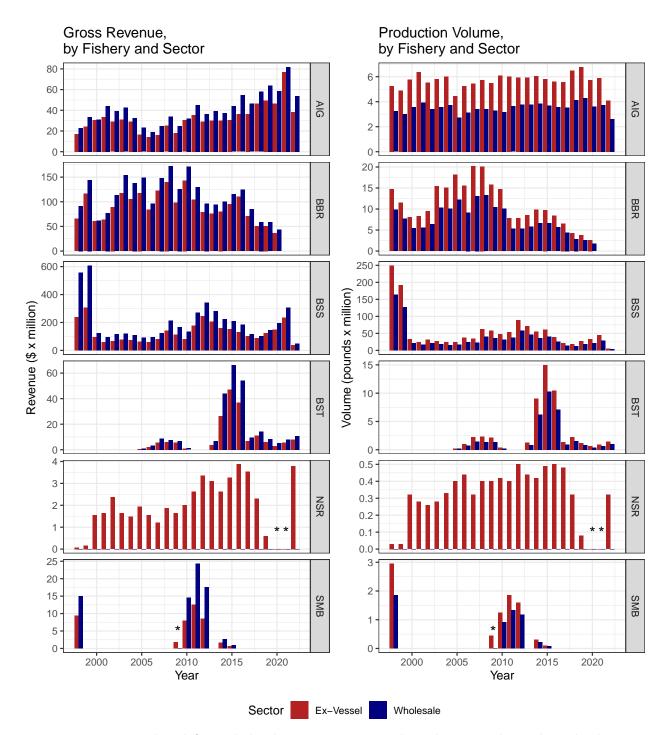


Figure 3.3: Ex-vessel and first wholesale gross revenue and production volume, by calendar year and fishery

**Source** ADF&G fish tickets, eLandings, CFEC pricing based on COAR buying reports. Data shown by calendar year. Tabular results are shown in Tables 5.4 and 5.7. Asterisks indicate data were not plotted due to confidentiality. Includes commercial harvest from general, IFQ, and CDQ management programs and commercial pounds harvested by catcher/processors; NSR is not included in production volume and value. All dollar values are adjusted for inflation to 2022-equivalent value.

## 3.1.2 Ex-vessel and First Wholesale Prices and Revenue Value of Production

Among the unusual market dynamics arising from the global Covid-19 pandemic and evolving public health measures undertaken by various levels of government within the U.S. and internationally, global market values for premium seafood products, particularly shellfish, including Alaskan king and snow crab, surged beginning in late 2020. In broad terms, pandemic restrictions in most U.S. states beginning in mid-2020 reduced consumer access to restaurants and other food service outlets, while federal income support payments increased disposable incomes for many households, stimulating consumer demand for retail sales of premium seafood products that could be prepared and consumed at home. In contrast to most commodity seafood products oriented toward various food service sectors, units of frozen king and snow crab clusters packaged for food service could be more readily redirected toward retail warehouse outlets (e.g., Costco), facilitating conversion to retail market distribution throughout much of the first two years of the pandemic, during which consumer demand drove prices to unprecedented levels beginning in late 2020 through early 2022, followed by a declining trend beginning mid-2022.

As a result, ex-vessel and first-wholesale price records were set across all BSAI crab fisheries that were open to commercial harvest during 2021, and again in 2022 for the BSS fishery, but with the mid-year reversal in trend resulting in moderate declines in average prices over the year for the AIG and BST fisheries during 2022. This period of record high market values notably excluded Bristol Bay red king crab, which closed for the 2021/22 and 2022/23 seasons, after a historically low TAC in 2019/20; opening of the BBR fishery for 2023/24 comes amid indications of strong ex-vessel price for king crab landings, though somewhat reduced from the 2021 peak.

Figure 3.4 summarizes the corresponding time series of ex-vessel and first wholesale prices by crab fishery (excluding WAI, PIG, and PIK fisheries, for which data cannot be reported due to confidentiality), represented as weighted average price per pound, and displaying a relative comparison of ex-vessel and first wholesale prices (i.e., ex-vessel price as percentage of wholesale price) over time.<sup>1</sup> Tables 5.4 and 5.7 report statistics, by crab fishery, for ex-vessel and first wholesale prices, respectively, including weighted average values as well as mean and standard

<sup>&</sup>lt;sup>1</sup>A note on the term "price" as used in this report: a variety of price indices are presented herein that are derived from data on volume and revenue of sales of landed crab and/or finished crab product, collected and reported at different levels of aggregation. The typical representation of ex-vessel or first-wholesale prices in fishery management reports (e.g., NMFS, 2012) is fishery- or fleet-level average price, calculated as aggregate revenue divided by aggregate volume. Rather than representing the per-unit market "price" for a uniform commodity, this index is equivalent to the weighted arithmetic mean calculated over individual P sale price observations, weighted by volume of individual sale. For P P example, ex-vessel price calculated over individual 1 sale price observations, weighted by volume of individual sale. For P P example, ex-vessel price calculated as the quotient  $\frac{\sum_i r_i}{\sum_i v_i}$ , where  $\sum_i r_i$  is the ex-vessel sale revenue and  $\sum_i v_i$  of sold landings, aggregated over all vessels  $i \dots j$ , is equivalent to the weighted arithmetic mean price calculated as  $p = \frac{\sum_i v_i p_i}{\sum_i v_i} = \frac{\sum_i v_i (\frac{r_i}{v_i})}{\sum_i v_i} = \frac{\sum_i r_i}{\sum_i v_i}$ , where pi is the individual price observation for the  $i^{th}$  vessel. In relevant tables and figures in this report, the aggregate revenue (or cost) per volume ratio is referred to as weighted average price; this representation of average per-unit value places greater emphasis on large volume sales (or sellers), relative to smaller volume sales. This is of particular importance where factors that may affect an individual transaction price are correlated with the volume of the transaction and/or the frequency of similar transactions, such as type of harvest quota used in sales of ex-vessel landings, or wholesale product form of individual processor sales. It is important to note that, with limited exceptions, observation level data used to prepare this report represent yearly aggregate sale volume and revenue reported by industry entities for different categories of goods, rather than transaction-level data representing sales of uniformly-defined commodities. For selected tables and figures displaying economic value per unit metrics (price, cost, wages, or other per-unit rates), medians and/or unweighted means and associated measures of dispersion are included where appropriate to represent the center and, in some cases, dispersion of observation-level data. In cases where data do not appear to conform to an approximately normal distribution, median value of observation-level price per-unit is reported rather than mean.

deviation calculated over observation-level unit values, which indicate the degree of variation across per-unit value of ex-vessel and first wholesale sales reported in a given year.

The largest proportional crab price increases for 2021 were reported for Aleutian Islands golden king crab, which increased by 61% at ex-vessel from the previous record high of \$8.16 per pound in 2020, to \$13.09 per pound, followed by a 28% decline to \$9.42 for 2022. Average first wholesale price for sales of finished production from the AIG crab fishery in 2021 increased by 36% from the record high of \$16.15 per pound the previous year, to \$21.92 per pound, followed by a 5% decline to \$20.73 for 2022. In the BSS fishery, average ex-vessel and first-wholesale prices in 2021 showed somewhat more modest gains from the previous year, but similarly reached record levels, increasing by 21% to \$5.33 per pound landed, followed by a further 33% increase to \$7.10 per pound in 2022. First-wholesale prices for BSS production showed slightly smaller proportional gains in 2021 and 2022, reaching \$10.67 per pound in 2021 (+19%) and \13.36 in 2022 (+25%). Possibly as a result of cooling demand late in 2021, average first wholesale price in the BST fishery exhibited the smallest gain for the year, increasing by 3% to \$12.78 per pound for the year, followed by a 17% decline in 2022 to \10.56 per pound. Ex-vessel price in the BST fishery saw a larger 29% increase in 2021, to \$5.96 per pound, but also declined by 11% for 2022 \$5.29.

The right panel of Figure 3.4 reports the ratio of ex-vessel to first wholesale price, noting that both series represent weighted average prices over all categories of sales within a given fishery and year. Comparison of prices between the harvest and processing sectors is complicated by a number of factors, including price arbitration and differences in ex-vessel prices by harvest quota share type, regional differences, variation in timing of final sales from product inventory, and affiliations between entities in the respective sectors. Notwithstanding factors influencing variation in per-unit price values, Figure 3.4 provides a general indication of the relative value of ex-vessel and first wholesale prices over time.

Since 1998, the price ratio in the AIG fisheries has varied between a low of 41% in 2007 to a high of 64% in 2010, with a sharp increase during 2021 to 60%. The ratio has varied from a low of 28% in the 1998 BSS fishery to a high of 57% in 2017, a was 50% in 2021. In the BBR fishery, the ratio reached a high of 59% during 2019, except for the sharp increase in relative ex-vessel value in 2000, which was observed across fisheries that year. While the ratio of ex-vessel to first wholesale prices has been comparatively stable in the BBR and BSS fisheries after 2000, both exhibit a long-term upward trend.

A more comprehensive analysis of King and snow crab product markets, including product forms and associated wholesale and retail markets and import/export trade, are provided in the most recent \*Market Profiles for Alaska Groundfish and Crab \*(AFSC, 2019).<sup>2</sup>

The effect of an aggregate decline in production volume across crab fisheries, combined with varying changes in market prices, produced an aggregate 73% decrease in ex-vessel revenue over all fisheries in 2022, totaling \$85.3 million for the year, and with aggregate first wholesale revenues decreasing by 73% to \$112.4 million. As usual given the relative scale of the BSS fishery, the production-driven decline in gross revenues in both sectors, to \$38.9 ex-vessel (-83%) and \$47.9 first wholesale (-84%), drove the overall decline in 2022 earnings. Ex-vessel revenues in the AIG fisheries declined 50% from 2021, to \$38.5 million, and by 34% in the processing sector, to \$53.8 million. Ex-vessel revenues in the 2022 BST fisheries increased by 39% to \$7.9 million, and by 29% in the processing sector, to \$10.7 million.

<sup>&</sup>lt;sup>2</sup>Available at https://repository.library.noaa.gov/view/noaa/25242/noaa\_25242\_DS1.pdf

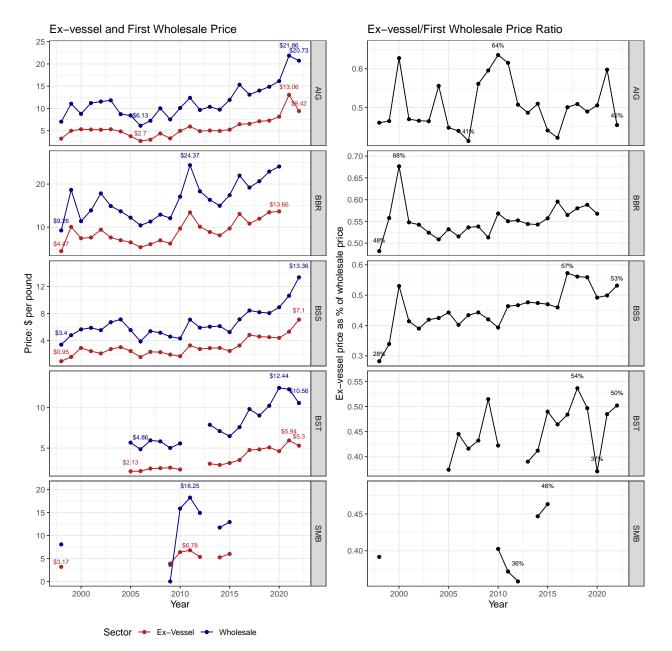


Figure 3.4: Ex-vessel and first wholesale prices, selected fisheries

**Source** NMFS AFSC BSAI Crab Economic Data, and CFEC pricing based on COAR buying reports Data shown by calendar year. Tabular results are shown in Tables 5.4 and 5.7- see table notes for additional detail on calculation and sourcing for price and value statistics. All dollar values are adjusted for inflation to 2022-equivalent value. Note that ex-vessel and first whole prices shown in figure represent weighted mean of values derived from aggregate volume and revenue from calendar year sales reported in crab catcher vessel and processor EDR data. The figure excludes results for WAI, PIG, and PIK fisheries, for which data cannot be reported due to confidentiality.

## 3.2 Income and Employment

## 3.2.1 Processing Sector Employment and Wages

Figure 3.5 summarizes data on crab processing labor employment and wages associated with CR program fisheries (see Table 5.10 for tabular results). Crab processing employment in 2022, as measured by hours of processing labor input (including employees at shore-based plants as well as processing employees on crab catcher/processors) is estimated at 200 thousand labor hours, a 63% decline from 2021. Aggregate wages paid to crab processing line employees across all CR fisheries during 2022 declined by the sam proportion, to \$3.8 million. Based on number of processing labor hours and wage payments in each CR fishery reported by crab processors, average hourly labor earnings over all CR fisheries in 2022 increased for a fourth consecutive year, by 9% to \$18.73 per hour in 2022. The BSS fishery accounted for the largest share of processing labor hours and wages in 2022, at 131 thousand hours and \$2.5 million.

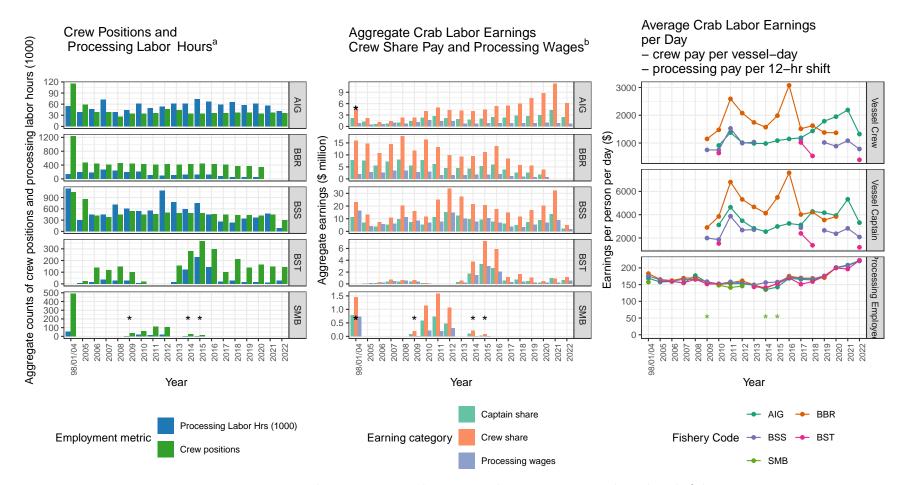


Figure 3.5: Harvest and processing employment and compensation, selected crab fisheries

**Source** NMFS AFSC BSAI Crab Economic Data. Data shown by calendar year.All dollar values are adjusted for inflation to 2022-equivalent value. Tabular results are shown in Tables 5.10, 5.16, and 5.18. Values shown for 98/01/04 represent the annual average over the three-year series. Data for PIK, WAI, and 2008 data for AIG fisheries are suppressed for confidentiality. Asterisks indicates values that are not plotted due to confidentiality. Labor earnings per activity day represent aggregate crew and captain pay per vessel, pro-rated over vessel activity days; processing pay per day represents aggregate processing labor payments divided by number of 12-hour FTE shifts (aggregate processing labor-hours/12).

a 1998-2008 shows CV positions and participants only; 2009 shows data aggregated over CV and CP sectors; 2005 and later crew positions data from ADF&G fish tickets. BSS crew position data were not collected in 2005.

b 1998-2008 data show total and median CV and SFP payments only; 2009 and later data show total and median crew payments over CV and CP sectors combined and processing employee payments over CP and SFP combined.

As indicated in Figure 3.5, inter-annual variation in aggregate processing labor hours and gross earnings are generally consistent with catch and production volume fluctuations. Average hourly wages (represented as daily earnings in the figure, assuming 12-hour daily shifts per employee), estimated from gross wage and payroll hours reported in EDR data, have varied between positive and negative inter-annual changes, while indicating a long term decline in real wage rates over the 2005-2014 period. This trend reversed beginning in 2014, with successive gains of 5% to 12% in annual average wages in the BBR and BSS fisheries, reaching \$13.04 and \$12.82 per hour in the 2016 BBR and BSS fisheries, the highest reported wage rates previously observed since 2004. These increases correspond with Alaska State minimum wage increases beginning January 1, 2015 under Alaska Statute 23.10.050 - 23.10.150, under which minimum hourly wage (in nominal terms) increased from \$7.75 to \$8.75 for 2015 and \$9.75 for 2016, with required annual inflation adjustments beginning in 2017 to maintain the minimum equivalent to \$9.75 in 2016 terms.

An important factor in estimating average hourly wages paid to processing labor is the relative amount of overtime hours required by processors in a given fishery and year, with the associated overtime wage premiums contributing substantially to labor earnings. No data are available to identify overtime hours in the total processing labor hours reported in correspond with EDR data, such that inter-annual changes in base wage rates are confounded with variation processors use of overtime hours. Table 3.10 provides estimated indices of crab processing labor productivity in terms of labor input and cost (aggregate labor hours and wages) per unit output (1000 pounds of raw crab processed), and also provide piece-rate metrics of processing labor and wages that control for over-time premia.<sup>3</sup>

Table 5.12 provides 2005 to 2022 results for the total number of individual crab processing workers employed by shore-based crab processing plants receiving CR program crab landings annually, by location of residence, aggregated to Alaska, Pacific Northwest states (Washington, Oregon, and Idaho), other U.S. states, and non-U.S.. Between 2014 and 2021, the number of active crab processing plants varied between 6 and 9, and declined to 5 in 2022, compared to between 12 to 17 active plants from 2005 to 2013. The distribution of the processing labor pool by location of residence represents the effects of labor recruitment by processors sourcing from different regions of the U.S. and elsewhere. Historically, the proportional share of employment sourced from three regions (Alaska; Pacific Northwest states - Washington, Oregon, and Idaho; and other U.S states) has averaged approximately 30%-30%-40%, respectively. In the most recent crab seasons, however, the distribution has shifted toward a larger proportion of processing employees identified as residents of other U.S. states, and non-U.S. residents. In 2020, a sharp increase in recruitment of non-U.S. workers brought in 386 workers, representing 13% of the processing employee labor pool, while the number of Alaska state residents employed in crab processing declined from 636 to 609 (21% of the pool), and residents of Pacific Northwest and other U.S states modestly increased by count, whole both declined in proportional employment shares. The relative attrition of Alaska and, particularly, Pacific Northwest residents from the crab processing labor pool reported for the three most recent seasons may be an incidental effect, but may be an indication of increasingly competitive regional labor markets, labor recruitment efforts of processing firms, and/or longer-term demographic changes in Alaska fishing industry labor participation.

Employment and payroll expenditures for personnel other than processing line workers (supervisory

 $<sup>^{3}</sup>$ As measures of productivity, both metrics invert the standard output-per unit input metrics, such that a negative change shown in the productivity values reported in Table 5.10 indicate increased labor efficiency. Note that statistics shown for both indices use data from shore-based crab processing plants, and do not include catcher-processor labor data; see table notes for additional details.

and administrative personnel) in the crab processing sector are presented in Table 5.11 for the 1998/01/04 baseline period through 2011, and for 2012 to 2022.<sup>4</sup> Data reported for 2012 to 2022 represent all supervisory and administrative personnel (all positions other than hourly processing line workers) employed by crab processing operations annually, inclusive of all processing and sales activity in all fisheries, and are not exclusive to crab. Aggregating over all shore-based processing employment totaled 1,064 individuals, and 206 per plant (median). Total wage and salary expenditures of \$53.9 million (exclusive of non-wage benefits, taxes, and other payroll and employment expenses) were a decline from 2021, while median salary payments per plant declined to \$11.3 million, and to \$42 thousand per salaried employee, both declining from 2021 which saw the highest values reported to-date.

## 3.2.2 Harvest Sector Employment and Compensation

During 2022, 79 vessels actively operated in one or more BSAI FMP crab fishery, increased from the historically low level of vessel participation at the FMP-level from the previous year; this increase in the number of vessels reflects the effective reopening of the NSR fishery during 2022, which is prosecuted by a distinct fleet from those participating in CR fisheries. Within CR program fisheries during 2022, however, only 51 vessels were active, a substantial decline from 67 vessels during 2021 to establish a new historical low. This 23% contraction in the fleet is relatively small compared to the 78% reduction in 2022 catch volume noted above. Of the 51 vessels active, the AIG fishery remained constant at five (four of which solely operate in AIG fisheries), while participation in the BSS fishery declined to 47, and vessels actively fishing in the 2022 BST fisheries increased slightly, from 20 to 21.

Based on the number of crew onboard participating vessels during each fishery (averaged over crew size values reported in eLandings catch accounting records for crab vessels), there were an estimated 476 crew positions in aggregate across all 51 vessels in CR fisheries during 2022, a 25% decline from the previous year, the lowest number of crew positions reported in CR fisheries to-date. <sup>5</sup> The number of distinct individuals employed as crew or captains on crab vessels operating in CR fisheries, as identified by crew license and CFEC operator permits reported in EDR data (Table 5.14), fell to 353 in 2022, a 31% decline from 511 in 2021, a new low for the number of individuals employed on-board crab vessels in the history of the CR program.

Across CR fisheries in 2022, revenue-share payments to crab vessel crew members as a group totaled \$12.2 million, with an additional \$5.2 million paid to vessel captains, both declining by 72%.<sup>6</sup> Aggregate crew and captain earnings in the BSS fishery each declined by 84%, to \$4.6 million and \$2.2 million, respectively. Aggregate crew earnings in the AIG fishery during 2022 declined by 46%

<sup>&</sup>lt;sup>4</sup>See table notes regarding discontinuities in processor sector salary cost data.

 $<sup>^{5}</sup>$ Note that the 'All CR' aggregate count of vessels indicates the total number of distinct vessels operating in one or more crab fishery, while 'All CR' values reported for number of crew positions treats positions on a given vessel as distinct between fisheries, such that the a given crew position on a vessel is counted separately for each fishery in which the vessel operated.

<sup>&</sup>lt;sup>6</sup>In addition to revenue-share payments, income is derived by some crew and many captains from royalties for harvesting quota shares held, either as initial issuance or more recent acquisition by either captain or crew. While this may become an increasingly important source of income as crab captains and crew members lose opportunities to participate in the fishery due to fleet contraction, there is no evidence to date that the proportion of CR fishery quota share pools held by crab crew members has changed in recent years, following a small amount of consolidation occurring during the initial years of the program. See Section 3.4 of the report for details and trends in QS sale transfer activity in the crew and owner QS pools.

to \$6.1 million, and captain earnings declined by 43% to \$2.5 million. Earnings in the BST fishery increased by 23% for crew members, to \$1.14 million, while total captain labor earnings across the 21 active vessels declined by 36% to \$600 thousand.

A summary overview of harvest sector employment and labor earnings is presented in Figure 3.5, with tabular results and a range of additional indicators reported in Tables 5.13 to 5.17.<sup>7</sup>

The geographic distribution of crab vessel crew employment and earnings is reported in Figure 1.8 and Table 1.4 in Chapter 1, showing statistics for harvest sector employment and estimated labor earnings, broken out by community or region of residence for vessel crew members for 2018 through 2022. Alaska residency status of CR fishery crews is reported at the CR program level for 1998 to 2022 in Table 5.14, reporting counts of total non-resident and Alaska-resident crew members, distinguishing between number of distinct crew members holding commercial crew licenses compared to those identified by CFEC gear-operator permit, [^Counts of commercial crew license holders exclude captains, whereas counts of CFEC gear operators include crab vessel captains, but not exclusively, also including crew members that held gear operator permits in lieu of a commercial crew license.] and the relative distribution of vessel-level gross revenue by Alaska resident status of crab vessel captains is reported in Table 5.15.

The effects of rationalization on crew earnings and the relative distribution of economic benefits between quota share owners and active crews working in the crab fishery have remained ongoing concerns for fishery managers. Identifying trends in labor earnings is complicated by the lay share system that is commonly the basis of crew compensation in commercial fisheries. Unlike typical labor market conditions, where prevailing wage rates are generally stable from year-to-year, the value of crab crew pay settlements under the lay share system is highly influenced by the price and market value of landed crab as well as prices and costs of other factor inputs (e.g. fuel), both of which are exogenously determined by larger external markets. It is therefore difficult to clearly associate the effect of management changes under rationalization and changing productivity of the fishery with any trend in the status of crew earnings. The volatility of both crab prices and catch levels over the period following rationalization contributes to highly variable annual results for both aggregate- and per-vessel average payments to crab crews and captains shown in Figure 3.5.

Table 5.13 reports aggregate and vessel-level average (mean and median) number of crew positions within the fleet active in each CR fishery, from 1998 to 2022. Table 5.16 reports an additional pro-rata index of crew compensation, derived by standardizing annual payments to crew relative to the average price received by the vessel for landed crab, resulting in a metric denominated in pounds of crab.<sup>8</sup> The "crab-equivalent" metric further decomposes inter-annual changes in gross

 $^{8}$ The index is calculated by dividing vessel-level crew payments in a given crab season by the average ex-vessel price received by the vessel; statistics shown are the median value of the index over all active vessels. See Abbott et

<sup>&</sup>lt;sup>7</sup>Two primary data sources are used to compute employment statistics for the harvesting sector. The eLandings catch accounting system collects trip-level information on the size of the crew onboard a vessel at each landing. These data provide the basis for estimating the number of crew positions across the fleet during a fishing season and for observing changes over time in the aggregate- and average per-vessel quantity of crew labor employed in crab fishing. For each CR fishery, EDR data report the value of fishing crew contract settlement payments (net labor payment after deductions for shared vessel operating costs), including number of paid fishing crew members and aggregate crew settlement payments, and captain settlement payment, at the fishery level for each vessel. In addition, EDR reporting of commercial fishing crew license data captures information on the number of unique individuals working as crew on crab fishing vessels as deckhands, vessel captains, and other positions in a given year (see Table 3.14 notes for details on crew license data). EDR labor payment data provides the basis for estimating aggregate labor earnings statistics, and the data reported on numbers of paid crew and counts of distinct crew licenses provides the basis for estimating the number of distinct labor participants in a given crab fishery, as well as the annual count of distinct crew participants over all crab fisheries.

crew settlement payments to isolate the effects of varying ex-vessel prices in addition to varying TACs and season lengths, and effectively represents a piece-rate measure of crew compensation as a share of the vessel's physical production of crab. Table 5.17 reports median-vessel crab crew earnings in terms of *gross-share* (value of payments to the captain and crew as a share of gross ex-vessel revenue), and median *net share* (share of ex-vessel revenue less deducted operating costs) for years prior to 2011.

## 3.3 Harvest Sector Operating and Production Costs and Net Earnings Indices

Statistics reporting information available for crab vessel operating expenditures are summarized in Figure 3.6; in addition to tables and figures reporting vessel crew labor and quota costs presented in other sections, Tables 5.19 through 5.21 provide summary statistics for available data on food and provisions, bait, and fuel costs in the harvest sector over the baseline-to-current period. Total aggregated expenditure by fishery sector and per-vessel or per-plant median expenditure are presented for cost data elements where data of sufficient quality to warrant dissemination are available through the current period.<sup>9</sup> Table 5.22 provides a compilation of diesel prices per gallon from 1999 to current for the five principal fueling ports for Alaska fishing vessels.

al (2022) for further discussion of the index and analysis applied to effects of the CR program and IFQ leasing on crew remuneration.)

<sup>&</sup>lt;sup>9</sup>Cost elements that were discontinued in the crab EDR data collection program as of 2012 are not included; see the 2013 edition of this report for additional detail on discontinued harvest and processing cost data collected prior to 2012. Analysis of trends in operating and/or capital expenditures over time, or in relation to production or revenue, is inhibited by a variety of factors. In addition to data quality limitations for specific cost elements collected prior to 2012 (vessel fuel expenditures and quota lease costs), discontinuities in data time series also limit use of these data. As with other information contained in this report, catcher-processor sector data in many cases cannot be reported at the sector level due to confidentiality requirements.



Figure 3.6: Aggregate crab vessel operating costs, by cost item and fishery

**Source** NMFS AFSC BSAI Crab Economic Data.All dollar values are adjusted for inflation to 2022-equivalent value. Tabular data available in Tables 5.16, 5.19, 5.21, and 5.25. Values shown represent total annual expenditures by cost item for calendar years 2012-present, except where data are suppressed for confidentiality (as indicated by "\*"). Cost data shown include all cost items for which data are available, but do not represent a comprehensive accounting of operating expenditures. Change in data collection protocols implemented beginning 2012 discontinued reporting for several expenditure items, and disaggregated expenditures for food and provisions by crab fishery.

## 3.3.1 Harvest Sector Net Earnings Indices

Figures 3.7 and 3.8, with tabular results shown in Tables 5.23 and 5.24, integrate and synthesize available data on crab vessel operating operating costs and ex-vessel revenues to provide a partial cash-flow analysis, with results reported at the average vessel-level and in aggregate at the fleet level. Results are reported for 2012 through 2022, for the CR program fisheries in aggregate, with fishery-level detail for BBR and BSS fisheries. Results presented as gross ex-vessel profit in the tables, and illustrated in Figures 3.7 and 3.8, provide relative indices of gross profitability of vessels operating in the respective crab fisheries. In addition to reflecting different levels of scale, gross profit results reported at the vessel- and fleet-level also differ in treatment of quota lease costs; in vessel-level results, quota lease costs are treated as transfer payments within the harvest sector, and are reported as a distribution of gross profit between vessel- and quota- capital components of the harvest sector.

It is important to note that this analysis is limited to crab vessel costs and revenues directly associated with crab fishing and ex-vessel landings, exclusive of any ex-vessel landings in non-CR crab or other fisheries, or other sources of vessel income, such as tendering or vessel charters. Crab fishing operating cost data reported by vessel owners in the Crab EDR are limited to items discussed above, i.e., crew and captain labor costs, fuel, bait, and provisions, as well as quota lease costs discussed below in Section 3.4.1. Additional operating costs not accounted for in available data are substantial, including other direct, variable vessel operating and capital maintenance and repair costs, and other expenses that enter cash flow, including overhead and financial (principal and interest) expenses. As such, the estimated residual values reported in these results represent an incomplete and imperfect index of actual gross profit of vessel operations within the active BSAI crab fleet. As such, results should be interpreted with caution, and should not be misinterpreted as estimates of net operating profit that would result from a full and complete cash flow analysis.

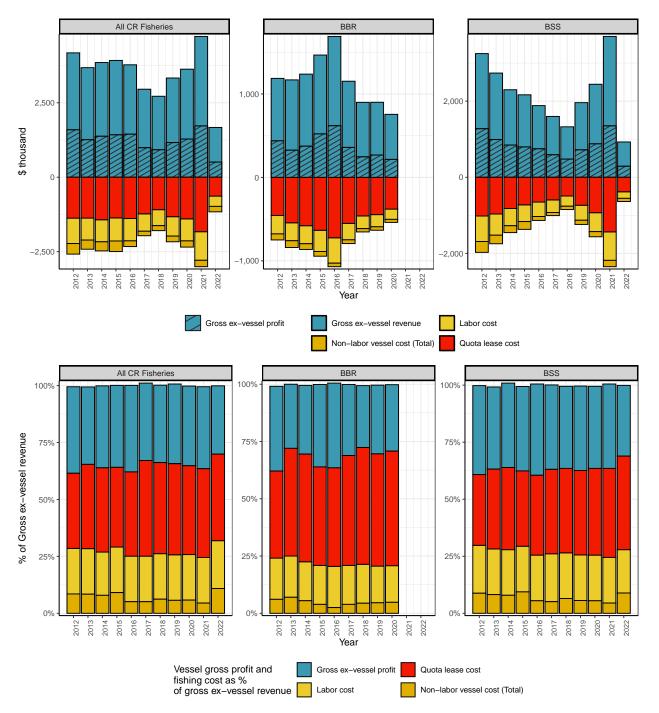
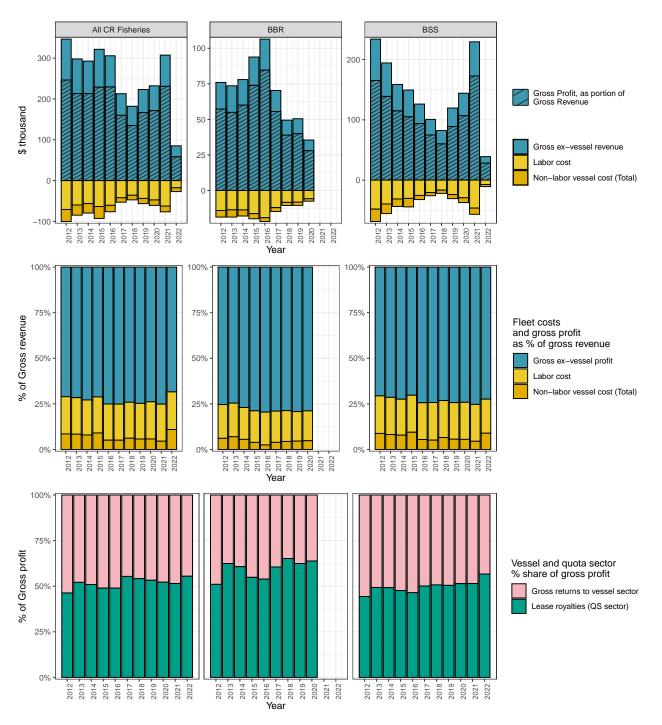
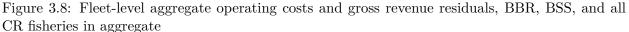


Figure 3.7: Vessel-level mean operating costs and gross revenue residuals, BBR, BSS, and all CR fisheries in aggregate

**Source** NMFS AFSC BSAI Crab Economic Data. All dollar values are adjusted for inflation to 2022-equivalent value. Tabular data available in Table 5.23. Values shown represent mean vessel-level earnings and expenditures by cost item for calendar years 2012-present, averaged over all vessel entities reporting except where data are suppressed for confidentiality. Cost data shown include all cost items for which data are available, but do not represent a comprehensive accounting of operating expenditures.





**Source** NMFS AFSC BSAI Crab Economic Data. All dollar values are adjusted for inflation to 2022-equivalent value. Tabular data available in Table 5.24 Values shown represent aggregate earnings and expenditures by cost item for calendar years 2012-present, summed over all vessel entities reporting except where data are suppressed for confidentiality. Cost data shown include all cost items for which data are available, but do not represent a comprehensive accounting of operating expenditures.

## 3.4 Quota Holdings, Leasing Activity, and Quota Share Transfers

The following section provides information regarding lease market activity associated with transfers of Individual Fishing Quota (IFQ) and Individual Processing Quota (IPQ) annual permits in the CRP, and several indices measuring changes in the status and distribution of crab harvesting and processing quota share (QS and PQS, respectively) holdings among eligible shareholder entities under the CR program.

## 3.4.1 Harvest Quota Lease Market Activity and Average Prices

Table 5.25, summarized in Figure 3.9, displays aggregated results for indicators of quota lease market activity and value reported for crab vessels that landed crab IFQ and/or CDQ pounds on leased quota (as indicated by reporting quota lease costs in EDR data) during 2012 through 2022 calendar year CR fisheries<sup>10</sup>. Indicators shown in Figure 3.9 include weighted average statistics for average lease rates (lease price as percentage of ex-vessel price) per vessel, aggregate volume of quota pounds leased as a percentage of total landings, and aggregate quota lease cost as a percentage of gross ex-vessel revenue. Table 5.25 also reports the number of vessels leasing quota, volume (in pounds) and cost reported for crab vessels active during fishing year, including total quantities summed over all reporting vessels, and average values (both median and mean) per vessel. Note that lease market statistics are exclusive of crab vessels that do not report quota lease costs (i.e., solely harvest the vessel owner's IFQ), which in recent years generally comprise approximately 10 vessels in the active fleets in the respective fisheries; as such, the value of lease market indicators reported in this section, including average and aggregate pounds leased as a percentage of total landings, may differ from similar metrics reported in other sections (e.g., 2.3.1) that are inclusive of all vessels active in the respective fisheries and years. Median and arithmetic mean values computed over leasing vessels are presented together to show information on the variation in reported values within each fishery. Harvest quota types are categorized as the following: Catcher Vessel Owner Class A (CVOA) IFQ; Catcher Vessel Owner Class B (CVOB) IFQ and Catcher/Processor Owner (CPO) IFQ; Catcher Vessel Crew (CVC) IFQ and Catcher/Processor Crew (CPC) IFQ, Community Development Quota (CDQ), and Adak Community Allocation (ACA).

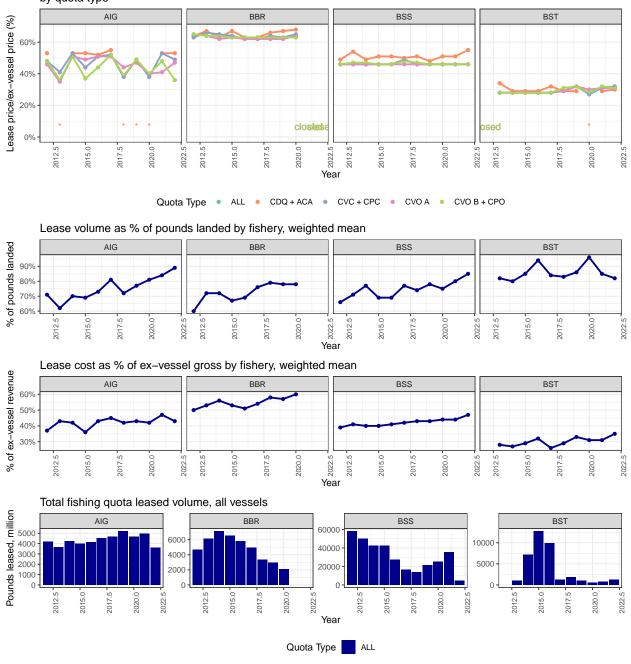
Statistics reported in Figure 3.9 and Table 5.25 represent CR program IFQ lease activity within crab harvesting cooperatives. During the first year of rationalization, 23 distinct crab harvesting cooperatives were formed by vessel and QS owner entities, and a rapid shift toward pooling of IFQ within cooperatives occurred in response to program incentives. As of 2009, only a small fraction of the issued IFQ was landed by non-cooperative vessels, and beginning with the 2009/10 crab season, virtually all IFQ has been pooled within harvest cooperatives.<sup>11</sup> Correspondingly, since

 $^{11}$ For the 2009/10 crab season, the Inter-Cooperative Exchange (ICE) harvest cooperative was formed. As of the

<sup>&</sup>lt;sup>10</sup>EDR data collection for the 2012 calendar year implemented newly revised data collection protocols under Amendment 42 to the BSAI King and Tanner Crabs FMP (78 FR 36122, June 17, 2013); prior to the implementation of EDR revisions, data collected regarding EDR lease activity and costs did not differentiate between transfers of quota between independent entities that were priced at competitive market rates from non-arms length transactions (i.e., those between affiliated entities or other types of non-market transfers characterized by nominal prices or in-kind compensation). For this reason, EDR quota lease data collected previously for 2005-2011 fisheries was not deemed of sufficient quality to disseminate. For collection of data associated with 2012 and later fisheries, revised EDR forms employ revised instructions specifying quota lease data elements as market-rate or negotiated-price transfers. Also note again that CR crab fisheries are managed on a July-June seasonal calendar, such that statistics shown for , e.g., 2015 BBR and BSS calendar year fisheries, are based primarily on data reported for the 2014/15 BSS season and 2015/16 BBR season.

2008/09, virtually all IFQ lease transactions registered with NMFS (Table 5.26 have taken place within harvest cooperatives, primarily in the form of IFQ assignment to a cooperative by member QS holders.

2012/13 season, 65% of crab IFQ was issued to ICE, with the remaining IFQ issued to eight other cooperatives; the Alternative Crab Exchange (ACE) harvest cooperative was formed for the 2013/14 season out of concerns regarding ICE membership compliance with the Fishermen's Collective Marketing Act of 1934 (FCMA; 15 U.S.C. SS 521 et seq.), and the membership of the two have held approximately 31.5 and 34% of the total QS pool respectively, aggregated over all CR program fisheries. Nine other harvest cooperatives that participated over the course of the CR Program represent smaller QS pools, between 1.7 and 7.9% of the total allocation during recent seasons. Among other effects of formation of the ICE and ACE cooperatives, administrative requirements related to IFQ transfer applications were largely obviated, facilitating assignment of 100% of issued IFQ to harvest cooperatives. See the Crab Cooperative Permits and Information section of NMFS AKRO Crab Rationalization webpage for more information: https://alaskafisheries.noaa.gov/fisheries/bsai-crab-rationalization.



## Average lease rate (lease price as % of ex-vessel price), vessel median, by quota type

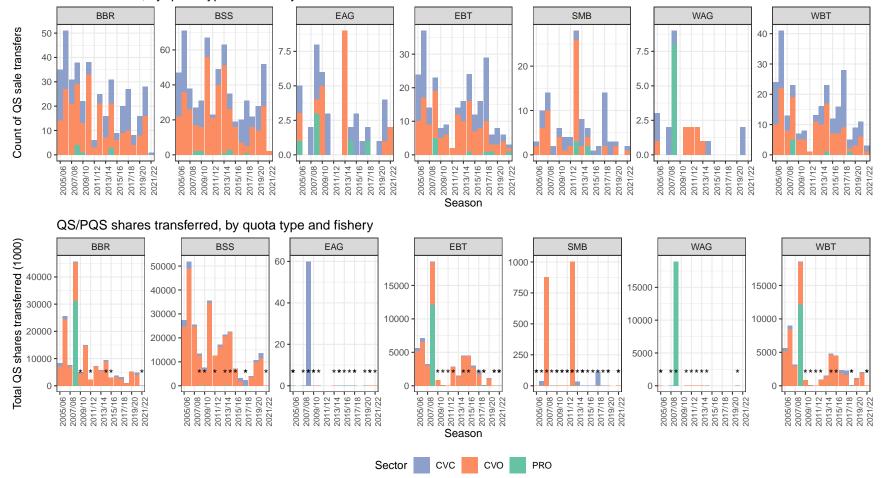
Figure 3.9: Crab harvest quota lease market indicators, selected crab fisheries

Note All dollar values are adjusted for inflation to 2022-equivalent value. Asterisks indicate data suppressed due to confidentiality Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database. See Table 5.25 footnotes for details.

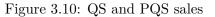
## 3.4.2 Quota Share Sale Transfers and Average Prices

Figure 3.10 provides a summary of the annual volume of QS and PQS sale transfers spanning the 2005/26 to 2021/22 period, reporting the number of individual transfers registered with NMFS AKR (upper panel) and quantity of QS units transferred (lower panel) per crab season, by CR

fishery and category of quota pool: Crew (CVC/CPC) QS, Vessel owner (CVO/CPO) QS, and Processor (PQS) quota. More detailed information on QS/PQS sale transfers by CR fishery and QS type is shown in Tables 5.27 and 5.28, including counts of entities transferring, total and median volume of QS units transferred, and median price per QS unit. Note that an individual QS sale transfer may include shares in multiple QS pools. Table 5.26 reports the total number of distinct QS and PQS transfers (comprising transactions in which shares in one or more QS/PSQ pool were transferred) completed, by crab season, through 2021/22.



#### QS/PQS sales, by quota type and fishery



Note Asterisks indicate data for one or more sectors were not plotted due to confidentiality

Source NMFS Alaska Region - Restricted Access Management, Quota share transfer data. Tabular results are shown in Tables 5.27. Counts of QS sales are non-confidential, however, number of shares transferred in individual QS sales is confidential information and aggregate QS units sold is suppressed in the figure where fewer than 3 transfers occurred during the reporting year.

Table 5.30 presents a comparison of contemporaneous QS transfer prices and IFQ lease prices where sufficient observations allow reporting. Although harvest quota share privileges represent a share interest in the future stream of TAC allocations, which are indeterminate, brokered sales of CR program QS are typically conducted on the basis of price per pound. Such terms of sale imply conversion of QS units to the contemporaneous IFQ pounds-equivalent (a particular transaction may or may not include current-season permitted IFQ pounds). As such, the 'QS price/IFQ Pound' values shown in Table 5.30 are the average of observed selling prices for completed sales of crab QS, denominated in units under which such sales are commonly valued.<sup>12</sup> Assuming competitive market conditions, variation over time in QS sale price is indicative of both the contemporaneous lease value of IFQ, and buyers' expectations of future returns on the QS investment. The 'IFQ/QS Price Ratio' values reported in Table 5.30Table 5.30va provide an inverse index of contemporary expectations of QS buyers. In principle, holding IFQ lease price constant, increasing QS sale price reduces the value of the IFQ/QS price ratio, such that higher ratio values indicate low QS valuation at the time of sale relative to contemporaneous ex-vessel price.<sup>13</sup>

## 3.4.3 QS/PQS Holdings

CR Program QS and PQS were initially issued to qualifying U.S. individuals and companies or other non-individual business entities based on historical participation in the CR fisheries. Over time, attrition of initial QS/PQS recipients and consolidation of quota holdings within a smaller pool of holders is anticipated as initial recipients exit the fishery and divest their financial interests in quota share and associated assets. Changes in the demographics of the quota holder population over time, concentration of quota shares, and/or other distributional outcomes, are important dimensions of the economic status of the fishery. In addition to monitoring attrition of initial recipients generally, of particular interest are the role of Western Alaska Community Development Quota (CDQ) groups and community-based non-profit entities affiliated with Alaska Native tribes or corporations in acquiring control of IFQ and IPQ program quota shares. The recent public announcement of acquisitions negotiated by Coastal Villages Region Fund and the Bristol Bay Economic Development Corporation of BBR and BSS QS holdings comprising 3% of the respective QS pools, and 7 crab vessels, from Seattle-based initial QS recipient Mariner Companies<sup>14</sup> is the

$$QS_{price} = (\frac{1}{r}) * IFQ_{leaseprice}$$

In this relation, the index  $r = \frac{IFQ_{leaseprice}}{QS_{price}}$  reflects QS holders' expected rate of return for holding QS, which in principal can provide an indicator of QS holders' collective expectations regarding the rate of return for holding QS. Changes over time in this index can suggest changing expectations of future value of the fishery, e.g. a negative change in over time would indicate a reduced perceived risk of declining stock productivity, product prices, or other adverse management or market conditions. As a capital asset, the expected rate of return on QS is comparable to that of other investments of comparable risk, e.g. bond yields. As such, it is lower than the market rate, the holder could expect to earn more over time by selling the QS and investing in alternative assets.

 $<sup>^{12}</sup>$ QS price per IFQ pound values are comparable to current brokerage offers, for example: https://dockstreetbrokers.com/crab-ifqs/crew-shares))

<sup>&</sup>lt;sup>13</sup>In principal, in a well-functioning competitive market, price per pound of IFQ reflects QS holders and fishermen's expectations regarding the surplus to be produced from fishing the leased quota during the current season, taking account of uncertainty regarding factors that influence fishing costs and ex-vessel revenue. Similarly, QS sale prices reflect holder's expectations for the surplus value of the fishery over time, defined as the present value of the stream of annual lease earnings for the indefinite future, where distant future expected lease revenues are ascribed a lower value (discounted) relative to near-term expected earnings. Implicit in the ratio of IFQ price to QS price is the average discount rate,  $r_i$ , such that

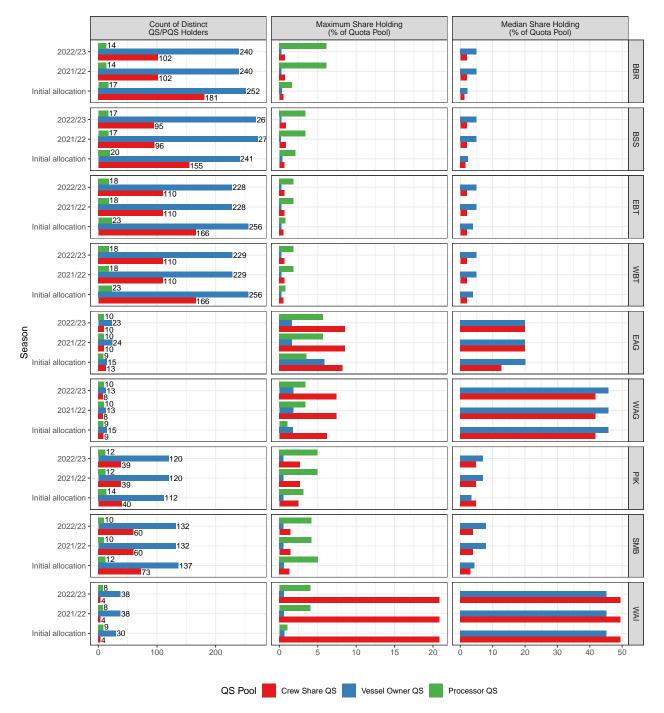
<sup>&</sup>lt;sup>14</sup>National Fisherman, January 7, 2021, Bering Sea buyout: Western Alaska coalition now owns 3 percent of crab quota.

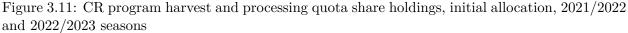
most recent such acquisition, which was completed after the beginning of the 2020/21 season and, is reflected in QS transfer and holdings data in this report as of the 2021/22 crab season.

CR program rules <sup>15</sup> limit the consolidation of CVO/CPO QS to a maximum share proportion of the quota share pool (as defined at initial issuance) held by a CDQ group to 5% in BBR, BSS, EBT, and WBT fisheries, 10% in PIK and SMB, and 20% in EAG, WAG, and WAI fisheries, by non-individual PQS holders to 5% across all pools, and by individuals and all other entities, to 1% in BBR, BSS, EBT, and WBT fisheries, 2% in PIK and SMB, and 20% in EAG, WAG, and WAI fisheries. "Grandfathering' exceptions to QS use caps and eligibility requirements apply for initial issuees. Under the rule, use of IFQ to catch and land crab by any one entity is subject to the similar caps, but an exemption for members of harvest cooperatives eliminates limitations on the consolidation of catch on vessels harvesting exclusively IFQ held by a cooperative.

Figure 3.11 provides a high-level summary of the composition of CVC/CPC (Crew) and CVO/CPO (Vessel owner) QS and PQS pools, as of initial issuance, and as of the most recent two crab seasons (2020/21 and 2021/22), in terms of the number of distinct QS holders, median and maximum QS holding (as % of the respective pool). Tabular data, also including mean and standard deviation of the size (as % of the respective QS pool) of distinct QS holdings is reported in Table 5.31 and 5.32.

<sup>&</sup>lt;sup>15</sup>50 CFR 680.42(a)(2)(i); https://www.ecfr.gov/current/title-50/chapter-VI/part-680#p-680.42(a)(2)(i)





Source NMFS Alaska Region - Restricted Access Management, quota share holders files. Tabular results are shown in Tables 5.31 and 5.32.

More detailed information on CR program vessel owner and crew QS share holdings is reported in Tables 5.35 through 5.38, as outlined below. Information reported for CR program QS pools in Figures 3.10, 3.11, and 3.11, and Tables 5.31 through 5.38 summarize, the status and change over time in crab QS pools based on public registries of QS holder accounts, including those of non-individual QS entities, and do not incorporate results of QS entity decomposition discussed in Section 1.4 above. Results reported regarding aspects of crew QS pools, comprised solely of individual persons, reliably represent the respective QS holdings and populations of QS holders. In contrast, results reported regarding CVO/CPO QS and PQS pools, while important to monitor, are limited in the extent to which they transparently represent the distribution and dynamics of QS ownership and control, which may be obscured by indirect changes in QS pools through underlying changes in QS entity ownership.

Tables 5.33 and 5.34 report the change in regional distribution of Owner and Crew QS holdings, distinguishing between Alaska, Pacific Northwest (PNW; includes Oregon, Washington, and Idaho), and Other U.S., from initial issuance and in the two most recent seasons.

Table 5.35 reports partial metrics of active participation by QS holders in the CVC and CPC pool as a whole (aggregating over CR fishery) over the course of the CR program. Results represent participation of crew QS holders as confirmed by a QS holder's CFEC gear operator permit number appearing on at least one ADF&G fishticket landing report record of a CR crab landing during a given crab season. Note that this exceeds the requirements for active participation that apply to CVC/CPC QS holders for retention of QS or eligibility to receive annual IFQ issuance under 50 CFR 680.40(g)(2) and 50 CFR 680.43, both in terms of the recency of at-sea participation and the documentation required. <sup>16</sup>(https://www.ecfr.gov/current/title-50/chapter-VI/part-680# p-680.40(g)(2)) As such, statistics shown in Table 5.35 undercount the numbers and proportion of Crew QS holders and associated QS that meet active participation requirements of 50 CFR 680 in a given season.

Tables @ref(tab:qsinittbl} and 5.38 report statistics showing the progress of attrition of initial issuees and entry of new share holder individuals and entities in each of the respective PQS and Vessel Owner and Crew QS pools.

## 3.4.4 Structure of QS Entities

Analysis of CR Program CVO/CPO QS pools using QS entity decomposition is presented in detail in Section 1.4. Tables 5.39 and 5.40 report extended time series for counts and QS share percentage statistics by QS entity type using decomposed equity holdings data, as summarized in Figures 1.11 and 1.12.

Further analysis of decomposition results will be developed in future editions of this report. Efforts to provide more detailed analysis of the geographic distribution of QS holdings and benefits is in development, but has been limited by incomplete residence information for a substantial proportion of the individual owners identified in the decomposition, limiting the utility of the analysis relative to the existing information available from the QS registry information directly. Efforts to improve the decomposition results and database with additional residence information are pending.

## 3.4.5 Concentration in Ex-vessel Markets

The exemption from the use cap limitations on concentration of IFQ for vessels exclusively fishing IFQ held by CR program cooperatives is a critical element of the program that enables cooperatives to respond to resource and market conditions and shift the deployment and operation of vessels toward maximizing operating efficiency and economic surplus. The movement toward consolidation

<sup>&</sup>lt;sup>16</sup>https://www.ecfr.gov/current/title-50/chapter-VI/part-680#p-680.40(g)(2)

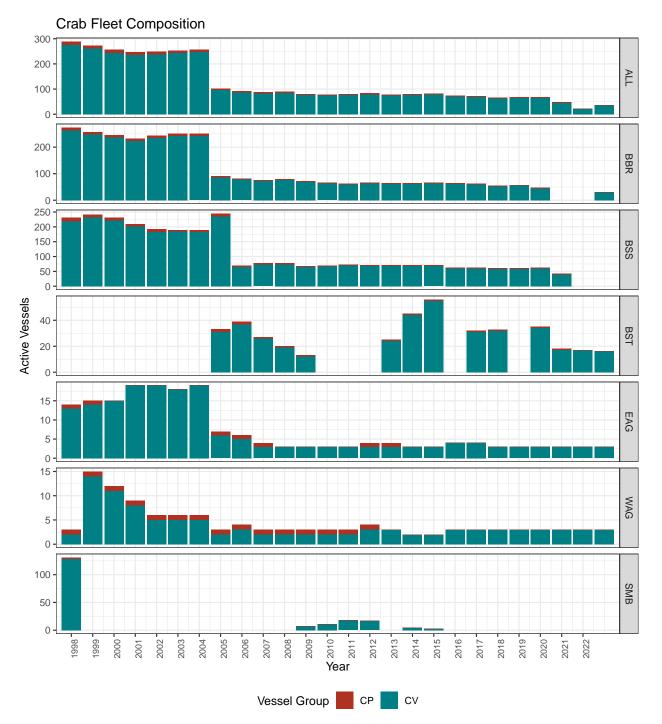
of 100% of IFQ landings within crab harvesting cooperatives, while consistent with the intention of the CR program, also obviates any structural limitation on concentration of IFQ landings within the fleet.

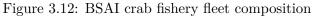
Tables 5.43 and 5.44 report indices of the distribution of volume ex-vessel sales among landings vessels (sellers) and Registered Crab Receivers (buyers), including the number of buyer and seller participants in the respective markets, the aggregate volume of sales, the median volume and proportion of aggregate volume of sales over the population of distinct buyers and sellers, respectively, and Gini coefficient values, showing changes in concentration of IFQ landings across active vessels within the crab fleet, and the equivalent for crab purchasing across the set of active Registered Crab Receivers (crab buyers). As calculated<sup>17</sup>, the coefficient measures the relative evenness of the distribution of vessel-level total IFQ landings (or buyer-level total crab purchases) across the set of active vessels and buyers in a given crab fishery season. The index varies between 0 and 1, where 0 indicates equal quantity of pounds landed or purchased across all vessels/buyers, and 1 indicates complete concentration, with one vessel (buyer) landing (purchasing) all landed pounds.

## 3.5 Fishing Capacity, Effort, and Efficiency

Figure 3.12 displays the size and composition of the active fleet by calendar year for CR fisheries from 1998 to 2022, and more granular indicators of applied fishing effort and productivity are reported in Tables  $\sim$ 5.45 through  $\sim$ 5.50.

<sup>&</sup>lt;sup>17</sup>The index is calculated as  $\frac{\sum_{i=1...n}(2P_i-n-1)x_i}{n_i u}$  where  $P_i$  is the landings rank of vessel *i*, with landings of  $x_i$  pounds, such that the vessel with the highest landings is ranked 1 and the lowest is ranked *n*. Note that the number of active vessels *n* is generally decreasing over time, such that index values as calculated represent relative concentration among the set of active vessels in each crab fishery for each year. If calculated over a larger population that included inactive vessels with zero catch (not performed for this report), the index would indicate increasing concentration consistent with the overall consolidation of catch.





Source Tabular results are shown in Tables 5.2 and 5.3. Gaps in time series for BST, PIG, PIK, SMB, and WAI indicate fishery closure years.

Figure 3.13 displays vessel days at sea by calendar year for crab fisheries over the 2007 to 2022 period, reporting vessel median and fleet aggregate values for active vessel-days at sea, and vessel-days of active fishing effort, and tabular results are reported in Table 5.18.<sup>18</sup> Systematic monitoring of crab vessel fishing activity was not developed at the time of CR program implementation, and initially, crab vessel EDR reporting provided the most comprehensive vessel-level source of data on vessel-day metrics of fishing effort, despite being limited to vessel-level annual reporting of total days by crab season. Systematic capture of trip-level fishing effort by ADF&G was not implemented until 2007.

Table 5.45 provides a summary of crab vessel trip statistics by crab fishery season, including the total number of vessel-trips by fishery and season, average (mean and sd) of trips per vessel, and average volume of landings per trip.<sup>19</sup> Crab vessels often make deliveries to multiple processors following a single fishing trip, and Table 5.45 provides the total number of deliveries per season, average deliveries per trip, and average landings volume per delivery.

<sup>&</sup>lt;sup>18</sup>See notes for the table describing data sources available for calculating vessel activity days during different periods, which introduces a degree of discontinuity in counts of vessel activity days over the pre- and post 2008 period, and in statistics calculated using these data to estimate daily pro-rata rates for various indicators. Table 3.18 and Figure 2.13 display results using eLandings and ADF&G Crab observer program data to estimate vessel activity days.

<sup>&</sup>lt;sup>19</sup>Note that trip-based metrics in are available only for the 2006/07 crab season and later, with limited information available for EAG and WAG fisheries. Also note that BST results shown include landings of BST crab that are caught as bycatch in the BSS fishery and do not solely reflect directed fishing, and effort statistics shown should be interpreted accordingly.

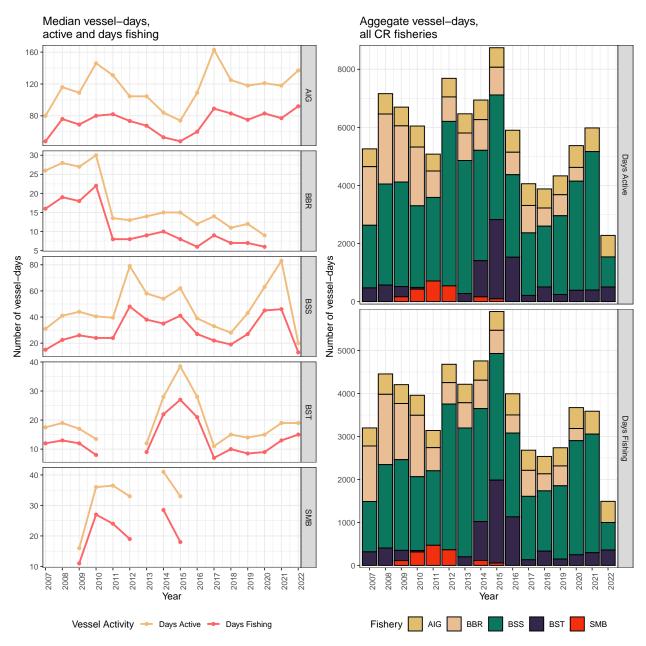


Figure 3.13: Harvest vessel activity days, selected fisheries

**Source** ADF&G Shellfish Observer Program, Confidential Interview Form Data. Tabular data is presented in Tables 5.18; the figure displays CIF vessel activity data only, from 2007 to present. Data for PIK and WAI fisheries not shown.

Table 5.46 reports information on crab seasons by fishery for 1998 through 2020/21, including season lengths in days, and for seasons subsequent to rationalization, the date-span of active fishing, dates of first and last vessel landings, number of days during the season that vessels were active, and percentage of the open season during which vessels actively prosecuted the fishery.

Figure 3.14 summarizes the timing and level of active fishing by season for BBR and BSS fisheries from 2005/06 to 2021/22, depicting the number af active vessels per week, and the cumulative percentage of TAC allocations landed over the course of active seasons, by quota type; results demonstrate the relative delay in landings of quota types that are not subject to share-matching requirements that apply to A-Class IFQ.

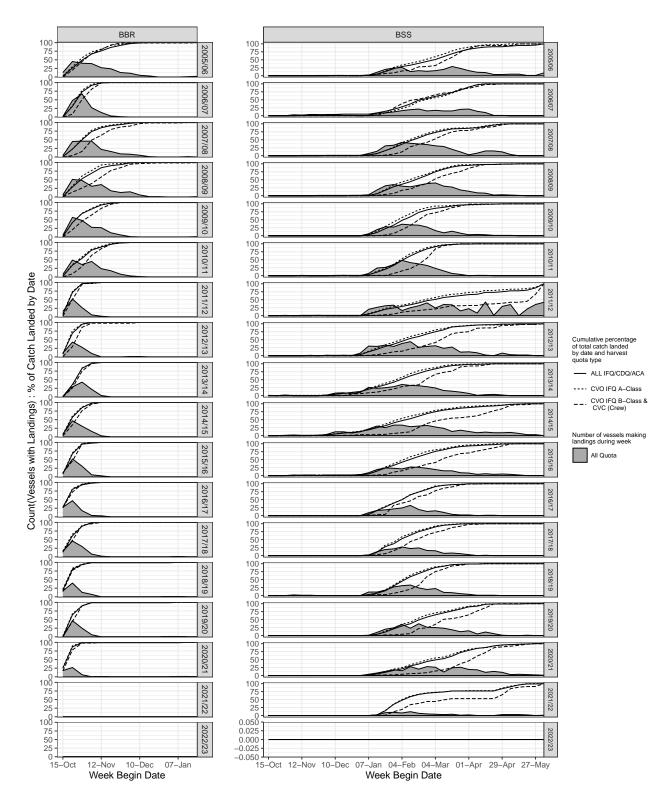


Figure 3.14: Crab vessel landing activity and cumulative catch, by quota share class and week of season: Bristol Bay Red King and Bering Sea Snow Crab

**Source**ADF&G fish tickets via eLandings; NMFS RAM Division, IFQ accounting database. Tabular data available in Tables 5.48 and 5.49. In the figure above, the plotted lines show cumulative percentage of fishing quota expended on landings over the course of the season, by quota type: ALL IFQ/CDQ/ACA includes all IFQ and CDQ programs quota landed by catcher vessels and catcher/processors; IFQ A-Class includes CVO A Class IFQ quota permits only; CVO IFQ B-Class & CVC (Crew) includes CVO B Class IFQ and CVC (crew) IFQ. The filled area in the graph indicates the count of vessels making landings each week. CDQ landings are not shown separately due to confidentiality restrictions. The vertical axis indicates count of vessels and percentage of quota share, both on a scale of 0-100, and the horizontal axis shows the end date of each week of the Bristol Bay red king (BBR) and Bering Seas now (BSS) crab fishing season. BSS seasons normally open October 15 and close May 31 of the next calendar year; the 2011/12 BSS season was extended until June 15 due to an extended period of sea ice cover which substantially delayed prosecution of the fishery.

Summary statistics for harvesting sector operating effort, measured as pot lifts per vessel are reported in Table 5.50 for all CR fishery seasons from 2005/06 to 2020/21, with derived productivity per-unit-effort metrics calculated as retained catch- and revenue-per pot lift. Statistics reported include total (aggregated over all vessels) and mean (sd) for pot lifts, and mean(sd) and weighted average per vessel for catch per unit effort (CPUE), and revenue per unit effort (RPUE).

## 3.6 International Trade in Crab Commodities

U.S. foreign trade statistics for frozen, processed king and snow crab are summarized for the period 1991 to 2022 in Figure 4.3 and Table 5.51, including annual volume and value time series for imports, exports, and net imports, and average per-unit value of import and export streams.

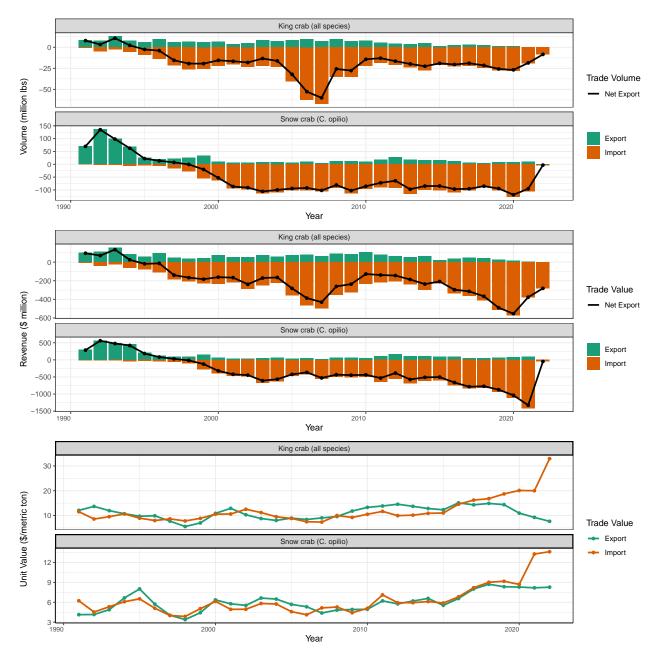


Figure 3.15: King and Snow crab imports and exports, volume and value, 1991-2023

**Source** U.S. Foreign Census Bureau Foreign Trade Division, via NMFS Fisheries Statistics Division, U.S. Foreign Trade Database. Data available at http://www.st.nmfs.noaa.gov/st1/trade/; Tabular data shown in figure available in Table 5.51. Trade value is inflation-adjusted to 2022-equivalent dollars using the GDP index. Imports and exports shown are for TSUSA product codes 306144010 (frozen king crab) and 306144020 (frozen snow crab). Exports are plotted as positive balance and imports plotted as negative balance.

# Chapter 4

# 2023 BSAI Crab Ex-vessel Revenue Nowcast Estimates and Summary of International Trade in King and Snow Crab

## 4.1 Overview

This chapter is new this year and represents an effort to provide the NPFMC, ADF&G, industry, and the public with economic information that is up to date through mid-December 2023 for use in setting Total Allowable Catches (TACs) for the 2023/2024 crab season during the crab harvest specifications process. The Groundfish Economic SAFE has applied similar methods to those species to produce nowcast revenue estimates since 2021. Other sections of the Crab Economic SAFE (hereafter EconSAFE) are currently reporting final 2022 prices, revenues, and other economic statistics. The data presented in this section are monthly estimates, "nowcasts", of ex-vessel revenues using landings for the recently completed 2023 calendar year (methods are summarized below). These ex-vessel revenue estimates are the best estimates of 2023 Alaska fisheries values currently available, but are likely to be different than the values that will be presented in the 2024 EconSAFE. We utilize the calendar year rather than the crab season to be consistent with how data are reported in the Commercial Operators Annual Report (COAR) and BSAI Crab Economic Data Reports (EDRs).

## 4.1.1 BSAI Crab Ex-vessel Revenue Nowcast Estimates for 2023

BSAI crab total harvest volumes through December 18th 2023 are up approximately 9.23% compared with 2022 (908 thousand pounds) but down -65.9% (-21 million pounds) compared to the 5 year average baseline period (2018-2022; Figure 4.1). Prices in 2023 were on average 0.53% higher than 2022 and 2.45% higher than the baseline average years. Estimated 2023 revenues have risen by 16.3% compared to 2022 (\$13.1 million) but are -50.2% below the 2018-2022 average value (\$-95 million), largely related to the closures of BBRKC and BSSC for the 2022/2023 season (SMBKC also continues to be closed). The opening of the Bristol Bay Red King Crab (BBRKC)

fishery for the 2023/2024 season has enabled the 2023 calendar year to be slightly better in terms of volume and value than the lows experienced in 2022.

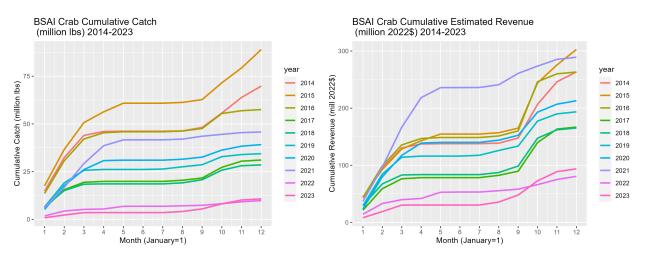


Figure 4.1: BSAI Crab Cumulative Landings and Revenue, 2014-2023.

#### 4.1.2 Seafood Trade in 2023

Anchorage, Alaska is the top customs district of the U.S. in terms of volume and value of seafood exports in 2023 (\$2.69 billion) and has been the top customs districts in volume and value of seafood exports for all years included in this analysis (2014 through 2023) (NMFS Foreign Trade Data<sup>1</sup>). Seattle, Washington has been the second highest customs district in terms of volume and value of seafood exports for all of those same years, with some portion of those exports derived from harvests in North Pacific waters. Taken together, Anchorage and Seattle accounted for 84% by volume and 74% by value during 2023 of all U.S. seafood exports. Trends in seafood exports by volume and value for Anchorage and Seattle are presented by year in Figure 4.2. Future work is needed to determine the relative share of U.S. West Coast and Alaska seafood species exported through the Seattle, Washington customs district, but all king and snow crab exports from the U.S. are produced in Alaska, and thus we can see different supply chains for king and snow crab when exported through mid-December 2023 will be compared to the prior 2022 year as well as the average from the prior five years (2018-2022) baseline period for both king and snow crab exported out of Seattle and Anchorage.

Anchorage seafood exports experienced a -15% decrease in value in 2023 relative to 2022 and a -24.8% decline relative to the 2018-2022 baseline period, despite export volume decreasing in 2023 by -0.9% relative to 2022 and decreasing by -12.988% compared with the 2018-2022 baseline period. Similarly, Seattle seafood exports experienced a -33.9% decrease in value in 2023 relative to 2022 and a -32.4% decline relative to the 2018-2022 baseline period. Seattle export volume fell in 2023 by -17.9% compared with 2022 and decreased by -19.6% compared with the 2018-2022 baseline period. Combined, Anchorage and Seattle accounted for a total of \$3.87 billion in seafood exports during 2023, which is a decrease of -21.8% relative to 2022 and a -27.3% decline relative to the 2018-2022

<sup>&</sup>lt;sup>1</sup>https://www.st.nmfs.noaa.gov/commercial-fisheries/foreign-trade/

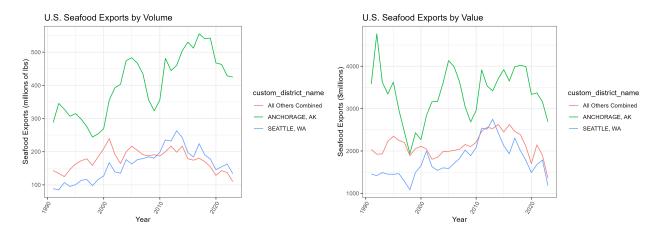


Figure 4.2: U.S. Seafood Exports by Customs District, 1991-2023.

baseline period, while export volume decreased in 2023 by -5.6% relative to 2022 and decreased by -14.7% compared with the 2018-2022 baseline period.

U.S. foreign trade statistics for frozen, processed king and snow crab are summarized for the period 1991-mid-December 2023 in Table 5.51 and depicted graphically in 4.3. For most of the last two decades, the U.S. has been a net importer of both king and snow crab product, with a negative trade gap beginning in 1995 for king crab and 1998 for snow crab. The U.S. trade deficit in frozen snow crab product in terms of trade value reached a historical peak of \$-1.84 billion in 2021 in net export value on 141 million pounds in import volume. U.S. exports of frozen snow crab product since 2003 has varied from a recent peak in 2012 of \$163 million on 28.2 million pounds, to a recent low in 2022 at \$26.5 million on 2.75 million pounds, and 2023 is shaping up to potentially be below that level in terms of value (\$18.2 million on 2.79 million pounds) (Figure 4.3).

Year	Export (million lbs)	Export value (\$million)	Export Unit Value (\$/metric ton)	Import (million lbs)	Import value (\$million)	Import Unit Value (\$/metric ton)	Net export (million lbs)	Net expor valu (\$million
1991	8.55	\$ 103.29	26.83	0.67	\$ 7.68	25.60	7.88	\$ 95.6
1992	8.22	\$ 112.34	30.36	4.86	\$ 41.78	19.08	3.35	\$ 70.5
1993	13.23	158.45	26.59	2.49	\$ 23.69	21.15	10.75	\$ 134.7
1994	8.04	\$ 86.17	23.80	5.77	61.41	23.62	2.26	\$ 24.7
1995	6.33	61.44	21.56	8.90	\$ 79.63	19.86	-2.58	\$ -18.1
1996	9.90	\$ 97.99	21.97	13.92	\$ 111.10	17.72	-4.02	\$ -13.1
1997	6.22	\$ 48.06	17.16	21.69	\$ 187.66	19.21	-15.48	\$ -139.6
1998	6.88	\$ 38.32	12.36	26.25	\$ 204.91	17.34	-19.36	\$ -166.5
1999	6.06	\$ 42.45	15.55	25.51	\$ 225.70	19.64	-19.45	\$ -183.2
2000	6.77	\$ 73.63	24.14	22.32	\$ 235.21	23.40	-15.54	\$ -161.5
2001	4.06	\$ 52.40	28.63	20.63	\$ 218.99	23.57	-16.56	\$ -166.5
2002	5.06	\$ 52.18	22.89	23.14	\$ 289.76	27.81	-18.07	\$ -237.5
2003	8.75	\$ 76.79	19.49	22.12	\$ 247.48	24.85	-13.37	\$ -170.6
2004	7.22	57.84	17.80	23.43	\$ 222.43	21.08	-16.21	\$ -164.5
2005	8.66	\$ 77.53	19.88	40.83	\$ 359.90	19.57	-32.17	\$ -282.3
2006	9.59	\$ 80.54	18.64	62.33	\$ 466.99	16.64	-52.74	\$ -386.4
2007	7.35	\$ 66.39	20.06	67.39	\$ 496.30	16.35	-60.04	\$ -429.9
2008	9.61	\$ 92.33	21.32	35.35	353.17	22.18	-25.74	\$ -260.8
2009	7.46	\$ 87.96	26.18	35.15	\$ 324.47	20.50	-27.69	\$ -236.5
2010	8.04	\$ 106.86	29.52	22.34	\$ 234.51	23.31	-14.30	\$ -127.6
2011	5.91	\$ 81.75	30.73	18.87	\$ 220.26	25.91	-12.97	\$ -138.5
2012	4.40	\$ 63.96	32.30	20.89	\$ 208.03	22.11	-16.50	\$ -144.0
2013	3.95	\$ 54.20	30.45	23.74	\$ 240.71	22.52	-19.78	\$ -186.5
2014	4.86	\$ 62.35	28.47	27.40	\$ 298.26	24.17	-22.54	\$ -235.9
2015	1.67	\$ 20.51	27.35	20.76	\$ 228.80	24.47	-19.10	\$ -208.2
2016	2.60	\$ 39.24	33.54	23.07	\$ 335.49	32.29	-20.47	\$ -296.2
2017	3.24	\$ 46.38	31.77	22.23	\$ 360.33	36.00	-18.98	\$ -313.9
2018	2.95	\$ 43.93	33.03	24.47	\$ 411.17	37.31	-21.52	\$ -367.2
2019	1.73	\$ 24.93	31.96	27.51	\$ 514.80	41.55	-25.78	\$ -489.8
2020	1.55	\$ 17.03	24.33	28.40	\$ 570.85	44.63	-26.85	\$ -553.8
King 2021	0.38	\$ 3.49	20.53	19.01	\$ 380.19	44.41	-18.63	\$ -376.7
crab 2022	0.09	0.68	17.00	8.57	\$ 282.32	73.14	-8.48	\$ -281.6

Table 4.1: Snow and king crab exports and imports

	Year	Export (million lbs)	Export value (\$million)	Export Unit Value (\$/metric ton)	Import (million lbs)	Import value (\$million)	Import Unit Value (\$/metric ton)	Net export (million lbs)	Net export value (\$million)
	1991	71.50	\$ 295.42	9.17	1.64	\$ 10.23	13.82	69.86	\$ 285.19
	1991	136.80	\$568.56	9.23	1.04 1.95	\$ 8.85	10.06	134.85	\$ 289.19 \$ 559.71
	1992	101.16	\$ 308.50 \$ 494.03	10.84	2.95	\$ 15.72	11.82	98.21	\$ 478.31
	1993 1994	69.10	\$454.05 \$459.94	10.04 14.78	6.35	\$ 38.64	13.51	62.75	\$ 421.30
	$1994 \\ 1995$	27.22	\$ 439.94 \$ 218.08	14.78	5.02	\$32.69	13.31 14.46	22.20	\$ 185.39
	1996	21.22	\$121.09	12.71	7.51	\$ 38.29	11.33	13.66	\$ 82.80
	$1990 \\ 1997$	21.10 22.58	$$ 121.09 \\ $ 91.37$	8.98	15.32	\$61.42	8.90	7.26	\$ 29.95
	1998	22.00 26.62	\$91.37 \$90.25	7.53	27.22	\$105.11	8.57	-0.60	\$ -14.86
	1998	34.68	\$ 90.23 \$ 153.57	9.83	54.80	\$ 276.05	11.19	-20.12	\$ -122.48
	2000	10.55	\$ 67.04	14.11	63.53	\$270.05 \$389.45	13.61	-20.12	\$ -322.41
	2000	6.86	\$ 39.59	12.81	93.66	\$462.19	10.96	-86.80	\$ -422.60
	2001	7.46	\$ 39.39 \$ 41.24	12.81 12.27	93.00 98.61	\$402.19 \$487.62	10.98	-91.15	\$ -446.38
	2002	8.70		14.74	114.58	\$481.02 \$666.37	12.91	-105.87	\$ -608.59
	2003 2004	9.08	\$57.18 \$58.86	14.74 14.39	114.00 109.02	\$625.54	12.91 12.74	-105.87 -99.94	\$ -566.68
	2004 2005	7.59	\$ 43.12	12.61	103.02 102.07	\$467.76	10.18	-94.48	\$ -424.64
	2005	10.64	\$ 45.12 \$ 56.63	11.82	102.07 102.76	\$ 423.31	9.15	-92.13	\$ -366.68
	2000	4.71	\$ 20.63	9.73	102.70 106.54	\$548.89	11.44	-101.83	\$ -528.26
	2007	12.32	\$20.03 \$59.45	10.71	93.26	\$ 492.83	11.44	-80.94	\$ -433.38
	2008	12.32 12.17	\$59.45 \$59.75	10.90	114.69	\$ 492.83 \$ 506.82	9.81	-102.52	\$ -447.07
	2003	11.01	\$54.43	10.90 10.97	96.75	\$491.94	11.29	-85.73	\$ -437.51
	2010	18.83	\$116.85	13.78	91.13	\$ 647.83	15.79	-72.30	\$ -530.98
	2011	28.24	110.00 162.67	12.79	92.55	\$ 549.18	13.18	-64.30	\$ -386.51
	2012	18.24	\$102.07 \$112.95	12.75 13.74	115.58	\$685.71	13.17	-97.32	\$ -572.76
	2010	16.08	\$ 105.81	14.61	101.01	\$ 617.15	13.57	-84.93	\$ -511.34
	2014	17.14	\$ 94.98	12.30	101.01 101.67	\$ 598.52	13.07	-84.53	\$ -503.54
	2016	13.59	\$ 89.22	14.58	110.36	\$ 751.93	15.13	-96.77	\$ -662.71
	2010	6.68	\$ 53.51	17.78	102.36	\$ 839.37	18.21	-95.68	\$ -785.86
	2017	5.51	\$ 47.98	19.35	90.91	\$ 819.26	20.01	-85.40	\$ -771.28
	2018	8.22	\$68.56	18.53	102.67	\$ 941.56	20.36	-94.46	\$ -873.00
	2013	9.15	\$ 75.90	18.42	102.07 127.79	\$ 1,111.83	19.32	-118.64	\$ -1,035.93
Snow	2020	11.19	\$91.54	18.16	106.80	\$ 1,418.08	29.48	-95.61	\$ -1,326.54
crab	2021	0.53	\$ 4.41	18.38	3.75	\$ 51.14	30.26	-3.22	\$ -46.73

Table 4.1: Snow and king crab exports and imports (continued)

Note Imports and exports shown for product codes 306144010 (frozen king crab) and 306144020 (frozen snow crab) from the Tariff Schedule for the United States, Annotated (TSUSA). Dollars are inflation-adjusted to 2022-equivalent value using the GDP deflator.

Source U.S. Foreign Census Bureau Foreign Trade Division, via NMFS Fisheries Statistics Division, U.S. Foreign Trade Database [http://www.st.nmfs.noaa.gov/st1/trade/].

The trade balance in frozen king crab product continued the increasing deficit trend since 2015 and reached a historical peak of \$-881 million in 2022 in net export value on -24.3 million pounds in net export volume (Figure 4.3). There was a large increase in king crab imports from Russia in the months prior to and immediately following the issuance of Executive Order 14068 on 3/11/22 banning the U.S. import of Russian produced seafood. King crab imports from Russia have been zero since September 2022, resulting in a drastic reduction in the king crab trade deficit in 2023 (through mid-December, \$-35.9 million). King crab exports in 2023 are at their lowest level in the recent period (0.61 million pounds worth \$4 million). King crab imports in 2023 are also at their lowest level since 1991 (3.4 million pounds of imported volume worth \$39.9 million).

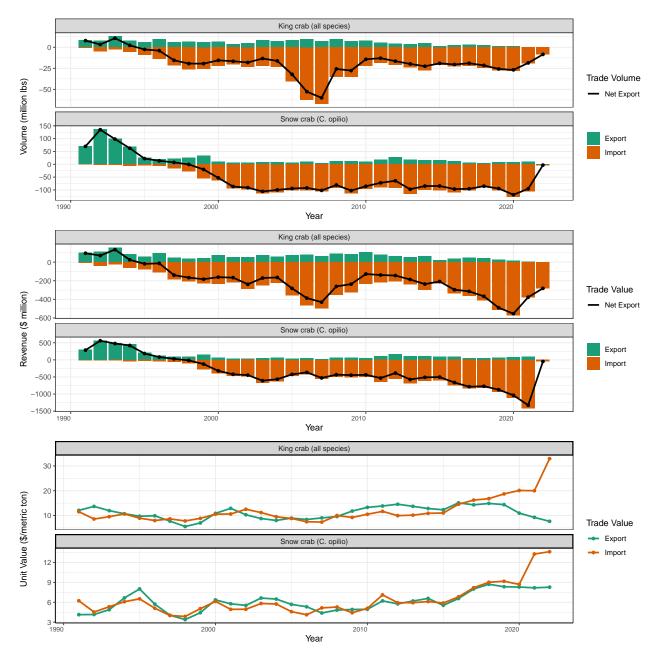


Figure 4.3: King and Snow crab imports and exports, volume and value, 1991-2023

**Source** U.S. Foreign Census Bureau Foreign Trade Division, via NMFS Fisheries Statistics Division, U.S. Foreign Trade Database. Data available at http://www.st.nmfs.noaa.gov/st1/trade/; Tabular data shown in figure available in Table 5.51. Trade value is inflation-adjusted to 2022-equivalent dollars using the GDP index. Imports and exports shown are for TSUSA product codes 306144010 (frozen king crab) and 306144020 (frozen snow crab). Exports are plotted as positive balance and imports plotted as negative balance.

# 4.2 Methods

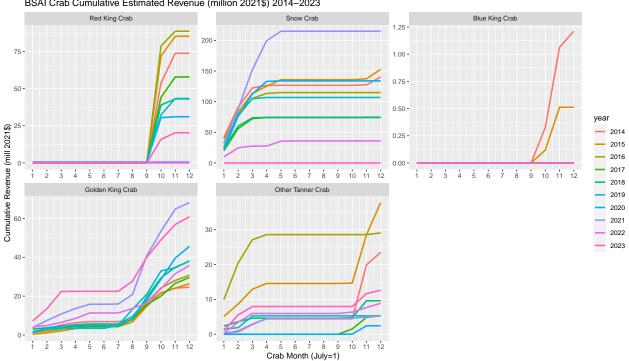
The method of "nowcasting" monthly ex-vessel prices for BSAI crab species is analogous to the methods described in Chapter 6 of the Groundfish Economic SAFE Report. We utilize ex-vessel price information through December 18th 2023 (queried on 1/4/24) which is available via the Pacific States Marine Fisheries Commission's Alaska Fisheries Information Network's (AKFIN) view of e-landings reports (ADF&G fishtickets) and serve as the basis for estimating current year "final" (Commercial Fisheries Entry Commission (CFEC) Gross Earnings) monthly ex-vessel prices. These ADF&G fishticket prices are preliminary and do not include year-end adjustments (e.g., bonuses), but are used to estimate final CFEC monthly ex-vessel prices in 2023 through log-linear regression accounting for species, harvest sector, month, and year with model selection being done by minimizing AIC using the StepAIC function from the MASS package version 7.3-60 in R version 4.3.2.

Ex-vessel prices were estimated for five BSAI crab species, some of which aggregate Crab Rationalization (CR) fisheries including: Bristol Bay Red King Crab (BBRKC), Saint Matthews Blue King Crab (SMBKC), Bering Sea Snow Crab (BSSC), Golden King Crab (GKC), and Bairdi Tanner crabs (BTC). These regressions are highly significant with a  $R^2$  of 0.99 for BBRKC, SMBKC, and GKC, a  $R^2$  of 0.98 for BTC, and a  $R^2$  of 0.97 for BSSC. These estimated prices are then multiplied by the reported landings from ADF&G fishtickets for the three open fisheries in 2023 (BBRKC, GKC, BTC) to obtain revenue nowcast estimates. These 2023 landings data and revenue estimates are based on the best currently available data, but are still considered preliminary. Caution should be taken in interpreting or extrapolating from these estimates as they are preliminary and may change. The baseline period of comparison with the 2023 values will be relative to the 2022 season as well as the five year average from 2018-2022. All revenues were adjusted for inflation using the GDP deflator using 2022 as the base year. These are both done to be consistent with other chapters of the Crab Econ SAFE.<sup>2</sup>

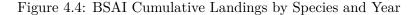
# 4.3 BSAI Crab Landings and Nowcast Revenues for 2023

Figures 4.11 and 4.12 present the cumulative revenues by month and crab season for the five BSAI Crab species in 2023 (the pink line), compared with each year 2014-2022. The following section provides a brief summary of cumulative harvest and revenue trends of BSAI Crab through mid-December 2023.

 $<sup>^2</sup> BEA \ Table \ 1.1.9: https://apps.bea.gov/iTable/iTable.cfm?reqid=19 \& step=3 \& isuri=1 \& nipatable list=13$ 



BSAI Crab Cumulative Estimated Revenue (million 2021\$) 2014-2023



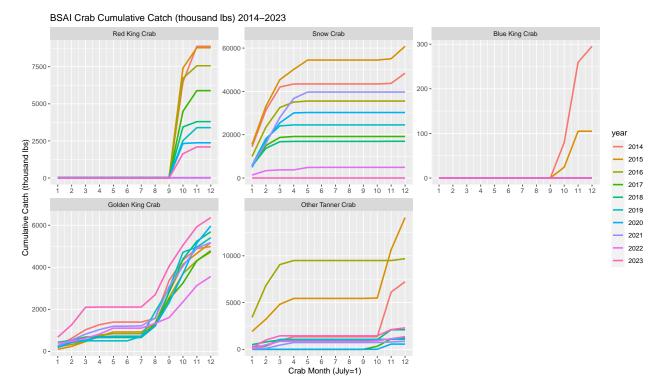


Figure 4.5: BSAI Cumulative Ex-vessel Revenue by Species and Year

## 4.3.1 Bristol Bay Red King Crab (BBRKC)

Fishing for BBKRC was closed for the second straight season in 2022/2023, after experiencing declines in revenues each season from 2017-2020. Fishing began in the fall of 2023 for the 2023/2024 BBRKC fishery with landings of 2.09 millions of pounds worth \$20.29 million. Estimated BBRKC prices in 2023 are -21% below the 2018-2022 average price despite the low volume. Total 2023 BSAI BBRKC revenues to estimated to decrease by -14% compared with the average over 2018-2022 (\$-3.4 million) and are -77% below peak revenues over this period of (\$89 million) in 2016. Nowcast ex-vessel prices and CFEC ex-vessel prices of red king crab and golden king crab are shown below in Figure ?(fig:inseason17), along with the prices of imported and exported frozen king crab products through mid-December 2023.

#### 4.3.2 Bering Sea Snow Crab (BSSC)

The BSSC fishery was closed for the first time for the 2022/2023 season and therefore no nowcast revenue estimates were created for 2023. The prices of frozen snow crab import and export products through mid-December 2023 are shown below in Figure ?(fig:inseason17) along with nowcast ex-vessel prices and CFEC ex-vessel prices for bairdi tanner crab, and for snow crab prior to 2023.

#### 4.3.3 Saint Matthews Blue King Crab (SMBKC)

Fishing for SMBKC was closed for the seventh straight season in 2022/2023 and therefore no ex-vessel revenue nowcast estimates were created for 2023. Prices of imported and exported frozen king crab products from 2006-2023 are shown in Figure ?(fig:inseason17).

### 4.3.4 BSAI Golden King Crab (GKC)

Golden King Crab was one of the three open BSAI crab fisheries for 2023. Harvests are up 78.7% compared with 2022 and up 23.3% compared with the 2018-2022 average (Figure 4.12). Landings were at their highest level in the time series mid-December 2023. GKC prices in 2023 are estimated to fall -4.91% to \$9.57 per pound compared with 2022 and are 7% above the 2018-2022 average. The combination of these two factors result in estimated 2023 BSAI GKC revenues to increase by 70% compared with 2022 (\$25 million) and 35% above the average over 2018-2022 (\$16 million). Nowcast ex-vessel prices and CFEC ex-vessel prices of golden king crab and red king crab are shown below in Figure ?(fig:inseason17), along with the prices of imported and exported frozen king crab products through mid-December 2023.

#### 4.3.5 BSAI Bairdi Tanner Crab (BTC)

Eastern and Western Aleutians Tanner Crab (ADF&G species code=931 or Bairdi Tanner Crab, BTC) was the other BSAI crab fishery open for the 2022/2023 season. BTC ex-vessel prices are estimated to be up by 41.9% from 2022 and 3.21% above the 2018-2022 average. BSAI BTC harvest volumes through 2023 are up 69% from 2022 levels and up 93.2% from the average of 2018-2022. The net effect is that BTC ex-vessel revenues for 2023 are estimated to be up 41.9% (\$3.7 million)

compared with 2022 and up by 100% from the 2018-2022 period (Figures 4.11 and 4.12). The prices of frozen snow crab import and export products through mid-December 2023 are shown below in Figure ?(fig:inseason17) along with nowcast ex-vessel prices and CFEC ex-vessel prices for bairdi tanner crab.

#### 4.4 U.S. Trade in King Crab

Trends in the trade balance of king crab can be found in (Figure 4.3) while Figure 4.5 explores the U.S. trading partners of king crab, which has historically been Japan, followed by Canada, but these trends have reversed since 2021. U.S. king crab exports to Japan fell to zero in 2022 and increased slightly in 2023 to 0.183 million pounds worth \$0.7 million. Additionally, in terms of export value 2023 was -93.2% below the 2018-2022 period (-0.582 million pounds and \$-9.72 million). While Canada is now the larger king crab trading partner with the U.S., the value of U.S. exports to Canada through mid-December 2023 are -62% below 2022 levels (-0.485 million pounds and \$-4.03 million) and -44.7% below the 2018-2022 period (-0.11 million pounds and \$-2 million).

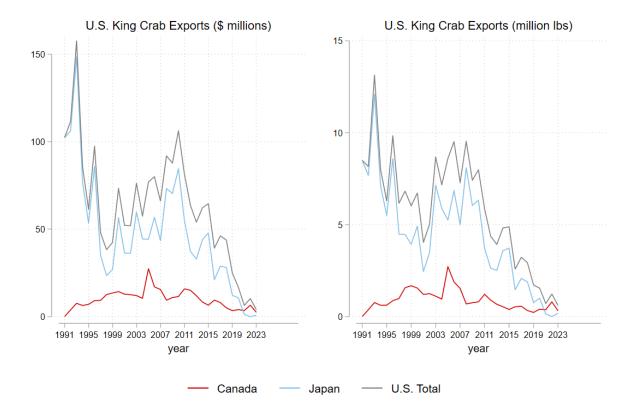


Figure 4.6: U.S. King Crab Exports, 1991-2023.

Historically, almost all US. imports of king crab came from Russia, however starting in the mid-2000's southern king crab coming from Argentina and Chile began entering the U.S. market (Figure 4.7). As mentioned above, the issuance of Executive Order 14068 on 3/11/22 banning the U.S. import of Russian produced seafood had a very large impact on the U.S. trade in king crab, with the last importation of king crab from Russia in September 2022. U.S. king crab imports

from Russia fell to zero in 2023 and imports from other countries are unlikely to make up the difference. Total U.S. imports of king crab through mid-December 2023 were 3.38 million pounds worth \$39.9 million, which was a -95.5% decline from 2022 and -93.5% from the 2018-2022 period. U.S. imports from Argentina through mid-December 2023 are -54.9% below 2022 levels (-0.467 million pounds and \$-31 million) and -20.8% below the 2018-2022 period (0.123 million pounds and \$-6.69 million).

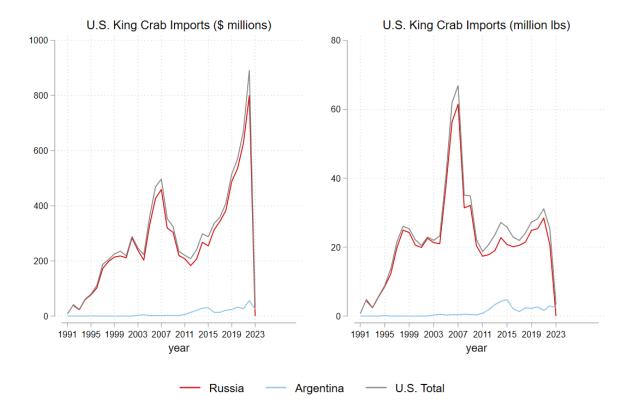


Figure 4.7: U.S. King Crab Imports, 1991-2023.

#### 4.5 U.S. Trade in Snow Crab

Trends in the trade balance of snow crab can be found in (Figure 4.3) while Figure 4.8 explores the U.S. export partners of snow crab, which had primarily been Japan prior to 2000 when China became another important export market for U.S. snow crab. Compared with all of 2022, U.S. snow crab exports to Japan through mid-December 2023 have increased in volume by 0.568 million pounds but the value has declined by \$-0.57 million. The total volume of U.S. exports of snow crab through mid-December 2023 was 1.79 million pounds worth \$13 million which was -34.9% below the 2018-2022 period (-0.434 million pounds and \$-6.97 million). China and Japan have traded off being the top importer of U.S. snow crab, but both volume and value of U.S. exports of snow crab to China are currently down (-6.44% and -32%, respectively) in 2023 (through mid-December) compared with 2022. The value of U.S. exports of snow crab to China in 2023 (through mid-December) is -89.9% below the 2018-2022 period (-2 million pounds and \$-16.1 million).

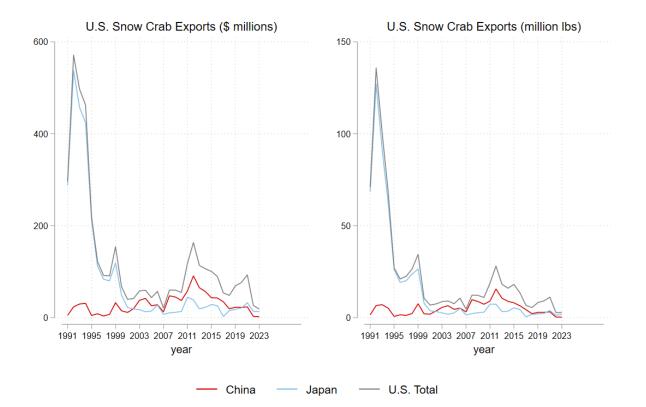


Figure 4.8: U.S. Snow Crab Exports, 1991-2023.

Historically, almost all U.S. imports of snow crab came from Canada, with small amounts coming in from Russia starting in the early 2000's (Figure 4.9). Imports of snow crab from Russia accelerated starting in 2015 reaching a peak volume of 42.3 million pounds in 2020 but peak value in 2021 at \$542 million. Similar to king crab, the issuance of Executive Order 14068 on 3/11/22 banning the U.S. import of Russian seafood had a large impact on the U.S. trade in snow crab, with the last importation of snow crab from Russia in August 2022. Total U.S. imports of snow crab through mid-December 2023 was 127 million pounds worth \$694 million, which was a -33.1% decline in value from 2022 and -40.5% from the 2018-2022 period. U.S. import values from Canada through mid-December 2023 are -30.3% below 2022 levels (\$-279 million) and -23.3% below the 2018-2022 period (\$-195 million), despite snow crab import volume from Canada increasing by 29.9 million pounds in 2023 and by 38.1 million pounds compared with the 2018-2022 period.

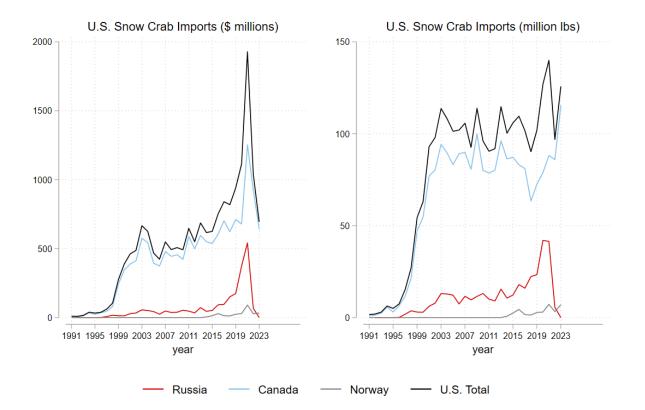


Figure 4.9: U.S. Snow Crab Imports, 1991-2023.

#### 4.6 Anchorage, Alaska International Seafood Trade Summary

Japan was the largest export market for Anchorage exported seafood for the 1991-2009 period, but China was the leading importer by volume of Anchorage seafood from 2010-2022, and the EU has been the leading trading partner by volume in 2023, followed by Japan, South Korea, and then China (Figure 4.10). The EU, China, and Japan all traded off being the top importer of Anchorage seafood from 2010-2020, but all have seen declines in value since 2019. During the 2023, the Anchorage customs district has exported nearly the same volume of seafood to Japan (509.6 million pounds), the EU (535.6 million pounds), South Korea (482.1 million pounds), and China (431.7 million pounds), but the value is higher to the EU (\$814 million), Japan (\$706 million), and South Korea (\$592 million), compared with China (\$418 million).

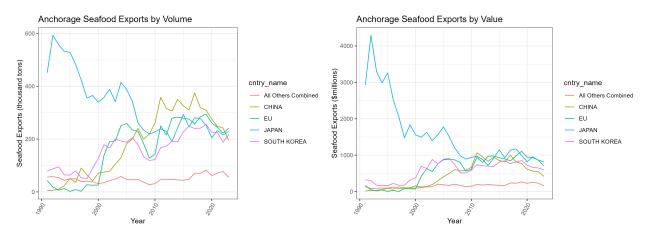


Figure 4.10: Anchorage seafood exports, 1991-2023.

Compared with 2022, 2023 Anchorage total seafood export values experienced a small decline to South Korea (-9%) and the EU (-6.2%) and a modest declines to Japan (-18%) and China (-37%). No king crab products were exported from Anchorage in 2022 and they were only exported to Japan (Figure 4.5) (\$0.7 million in 2023 on 0.18 million pounds of exports). Only two other countries, China and South Korea, have had at least \$1 million (\$2022) in cumulative king crab imports from Anchorage, but neither have been important partners in recent years. Anchorage customs district king crab exports to Japan in 2023 have decreased by -92% compared with the average of the 2018-2022 period which averaged \$8.9 million on 0.13 million pounds in average export volume.

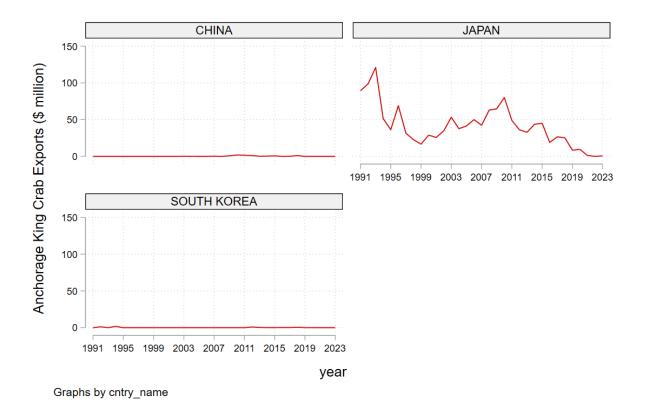


Figure 4.11: Anchorage king crab exports by value to countries with at least 1 million in cumulative export value, 1991-2023.

Snow crab products from Anchorage are primarily exported to Japan (\$10.9 million on 1 million pounds in volume) in 2023, followed by China (\$1.6 million on 0.2 million pounds in volume) (Figure 4.6). Anchorage customs district exports of snow crab to Japan have increased by 43% in 2023 compared with 2022, but decreased by -23.7% compared with the average of the 2018-2022 period. Anchorage customs district crab exports to China have fallen by -11.4% in 2023 compared with 2022, and decreased by -90.6% compared with the average of the 2018-2022 period.

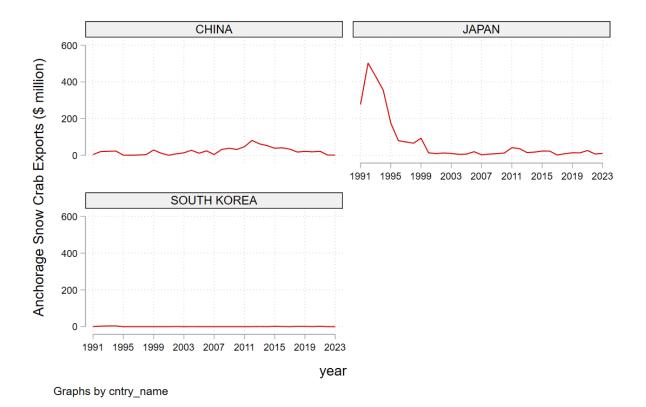


Figure 4.12: Anchorage snow crab exports by value to countries with at least 1 million in cumulative export value, 1991-2023.

# 4.7 Seattle, Washington International Seafood Trade Summary

Seattle's largest export market by value through mid-December 2023 was Canada (\$372 million on 152 million pounds of export volume), followed by the EU (\$258 million on 175.3 million pounds of export volume), Japan (\$174 million on 60.5 million pounds of export volume), and China (\$147.5 million on 111.7 million pounds of export volume) (Figure 4.13). Canada and the EU have each been the Seattle customs district's largest importer of seafood by value since taking over from Japan in the late 2000's.

Compared with 2022, total export value in 2023 declined by -27.6% for Canada, -52.1% for the EU, -26.6% for China and -33.3% for Japan. Seattle's total seafood exports during in 2023 are below the average of the 5-year baseline period (2018-2022) for all countries: China has declined by -25% in value on 112 million pounds of exports from Seattle, the EU has fallen by -47.7% in value on 175 million pounds of exports from Seattle, Japan has seen the value of its imports from Seattle decrease by -21.9% on 60.5 million pounds of exports from Seattle, and Canada experienced a -23% decline in value on 152 million pounds of exports from Seattle.

King crab products from the Seattle customs district are primarily exported to Canada (Figure 4.14) (\$2 million) in recent years with no king crab exports from Seattle going to Japan and few exports to China, Hong Kong, and Thailand, since 2020. The United Arab Emirates has become a new important trading partner with Seattle as it imported 0.038 million pounds of king crab from

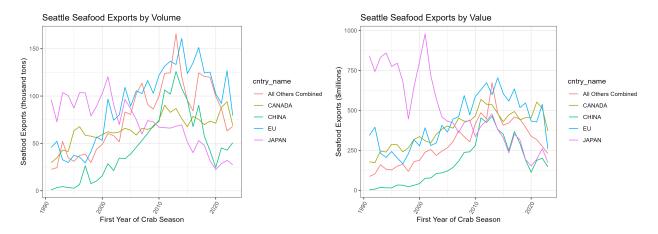
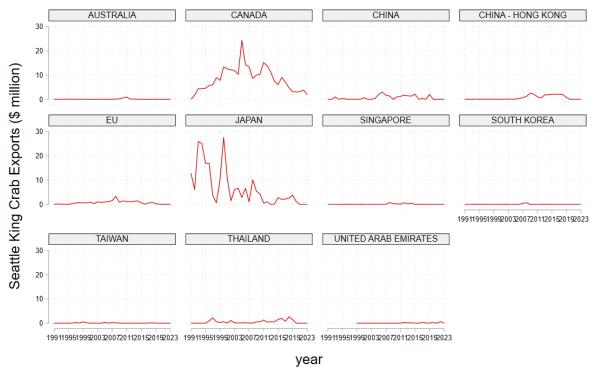


Figure 4.13: Seattle seafood exports, 1991-2023.

Seattle in 2022 worth \$612 thousand but has only imported 0.001 million pounds worth \$5,459 through mid-December 2023. Seattle customs district king crab exports to Canada have fallen by -48.2% in 2023 compared with 2022, and decreased by -44.5% compared with the average of the 2018-2022 period.



Graphs by cntry\_name

Figure 4.14: Seattle king crab exports by value to countries with at least 1 million in cumulative export value, 1991-2023.

Snow crab products from Seattle are primarily exported to Japan (Figure 4.15) (\$1.96 million

on 0.3 million pounds of export volume) in 2023, followed by Canada (\$1 million on 0.4 million pounds of export volume), and China (\$0.24 million on 0 million pounds of export volume). Seattle customs district snow crab exports to Japan have fallen by -64.3% in 2023 compared with 2022, and decreased by -64.7% compared with the average of the 2018-2022 period. Seattle customs district snow crab exports to Canada have risen by 5.69% in 2023 compared with 2022, and increased by 79.5% compared with the average of the 2018-2022 period. China did not import any snow crab from the Seattle customs district in 2022, but 2023 is -75.9% below the average of the 2018-2022 period which were \$1.01 million on 59.2 million pounds of export volume from Seattle.

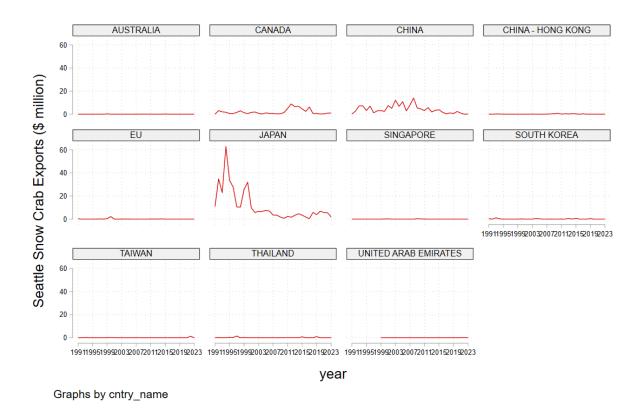


Figure 4.15: Seattle snow crab exports by value to countries with at least 1 million in cumulative export value, 1991-2023.

#### 4.8 U.S. Dollar Exchange Rate Summary 2023

A summary of the exchange rate between the U.S. dollar and four important seafood trading partners are included in Figure 4.16, including Canada, China, Japan, and the EU, with January 2022=1 for each currency relative to the U.S. dollar. Thus Figure 4.16 shows a nearly 30% appreciation in the value of the U.S. dollar relative to the Japanese Yen between January 2022 and December 2023, which means that U.S. products cost almost 30% more when purchased by Japanese consumers with Yen than they did a little less than two years prior. The U.S. dollar strengthened from the January 2021 through the October 2022 against all of these currencies, making all U.S. exports more expensive, with the largest appreciation occurring between the U.S. dollar and Yen (41.7%) and between the U.S. Dollar and Euro (23.6%), while the U.S. dollar only

strengthened by 7.58% relative to the Canadian Dollar and 11.2% relative to the Chinese Yuan. Between January and December 2023, the U.S. Dollar has strengthened by 10.4% compared with the Japanese Yen, 5.15% relative to the Chinese Yuan, while the U.S. dollar as weakened by -1.21% in relation to the Euro, and -0.045% when compared with the Canadian Dollar.

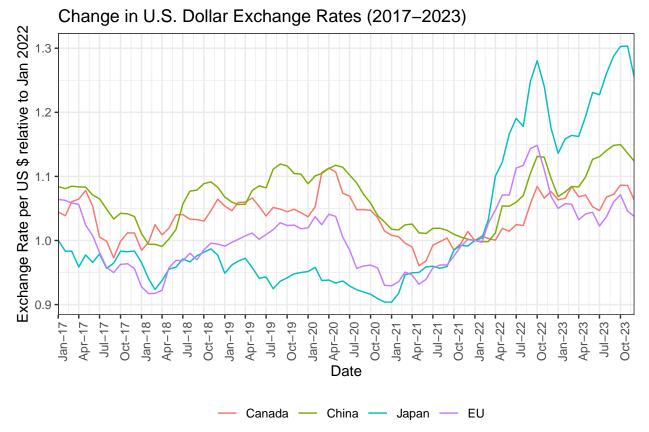


Figure 4.16: Change in U.S. Dollar Exchange Rates (2017-2023, Jan 2022=1)

# 4.9 2023 Price Estimates for King and Snow Crab

Estimated monthly prices for king and snow crab production in Alaska as well as import and export prices for frozen crab products (hts number 0306144020 for snow crab and hts numbers 0306144010, 0306144003, 0306144006, 0306144009, and 0306144012 for king crab) are presented in Figure 4.17. Note that these prices are not seasonally adjusted and tend to be quite volatile on a monthly basis. For 2023 through mid-December, the weighted average price of imported king crab product fell by -66.3% compared with calendar year 2022 (from \$35.2 per pound in 2022 to \$11.9 per pound in 2023), while the weighted average price of exported king crab fell by -21.4% compared with calendar year 2022 (from \$8.4 per pound in 2022 to \$6.6 per pound in 2023). Snow crab experienced a similar decline in import and export prices, falling by -48.4% compared with calendar year 2022 (from \$10.7 per pound in 2022 to \$5.52 per pound in 2023), while the weighted average price of exported snow crab fell by -32.4% compared with calendar year 2022 (from \$9.69 per pound in 2022 to \$6.55 per pound in 2023). Only red king crab, golden king crab, and bairdi tanner crab fisheries were open during 2023 and thus price nowcasts for 2023 were only created for those three species. Red king crab prices in 2023 are nowcasted to fall by -21.3% compared with the weighted average price from

2018-2022 (from \$12.3 per pound on average from 2018-2022 to \$9.69 per pound in 2023). Golden king crab prices in 2023 are nowcasted to fall by -4.91% compared with calendar year 2022 (from \$10.1 per pound in 2022 to \$9.57 per pound in 2023). Bairdi tanner crab 2023 nowcast prices are also expected to be below 2022 levels by -16% (from \$6.6 per pound in 2022 to \$5.5 per pound in 2023).

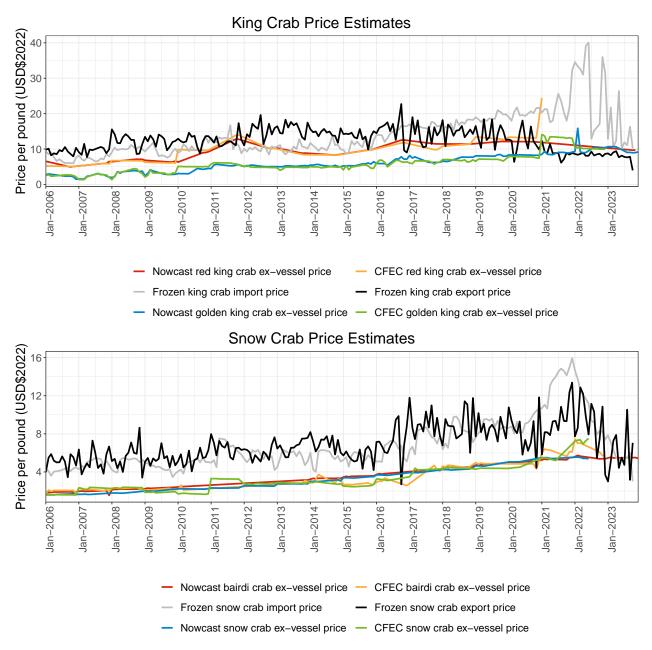


Figure 4.17: Monthly king and snow crab price estimates, 2020-2023.

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Chapter 5

# Tables Reporting Economic Data for the King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands Regions

	Year	IFQ / general allocation (million lbs)	CDQ/ACA allocation (million lbs)	TAC/GHL (million lbs)	Percent IFQ/general allocation landed	Percent CDC allocation landed
	2005/06	16.50	1.83	18.33	100 %	100 %
	2006/07	13.97	1.55	15.53	99~%	$100 \ \%$
	2007/08	18.34	2.04	20.38	$100 \ \%$	$100 \ \%$
	2008/09	18.33	2.04	20.36	$100 \ \%$	$100 \ \%$
	2009/10	14.41	1.60	16.01	$100 \ \%$	$100 \ \%$
	2010/11	13.36	1.48	14.84	$100 \ \%$	$100 \ \%$
	2011/12	7.05	0.78	7.83	$100 \ \%$	$100 \ \%$
	2012/13	7.07	0.79	7.85	$100 \ \%$	$100 \ \%$
	2013/14	7.74	0.86	8.60	$100 \ \%$	100 %
	2014/15	8.99	1.00	9.99	$100 \ \%$	100 %
	2015/16	8.98	1.00	9.97	$100 \ \%$	$100 \ \%$
	2016/17	7.62	0.85	8.47	$100 \ \%$	100 %
	2017/18	5.94	0.66	6.60	$100 \ \%$	100 %
	2018/19	3.88	0.43	4.31	$100 \ \%$	$100 \ \%$
	2019/20	3.42	0.38	3.80	$100 \ \%$	$100 \ \%$
	2020/21	2.38	0.26	2.65	$100 \ \%$	$100 \ \%$
	2022/23	-	-	-	-	
BBR	2023/24	1.94	0.22	2.15	-	
	2005/06	33.47	3.72	37.18	99 %	100 %
	2006/07	32.91	3.66	36.57	99 %	100 %
	2007/08	56.73	6.30	63.03	100 %	100 %
	2008/09	52.70	5.86	58.55	100 %	100 %
	2009/10	43.22	4.80	48.02	100 %	100 %
	2010/11	48.85	5.43	54.28	100 %	100 %
	2011/12	80.00	8.89	88.89	100 %	100 %
	2012/13	59.72	6.64	66.35	100 %	100 %
	2013/14	48.58	5.40	53.98	100 %	100 %
	2014/15	61.16	6.80	67.95	100 %	100 %
	2015/16	36.55	4.06	40.61	100 %	100 %
	2016/17	19.41	2.16	21.57	100 %	100 %
	2017/18	17.06	1.90	18.96	100 %	100 %
	2018/19	24.82	2.76	27.58	100 %	100 %
	2019/20	30.62	3.40	34.02	100 %	100 %
	2020/21	40.50	4.50	45.00	100 %	100 %
BSS	2021/22 2022/23	5.04	0.56	5.60	99 %	100 %
BST	2005/06	1.46	0.16	1.62	54 %	100 %
	2006/07 2007/08	1.69	0.19	1.88	75%	$72 \ \% 42 \ \%$
	2007/08	3.10	0.34	3.45	$46 \% \\ 62 \%$	42 % 100 %
	2008/09 2009/10	2.49	0.28	2.76		100 %
	2009/10 2013/14	1.22	$0.14 \\ 0.15$	1.35	98% 99%	100 %
	2013/14 2014/15	$1.32 \\ 7.63$	$0.15 \\ 0.85$	$\begin{array}{c} 1.46 \\ 8.48 \end{array}$	99% 100 %	100 %
	,	7.03 10.14			100% 100%	100 %
	2015/16		1.13	11.27	100 %	100 %
FDT	2022/23	0.77	0.09	0.85	-	
EBT	2023/24	0.68	0.08	0.76	-	

Table 5.1: TACs/GHLs, BSAI crab fishery management program allocations and usage

	Year	IFQ / general allocation (million lbs)	CDQ/ACA allocation (million lbs)	TAC/GHL (million lbs)	Percent IFQ/general allocation landed	Percent CDC allocation landed
	2006/07	0.98	0.11	1.09	64 %	79 %
	2007/08	1.96	0.22	2.18	24 %	26 %
	2008/09	1.38	0.15	1.54	8~%	-
	2013/14	1.48	0.16	1.65	81~%	$73 \ \%$
	2014/15	5.96	0.66	6.63	78 %	$93 \ \%$
	2015/16	7.56	0.84	8.40	$100 \ \%$	$100 \ \%$
	2017/18	2.25	0.25	2.50	$100 \ \%$	$100 \ \%$
	2018/19	2.20	0.24	2.44	$100 \ \%$	$100 \ \%$
	2020/21	2.11	0.23	2.35	62~%	60 %
	2021/22	0.99	0.11	1.10	$100 \ \%$	$100 \ \%$
	2022/23	1.05	0.12	1.16	-	
WBT	2023/24	1.19	0.13	1.32	-	
	2005/06	2.70	0.30	3.00	$95 \ \%$	\$
	2006/07	2.70	0.30	3.00	$100 \ \%$	:
	2007/08	2.70	0.30	3.00	$100 \ \%$	100 %
	2008/09	2.84	0.32	3.15	$100 \ \%$	100 %
	2009/10	2.84	0.32	3.15	*	:
	2010/11	2.84	0.32	3.15	*	:
	2011/12	2.84	0.32	3.15	*	100 %
	2012/13	2.98	0.33	3.31	*	100 %
	2013/14	2.98	0.33	3.31	*	100 %
	2014/15	2.98	0.33	3.31	*	100 %
	2015/16	2.98	0.33	3.31	*	100 %
	2016/17	2.98	0.33	3.31	*	100 %
	2017/18	2.98	0.33	3.31	*	100 %
	2018/19	3.47	0.39	3.86	$100 \ \%$	100 %
	2019/20	3.88	0.43	4.31	$100 \ \%$	$100 \ \%$
	2020/21	3.29	0.37	3.65	$100 \ \%$	$100 \ \%$
	2021/22	3.25	0.36	3.61	$100 \ \%$	$100 \ \%$
	2022/23	2.99	0.33	3.32	-	
EAG	2023/24	3.35	0.37	3.72	-	

Table 5.1: TACs/GHLs, BSAI crab fishery management program allocations and usage (continued)

Percent CDC allocation landed	Percent IFQ/general allocation landed	TAC/GHL (million lbs)	CDQ/ACA allocation (million lbs)	IFQ / general allocation (million lbs)	Year	
;	98 %	2.70	0.27	2.43	2005/06	
;	82 %	2.70	0.27	2.43	2006/07	
;	$92 \ \%$	2.70	0.27	2.43	2007/08	
;	88 %	2.84	0.28	2.55	2008/09	
;	*	2.84	0.28	2.55	2009/10	
;	*	2.84	0.28	2.55	2010/11	
;	*	2.84	0.28	2.55	2011/12	
;	*	2.98	0.30	2.68	2012/13	
;	*	2.98	0.30	2.68	2013/14	
;	*	2.98	0.30	2.68	2014/15	
;	*	2.98	0.30	2.68	2015/16	
;	*	2.24	0.22	2.01	2016/17	
;	$100 \ \%$	2.24	0.22	2.01	2017/18	
2	100~%	2.50	0.25	2.25	2018/19	
2	99~%	2.87	0.29	2.58	2019/20	
2	94~%	2.96	0.30	2.66	2020/21	
2	*	2.32	0.23	2.09	2021/22	
	-	1.73	0.17	1.56	2022/23	
	-	1.81	0.18	1.63	2023/24	WAG
0 %	44 %	1.17	0.12	1.05	2009/10	
98 %	77~%	1.60	0.16	1.44	2010/11	
77 %	80 %	2.36	0.24	2.12	2011/12	
100 %	99 %	1.63	0.16	1.47	2012/13	
;	*	0.66	0.07	0.59	2014/15	
0 %	*	0.41	0.04	0.37	2015/16	SMB
$100 \ \%$	$108 \ \%$	0.37	0.03	0.34	2005	
96 %	$100 \ \%$	0.45	0.03	0.42	2006	
100 %	99~%	0.31	0.02	0.29	2007	
$100 \ \%$	96~%	0.41	0.03	0.38	2008	
$100 \ \%$	107~%	0.38	0.03	0.35	2009	
98 %	$106 \ \%$	0.40	0.03	0.37	2010	
100 %	$113 \ \%$	0.36	0.03	0.33	2011	
100 %	$102 \ \%$	0.47	0.03	0.43	2012	
$50 \ \%$	81~%	0.46	0.04	0.46	2013	
98 %	$102 \ \%$	0.38	0.03	0.35	2014	
100 %	$102 \ \%$	0.39	0.03	0.36	2015	
100 %	96 %	0.52	0.04	0.48	2016	
100 %	98 %	0.50	0.04	0.46	2017	
100 %	$103 \ \%$	0.32	0.02	0.30	2018	
0 %	50 %	0.15	0.01	0.14	2019	
0 %	0 %	0.17	0.01	0.16	2020	
0 %	0 %	0.31	0.02	0.29	2021	
	-	0.34	0.03	0.32	2022	
$100 \ \%$	109~%	0.39	0.03	0.36	2023	NSR

Table 5.1: TACs/GHLs, BSAI crab fishery management program allocations and usage (continued)

Yea	r IFQ / general allocation (million lbs)	CDQ/ACA allocation (million lbs)	TAC/GHL (million lbs)	Percent IFQ/general allocation landed	Percent CDQ allocation landed
200	7 0.15	-	0.15	0 %	-
200	8 0.15	-	0.15	0 %	-
200	9 0.15	-	0.15	0 %	-
201	0 0.15	-	0.15	*	-
201	1 0.15	-	0.15	*	-
201	2 0.15	-	0.15	*	-
201	3 0.15	-	0.15	*	-
201	4 0.15	-	0.15	*	-
201	5 0.13	-	0.13	0 %	-
201	6 0.13	-	0.13	0 %	-
201	7 0.13	-	0.13	*	-
201	8 0.13	-	0.13	*	-
201	9 0.13	-	0.13	$100 \ \%$	-
202	0 0.13	-	0.13	*	-
202	1 0.13	-	0.13	*	-
202	2 0.13	-	0.13	-	-
PIG 202	3 0.13	-	0.13	*	-

Table 5.1: TACs/GHLs, BSAI crab fishery management program allocations and usage (continued)

**Note** Adak Community Allocation (ACA) applies to Western Aleutian Islands golden king crab fishery only. Values shown for the Norton Sound Red king crab fishery for 2005 through 2015 are for the summer commercial fishery only; prior to 2016, the winter commercial fishery was not managed with a GHL or TAC. General allocations and GHL apply to non-rationalized stocks (NSR and PIG). Data for PIK fishery (closed since 1999) and WAI fishery (closed since 2004/2005) are not shown. Asterisks indicate data suppressed due to confidentiality

**Source** ADF&G (TAC and allocation amounts for all fisheries, usage for Norton Sound red king crab, Pribilof Islands golden king crab, and CDQ/ACA fisheries), and NMFS AKRO RAM division (IFQ usage)

	Year	CFEC permits	Vessels	Buyers/proce
	1998	773	286	53
	1999	590	283	41
	2000	525	262	34
	2001	487	251	34
	2002	513	248	35
	2003	514	253	33
	2004	492	256	32
	2005	307	182	27
	2006	231	102	18
	2007	190	86	23
	2008	228	94	21
	2009	213	89	24
	2010	194	79	21
	2011	195	77	25
	2012	219	83	23
	2013	184	81	24
	2014	191	75	21
	2015	198	81	19
	2016	187	82	19
	2017	164	72	21
	2018	158	68	19
	2019	160	66	20
	2019	149	64	20
	2020	145	66	17
All BSAI	2021	101 69	51	14
Crab	2022	09 78	41	14
	1998	281		28
			274	
	1999	266	256	24
	2000	255	244	22
	2001	240	230	23
	2002	253	241	24
	2003	264	250	26
	2004	268	251	25
	2005	115	89	16
	2006	100	81	15
	2007	85	73	18
	2008	98	79	17
	2009	86	70	16
	2010	79	65	17
	2011	71	62	18
	2012	74	64	17
	2013	73	63	17
	2014	72	63	17
	2015	71	64	15
	2016	70	63	17
	2017	69	61	17
	2018	62	55	15
	2019	65	56	14
	2020	54	47	16
BBR	2023	36	31	11

Table 5.2: BSAI crab fishery participation by calendar year

	Year	CFEC permits	Vessels	Buyers/process
	1998	276	230	44
	1999	298	241	37
	2000	244	231	28
	2001	219	207	23
	2002	205	191	26
	2003	202	190	21
	2004	200	189	23
	2005	178	167	20
	2006	106	78	13
	2007	89	68	18
	2008	108	78	17
	2009	103	77	18
	2010	87	68	13
	2011	88	68	16
	2012	109	72	16
	2012	91	71	15
	$2010 \\ 2014$	93	70	13
	2011	94	70	10
	2016	86	68	12
	$2010 \\ 2017$	78	63	12
	2017	78	63	13
	2018 2019	77	61	13
	2019 2020	77	59	13
	2020 2021	82	59 62	13
BSS	2021 2022	48	42	10
	1998	15	14	7
	1999	15	15	7
	2000	16	15	4
	2001	19	19	4
	2002	20	19	4
	2003	18	18	4
	2004	19	19	4
	2005	9	6	4
	2006	12	6	6
	2007	7	4	5
	2008	8	4	6
	2009	9	3	6
	2010	8	3	7
	2011	9	3	10
	2012	9	3	11
	2013	8	3	10
	2014	8	3	8
	2015	7	3	7
	2016	8	3	9
	2017	9	4	9
	2018	10	4	9
	$2010 \\ 2019$	10	3	9
	2010	10	3	11
	2020 2021	10	3	8
	2021 2022	6	2	5
EAG	2022	0	4	0

Table 5.2: BSAI crab fishery participation by calendar year (continued)

	Year	CFEC permits	Vessels	Buyers/proc
	1998	13	8	6
	1998	15	12	5
	2000	22	15	7
	2001	20	13	7
	2002	13	8	6
	2003	8	7	5
	2004	8	6	4
	2005	7	4	5
	2006	7	3	3
	2007	6	4	4
	2008	6	3	5
	2009	4	2	6
	2010	7	3	5
	2011	6	3	9
	2012	6	4	9
	2013	7	4	8
	2014	3	2	9
	2015	5	2	8
	2016	6	3	8
	2017	5	3	9
	2018	6	3	6
	2019	7	3	6
	2020	6	3	8
	2021	6	3	8
	2022	8	4	7
VAG	2023	5	3	7
	1998	136	131	16
	2009	7	7	6
	2010	14	11	9
	2011	23	18	11
	2012	22	17	11
	2014	5	4	6
MB	2015	3	3	4
PIK	1998	58	58	17
	1998	1	1	1
	1999	0	0	0
	2002	33	33	9
	2003	30	30	10
VAI	2004	0	0	0

Table 5.2: BSAI crab fishery participation by calendar year (continued)

	Year	CFEC	Vessels	Buyers/processo
		permits		
	1998	16	8	2
	1999	13	10	2
	2000	29	15	7
	2001	36	29	4
	2002	54	32	4
	2003	53	25	4
	2004	41	26	2
	2005	44	30	3
	2006	41	26	2
	2007	42	28	4
	2008	34	22	2
	2009	29	23	3
	2010	37	23	3
	2010	38	$\frac{20}{24}$	2
	2012	64	29	3
	2012	52	33	5
	2013	65	33	4
	2014	72	36	3
	2013 2016	72 75	36 36	3 2
	$2010 \\ 2017$	110	36 36	$\frac{2}{2}$
	2018	71	33	1
	2019	32	24	1
	2020	1	0	0
	2021	3	0	0
NGD	2022	36	27	2
NSR	2023	36	24	1
	1998	4	3	3
	1999	4	3	2
	2000	8	6	4
	2001	6	6	3
	2002	9	8	3
	2003	3	3	2
	2004	5	5	2
	2005	4	4	2
	2010	1	1	2
	2011	2	2	1
	2012	1	1	1
	2013	1	1	1
	2014	1	1	1
	2017	2	2	2
	2018	2	1	1
	2019	2	2	2
	2020	$\frac{2}{4}$	4	3
	2020	4	4	3
	2021	3	3	2
PIG	2022	2	2	2

Table 5.2: BSAI crab fishery participation by calendar year (continued)

**Note** Data shown by calendar year. CFEC permits counts unique permits reported on ADF&F fish ticket crab landing reports; includes permits held by distinct crab vessel operators and additional permits required to fish CDQ/ACA allocation. Data for Norton Sound red king crab are aggregated over the summer and winter commercial fisheries; as no vessels are used in the winter commercial fishery, the number of CFEC permits fished is a better measure of participation and effort for the combined fisheries. Count of buyers/processors for Norton Sound red king crab excludes catcher seller operations. Excludes participation in 2000/2001 and 2001/2002 Western Aleutian Islands red king crab Petrel Bank test fishery.

**Source** ADF&G fish ticket data and eLandings

	Season	Total vessels	Catcher vessels	Catcher/processor
	1998	274	263	11
	1999	256	248	8
	2000	244	238	8
	2001	230	224	8
	2002	241	234	9
	2003	250	242	8
	2004	251	243	8
	2005/06	89	86	4
	2006/07	81	79	3
	2007/08	74	72	3
	2008/09	78	76	3
	2009/10	70	69	2
	2010/11	65	64	2
	2011/12	62	61	2
	2012/13	64	63	2
	2013/14	63	62	2
	2014/15	63	62	2
	2015/16	64	63	2
	2016/17	63	62	2
	2017/18	61	60	2
	2018/19	55	53	2
	2019/20	56	55	1
	2020/21	47	45	2
BBR	2023/24	31	30	1

Table 5.3: Fleet composition by season, CR Program fisheries

	Season	Total vessels	Catcher vessels	Catcher/processo
	1998	230	219	12
	1999	241	232	10
	2000	231	222	9
	2001	207	201	8
	2002	191	183	9
	2003	190	185	5
	2004	189	183	6
	2005	167	161	6
	2005/06	78	74	4
	2006/07	69	65	4
	2007/08	78	74	4
	2008/09	77	73	4
	2009/10	68	66	2
	2010/11	68	67	2
	2011/12	72	70	2
	2012/13	70	68	2
	2013/14	70	68	2
	2014/15	70	68	2
	2015/16	70	69	2
	2016/17	63	61	2
	2017/18	63	61	2
	2018/19	61	59	2
	2019/20	59	58	2
	2020/21	62	60	2
BSS	2021/22	42	40	2
	2005/06	33	31	2
	2006/07	39	37	2
	2007/08	27	26	1
	2008/09	20	19	1
	2009/10	13	12	1
	2013/14	25	24	1
	2014/15	45	44	1
	2015/16	56	55	1
	2017/18	32	31	1
	2018/19	33	32	1
	2020/21	35	34	1
	2021/22	18	17	1
	2022/23	17	17	0
BST	2023/24	16	16	0

Table 5.3: Fleet composition by season, CR Program fisheries (continued)

	Season	Total vessels	Catcher vessels	Catcher/processo
	1998	14	13	1
	1999	15	14	1
	2000	15	15	0
	2001	19	19	0
	2002	19	19	0
	2003	18	18	0
	2004	19	19	0
	2005/06	7	6	1
	2006/07	6	5	1
	2007/08	4	3	1
	2008/09	3	3	0
	2009/10	3	3	0
	2010/11	3	3	0
	2011/12	3	3	0
	2012/13	3	3	1
	2013/14	3	3	1
	2014/15	3	3	0
	2015/16	3	3	0
	2016/17	4	4	0
	2017/18	4	4	0
	2018/19	3	3	0
	2019/20	3	3	0
	2020/21	3	3	0
	2021/22	3	3	0
	2022/23	3	3	0
AG	2023/24	3	3	0

Table 5.3: Fleet composition by season, CR Program fisheries (continued)

	Season	Total vessels	Catcher vessels	Catcher/processo
	1998/99	3	2	1
	1999/00	15	14	1
	2000/01	12	11	1
	2001/02	9	8	1
	2002/03	6	5	1
	2003/04	6	5	1
	2004/05	6	5	1
	2005/06	3	2	1
	2006/07	4	3	1
	2007/08	3	2	1
	2008/09	3	2	1
	2009/10	3	2	1
	2010/11	3	2	1
	2011/12	3	2	1
	2012/13	4	3	1
	2013/14	3	3	0
	2014/15	2	2	0
	2015/16	2	2	0
	2016/17	3	3	0
	2017/18	3	3	0
	2018/19	3	3	0
	2019/20	3	3	0
	2020/21	3	3	0
	2021/22	3	3	0
	2022/23	3	3	0
WAG	2023/24	3	3	0
	1998	131	129	2
	2009/10	7	7	0
	2010/11	11	11	0
	2011/12	18	18	0
	2012/13	17	17	0
	2014/15	4	4	0
SMB	2015/16	3	3	0
PIK	1998	58	58	0
	1998/99	1	0	1
	2002/03	33	31	2
WAI	2003/04	30	28	2

Table 5.3: Fleet composition by season, CR Program fisheries (continued)

	Season	Total vessels	Catcher vessels	Catcher/processo
	1998/99	288	277	12
	1999/00	272	263	10
	2000/01	252	245	12
	2001/02	243	235	11
	2002/03	246	237	11
	2003/04	253	244	9
	2004/05	256	247	9
	2005/06	101	97	5
	2006/07	91	87	5
	2007/08	87	83	5
	2008/09	89	85	5
	2009/10	78	76	3
	2010/11	77	75	3
	2011/12	78	76	3
	2012/13	81	79	4
	2013/14	75	74	3
	2014/15	78	77	2
	2015/16	80	79	2
	2016/17	72	71	2
	2017/18	70	69	2
	2018/19	66	64	2
	2019/20	66	65	2
	2020/21	67	65	2
	2021/22	48	46	2
All CR	2022/23	22	22	0
Fisheries	2023/24	37	36	1

Table 5.3: Fleet composition by season, CR Program fisheries (continued)

Note Data shown for crab rationalization (CR) fisheries by season. Excludes participation in 2000/2001 and 2001/2002 Western Aleutian Islands red king crab Petrel Bank test fishery.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database. and eLandings

Mean(sd price (\$/lt	Weighted average, price	Ex-vessel value	Sold weight (million lbs)		
price (\$/1	(\$/lb)	(\$million)	(minion ibs)		
\$ 3.28(0.23	\$ 3.23	\$ 16.93	5.24	1998	
	\$ 4.99	\$ 24.40	4.89	1999	
	\$ 5.33	\$ 30.70	5.76	2000	
5.33(0.59)	\$ 5.27	\$ 33.56	6.36	2001	
	\$ 5.23	\$ 28.94	5.54	2002	
	\$ 5.33	\$ 31.04	5.82	2003	
\$ 4.84(0.1)	\$ 4.85	\$ 29.18	6.02	2004	
3.75(0.3)	\$ 3.78	16.78	4.44	2005	
2.88(0.4)	\$ 2.70	\$ 14.14	5.24	2006	
3.03(0.4)	\$ 3.00	\$ 16.31	5.44	2007	
4.75(0.54)	\$ 4.38	\$ 25.06	5.73	2008	
3.27(0.5)	\$ 3.29	\$ 18.12	5.51	2009	
\$ 5.11(1.19	\$4.98	\$ 30.36	6.09	2010	
\$ 6.21(0.42	\$ 5.94	35.63	6.00	2011	
\$ 4.86(0.43	\$ 4.91	\$ 29.09	5.92	2012	
\$ 5.03(0.44	5.05	\$ 30.00	5.94	2013	
\$ 5.12(0.33	\$ 4.96	\$ 30.14	6.07	2014	
\$ 5.43(0.68	\$ 5.25	\$ 30.47	5.80	2015	
6.87(1.15)	\$ 6.46	\$ 36.20	5.60	2016	
\$ 6.61(0.96	\$ 6.56	\$ 36.48	5.56	2017	
\$ 7.38(0.84	\$ 7.13	\$ 46.37	6.51	2018	
\$ 7.27(0.8)	\$ 7.29	\$ 49.40	6.78	2019	
\$ 8.23(0.67	\$ 8.16	\$ 46.66	5.72	2020	
11.1(1.25)	\$ 13.06	\$ 77.06	5.90	2021	
\$ 9.27(0.7)	\$ 9.42	\$ 38.52	4.09	2022	AIG
\$ 4.5(0.82	\$ 4.47	\$ 65.68	14.70	1998	
	10.08	\$ 116.26	11.53	1999	
	\$ 7.45	\$ 60.15	8.07	2000	
\$ 7.62(0.63	\$ 7.62	63.17	8.30	2001	
	\$ 9.42	\$ 89.30	9.48	2002	
	\$ 7.62	117.19	15.39	2003	
\$ 7.01(0.35	6.98	104.77	15.02	2004	
6.46(0.19)	\$ 6.50	117.87	18.14	2005	
5.4(0.26)	\$ 5.37	83.47	15.55	2006	
6.16(0.73)	6.07	\$ 122.46	20.17	2007	
6.89(0.39)	\$ 6.96	140.04	20.13	2008	
6.25(0.22)	\$ 6.21	97.93	15.78	2009	
9.78(0.84)	9.71	\$ 143.06	14.73	2010	
13.5(1.79)	\$ 13.42	104.46	7.79	2011	
\$ 10.21(0.5)	\$ 10.12	78.97	7.80	2012	
\$ 9.04(0.63	\$ 8.90	75.81	8.52	2013	
\$ 8.25(0.62	\$ 8.13	\$ 80.21	9.87	2014	
\$ 9.83(0.44	\$ 9.71	\$ 94.86	9.77	2015	
\$ 13.22(0.32	\$ 13.07	\$ 109.90	8.41	2016	
\$ 10.9(0.24	\$ 10.84	\$ 71.00	6.55	2017	
\$ 12.12(0.89	\$ 11.98	\$ 50.70	4.23	2018	
\$ 13.08(0.60	\$ 13.47	\$ 50.83	3.77	2019	
\$ 11.45(3.30	\$ 13.66	\$ 36.08	2.64	2020	BBR

Table 5.4: Ex-vessel volume, gross revenue value, and average price: harvesting sector total, BSAI crab fisheries

		Sold weight (million lbs)	Ex-vessel value	Weighted average, price	Mean(sd price (\$/lb
			(\$million)	(\$/lb)	
	1998	249.05	\$ 237.02	0.95	0.95(0.06)
	1999	192.41	\$ 304.41	\$ 1.58	
	2000	32.81	\$ 95.42	\$ 2.91	
	2001	24.78	60.55	\$ 2.44	2.45(0.15)
	2002	31.94	66.97	\$ 2.10	
	2003	27.51	\$ 75.32	\$ 2.74	
	2004	23.69	\$ 71.72	\$ 3.03	3.04(0.12)
	2005	24.86	\$ 61.26	\$ 2.46	\$ 2.6(0.26
	2006	38.02	59.48	\$ 1.56	1.58(0.2)
	2007	34.76	\$ 81.41	\$ 2.34	\$ 2.33(0.28
	2008	62.23	\$ 142.75	\$ 2.29	2.4(0.59)
	2009	57.68	111.47	\$ 1.93	1.95(0.29)
	2010	47.84	\$ 80.94	\$ 1.69	1.7(0.25)
	2011	54.05	177.68	\$ 3.29	\$ 3.31(0.42
	2012	88.23	\$ 243.52	\$ 2.76	\$ 2.81(0.28
	2013	70.69	\$ 204.49	\$ 2.89	\$ 2.97(0.13
	2014	55.22	\$ 161.06	\$ 2.92	\$ 3.07(0.52
	2015	60.91	\$ 150.45	\$ 2.47	\$ 2.48(0.16
	2016	39.57	\$ 129.71	\$ 3.28	\$ 3.39(0.85
	2017	21.32	\$ 103.08	\$ 4.83	\$ 4.93(0.74
	2018	18.84	\$ 86.75	\$ 4.60	\$ 4.7(0.31
	2010	27.26	\$ 122.95	\$ 4.51	\$ 4.61(0.27
	2010	33.61	\$ 147.78	\$ 4.40	\$ 4.49(0.33
	2020	44.14	\$ 234.59	\$ 5.32	\$ 5.48(0.43
BSS	2021	5.48	\$ 38.91	\$ 7.10	\$ 7.24(0.44
	2005	0.26	\$ 0.55	\$ 2.13	\$ 2.13(0.03
	2006	0.99	\$ 2.14	\$ 2.16	\$ 2.05(0.49
	2007	2.25	\$5.55	\$ 2.47	\$ 2.45(0.8
	2008	2.33	\$ 5.89	\$ 2.52	\$ 2.49(0.31
	2009	2.14	\$ 5.52	\$ 2.58	\$ 2.55(0.23
	2010	0.37	\$ 0.88	\$ 2.36	\$ 2.32(0.33
	2013	1.25	\$ 3.84	\$ 3.07	\$ 3.07(0.84
	2014	9.09	\$ 26.59	\$ 2.92	\$ 3(0.4
	2015	14.98	\$ 47.35	\$ 3.16	\$ 3.27(0.41
	2016	10.45	\$ 36.82	\$ 3.53	\$ 3.59(0.23
	2010	1.41	\$ 6.69	\$ 4.76	\$ 4.84(0.34
	2017	2.29	\$ 11.09	\$ 4.84	\$ 4.87(0.47
	2010	1.18	\$ 6.00	\$ 5.08	\$ 5.06(0.24
	2019	0.62	\$ 2.86	\$ 4.62	\$ 4.49(1.19)
	2020	0.02	\$ 2.80 \$ 5.64	\$ 4.02 \$ 5.94	\$ 4.49(1.13) \$ 5.9(0.58)
BST	2021	1.48	\$ 7.86	\$ 5.30	\$ 5.54(1.46
PIK	1998	1.03	\$ 4.10	\$ 3.98	\$ 4.06(0.65
	1998	2.95	\$ 9.35	\$ 3.17	\$ 3.21(0.25
	2009	0.45	\$ 3.35 \$ 1.75	\$ 3.89	\$ 3.96(0.34
	2003	1.25	\$ 8.00	$   \begin{array}{c}                                     $	\$ 6.48(0.34)
	2010	1.25	\$12.56	\$ 6.78	\$ 7.25(0.77
	2011 2012	1.59	\$ 8.52	\$ 5.34	\$ 5.36(0.32)
	2012 2014	0.30			\$ 5.30(0.32) \$ 5.33(0.09)
			0 I.JJ	(U (J, Z))	

Table 5.4: Ex-vessel volume, gross revenue value, and average price: harvesting sector total, BSAI crab fisheries *(continued)* 

		Sold weight (million lbs)	Ex-vessel value (\$million)	Weighted average, price (\$/lb)	Mean(sd price (\$/lb
	1998	*	*	*	
	2002	0.50	\$ 4.72	\$ 9.39	
WAI	2002	0.48	\$ 3.62	\$ 7.61	
	1998	0.03	\$ 0.07	\$ 2.63	
	1999	0.03	\$ 0.16	\$5.22	
	2000	0.32	\$0.10 \$1.56	\$ 4.89	
	2000	0.28	\$1.50 \$1.65	\$ 5.95	
	2001	0.26	\$1.03 \$2.37	\$9.16	
	2002	0.28	\$1.65	\$ 5.86	
	2003	0.33	\$ 1.65 \$ 1.49	\$ 4.47	
	2004	0.33		\$ 4.85	
	2005	0.40	\$1.55 \$1.55	\$ 3.49	
	2000	0.44	\$ 1.35 \$ 1.20	\$ 3.49 \$ 3.81	
	2007	0.32	\$1.20 \$1.87	\$ 4.68	
	2008	0.40	\$ 1.64	\$ 4.14	
	2009	0.40	\$ 2.01	\$ 4.78	
		0.42	\$ 2.01 \$ 2.63	5 4.78 \$ 6.51	
	$2011 \\ 2012$	0.40		\$ 6.74	
			\$ 3.35 © 2.11		
	2013	0.44	\$ 3.11 © 0.60	\$ 7.00	
	2014	0.42	\$ 2.62	\$ 6.29 • 6.71	
	2015	0.49	\$ 3.27	\$ 6.71	
	2016	0.50	\$ 3.87	\$ 7.82	
	2017	0.48	\$ 3.53	\$ 7.32 <b>•</b> 7.16	
	2018	0.32	\$ 2.31	\$ 7.16	
	2019	0.08	$^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	$     $ 7.81 \\     * $	
	2020	*	*	*	
NSR	$2021 \\ 2022$	0.32	\$ 3.79	\$ 12.00	
	1998	0.04	$^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	$3.23 \\ *$	
	1999				
	2000	0.12	\$ 0.67	\$ 5.48	
	2001	0.14	\$ 0.68	\$ 4.98	
	2002	0.14	\$ 0.75	\$ 5.29	
	2003	*	*	*	
	2004	*	*	*	
	2005	*	*	*	
	2010	*			
	2011	*	*	*	
	2012				
	2013	*	*	*	
	2014	*	*	*	
	2017	*	*	*	
	2018	*	*	*	
	2019	*	*	*	
	2020	0.11	\$ 0.82	\$ 7.71	
	2021	0.03	\$ 0.47	\$ 14.01	
PIG	2022	*	*	*	

Table 5.4: Ex-vessel volume, gross revenue value, and average price: harvesting sector total, BSAI crab fisheries *(continued)* 

Note Data shown for all BSAI crab fisheries by calendar year. Except where noted, data reflect total commercial volume and value across all management programs (LLP/open access, IFQ, CDQ, ACA) inclusive of all harvesting sector production (CV, CP, and catcher-sellers); approximation of ex-vessel sale value of CP and catcher-seller volume is incorporated in revenue total by using weighted average ex-vessel sale price. Price results are sourced from CV sector EDR data where available (1998, 2001,

2004, and 2005-present for CR program fisheries) and secondarily from CFEC gross earnings estimates (1999-2000, 2002-2003 for CR fisheries; all years for non-CR fisheries). Asterisks indicate data suppressed due to confidentiality Excludes landings in the 2001 Western Aleutian Islands red king crab Petrel Bank test fishery. Excludes landings in Petrel Bank test fishery in 2001. Data for Norton Sound red king crab are aggregated over the summer and winter commercial fisheries. Mean and standard deviation prices are derived by calculating a weighted price for each vessel [total ex-vessel revenue / sold lbs], then calculating mean and standard deviation to 2022-equivalent value.

**Source** ADF&G fish ticket data, eLandings, CFEC ex-vessel pricing, ADF&G Commercial Operator's Annual Report (COAR) data,NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

Mean(sd) pric (\$/lł	Weighted average price (\$/lb)	Share of ex-vessel revenue	Share of ex-vessel volume	Vessels	State	
	*	-	-	3(2)	AK	
4.61(0.97)	\$ 4.52	-	-	43(18)	WA	
× ×	*	-	-	6(2)	040ther	98/01/
\$ 3.69(0.29	\$ 3.81	80 %	80 %	8	WA	
	*	*	*	2	Other	2005
\$ 2.81(0.23	\$ 2.69	80 %	80 %	5	WA	
	*	*	*	1	Other	2006
	*	*	*	1	AK	
2.84(0.42)	\$ 2.88	$67 \ \%$	70 %	4	WA	
	*	*	*	1	Other	2007
	*	*	*	1	AK	
	*	*	*	2	WA	
	*	*	*	1	Other	2008
	*	*	*	1	AK	
	*	*	*	2	WA	
	*	*	*	1	Other	2009
	*	*	*	1	AK	
	*	*	*	2	WA	0010
				1	Other	2010
	*	*	*	1	AK	
	*	*	*	2	WA Other	2011
				1		2011
¢ 4 00 (0 0	* * = 00	*	*	2	AK	
\$ 4.88(0.38		$^{68}\%_{*}$	66%	3 1	WA Other	2012
	*	*	*			2012
\$ 4.86(0.43	\$ 5.00	74 %	75 %	$\frac{2}{3}$	AK WA	
\$ 4.00(0.44	\$ 5.00 *	*	*	1	Other	2013
	*	*	*	1	AK	
\$ 5.08(0.3	\$ 5.04	68 %	67~%	3	WA	
\$ 0100(0100	*	*	*	1	Other	2014
	*	*	*	1	AK	
\$ 5.32(0.65	\$ 5.34	63~%	62~%	3	WA	
X	*	*	*	1	Other	2015
	*	*	*	1	AK	
\$ 6.77(0.96	\$ 6.79	68 %	$65 \ \%$	3	WA	
	*	*	*	1	Other	2016
	*	*	*	1	AK	
\$ 6.46(1.16	\$ 6.57	65 %	65 %	3	WA	
	*	*	*	1	Other	2017
	*	*	*	1	AK	
7.55(1.09)	\$ 7.18 *	$^{68\%}_{*}$	$^{68}_{*}$	3	WA	0010
				1	Other	2018
<b>.</b>	*	*	*	1	AK	
\$ 7.39(1.0'	$^{\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	71%	70%	3	WA	0010
				1	Other	2019
<b>•</b>	*	*	*	1	AK	
\$ 8.07(0.4	$     $ 7.99 \\     * $	$^{64}\%$	66%	3	WA	2020
				1	Other	2020
ф 10 0/с о	*	*	*	1	AK	
\$ 10.2(0.69		70%	72%	3	WA Other	2021
		Ť	Ψ.	1	Other	2U.Z.L

Table 5.5: Ex-vessel price and share of fishery-year landings by owner or leaseholder state of residence, catcher vessels - CR Program fisheries

Weighted average price (\$/lb)	Share of ex-vessel revenue	Share of ex-vessel volume	Vessels	State	
*	*	*	1	AK	
	74%	73 % *	$\frac{3}{1}$	WA Other	2022
\$ 1.26	-		100(41)	AK	
\$ 1.27	-	-	354(143)	WA	
\$ 1.27	-	-	70(30)	04Other	98/01/
\$ 2.62	$17 \ \%$	16~%	29	AK	
\$ 2.40	71 %	73~%	103	WA	
\$ 2.64	12 %	11 %	18	Other	2005
\$ 1.53	20 %	20 %	17	AK	
\$ 1.57	67 %	67 %	48	WA	
\$ 1.60	13 %	13 %	9	Other	2006
\$ 2.31	23 %	23 %	14	AK	
\$ 2.36	66 %	66 %	43	WA	0005
\$ 2.31	11 %	11 %	7	Other	2007
\$ 2.23	21~%	22 %	15	AK	
2.37 2.00	$69 \ \% \\ 11 \ \%$	${}^{66\%}_{12\%}$	50	WA	2008
			9	Other	2008
\$ 1.96	33 %	32 %	19	AK	
$     $ 1.92 \\     $ 1.87 $	59 % 9 %	$59\ \%$ 9 %	45 9	WA Other	2009
$     $ 1.70 \\     $ 1.70 $	$23 \ \% \ 65 \ \%$	$23~\% \\ 65~\%$	$\frac{14}{40}$	AK WA	
\$ 1.66	11 %	05 % 11 %	40 12	Other	2010
\$ 3.29 \$ 3.30	$24 \% \\ 63 \%$	$24 \% \\ 62 \%$	15     40	AK WA	
\$ 3.26	13%	14 %	11	Other	2011
\$ 2.75	32 %	32 %	22	AK	
\$ 2.76	55 %	55 %	40	WA	
\$ 2.76	$13 \ \%$	$13 \ \%$	9	Other	2012
\$ 2.90	32 %	32~%	24	AK	
\$ 2.89	56~%	56~%	36	WA	
\$ 2.89	12 %	$12 \ \%$	9	Other	2013
\$ 2.96	36~%	35~%	24	AK	
\$ 2.87	50 %	51 %	34	WA	
\$ 2.95	14 %	13 %	10	Other	2014
\$ 2.47	37 %	37 %	25	AK	
\$ 2.45 \$ 2.54	50 %	50 %	33	WA	2015
\$ 2.54	13 %	13 %	10	Other	2015
\$ 3.28	34 %	34 %	24	AK	
\$ 3.28 \$ 3.26	55 % 11 %	55 % 11 %	33 8	WA Other	2016
					2010
\$ 4.82	35 %	35 %	23	AK	
	54 % 12 %	54 % 11 %	29 9	WA Other	2017
					2011
\$ 4.60	30 %	30 %	22	AK	
	59 % 11 %	59 % 11 %	30 8	WA Other	2018
	$35 \ \% \\ 53 \ \%$	$35 \ \% \ 52 \ \%$	22 29	AK WA	
\$ 4.33	12%	13%	29 8	Other	2019

Table 5.5: Ex-vessel price and share of fishery-year landings by owner or leaseholder state of residence, catcher vessels - CR Program fisheries *(continued)* 

		State	Vessels	Share of ex-vessel volume	Share of ex-vessel revenue	Weighted average price (\$/lb)	Mean(sd) pric (\$/lb
		AK	20	$29 \ \%$	28 %	\$ 4.37	\$ 4.46(0.37
		WA	30	$59 \ \%$	$59 \ \%$	\$ 4.39	\$ 4.48(0.3
	2020	Other	8	12~%	12~%	\$ 4.49	\$ 4.61(0.31
		AK	21	28 %	28 %	\$ 5.41	\$ 5.55(0.34
		WA	31	58 %	57 %	\$ 5.30	\$ 5.49(0.52
	2021	Other	9	$15 \ \%$	14 %	\$ 5.21	5.3(0.2)
		AK	13	27 %	26 %	\$ 6.99	\$ 7.12(0.37
		WA	23	61 %	61 %	\$ 7.10	\$ 7.24(0.44
SSS	2022	Other	5	12~%	12~%	\$ 7.40	\$ 7.61(0.45
		AK	122(49)	-	-	\$ 6.32	\$ 6.36(1.48
		WA	429(174)	-	-	\$ 6.22	6.38(1.48)
	98/01/	04Other	82(33)	-	-	\$ 6.09	6.45(1.41)
		AK	19	16 %	16 %	\$ 6.45	\$ 6.41(0.23
		WA	53	69 %	70 %	\$ 6.51	6.48(0.17)
	2005	Other	13	14 %	$14 \ \%$	\$ 6.50	6.44(0.24)
		AK	24	24 %	$23 \ \%$	\$ 5.33	\$ 5.37(0.27
		WA	48	66 %	$67 \ \%$	\$ 5.39	\$ 5.42(0.25
	2006	Other	8	10 %	$10 \ \%$	\$ 5.32	5.31(0.23)
		AK	17	22~%	$23 \ \%$	\$ 6.10	\$ 6.19(1.34
		WA	44	67~%	68 %	6.07	\$ 6.15(0.46
	2007	Other	9	10 %	$10 \ \%$	\$ 5.88	6.12(0.27)
		AK	17	20~%	$20 \ \%$	\$ 7.16	\$ 7.01(0.69
		WA	51	71~%	71~%	\$ 6.90	6.86(0.24)
	2008	Other	8	9 %	9 %	\$ 6.95	\$ 6.88(0.16
		AK	19	28~%	28 %	\$ 6.15	\$ 6.22(0.18
		WA	40	62 %	62 %	\$ 6.24	6.27(0.19)
	2009	Other	9	10 %	$10 \ \%$	\$ 6.15	\$ 6.25(0.41
		AK	12	25~%	24~%	\$ 9.56	9.61(0.93)
		WA	38	62 %	63 %	\$ 9.83	\$ 9.94(0.78
	2010	Other	13	14 %	13 %	\$ 9.44	\$ 9.47(0.84
		AK	12	$23 \ \%$	$22 \ \%$	\$ 12.76	\$ 11.15(1.23
		WA	36	60 %	61 %	\$ 13.76	9.6(2.76)
	2011	Other	11	17 %	17 %	\$ 13.12	\$ 9.37(3.26
		AK	19	29~%	29~%	\$ 10.23	10.25(0.54)
		WA	35	58 %	58 %	\$ 10.07	\$ 10.16(0.46
	2012	Other	9	$13 \ \%$	$13 \ \%$	\$ 10.10	\$ 10.3(0.66
		AK	21	35~%	35~%	\$ 8.93	8.98(0.47)
		WA	30	51 %	51 %	\$ 8.87	9.05(0.47)
	2013	Other	10	14 %	14 %	\$ 8.92	\$ 8.91(0.5
		AK	20	32~%	32~%	\$ 8.23	\$ 8.3(0.42
		WA	30	53~%	$53 \ \%$	\$ 8.08	8.25(0.59)
	2014	Other	10	15 %	15 %	\$ 8.06	\$ 8.13(1.05
		AK	21	34 %	34 %	\$ 9.77	9.85(0.44)
		WA	31	52~%	52 %	9.65	9.81(0.46)
	2015	Other	10	14 %	14 %	\$ 9.74	\$ 9.86(0.33
		AK	19	33 %	33 %	\$ 13.12	
		WA	32	54 %	54 %	\$ 13.07	
	2016	Other	10	$13 \ \%$	$13 \ \%$	\$ 12.99	
		AK	19	$31 \ \%$	31 %	\$ 10.85	\$ 10.88(0.28
		WA	31	58 %	58 %	\$ 10.86	\$ 10.93(0.17
	2017	Other	9	$12 \ \%$	11 %	\$ 10.73	\$ 10.84(0.35

Table 5.5: Ex-vessel price and share of fishery-year landings by owner or leaseholder state of residence, catcher vessels - CR Program fisheries *(continued)* 

		State	Vessels	Share of ex-vessel volume	Share of ex-vessel revenue	Weighted average price (\$/lb)	Mean(sd) pric (\$/lb
		AK	18	36 %	36~%	\$ 12.02	\$ 11.75(0.42
	2018	WA Other	$\frac{28}{7}$	53 % 11 %	53 % 11 %	11.97 11.96	11.32(1.64) 11.91(0.04)
-	2018						· · · · · · · · · · · · · · · · · · ·
		AK WA	17 30	$30 \% \\ 58 \%$	$30 \% \\ 58 \%$	13.44 13.42	\$ 11.6 \$ 10.2
	2019	Other	8	12 %	12 %	\$ 13.80	\$ 10.2
-		AK	15	$35 \ \%$	$35 \ \%$	\$ 13.71	
		WA	25	54 %	54 %	\$ 13.63	\$ 6.73(2.28
BBR	2020	Other	6	11 %	11 %	\$ 13.67	
20	2005	AK WA	$\frac{1}{3}$	$^{*}$ 64 $\%$	$^{*}$ 64 $\%$	* \$ 2.15	\$ 2.14(0.03
-	2005						
		AK WA	6     30	11 % 81 %	12 % 81 %	\$ 2.22 \$ 2.16	2.03(0.36) 2.1(0.52)
	2006	Other	5	7 %	7 %	\$ 2.07	\$ 1.71(0.28
-		AK	7	26~%	$25 \ \%$	\$ 2.38	\$ 2.37(0.33
		WA	17	55 %	$57 \ \%$	\$ 2.59	\$ 2.48(0.96
-	2007	Other	3	19 %	$17 \ \%$	\$ 2.25	\$ 2.48(0.43
		AK	6	5 %	4 %	\$ 2.22	\$ 2.08(0.58
	2008	WA Other		${}^{61}_{34}$ %	${}^{61}_{34}$ %	2.51 2.59	2.54(0.2) 2.63(0.09)
-	2000						
		AK WA	$\frac{5}{10}$	$17 \ \% \\ 43 \ \%$	17 % 41 %	2.60 2.47	2.58(0.14) 2.52(0.25)
	2009	Other	2	*	*	*	\$ 2.02(0.20
-		AK	1	*	*	*	
	2010	WA	1	*	*	*	
-	2010	Other	2				<b>A A 16(0 01</b>
		AK WA	79	19 % 55 %	20 % 51 %	$   \begin{array}{r}     \$ 3.23 \\     \$ 2.83   \end{array} $	3.16(0.81) 2.85(0.9)
	2013	Other	3	25 %	29 %	\$ 3.49	\$ 3.65(0.37
-		AK	14	24 %	25 %	\$ 2.95	\$ 3.04(0.37
		WA	16	46 %	46 %	\$ 2.88	\$ 2.95(0.4
-	2014	Other	8	29 %	30 %	\$ 2.97	\$ 3.04(0.43
		AK	18	25 %	26 %	\$ 3.36	\$ 3.35(0.48
	2015	WA Other	$25 \\ 10$	$48 \% \\ 27 \%$	$49 \ \% \\ 25 \ \%$		3.31(0.34) 3.01(0.35)
-		AK	14	23 %	24 %	\$ 3.61	\$ 3.64(0.12
		WA	20	47 %	48 %	\$ 3.55	\$ 3.57(0.23
	2016	Other	8	29~%	$28 \ \%$	\$ 3.42	\$ 3.53(0.35
		AK	2	*	*	*	
	0017	WA	10	58 %	59 %	\$ 4.88	\$ 4.95(0.13
-	2017	Other	4	23 %	21 %	\$ 4.36	\$ 4.51(0.56
		AK WA	10 16	$44 \% \\ 47 \%$	$44 \ \% \\ 46 \ \%$		4.85(0.3) 4.84(0.50)
	2018	Other	3	10 %	10 %	\$ 5.18	\$ 5.08(0.22
-		AK	5	38 %	38 %	\$ 5.06	\$ 4.97(0.39
		WA	8	50~%	50~%	\$ 5.10	\$ 5.11(0.14
-	2019	Other	4	12 %	12 %	\$ 5.07	\$ 5.06(0.03
		AK	9	27 %	31 %	\$ 5.32	\$ 5.09(1.29
	2020	WA Other	$\frac{12}{2}$	$^{63}\%$	$^{61}\%_{*}$	\$4.48	\$ 4.31(1.12
-		AK	6	24 %	23 %	\$ 5.75	\$ 5.78(0.26
		WA	9	36%	36%	\$ 6.00	\$ 5.93(0.9
	2021	Other	4	40~%	41 %	\$ 6.01	\$ 6.03(0.21

Table 5.5: Ex-vessel price and share of fishery-year landings by owner or leaseholder state of residence, catcher vessels - CR Program fisheries *(continued)* 

		State	Vessels	Share of ex-vessel volume	Share of ex-vessel revenue	Weighted average price (\$/lb)	Mean(sd) price (\$/lb)
		AK	6	$33 \ \%$	$33 \ \%$	\$ 5.35	5.74(1.24)
		WA	11	36 %	36 %	\$ 5.26	5.21(1.58)
BST	2022	Other	3	31~%	$31 \ \%$	\$ 5.29	6.27(1.22)
		AK	12(12)	-	-	\$ 4.06	\$ 4.27(0.89)
		WA	28(28)	-	-	\$ 4.32	4.15(0.81)
PIK	98/01/	040ther	5(5)	-	-	\$ 3.86	\$ 3.88(0.07)
		AK	20(20)	-	-	\$ 3.13	\$ 3.14(0.09)
		WA	61(61)	-	-	\$ 3.19	3.24(0.29)
	98/01/	040ther	14(14)	-	-	\$ 3.14	3.15(0.12)
		AK	1	*	*	*	*
		WA	5	71 %	72~%	\$ 3.96	4.02(0.36)
	2009	Other	1	*	*	*	*
		AK	3	28 %	$29 \ \%$	\$ 6.57	\$ 6.61(0.08)
		WA	5	47 %	49 %	\$ 6.63	6.62(0.08)
	2010	Other	2	*	*	*	*
		AK	6	$25 \ \%$	26~%	\$ 7.13	\$ 7.42(0.81)
		WA	9	50 %	50 %	\$ 6.79	7.25(0.7)
	2011	Other	3	25~%	$23 \ \%$	\$ 6.41	6.99(0.87)
		AK	9	43 %	$43 \ \%$	\$ 5.40	5.44(0.3)
		WA	6	38 %	37 %	\$ 5.20	5.22(0.33)
	2012	Other	2	*	*	*	*
		AK	2	*	*	*	*
		WA	1	*	*	*	*
	2014	Other	1	*	*	*	*
		AK	1	*	*	*	*
		WA	1	*	*	*	*
SMB	2015	Other	1	*	*	*	*
		WA	2(2)	-	-	*	*
WAI	98/01/	040ther	1(1)	-	-	*	*

Table 5.5: Ex-vessel price and share of fishery-year landings by owner or leaseholder state of residence, catcher vessels - CR Program fisheries *(continued)* 

Note See footnote on previous table regarding weighted and mean price.Data shown by calendar year for EDR reporting years 2005-present, and as three-year average over pre-rationalization reporting years (1998, 2001, and 2004, shown as '98/01/04'). Except where noted, data reflect total catcher-vessel sector commercial volume and revenue value across all management programs (LLP/open access, IFQ, CDQ, ACA). Beginning in 2012, data include ex-vessel sales reported by catcher/processor sector. Excludes landings in the 2001 Western Aleutian Islands red king crab Petrel Bank test fishery. 1998 fishery data for WAI unavailable. Vessels column shows total count of vessel-level observations for fishery-year; for 98/01/04, count of unique vessels represented over all observations in the 3-year data series is shown in parentheses. In a limited number of observations where there is missing data for either revenue or volume, average price for the fishery/year is used to impute the missing value. All dollar values are adjusted for inflation to 2022-equivalent value.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

	Type Vesse	els	Share of ex-vessel volume	Share of ex-vessel revenue	Weighted average price (\$/lb)	Mean(sd price (\$/lb
	CVOA	6	$75 \ \%$	72~%	\$ 2.57	\$ 2.65(0.19
	CVOB/CPO/CDQ/ADAK	5	$23 \ \%$	$27 \ \%$	\$ 3.11	\$ 3.14(0.67
2006	CVC/CPC	3	2 %	2 %	\$ 2.75	2.91(0.31)
	CVOA	5	81 %	81 %	\$ 3.02	\$ 3.05(0.38
	CVOB/CPO/CDQ/ADAK		17~%	16 %	\$ 2.90	\$ 2.94(0.48
2007	CVC/CPC	3	2 %	2 %	\$ 3.11	\$ 3.18(0.38
	CVOA	4	77~%	76~%	\$ 4.43	\$ 4.54(0.4
	CVOB/CPO/CDQ/ADAK	4	$20 \ \%$	$21 \ \%$	\$ 4.72	\$ 4.89(0.92
2008	CVC/CPC	4	2 %	3 %	\$ 4.81	\$ 4.85(0.21
	CVOA	4	75 %	75~%	\$ 3.25	\$ 3.25(0.57
	CVOB/CPO/CDQ/ADAK	4	$20 \ \%$	$21 \ \%$	\$ 3.32	\$ 3.29(0.55
2009	CVC/CPC	4	4 %	4 %	\$ 3.11	\$ 3.28(0.55
·	CVOA	4	74 %	72~%	\$ 4.81	\$ 4.76(0.83
	CVOB/CPO/CDQ/ADAK		20 %	21~%	\$ 5.09	\$ 5.1(1.05
2010	CVC/CPC	4	6 %	7 %	\$ 5.38	\$ 5.45(1.69
	CVOA	4	69 %	69~%	\$ 5.86	\$ 5.84(0.2
	CVOB/CPO/CDQ/ADAK		25 %	25 %	\$ 5.94	\$ 6.23(0.45
2011	CVC/CPC	4	6 %	6~%	\$ 6.43	\$ 6.56(0.18
	CVOA	4	62~%	63~%	\$ 4.99	\$ 5.03(0.39
	CVOB/CPO/CDQ/ADAK		36 %	35 %	\$ 4.79	\$ 4.82(0.34
2012	CVC/CPC	4	2 %	2 %	\$ 4.64	4.75(0.62)
	CVOA	4	56 %	58 %	\$ 5.24	\$ 5.31(0.2)
	CVOB/CPO/CDQ/ADAK		41%	39~%	\$ 4.78	\$ 4.89(0.39
2013	CVC/CPC	5	3 %	3 %	\$ 4.99	\$ 4.99(0.58
	CVOA	5	69 %	69~%	\$ 4.98	\$ 5(0.42
	CVOB/CPO/CDQ/ADAK	5	29 %	28 %	\$ 4.90	\$ 5.11(0.33
2014	CVC/CPC	5	2 %	2 %	\$ 5.31	\$ 5.27(0.26
	CVOA	5	60 %	61~%	\$ 5.34	\$ 5.49(0.56
	CVOB/CPO/CDQ/ADAK	5	36~%	$35 \ \%$	\$ 5.09	\$ 5.27(0.74
2015	CVC/CPC	5	3 %	4 %	\$ 5.38	\$ 5.54(0.83
	CVOA	4	60 %	58 %	\$ 6.22	\$ 6.36(1.51
	CVOB/CPO/CDQ/ADAK		38 %	40 %	\$ 6.84	\$ 7.06(0.8
2016	CVC/CPC	4	2 %	2 %	\$ 6.57	\$ 7.14(1.28
	CVOA	5	58 %	58 %	\$ 6.62	\$ 6.81(0.65
	CVOB/CPO/CDQ/ADAK		38 %	38 %	\$ 6.46	\$ 6.4(0.92
2017	CVC/CPC	5	4 %	4 %	6.54	\$ 6.61(1.36
	CVOA	5	62~%	60~%	\$ 6.94	\$ 6.89(0.14
	CVOB/CPO/CDQ/ADAK		36 %	37 %	\$ 7.36	\$ 7.5(0.84
2018	CVC/CPC	4	3~%	3 %	\$ 8.48	\$ 7.85(1.10
	CVOA	5	63~%	63~%	\$ 7.20	\$ 7.13(0.33
	CVOB/CPO/CDQ/ADAK		33 %	34~%	\$ 7.38	\$ 7.35(0.78
2019	CVC/CPC	5	3~%	3 %	\$ 8.02	\$ 7.34(1.37
	CVOA	5	66 %	65 %	\$ 8.08	\$ 7.94(0.49
	CVOR CVOB/CPO/CDQ/ADAK		32%	32~%	\$ 8.28	\$ 8.39(0.1
2020	CVC/CPC	4	3~%	3 %	\$ 8.74	\$ 8.38(0.87
	CVOA	5	59 %	64 %	\$ 14.04	\$ 10.3
				↓ 10	Ψ Ι Ι.ΟΙ	φ ±0.0
	CVOR/CPO/CDQ/ADAK		38 %	33~%	\$ 11.43	\$ 10.63(1.32

Table 5.6: Ex-vessel price and share of fishery-year landings by quota type, catcher vessels, CR Program fisheries

		Type Vessels	Share of ex-vessel volume	Share of ex-vessel revenue	Weighted average price (\$/lb)	Mean(sd price (\$/lb
		CVOA 5	58 %	58 %	\$ 9.38	\$ 8.9(0.93
		CVOB/CPO/CDQ/ADAK 5	40 %	40 %	9.47	9.51(0.83)
G	2022	CVC/CPC 4	2 %	2 %	\$ 9.52	\$ 9.42(0.36
		CVOA 77	77~%	77~%	\$ 5.35	\$ 5.35(0.23
		CVOB/CPO/CDQ/ADAK 65	$19 \ \%$	$19 \ \%$	5.44	\$ 5.43(0.25
	2006	CVC/CPC 49	4 %	3 %	\$ 5.32	\$ 5.42(0.29
		CVOA 69	78 %	78~%	\$ 6.06	\$ 6.09(0.35
		CVOB/CPO/CDQ/ADAK 53	$19 \ \%$	$19 \ \%$	\$ 6.06	\$ 6.13(1.03
	2007	CVC/CPC 41	$3 \ \%$	$3 \ \%$	\$ 5.93	\$ 6.32(0.72
		CVOA 73	76 %	76 %	\$ 6.98	\$ 6.88(0.53
		CVOB/CPO/CDQ/ADAK 56	22%	22%	\$ 6.90	\$ 6.87(0.23
	2008	CVC/CPC 38	2 %	2 %	\$ 6.94	\$ 6.94(0.2
		CVOA 68	77 %	77 %	\$ 6.19	
		CVOA 68 CVOB/CPO/CDQ/ADAK 53	20%	20%	\$ 6.19 \$ 6.26	\$ 6.18(0.13 \$ 6.3(0.25
	2009	CVC/CPC 39	$\frac{20}{3}\%$	$\frac{20}{3}\%$	\$ 6.28	\$ 6.33(0.2)
	2005					,
		CVOA 63	76 %	76 %	\$ 9.62	\$ 9.59(0.62
	0010	CVOB/CPO/CDQ/ADAK 52	20 %	21 %	\$ 10.08	\$ 9.88(1.00
	2010	CVC/CPC 33	4 %	4 %	\$ 9.58	\$ 10(0.76
		CVOA 58	79~%	78~%	\$ 13.30	\$ 11.26(0.8)
		CVOB/CPO/CDQ/ADAK 48	$19 \ \%$	20~%	\$ 13.96	7.65(3.72)
	2011	CVC/CPC 34	2 %	2 %	\$ 12.76	\$ 5.69(0.76
		CVOA 61	77~%	76~%	\$ 10.04	\$ 10.04(0.51
		CVOB/CPO/CDQ/ADAK 47	$21 \ \%$	$21 \ \%$	\$ 10.38	\$ 10.32(0.4
	2012	CVC/CPC 33	$3 \ \%$	3 %	\$ 10.41	10.36(0.52)
		CVOA 58	76~%	76~%	\$ 8.81	\$ 8.79(0.39
		CVOB/CPO/CDQ/ADAK 51	$21 \ \%$	22 %	\$ 9.19	\$ 9.14(0.
	2013	CVC/CPC 30	$2 \ \%$	3 %	\$ 9.15	9.2(0.4)
		CVOA 59	75~%	$75 \ \%$	\$ 8.20	\$ 8.21(0.4
		CVOB/CPO/CDQ/ADAK 48	23 %	22%	\$ 7.84	\$ 8.22(0.8
	2014	CVC/CPC 32	3 %	3 %	\$ 8.39	\$ 8.37(0.5
		CVOA 60	76 %	75 %	\$ 9.61	
		CVOA 60 CVOB/CPO/CDQ/ADAK 47	21%	$\frac{13}{22}\%$	\$ 9.01 \$ 10.01	9.58(0.4) 9.97(0.3)
	2015	CVC/CPC 33	3 %	$\frac{22}{3}\%$	\$ 10.01	\$ 10.09(0.2
		CVOA 59 CVOB/CPO/CDQ/ADAK 46	$75 \ \% \ 20 \ \%$	$75 \ \% \ 21 \ \%$	\$ 13.01 \$ 13.26	
	2016	CVC/CPC 29	20 % 4 %	21 % 4 %	\$ 13.20 \$ 13.36	
	2010					
		CVOA 59	77 %	77 %	\$ 10.81	\$ 10.79(0.2
	0017	CVOB/CPO/CDQ/ADAK 50	21 %	21 %	\$ 10.94 \$ 11.00	\$ 10.96(0.24
	2017	CVC/CPC 33	2 %	2 %	\$ 11.00	\$ 11.01(0.2)
		CVOA 52	77 %	76 %	\$ 11.91	\$ 11.82(0.4
		CVOB/CPO/CDQ/ADAK 40	20 %	21 %	\$ 12.25	\$ 10.75(0.7
	2018	CVC/CPC 34	3 %	3 %	\$ 12.11	\$ 4.1
		CVOA 53	74 %	74~%	\$ 13.35	\$ 10.94(1.03
		CVOB/CPO/CDQ/ADAK 47	$23 \ \%$	24 %	\$ 13.79	\$ 10.2
	2019	CVC/CPC 31	$3 \ \%$	3~%	\$ 14.02	

Table 5.6: Ex-vessel price and share of fishery-year landings by quota type, catcher vessels, CR Program fisheries *(continued)* 

		Type Vessels	Share of ex-vessel volume	Share of ex-vessel revenue	Weighted average price (\$/lb)	Mean(sd) price (\$/lb)
		CVOA 45	76~%	75 %	\$ 13.54	
		CVOB/CPO/CDQ/ADAK 38	$22 \ \%$	22~%	\$ 14.01	\$ 8.34
BBR	2020	CVC/CPC 28	3 %	3 %	\$ 14.23	\$ 5.12
		CVOA 73	80 %	79~%	\$ 1.56	\$ 1.56(0.15)
		CVOB/CPO/CDQ/ADAK 63	18 %	18 %	\$ 1.58	\$ 1.58(0.29
	2006	CVC/CPC 52	3 %	3~%	\$ 1.61	1.59(0.12)
		CVOA 62	80 %	80 %	\$ 2.34	\$ 2.34(0.19
		CVOB/CPO/CDQ/ADAK 53	17%	18%	\$ 2.38	\$ 2.33(0.32
	2007	CVC/CPC 41	3 %	3 %	\$ 2.27	\$ 2.31(0.34
		CVOA 73	75 %	75 %	\$ 2.30	¢ 0.07(0.06)
		CVOA 73 CVOB/CPO/CDQ/ADAK 62	22%	$\frac{75\%}{22\%}$	52.30 2.24	2.27(0.26) 2.52(0.95)
	2008	CVC/CPC 42	$\frac{22}{3}\%$	$\frac{22}{3}\%$	\$ 2.48	\$ 2.46(0.06
		,				
		CVOA 73 CVOB/CPO/CDQ/ADAK 59	78%	78%	\$ 1.93	\$ 1.91(0.2
	2009	CVC/CPC 40	${19\ \%}\ 2\ \%$	${19\ \%}\ {3\ \%}$	\$ 1.93 \$ 2.10	1.94(0.26) 2.06(0.41)
	2009	,				
		CVOA 66	73 %	73 %	\$ 1.69	\$ 1.71(0.27
	0010	CVOB/CPO/CDQ/ADAK 53	24 %	24 %	\$ 1.70	\$ 1.68(0.22)
	2010	CVC/CPC 38	3 %	3 %	\$ 1.57	\$ 1.71(0.28)
		CVOA 63	75 %	74 %	\$ 3.26	3.17(0.32)
		CVOB/CPO/CDQ/ADAK60	23~%	$23 \ \%$	\$ 3.39	3.41(0.46)
	2011	CVC/CPC 37	2 %	2 %	\$ 3.32	3.4(0.44)
		CVOA 68	76 %	75~%	\$ 2.71	\$ 2.71(0.13
		CVOB/CPO/CDQ/ADAK 64	21 %	22 %	\$ 2.90	\$ 2.83(0.39
	2012	CVC/CPC 41	3 %	4 %	\$ 2.97	\$ 2.94(0.22
		CVOA 68	74~%	73~%	\$ 2.85	\$ 2.87(0.08
		CVOB/CPO/CDQ/ADAK 58	23%	24%	\$ 3.00	\$ 3.03(0.13
	2013	CVC/CPC 38	3 %	3 %	\$ 3.06	\$ 3.06(0.08
		CVOA 67	74 %	73 %	\$ 2.90	\$ 2.92(0.29
		CVOR 07 CVOB/CPO/CDQ/ADAK 56	23%	24%	\$ 2.90 \$ 2.95	32.92(0.25) 3.21(0.75)
	2014	CVC/CPC 40	3 %	3 %	\$ 3.13	\$ 3.14(0.34
		CVOA 68 CVOB/CPO/CDQ/ADAK 58	$74 \ \% \\ 23 \ \%$	$74 \ \% \\ 24 \ \%$	\$ 2.45 \$ 2.53	2.41(0.19) 2.53(0.12)
	2015	CVC/CPC 32	23 % 2 %	3%		\$2.55(0.12) \$2.55(0.11)
	2010	,				
		CVOA 65	73 %	72 %	\$ 3.23	\$ 3.21(0.15)
	2016	CVOB/CPO/CDQ/ADAK 57	24 %	25 %	\$ 3.38	\$ 3.38(0.14
	2016	CVC/CPC 33	3 %	3 %	\$ 3.63	\$ 3.43(0.05)
		CVOA 60	74 %	74 %	\$ 4.84	\$ 4.9(0.81)
		CVOB/CPO/CDQ/ADAK 49	24 %	24 %	\$ 4.84	\$ 4.96(0.61
	2017	CVC/CPC 31	3~%	3 %	\$ 4.78	\$ 4.95(0.79)
		CVOA 58	74 %	74 %	\$ 4.55	4.53(0.27)
		CVOB/CPO/CDQ/ADAK 49	23 %	24 %	\$ 4.75	\$ 4.81(0.25
	2018	CVC/CPC 31	2 %	3~%	\$ 4.88	\$ 4.86(0.31
		CVOA 59	76 %	75 %	\$ 4.45	\$ 4.45(0.15
		CVOB/CPO/CDQ/ADAK 45	22%	22%	\$ 4.68	\$ 4.73(0.26
	2019	CVC/CPC 31	3 %	3 %	\$ 4.78	\$ 4.74(0.3
		CVOA 57	73 %	73 %	\$ 4.39	\$ 4.38(0.2
		CVOA 57 CVOB/CPO/CDQ/ADAK 53	24%	$\frac{73}{24}$ %	5 4.39 \$ 4.40	\$ 4.38(0.2 \$ 4.54(0.38
	2020	CVC/CPC 34	3%	$\frac{24}{3}\%$	\$ 4.40 \$ 4.53	\$4.54(0.38) \$4.57(0.39)

Table 5.6: Ex-vessel price and share of fishery-year landings by quota type, catcher vessels, CR Program fisheries *(continued)* 

		Type Vessels	Share of ex-vessel volume	Share of ex-vessel revenue	Weighted average price (\$/lb)	Mean(sd price (\$/lb
		CVOA 60	71~%	71~%	\$ 5.27	\$ 5.32(0.49
		$\rm CVOB/CPO/CDQ/ADAK52$	$25 \ \%$	$25 \ \%$	\$ 5.40	\$ 5.6(0.36
	2021	CVC/CPC 34	3 %	4 %	\$ 5.58	5.6(0.33)
		CVOA 40	72~%	72 %	\$ 7.11	\$ 7.09(0.24
		CVOB/CPO/CDQ/ADAK 33	25 %	$25 \ \%$	\$ 7.02	\$ 7.22(0.47
SS	2022	CVC/CPC 25	3~%	3~%	\$ 7.56	\$ 7.48(0.53
		CVOA 39	75 %	74 %	\$ 2.13	\$ 2.02(0.59
		CVOB/CPO/CDQ/ADAK 14	23~%	24 %	\$ 2.26	2.13(0.19)
	2006	CVC/CPC 12	2 %	2 %	\$ 2.03	\$ 2.06(0.3
		CVOA 28	87 %	87 %	\$ 2.47	\$ 2.55(0.9
		CVOB/CPO/CDQ/ADAK 14	12 %	$12 \ \%$	\$ 2.49	2.44(0.4)
	2007	CVC/CPC 9	1 %	1 %	\$ 2.32	2.16(0.72)
		CVOA 26	73~%	72~%	\$ 2.49	\$ 2.47(0.33
		CVOB/CPO/CDQ/ADAK 12	26~%	27~%	\$ 2.61	\$ 2.48(0.3
	2008	CVC/CPC 5	2 %	2 %	\$ 2.59	2.59(0.09)
		CVOA 17	75 %	74~%	\$ 2.56	\$ 2.52(0.22
		CVOB/CPO/CDQ/ADAK 9	22 %	$23 \ \%$	\$ 2.68	\$ 2.65(0.20
	2009	CVC/CPC 9	3~%	3~%	\$ 2.47	\$ 2.51(0.2
		CVOA 4	84 %	$85 \ \%$	\$ 2.38	\$ 2.41(0.3
		CVOB/CPO/CDQ/ADAK 2	*	*	*	
	2010	CVC/CPC 2	*	*	*	
		CVOA 17	76 %	76~%	\$ 3.10	\$ 2.9(0.8
		CVOB/CPO/CDQ/ADAK 15	$21 \ \%$	20~%	\$ 2.94	3.19(0.
	2013	CVC/CPC 11	3 %	4 %	\$ 3.37	\$ 3.18(0.9)
		CVOA 36	76~%	76~%	\$ 2.91	\$ 2.94(0.20
		CVOB/CPO/CDQ/ADAK 28	$21 \ \%$	22 %	\$ 2.95	\$ 3.04(0.4
	2014	CVC/CPC 23	3 %	3~%	\$ 3.12	3.06(0.1)
		CVOA 52	75 %	75 %	\$ 3.13	3.22(0.4)
		CVOB/CPO/CDQ/ADAK 38	$21 \ \%$	22~%	\$ 3.23	3.25(0.4)
	2015	CVC/CPC 25	3 %	3 %	\$ 3.35	\$ 3.41(0.4
		CVOA 42	74 %	73~%	\$ 3.48	3.49(0.2)
		CVOB/CPO/CDQ/ADAK 36	21 %	22~%	\$ 3.62	3.62(0.2)
	2016	CVC/CPC 24	4 %	5 %	\$ 3.76	\$ 3.72(0.1
		CVOA 16	74 %	74 %	\$ 4.70	4.71(0.3)
		CVOB/CPO/CDQ/ADAK 14	24 %	24 %	\$ 4.93	4.89(0.3)
	2017	CVC/CPC 13	2 %	2 %	\$ 4.98	\$ 4.94(0.3
		CVOA 28	72~%	72 %	\$ 4.79	4.8(0.3)
		$\rm CVOB/CPO/CDQ/ADAK25$	24~%	25~%	\$ 5.08	\$ 4.96(0.3
	2018	CVC/CPC 19	4 %	3~%	\$ 4.30	4.86(0.6)
		CVOA 17	71~%	72~%	\$ 5.10	\$ 5(0.30
		CVOB/CPO/CDQ/ADAK 12	$25 \ \%$	$25 \ \%$	\$ 5.02	\$ 5.08(0.13
	2019	CVC/CPC 12	3 %	3 %	\$ 5.12	\$ 5.11(0.0
		CVOA 23	85 %	84 %	\$ 4.53	\$ 4.7(1.2)
		CVOB/CPO/CDQ/ADAK 8	$13 \ \%$	15 %	\$ 5.25	\$ 3.93(0.83
	2020	CVC/CPC 6	2 %	2~%	\$ 4.33	\$ 4.44(1.24

Table 5.6: Ex-vessel price and share of fishery-year landings by quota type, catcher vessels, CR Program fisheries *(continued)* 

		Type Vessels	Share of ex-vessel volume	Share of ex-vessel revenue	Weighted average price (\$/lb)	Mean(sd) price (\$/lb)
		CVOA 16	70 %	70~%	\$ 5.90	\$ 5.74(0.61)
		CVOB/CPO/CDQ/ADAK 14	$25 \ \%$	26 %	\$ 6.06	\$ 5.99(0.52)
	2021	CVC/CPC 9	5 %	5 %	\$ 5.90	\$ 6.06(0.62)
		CVOA 20	74 %	73~%	\$ 5.21	\$ 5.61(1.41)
		CVOB/CPO/CDQ/ADAK 19	$22 \ \%$	23~%	5.63	\$ 5.57(1.52)
BST	2022	CVC/CPC 17	4 %	4 %	\$ 5.10	\$ 5.43(1.55)
		CVOA 7	$95 \ \%$	$95 \ \%$	\$ 3.87	\$ 3.83(0.26)
		CVOB/CPO/CDQ/ADAK 1	*	*	*	*
	2009	CVC/CPC 1	*	*	*	*
		CVOA 10	79~%	78 %	\$ 6.33	\$ 6.38(0.43)
		CVOB/CPO/CDQ/ADAK 8	$19 \ \%$	$20 \ \%$	\$ 6.59	(0.21)
	2010	CVC/CPC 5	2 %	2 %	\$ 6.44	\$ 6.55(0.27)
		CVOA 18	79~%	78~%	\$ 6.63	\$ 6.78(0.5)
		CVOB/CPO/CDQ/ADAK 15	$17 \ \%$	$19 \ \%$	\$ 7.41	\$ 7.46(0.62)
	2011	CVC/CPC 9	4 %	4 %	\$ 7.12	\$ 7.83(0.92)
		CVOA 17	77 %	77~%	\$ 5.33	\$ 5.3(0.24)
		CVOB/CPO/CDQ/ADAK 14	$21 \ \%$	$21 \ \%$	\$ 5.40	\$ 5.41(0.38)
	2012	CVC/CPC 12	2 %	2 %	5.37	\$ 5.41(0.34)
		CVOA 4	86 %	85 %	\$ 5.22	\$ 5.24(0.05)
		CVOB/CPO/CDQ/ADAK 4	$13 \ \%$	$13 \ \%$	\$ 5.40	5.39(0.03)
	2014	CVC/CPC 1	*	*	*	*
		CVOA 3	88 %	88 %	\$ 5.96	\$ 5.95(0.09)
		CVOB/CPO/CDQ/ADAK 2	*	*	*	*
SMB	2015	CVC/CPC 1	*	*	*	*

Table 5.6: Ex-vessel price and share of fishery-year landings by quota type, catcher vessels, CR Program fisheries *(continued)* 

Note Except where noted, data reflect total catcher-vessel sector commercial volume and revenue value across all management programs (LLP/open access, IFQ, CDQ, ACA). Beginning in 2012, data include ex-vessel sales reported by catcher/processor sector. Weighted average price is calculated as the ratio of aggregate gross revenue value to sold volume, and thus does not include a measure of distributional variation. Mean price results as shown are calculated as the arithmetic mean over observations by vessel and quota share-type, with standard deviation (sd) reported to indicate relative variability over vessel-level observations. Asterisks indicate data suppressed due to confidentiality Excludes landings in the 2001 Western Aleutian Islands red king crab Petrel Bank test fishery. 1998 fishery data for WAI unavailable. Vessels column shows total count of vessel-level observations for fishery-year; in a limited number of observations where there is missing data for either revenue or volume, average price for the fishery/year is used to impute the missing value. Mean and standard deviation prices are derived by calculating a weighted price for each vessel [total ex-vessel revenue / sold lbs], then calculating mean and standard deviation of vessel-level observations. All dollar values are adjusted for inflation to 2022-equivalent value.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

		Processors	Finished weight (million lbs)	First wholesale value (\$million)	Weighted average price (\$/lb)	Mean(sd price (\$/lb
	1998	6	3.24	\$ 22.76	\$ 7.03	\$ 7(0.29
	1999	8	3.02	\$ 33.43	\$ 11.07	\$ 10.77(2.61
	2000	6	3.52 3.56	\$ 31.28	\$ 8.80	\$ 9.83(3.36
	2000	5	3.93	\$ 44.08	\$ 11.22	\$ 11.15(0.28
	2001	5	3.42	\$ 39.51	\$ 11.55	\$ 11.31(1.17
	2002	5	3.59	\$ 42.49	\$ 11.82	\$ 11.93(0.51
	2004	5	3.72	\$ 32.46	\$ 8.73	\$ 9.42(1.64
	2005	6	2.74	\$ 23.13	\$ 8.44	\$ 8.32(0.52
	2006	6	3.13	\$ 19.21	\$ 6.13	\$ 5.8(0.52
	2007	6	3.42	\$ 24.76	\$ 7.24	\$ 7.17(0.71
	2008	7	3.41	\$ 34.20	\$ 10.03	\$ 9.73(0.83
	2009	8	3.30	\$ 24.87	\$ 7.54	\$ 8.09(2.34
	2010	8	3.17	\$ 32.02	\$ 10.11	\$ 10.71(1.81
	2011	14	3.64	\$ 45.17	\$ 12.39	\$ 12.75(2.93
	2012	13	3.76	\$ 36.40	\$ 9.68	\$ 10.66(3.15
	2013	12	3.77	\$ 39.14	10.37	\$ 9.39(3.48
	2014	10	3.85	\$ 37.58	9.75	\$ 8.84(3.81
	2015	8	3.68	\$ 43.91	\$ 11.93	\$ 10.65(4.15
	2016	10	3.56	\$ 54.50	\$15.33	\$ 14.41(4.71
	2017	12	3.53	\$ 46.30	\$ 13.11	\$ 12.44(4.07
	2018	9	4.13	\$ 57.90	\$ 14.02	\$ 13.47(4.32
	2019	9	4.30	\$ 64.04	\$ 14.88	\$ 14.16(5.05
	2020	11	3.63	\$ 58.58	\$ 16.15	\$ 15.64(4.64
	2021	8	3.75	\$ 81.88	\$ 21.86	\$ 21.31(6.39
AIG	2022	8	2.60	\$ 53.78	\$ 20.73	\$ 19.6(4.94
	1998	22	9.86	\$ 91.36	\$ 9.26	\$ 9.07(1.46
	1999	21	7.73	144.27	\$ 18.65	\$ 18.58(2.23
	2000	20	5.41	\$ 61.72	\$ 11.40	\$ 13.93(2.59
	2001	20	5.56	\$ 77.31	\$ 13.89	\$ 14.58(1.89
	2002	20	6.36	\$ 113.44	\$ 17.84	\$ 17.85(2.36
	2003	25	10.32	153.95	\$ 14.91	\$ 14.66(1.48
	2004	23	10.08	138.02	\$ 13.70	\$ 13.89(0.78
	2005	16	12.17	148.67	\$ 12.22	\$ 12.42(1.08
	2006	15	9.17	95.59	\$ 10.43	\$ 10.06(1.25
	2007	17	13.09	148.14	\$ 11.32	\$ 11.21(0.95
	2008	16	13.31	171.98	\$ 12.92	\$ 12.28(3.32
	2009	15	10.40	125.89	\$ 12.10	11.65(1.49)
	2010	16	10.03	171.27	17.08	17.04(2.19)
	2011	18	5.30	\$ 129.29	\$ 24.37	\$ 22.65(4.57
	2012	16	5.27	\$ 96.56	\$ 18.32	18.56(5.4)
	2013	17	5.75	\$ 94.06	\$ 16.35	\$ 16.14(4.83
	2014	17	6.66	\$ 99.74	14.97	\$ 14.85(4.5
	2015	15	6.60	114.95	\$ 17.42	\$ 17.16(3.96
	2016	17	5.68	\$ 124.61	\$ 21.96	\$ 21.56(5.49
	2017	17	4.42	\$ 84.89	\$ 19.20	\$ 18.61(4.31
	2018	14	2.86	\$ 59.01	\$ 20.66	\$ 19.95(5.41
	2019	13	2.55	\$ 58.34	\$ 22.90	\$ 21.73(5.86
BBR	2020	14	1.78	\$ 42.88	\$ 24.06	\$ 22.6(5.53

Table 5.7: Estimated finished production, first wholesale value, and price, CR Program fisheries.

		Processors	Finished weight (million lbs)	First wholesale value	Weighted average price (\$/lb)	Mean(sd price (\$/lb
				(\$million)		
	1998	33	163.74	\$ 557.52	\$ 3.40	\$ 3.31(0.47
	1999	31	126.50	\$ 607.02	\$ 4.80	4.6(0.95)
	2000	24	21.57	122.05	5.66	\$ 6.48(1.56
	2001	21	16.29	\$ 96.01	5.89	\$ 5.82(0.45
	2002	21	21.00	\$ 116.26	5.54	5.63(0.68)
	2003	19	18.09	\$ 121.59	6.72	\$ 6.71(0.35
	2004	21	15.57	\$ 111.00	\$ 7.13	\$ 7.05(0.43
	2005	20	16.35	\$ 90.83	5.56	\$ 5.28(0.72
	2006	13	24.92	\$ 96.41	3.87	\$ 3.85(0.27
	2007	18	22.66	\$ 122.08	5.39	5.54(0.47)
	2008	16	41.02	\$ 212.15	5.17	\$ 5.04(1.43
	2009	16	35.97	165.17	\$ 4.59	\$ 4.59(0.21
	2010	12	31.41	135.62	\$ 4.32	\$ 4.42(0.39
	2011	16	37.89	\$ 269.04	\$ 7.10	\$ 7.32(0.95
	2012	15	57.79	\$ 341.48	\$ 5.91	\$ 5.59(1.92
	2013	15	46.31	\$ 280.70	\$ 6.06	\$ 5.82(1.73
	2014	13	36.17	\$ 222.11	\$ 6.14	\$ 5.81(1.86
	2015	14	39.90	\$ 209.84	\$ 5.26	5.04(1.67)
	2016	12	25.92	\$ 184.98	\$ 7.14	\$ 6.8(2.17
	2017	14	13.97	\$ 117.97	\$ 8.45	\$ 9.12(1.14
	2018	12	12.34	\$ 101.23	\$ 8.20	\$ 8.92(1.22
	2019	13	17.86	\$ 144.16	\$ 8.07	\$ 8.79(1.23
	2020	11	22.01	\$ 196.84	\$ 8.94	\$ 9.12(0.57
	2021	13	28.91	\$ 307.66	\$ 10.64	\$ 10.77(1.13
BSS	2022	10	3.59	\$ 47.92	\$ 13.36	\$ 13.05(1.54
	2005	4	0.18	\$ 1.01	\$ 5.68	\$ 5.15(0.79
	2006	9	0.72	3.50	\$ 4.86	4.71(0.4)
	2007	9	1.46	8.68	5.95	5.92(0.41)
	2008	10	1.34	\$ 7.78	5.83	5.84(0.3)
	2009	10	1.39	\$ 6.96	\$ 5.02	\$ 5(0.91
	2010	7	0.21	1.17	5.58	\$ 5.56(0.36
	2013	12	0.86	6.74	\$ 7.88	8.4(1.7)
	2014	12	6.23	\$ 44.21	\$ 7.10	6.52(2.57)
	2015	13	10.26	66.35	6.47	5.8(1.9)
	2016	12	7.15	\$ 54.24	7.58	7.15(2.39)
	2017	11	0.96	9.46	\$ 9.82	\$ 9.61(1.02
	2018	12	1.57	\$ 14.16	\$ 9.03	\$ 9.6(1.59
	2019	10	0.81	8.27	\$ 10.23	\$ 10.51(1.2
	2020	8	0.42	\$ 5.28	\$ 12.44	\$ 11.88(1.83
	2021	11	0.65	\$ 7.96	\$ 12.26	\$ 12.29(2.24
BST	2022	9	1.02	\$ 10.72	\$ 10.56	\$ 10.78(2.48
PIK	1998	12	0.68	\$ 6.37	\$ 9.34	\$ 9.17(1.11
	1998	13	1.85	\$ 14.93	\$ 8.07	\$ 8.18(0.32
	2009	6	*	*	*	
	2010	8	0.91	\$ 14.50	\$ 15.86	\$ 13.73(3.84
	2011	11	1.33	\$ 24.30	\$ 18.25	17.72(3.52)
	2012	10	1.18	\$ 17.54	\$ 14.92	13.84(5.4)
	2014	6	0.22	\$ 2.62	\$ 11.74	\$ 9.95(3.36
SMB	2015	4	0.08	\$ 1.00	\$ 12.93	\$ 13.04(2.01

Table 5.7: Estimated finished production, first wholes ale value, and price, CR Program fisheries. (continued)

		Processors	Finished weight (million lbs)	First wholesale value (\$million)	Weighted average price (\$/lb)	Mean(sd) price (\$/lb)
	1998	1	*	*	*	*
WAI	2002 2003	9 9	$0.35 \\ 0.33$		$     $ 17.76 \\     $ 14.92 $	17.34(3.45) 14.66(0.6)

Table 5.7: Estimated finished production, first wholesale value, and price, CR Program fisheries. *(continued)* 

Note Data shown by calendar year. Weighted average price is calculated as the ratio of aggregate sales revenue to aggregate sold volume, and thus does not include a measure of distributional variation. Mean price results as shown are calculated as the arithmetic mean over price observations by vessel or processor (i.e., each price observation is weighted equally), with standard deviation (sd) reported to indicate relative variability over vessel-level observations, noting that large standard deviations are likely indicative of a non-symmetrical distribution. Counts of processors in Tables 3.9, 3.10, and 3.11 identify number of entities reporting crab production in the Commercial Operators Annual Report, including buyers of landed crab that employed custom processing services of other crab processors for all purchased crab; where noted, processor counts in other tables show the number of active crab processing plants exclusive of custom-only buyers. For 1998-2005 wholesale value is estimated by multiplying the yearly estimated wholesale production volume with the annual weighted first wholesale value per lb., by species, derived from COAR production reports for processors reporting processing in the given fishery and year. Wholesale value and prices for 2006 and later are estimated by applying prices derived from EDR crab sales data to yearly estimates of wholesale production volume. Note that crab sales reported in the EDR may reflect sales from prior-year inventory. For 1998-2005 and 2012 and later, wholesale production volume is estimated by multiplying the volume of ex-vessel commercial landings reported in fish tickets to the 1998-2005 or, for 2012 and later, 2007-2011 mean product recovery rate calculated from COAR production and buying reports for processors reporting landings >=1000 lbs. in the relevant BSAI crab fishery. Annual production volume for 2006-2011 is sourced from EDR data.Asterisks indicate data suppressed due to confidentiality Excludes estimates of production from landings made in the 2000/2001 and 2001/2002 Western Aleutian Islands red king crab Petrel Bank test fishery. Mean and standard deviation prices are derived by calculating a weighted price for each vessel [total ex-vessel revenue / sold lbs], then calculating mean and standard deviation of vessel-level observations. All dollar values are adjusted for inflation to 2022-equivalent value.

Source ADF&G fish ticket data, eLandings, ADF&G Commercial Operator's Annual Report (COAR) data, NMFS AFSC BSAI Crab Economic Data Report (EDR) database.,

		Processors	Finished weight	First wholesale	Weighted average price $(\Phi^{(1)})$	Mean(se price (\$/ll
			(million lbs)	value	(\$/lb)	
	1998	29	9.23	\$ 85.52	\$ 9.26	9.07(2.2)
	1999	31	7.05	\$ 131.40	\$ 18.64	17.13(4.6)
	2000	22	6.58	\$ 74.98	\$ 11.40	13.61(4.2)
	2001	30	6.35	\$ 88.23	\$ 13.90	12.91(4.4)
	2002	32	6.93	\$ 121.96	\$ 17.60	15.84(6.2)
	2003	38	10.50	155.79	\$ 14.84	13.44(4.7)
	2004	26	9.73	\$ 133.70	\$ 13.74	\$ 12.73(3.0
	2005	23	12.50	151.98	\$ 12.16	11.83(4.7)
	2006	16	10.40	108.50	\$ 10.43	9.38(3.8)
	2007	19	13.32	\$ 155.10	\$ 11.64	10.13(3.1)
	2008	17	13.18	\$ 171.54	\$ 13.02	\$ 11.43(3.3
	2009	18	10.96	\$ 125.83	\$ 11.48	\$ 10.12(3.
	2010	18	9.27	165.80	\$ 17.88	\$ 15.59(5.3
	2011	25	6.03	137.05	\$ 22.73	\$ 21.41(7.9
	2012	19	5.25	98.95	\$ 18.84	\$ 16.87(5.1
	2013	22	6.50	\$ 101.92	15.67	\$ 15.84(3.8
	2014	21	7.36	\$ 105.31	\$ 14.31	\$ 14.21(3.6
	2015	19	7.26	\$ 119.26	\$ 16.43	\$ 16.24(3.5
	2016	18	5.59	\$ 123.71	\$ 22.14	\$ 19.45(6.2
	2017	23	5.05	\$ 88.93	\$ 17.61	\$ 17.06(5.7
	2018	16	3.25	\$ 63.54	\$19.55	\$ 19.21(5.7
	2019	15	2.74	\$ 58.75	\$ 21.41	\$ 18.17(7.7
	2020	13	1.95	\$ 38.98	\$ 20.00	\$ 20.09(9.4
	2021	2	*	*	*	
Red king	2022	2	*	*	*	
	1998	34	157.20	\$ 535.76	\$ 3.41	3.13(0.9)
	1999	31	116.91	\$ 561.16	\$ 4.80	\$ 3.98(1.4
	2000	23	22.78	\$ 129.04	5.66	\$ 5.8(2.2
	2001	20	15.15	\$ 89.19	\$ 5.89	\$ 5.28(1.7
	2002	25	20.84	\$ 114.69	\$ 5.50	\$ 4.93(1.4
	2003	19	17.38	\$ 116.85	\$ 6.72	\$ 6.79(3.0
	2004	22	15.30	\$ 109.07	\$ 7.13	\$ 6.67(1.5
	2005	20	16.29	\$ 90.50	\$ 5.56	\$ 5.12(1.1
	2006	13	27.89	\$ 112.76	\$ 4.04	\$ 3.99(1.0
	2007	16	20.38	\$ 109.18	\$ 5.36	\$ 5.45(1.2
	2001	16	31.35	\$ 169.91	\$ 5.42	\$5.16(1.2)
	2009	16	35.89	\$ 163.47	\$ 4.56	\$ 4.41(0.
	2010	10	29.91	\$ 128.63	\$ 4.30	\$ 4.28(1.3
	2010	16	35.58	\$ 245.42	\$ 6.90	\$ 6.56(1.6
	2012	15	59.05	\$ 352.65	\$5.97	\$ 5.66(1)
	2012	16	47.53	\$ 293.88	\$ 6.18	\$ 6.16(3)
	2013 2014	10	37.28	\$233.88 \$238.26	\$ 6.39	\$ 7.36(6.4
	$2014 \\ 2015$	14	40.18	\$238.20 \$212.34	\$ 0.39 \$ 5.28	\$7.30(0.4) \$5.2(1.4)
	2015 2016	14	29.02	\$185.87	\$ 5.28 \$ 6.41	$\$ \ 5.2(1.4)$ $\$ \ 6.11(3.6)$
	$2010 \\ 2017$	12	17.37	\$ 105.87 \$ 131.39	\$ 0.41 \$ 7.57	· · ·
						\$ 8.04(4.0 \$ 7.80(2.0
	2018	12	14.20	\$ 100.71 \$ 158.62	\$ 7.09 \$ 7.14	\$ 7.89(2.9 \$ 7.66(2.9
	2019	13	22.21	\$ 158.63 © 169.09	\$ 7.14 \$ 6.56	\$ 7.66(2.8
	2020	10	25.61	\$ 168.08 \$ 207.06	\$ 6.56	\$ 6.97(3.8)
· · · · ·	2021	12	32.98	\$ 297.06	\$ 9.01	\$ 8.83(3.7
Snow (opilio)	2022	10	3.97	\$ 46.62	11.73	10.84(5)

Table 5.8: Statewide crab production, first wholesale value and pricing for selected species

		Processors	Finished weight (million lbs)	First wholesale value	Weighted average price (\$/lb)	Mean(sd price (\$/lb
	1998	16	1.65	\$ 12.39	\$ 7.50	\$ 7.25(3.74)
	1999	11	1.48	9.67	6.56	\$ 7.15(3.16
	2000	10	1.00	9.43	\$ 9.40	8.5(2.07)
	2001	17	1.27	\$ 10.09	7.97	\$ 7.31(1.79
	2002	12	0.74	\$ 6.04	\$ 8.16	6.94(2.28)
	2003	13	0.81	\$ 7.57	9.39	8.2(3.07)
	2004	12	0.94	\$ 9.24	9.83	\$ 9.39(1.89
	2005	19	2.22	13.78	\$ 6.20	7.19(3.92)
	2006	21	2.94	\$ 16.16	5.49	5.24(1.67)
	2007	18	2.49	\$ 15.03	6.03	6.85(4.06)
	2008	22	2.44	\$ 15.46	6.35	6.23(2.24)
	2009	17	2.25	\$ 11.52	5.12	5.66(2.47)
	2010	17	1.90	\$ 9.64	\$ 5.06	\$ 5.44(1.33
	2011	15	3.88	\$ 32.95	\$ 8.48	8.73(1.97)
	2012	15	3.08	\$ 24.17	\$ 7.85	\$ 8.62(3.31
	2013	20	1.89	\$ 14.57	7.69	\$ 8.57(3.19
	2014	17	6.86	\$ 47.17	6.87	\$ 8.2(3.74
	2015	19	11.63	65.73	5.65	6.84(3.69)
	2016	20	8.66	\$ 59.12	6.83	\$ 7.74(3.49
	2017	15	1.74	\$ 18.34	10.55	\$ 10.5(4.93
	2018	23	2.92	\$ 24.70	\$ 8.46	\$ 9.53(3.75
	2019	22	2.11	\$ 21.41	\$ 10.15	\$ 10(3.69
	2020	17	1.41	\$ 15.44	\$ 10.95	\$ 11.19(3.85
Tanner	2021	15	1.88	\$ 22.30	\$ 11.86	\$ 12.03(5.13
(bairdi)	2022	20	2.87	\$ 39.68	\$ 13.84	\$ 14.72(9.65

Table 5.8: Statewide crab production, first wholesale value and pricing for selected species *(continued)* 

		Processors	Finished	First	Weighted	Mean(se
			weight	wholesale	average price	price (\$/ll
			(million lbs)	value	(\$/lb)	
	1998	13	2.92	\$ 20.94	\$ 7.17	9.22(2.3)
	1999	16	3.44	\$ 37.69	10.95	\$ 10.27(4.2
	2000	16	4.92	\$ 45.41	9.23	\$ 10.97(3.8
	2001	16	4.30	\$ 46.87	\$ 10.91	10.19(3.7)
	2002	16	3.82	\$ 44.06	\$ 11.55	\$ 12.83(4.9
	2003	16	3.93	\$ 46.84	\$ 11.93	12.77(4.
	2004	13	4.65	\$ 41.73	8.97	10.97(3.9)
	2005	13	2.85	\$ 24.60	8.63	9.82(4.7)
	2006	14	3.65	\$ 23.73	6.51	8.63(4.5)
	2007	11	3.75	\$ 28.91	\$ 7.70	9.1(3.8)
	2008	13	3.89	35.85	\$ 9.21	9.79(3.3)
	2009	15	4.09	\$ 29.71	\$ 7.26	\$ 8.66(4.1
	2010	17	5.13	\$ 51.33	\$ 10.01	\$ 10.38(3.5
	2011	20	4.16	\$ 58.94	\$ 14.17	\$ 14.4(5.4
	2012	21	3.95	\$ 44.27	\$ 11.22	\$ 14.1(6.2
	2013	19	4.20	\$ 45.34	\$ 10.80	\$ 12.93(5.9
	2014	16	4.50	\$ 45.41	\$ 10.09	\$ 13.87(5.4
	2015	12	3.36	\$ 41.59	\$ 12.38	\$ 13.94(3.2
	2016	15	3.38	\$ 51.90	15.37	\$ 17.16(6.0
	2017	17	3.45	\$ 48.03	\$ 13.92	\$ 15.51(4.3
	2018	13	3.23	\$ 42.28	\$ 13.09	
						16.27(15.6
	2019	14	4.13	59.38	\$ 14.39	\$ 14.96(4.7
	2020	14	4.44	\$ 58.61	\$ 13.19	\$ 12.39(6.5
	2021	13	3.85	\$ 100.39	\$ 26.07	
Golden	-	-				20.67(10.8)
brown) king	2022	12	2.63	\$ 55.25	\$ 21.01	_0.01(_0.0
8				+		23.38(10.9)
	1998	19	2.08	\$ 16.80	\$ 8.07	\$ 8.06(1.0
	1999	4	0.01	\$ 0.08	\$ 14.94	\$ 12.
	2000	2	*	*	*	•
	2001	1	*	*	*	
	2002	1	*	*	*	
	2003	1	*	*	*	
	2005	1	*	*	*	
	2009	4	0.19	\$ 1.65	\$ 8.65	\$ 7.
	2010	7	0.67	\$ 10.28	\$ 15.42	\$ 13.63(3.9
	2010	12	1.25	\$ 21.95	\$ 17.63	\$ 16.39(6.3
	2011	11	1.12	\$17.58	\$ 15.76	\$ 13.54(3
	2012 2014	6	0.22	\$ 2.50	\$ 11.40	\$ 10.91(3.6
Blue king						\$10.51(5.0)
Blue king	2015	5	0.08	\$ 0.81	\$ 10.14	\$ 10.61

Table 5.8: Statewide crab production, first wholesale value and pricing for selected species *(continued)* 

Note Data shown by calendar year. Includes processing of crab taken from stocks/fisheries other than those managed under the BSAI crab FMP. Counts of processors in Tables 3.9, 3.10, and 3.11 identify number of entities reporting crab production in the Commercial Operators Annual Report, including buyers of landed crab that employed custom processing services of other crab processors for all purchased crab; where noted, processor counts in other tables show the number of active crab processing plants exclusive of custom-only buyers. Asterisks indicate data suppressed due to confidentiality All dollar values are adjusted for inflation to 2022-equivalent value.

Source ADF&G Commercial Operator's Annual Report (COAR) data

	Product	Processors	Finished weight (million lbs)	First wholesale value (\$ million)	Weighted average price (\$/lb)	Mean(sd) pric (\$/lb
		19 10	$12.86 \\ 0.36$	\$151.16     \$3.54	$     $ 11.75 \\     $ 9.83 $	\$ 11.83(1.09 \$ 10.04(2.37
2007	crab Other	8	0.10	\$ 0.40	\$ 4.07	\$ 4.14(1.47
		17	12.58	\$ 164.84	\$ 13.10	\$ 12.96(1.51
		8	0.44	\$ 104.84 \$ 5.83	\$ 13.10	\$ 12.90(1.51 \$ 11.46(2.93
2008		7	0.16	\$ 0.87	\$ 5.53	\$ 5.28(1.81
	Sections	17	10.34	\$ 123.43	\$ 11.94	\$ 11.7(2.5
	Whole crab	11	0.51	\$ 1.86	\$ 3.65	\$ 9.8(3
2009	Other	8	0.12	\$ 0.54	\$ 4.65	\$ 4.91(2.08
		17	8.91	\$ 161.52	\$ 18.12	\$ 18.49(3.39
	Whole crab	11	0.22	\$ 3.52	\$ 16.08	\$ 15.16(4.04
2010		8	0.14	\$ 0.75	\$ 5.42	\$ 7.37(3.29
		23	5.72	\$ 131.54	\$ 22.98	\$ 24.79(4.08
	Whole crab	15	0.23	\$ 4.90	\$ 21.73	\$ 19.68(5.26
2011		11	0.08	\$ 0.60	\$ 7.62	\$ 14.42(13.27
		18	4.93	\$ 93.52	\$ 18.98	\$ 19.64(3.21
	Whole crab	10	0.29	\$ 5.17	\$ 17.52	\$ 15.49(4.15
2012	Other	6	0.03	\$ 0.25	\$ 8.65	\$ 8.28(2.95
		19	6.15	\$ 96.75	\$ 15.72	\$ 17.36(2.94
	Whole crab	13	0.31	\$ 4.67	\$ 15.02	\$ 14.42(4.23
2013	Other	7	0.04	\$ 0.51	\$ 12.52	\$ 12.82(3.47
		19	6.95	\$ 99.49	\$ 14.31	\$ 15.11(3.27
	Whole crab	13	0.35	\$ 5.31	\$ 14.97	\$ 14.41(2.74
2014	Other	7	0.05	\$ 0.51	\$ 10.05	\$ 10.91(4.94
		17	6.87	\$ 113.19	\$ 16.48	\$ 16.73(3.68
	Whole crab	10	0.30	\$ 4.89	\$ 16.19	\$ 16.96(3.11
2015	Other	8	0.09	\$ 1.18	\$ 13.70	\$ 13.74(2.58
		18	5.36	\$ 120.49	\$ 22.46	\$ 22.06(3.58
	Whole crab	6	0.14	\$ 2.06	\$ 14.90	\$ 21.19(4.65
2016		8	0.08	\$ 1.16	\$ 13.69	\$ 11.67(6.27
		21	4.74	\$ 83.86	\$ 17.70	\$ 18.19(5.26
	Whole crab	11	0.26	\$ 4.25	\$ 16.18	\$ 15.68(4.13
2017		11	0.05	\$ 0.82	\$ 16.13	\$ 15.81(7.69
		16	3.08	\$ 60.49	\$ 19.63	\$ 19.72(6.49
	Whole crab	5	0.13	\$ 2.48	\$ 18.53	\$ 20.28(4.67
2018		6	0.03	\$ 0.57	\$ 17.00	\$ 16.49(1.79
		14	2.64	\$ 56.91	\$ 21.53	\$ 20.11(7.66
	Whole crab	5	0.06	\$ 1.23	\$ 21.39	\$ 19.49(5.13
2019		8	0.04	\$ 0.61	\$ 14.32	\$ 13.63(7.62
		13	1.91	\$ 38.39	\$ 20.13	\$ 21.66(9.27
	Whole crab	1	*	*	*	
2020		6	0.02	\$ 0.20	\$ 9.14	\$ 14.68(9.54
		2	*	*	*	
2021	Other	2	*	*	*	

Mean(sd) pric (\$/lb	Weighted average price (\$/lb)	First wholesale value (\$ million)	Finished weight (million lbs)	Processors	Product		
	*	*	*	2	Sections		
	*	*	*	2	Whole		led
	*	*	*	1	crab Other	2022	ing
\$ 5.49(0.26	\$ 5.37	\$ 108.52	20.19	16	Sections		
	*	*	*	1	Whole		
	*	*	*	2	crab Other	2007	
\$ 5.53(0.35	\$ 5.44	\$ 160.90	29.60	16	Sections		
	*	*	*	1	Whole		
	*	*	*	3	crab Other	2008	
						2008	
\$ 4.58(0.23		\$ 162.70 *	35.60 *	16 1	Sections Other	2009	
\$ 4.39(1.34	\$ 4.30	\$ 128.22	29.80	12	Sections		
	*	*	*	1	Whole		
	*	*	*	1	crab Other	2010	
\$ 6.52(1.76	\$ 6.90	\$ 243.72	35.30	16	Sections		
\$ 0.52(1.70	\$ 0.90 *	\$ 243.72	\$ 35.50	10	Whole		
	*	*	*	1	crab	2011	
				1	Other	2011	
\$ 5.8(1.1	\$ 5.99 *	\$ 352.34 *	58.86	15 2	Sections Whole		
				2	crab		
	*	*	*	1	Other	2012	
\$ 5.94(2.04	\$ 6.19	\$ 293.87	47.50 *	16	Sections		
	*	*	*	1	Whole crab		
	*	*	*	1	Other	2013	
\$ 7.19(6.5	\$ 6.40	\$ 236.71	36.98	14	Sections		
	*	*	*	2	Whole crab		
	*	*	*	1	Other	2014	
\$ 5.15(1.4	\$ 5.29	\$ 210.72	39.83	14	Sections		
× ×	*	*	*	1	Whole		
	*	*	*	1	crab Other	2015	
¢ c 99(1 59	\$ 6.44	Ф 104 E7	20.65				
\$ 6.28(1.53	ð 0.44 *	\$ 184.57 *	28.65	12 1	Sections Whole		
	*	*	*		crab		
				3	Other	2016	
\$ 8.78(3.61	\$ 7.61 *	\$ 131.07 *	17.22 *	$\frac{14}{3}$	Sections Other	2017	
\$ 7.68(3.16	\$ 7.09	\$ 100.70	14.20	12	Sections		
\$ 1.00(0.10	*	*	*	3	Whole	2018	
					crab		
\$ 7.64(2.94	7.14	\$ 158.16 *	22.15	13	Sections	2010	
				1	Other	2019	
\$ 7.22(3.68		\$ 168.01 *	25.58	10 1	Sections Whole		
				Ŧ	crab		
	*	*	*	1	Other	2020	
\$ 9.19(3.5	\$ 9.06	\$ 296.16	32.69	12	Sections		
	*	*	*	1	Whole crab		
	*	*	*	2	Other	2021	

		Product	Processors	Finished weight (million lbs)	First wholesale value (\$ million)	Weighted average price (\$/lb)	$\frac{\text{Mean(sd) price}}{(\$/\text{lb})}$
) 20:	22	Sections Other	10 2	3.93 *	\$ 46.58 *	\$ 11.84 *	\$ 11.63(5.1)
, _0.		Sections	18	2.46	\$ 14.88	\$ 6.06	\$ 6.56(1.22)
		Whole	4	2.46 0.01	\$ 0.02	\$ 4.39	\$ 0.50(1.22)
		crab					
20	07	Other	1	*	*	*	*
		Sections	22	2.39 0.00	$     $ 15.25 \\     $ 0.01 $	\$ 6.38 \$ 4.34	6.57(1.48) 3.64
		Whole crab	4	0.00	\$ 0.01	\$ 4.34	\$ 3.04
20	08	Other	4	0.04	\$ 0.20	\$ 4.66	\$ 6.86
		Sections	16	2.20	\$ 11.40	\$ 5.19	\$ 5.72(1.62)
		Whole	3	*	*	*	*
20	09	crab Other	4	0.02	\$ 0.09	\$ 3.64	\$ 7.08
		Sections	16	1.45	\$ 7.95	\$ 5.49	\$ 5.8(1.06)
		Whole	6	0.44	\$ 1.62	\$ 3.68	\$ 4.35(1.71)
2010		crab					
	10	Other	1	*	*	*	*
		Sections	14	3.49	\$ 29.28	\$ 8.40	\$ 8.88(1.44)
		Whole crab	5	0.30	\$ 2.94	\$ 9.77	\$ 7.11(2.58)
20	11	Other	4	0.10	\$ 0.72	\$ 7.58	\$ 9.92
		Sections	13	2.73	\$ 20.67	\$ 7.58	\$ 8.28(1.7)
		Whole	6	0.35	\$ 3.50	\$ 9.91	\$ 7.72(2.57)
2012	19	crab Other	1	*	*	*	*
	12						
		Sections Whole	$     \frac{19}{4} $	$1.60 \\ 0.29$	\$ 11.93 \$ 2.56	\$ 7.45 \$ 8.90	\$ 7.77(1.3) \$ 8.09
		crab	4	0.29	\$ 2.50	\$ 8.90	φ 8.08
20	13	Other	4	0.00	\$ 0.07	\$ 16.31	\$ 13.71
		Sections	15	6.78	\$ 46.36	\$ 6.84	\$ 7.56(1.88)
		Whole	4	0.08	\$ 0.73	\$ 8.84	\$ 7.28
20	14	crab Other	2	*	*	*	*
		Sections	17	10.73	\$ 63.05	\$ 5.87	\$ 6.28(1.57)
		Whole	6	0.84	\$ 2.31	\$ 2.75	\$ 5.49(2.81)
00	1 -	crab	-	0.00	<b>0.05</b>	<b>.</b>	@ 11 00(0 0F)
20	15	Other	5	0.06	\$ 0.37	\$ 6.34	\$ 11.83(8.25)
		Sections	18	8.38	\$ 57.05	\$ 6.81	\$ 7.45(2)
		Whole crab	6	0.17	\$ 1.48	\$ 8.53	\$ 6.95(2.12)
20	16	Other	5	0.10	\$ 0.59	\$ 5.77	\$ 10.69(8.63)
		Sections	15	1.73	\$ 18.24	\$ 10.52	\$ 9.5(3.08)
		Whole	1	*	*	*	*
20	17	crab Other	3	*	*	*	*
				2.01	¢ 04 56	Ф Q 44	¢ 0 10(9 97)
		Sections Whole	22 5	$2.91 \\ 0.00$	24.56 \$ 0.02	\$ 8.44 \$ 7.52	9.18(2.87) 7.97(3.1)
		crab			+ ••••	• •••-	, , , , , , , , , , , , , , , , , , ,
20	18	Other	4	0.01	\$ 0.12	\$ 15.72	\$ 15.17
		Sections	17	1.75	\$ 17.39	\$ 9.92	\$ 9.73(2.77)
		Whole	6	0.04	\$ 0.38	\$ 8.96	\$ 7.26(1.69)
20	19	crab Other	6	0.31	\$ 3.64	\$ 11.61	\$ 12.82(5.3)
		Sections	15	1.31	\$ 14.46	\$ 11.04	\$ 10.91(1.34)
		Whole	15 5	0.08	\$ 0.79	\$ 11.04 \$ 9.51	\$ 10.91(1.34) \$ 8.8(4.72)
		crab					
203	20	Other	3	*	*	*	*

		Product	Processors	Finished weight (million lbs)	First wholesale value (\$ million)	Weighted average price (\$/lb)	Mean(sd) pric (\$/lb
		Sections Whole	14 1	1.80 *	\$ 21.40 *	\$ 11.92 *	\$ 11.72(4.12
	2021	crab Other	4	0.08	\$ 0.84	\$ 10.80	\$ 14.6
_		Sections Whole	18 3	2.84	39.34	\$ 13.87 *	\$ 13.6(5.41
ner		crab	0				
irdi)	2022	Other	3	*	*	*	
		Sections	7	2.96	\$ 22.43	\$ 7.58	\$ 8.59(2.84
		Whole crab	6	0.46	\$ 3.99	\$ 8.72	\$ 8.75(1.3
_	2007	Other	4	0.34	\$ 2.50	\$ 7.39	\$ 10.6
		Sections	8	2.96	\$ 27.57	\$ 9.31	\$ 10.53(2.3
		Whole crab	8	0.51	\$ 4.53	\$ 8.83	\$ 8.36(1.4)
	2008	Other	4	0.42	\$ 3.75	\$ 8.96	\$ 10.7
_		Sections	10	3.31	\$ 23.64	\$ 7.15	\$ 9.04(3.55
		Whole	8	0.78	\$ 5.99	\$ 7.69	\$ 7.37(1.9
	2009	crab Other	3	*	*	*	
_		Sections	11	4.04	\$ 42.94	\$ 10.63	\$ 11.88(1.6)
		Whole	12	1.08	\$ 8.29	\$ 7.65	\$ 8.75(1.7
	2010	crab Other	3	*	*	*	
_		Sections	14	3.40	\$ 49.18	\$ 14.48	\$ 15.39(5.4)
		Whole	10	0.76	\$ 9.70	\$ 12.74	\$ 12.53(1.4)
	2011	crab Other	3	*	*	*	
_	2011	Sections	15	3.32	\$ 35.73	\$ 10.77	\$ 14.15(5.94
		Whole crab	11	0.62	\$ 8.47	\$ 13.60	\$ 13.37(3.4)
	2012	Other	4	0.01	\$ 0.07	\$ 11.62	\$ 15.7
_		Sections	14	3.51	\$ 37.71	\$ 10.75	\$ 12.81(5.89
		Whole	10	0.69	\$ 7.59	\$ 11.05	\$ 12.9(4.3)
	2013	crab Other	6	0.01	\$ 0.05	\$ 9.74	\$ 13.26(8.7
		Sections	12	4.33	\$ 42.36	\$ 9.77	\$ 11.27(4.50
		Whole	8	0.16	\$ 3.03	\$ 18.60	16.87(4.3)
	2014	crab Other	2	*	*	*	
-	-	Sections	6	2.94	\$ 36.08	\$ 12.27	\$ 12.69(1.19
		Whole	7	0.41	\$ 5.44	\$ 13.21	\$ 15.91(3.7)
	2015	crab Other	2	*	*	*	
-	2010	Sections	12	3.31	\$ 50.62	\$ 15.31	\$ 17.41(5.8
		Whole	6	0.07	\$ 1.21	\$ 18.16	\$ 19.15(3.5
	2016	crab	2	*	*	*	
-	2010	Other					¢ 14.09/4.02
		Sections Whole	13 6	3.31 0.13		\$ 13.86 \$ 15.43	\$ 14.03(4.08 \$ 18.3(3.16
	2015	crab		*	*	*	Ň
_	2017	Other	2				
		Sections Whole	9 5	2.98 0.25	$     $39.94 \\     $2.29 $	\$ 13.39 \$ 9.31	\$ 11.66(6.39 \$ 23.91(26.93
		crab					÷ 20.01(20.0c
	2018	Other	2	*	*	*	

		Product	Processors	Finished weight (million lbs)	First wholesale value (\$ million)	Weighted average price (\$/lb)	$\begin{array}{c} \mathrm{Mean(sd) \ price} \\ (\$/\mathrm{lb}) \end{array}$
		Sections	9	3.85	\$ 56.87	\$ 14.77	\$ 15.5(5.38)
		Whole	9	0.27	\$ 2.48	\$ 9.08	\$ 14.29(4.4)
		crab					
	2019	Other	1	*	*	*	*
		Sections	10	4.30	\$ 57.67	\$ 13.42	\$ 14.25(6.43)
		Whole	6	0.14	\$ 0.94	\$ 6.70	11.8(3.54)
	2020	crab	2	*	*	*	
	2020	Other	2	<b>ب</b>		*	*
		Sections	11	3.82	\$ 100.04	\$ 26.17	23.44(11.03)
		Whole	4	0.02	\$ 0.33	\$ 15.46	\$ 18.69
		crab		*	*	*	
	2021	Other	2	*	*	*	*
		Sections	10	2.62	\$ 54.91	\$ 20.98	23.54(10.78)
Golden		Whole	4	0.01	\$ 0.33	\$ 26.95	\$ 28.28
brown)		crab					
ing	2022	Other	3	*	*	*	*
		Sections	4	0.19	\$ 1.63	\$ 8.79	\$ 9.02
		Whole	1	*	*	*	*
		crab					
	2009	Other	1	*	*	*	*
		Sections	7	0.65	\$ 10.14	\$ 15.64	\$ 14.92(2.97)
		Whole	1	*	*	*	*
		crab					
	2010	Other	1	*	*	*	*
		Sections	12	1.22	\$ 21.75	\$ 17.78	\$ 17.45(6.59)
		Whole	2	*	*	*	` *
		crab					
	2011	Other	2	*	*	*	*
		Sections	10	1.10	\$ 17.36	\$ 15.82	\$ 14.1(4.31)
		Whole	2	*	*	*	` *
		crab					
	2012	Other	2	*	*	*	*
		Sections	6	0.21	\$ 2.42	\$ 11.46	\$ 11.88(3.39)
		Whole	1	*	*	*	*
		crab					
	2014	Other	2	*	*	*	*
-		Sections	5	0.07	\$ 0.78	\$ 10.71	\$ 11.55(2.96)
		Whole	1	*	*	*	*
Blue		crab					
ing	2015	Other	1	*	*	*	*

Note Data shown by calendar year. Includes processing of crab taken from stocks/fisheries other than those managed under the BSAI crab FMP. Counts of processors in Tables 3.9, 3.10, and 3.11 identify number of entities reporting crab production in the Commercial Operators Annual Report, including buyers of landed crab that employed custom processing services of other crab processors for all purchased crab; where noted, processor counts in other tables show the number of active crab processing plants exclusive of custom-only buyers. Asterisks indicate data suppressed due to confidentiality All dollar values are adjusted for inflation to 2022-equivalent value.

Source ADF&G Commercial Operator's Annual Report (COAR) data

			Processors		Processing labor ho	ours	Labor Payment	s (\$1,000)	Processing wag	ges, median (\$)
				Total (1,000)	Median per plant (1,000)	Median per 1000 pounds (raw)	Total	Median per plant	per hour	per 1000 pounds (raw)
		98/01/04	24(11)	-	-	-	\$ 1,623.00	\$ 206.00	-	я
		2005	8	-	-	-	\$ 1,126.00	\$ 94.00	-	×
		2006	5	-	-	-	\$ 1,397.00	\$ 231.00	-	\$
		2007	5	-	-	-	\$ 1,659.00	\$ 287.00	-	\$
	CP	2008	5	-	-	-	\$ 2,334.00	\$ 454.00	-	×
		98/01/04	62(32)	1,357	33.21	12.83	\$ 19,618.00	\$ 506.00	\$ 14.64	\$ 190.68
		2005	17	551	23.68	12.87	\$ 7,574.00	\$ 341.00	\$ 13.75	\$ 169.95
		2006	13	687	58.59	13.48	\$ 9,142.00	\$ 736.00	\$ 13.50	\$ 183.88
		2007	14	810	47.46	13.13	\$ 11,175.00	\$ 687.00	\$ 14.15	\$ 184.32
	$\mathbf{SF}$	2008	13	1,022	48.64	12.93	\$ 16,020.00	\$ 1,133.00	\$ 14.54	\$ 204.12
		2009	17	884	69.15	14.62	\$ 13,021.00	\$ 566.00	\$ 13.30	\$ 174.30
		2010	15	832	53.59	14.03	\$ 11,971.00	\$ 706.00	\$ 12.71	\$ 172.60
		2011	16	725	46.45	13.47	\$ 10,836.00	\$ 586.00	\$ 13.18	\$ 170.9
		2012	16	1,262	71.66	15.84	\$ 18,038.00	\$ 753.00	\$ 12.94	\$ 184.5
		2013	14	956	53.70	12.75	\$ 12,331.00	\$ 694.00	\$ 12.59	\$ 155.1
		2014	11	905	103.11	11.06	\$ 11,714.00	\$ 742.00	\$ 12.26	\$ 149.3
		2015	11	1,179	112.90	15.88	\$ 16,231.00	\$ 1,305.00	\$ 12.82	\$ 197.4
		2016	10	788	95.46	14.17	\$ 11,818.00	\$ 869.00	\$ 14.60	\$ 225.6
		2017	11	426	31.95	13.41	\$ 6,084.00	\$ 361.00	\$ 14.07	\$ 186.4
		2018	10	382	29.90	11.01	\$ 5,457.00	\$ 215.00	\$ 13.67	\$ 167.5
		2019	9	452	51.95	12.07	\$ 7,050.00	\$ 414.00	\$ 14.53	\$ 183.04
		2020	9	486	56.43	12.96	\$ 8,667.00	\$ 619.00	\$ 16.73	\$ 221.18
		2021	8	534	74.54	10.91	\$ 9,991.00	\$ 985.00	\$ 17.17	\$ 179.00
All CR	$_{\rm SF+CP}$	2022	7	159	30.17	15.58	\$ 3,115.00	\$ 395.00	\$ 18.73	\$ 246.39
		98/01/04	4(2)	-	-	_	*	*	-	2
		2005	2	-	-	-	*	*	-	2
		2006	1	-	-	-	*	*	-	3
		2007	1	-	-	-	*	*	-	:
	CP	2008	1	-	-	-	*	*	-	
		98/01/04	13(7)	54	13.99	13.51	\$ 857.00	\$ 177.00	\$ 14.09	\$ 210.12
		2005	4	39	6.39	8.31	\$ 488.00	\$ 87.00	\$ 13.15	\$ 123.08
		2006	6	47	0.97	8.98	\$ 625.00	\$ 23.00	\$ 13.27	\$ 119.6
		2007	5	72	4.28	11.26	\$ 938.00	\$ 75.00	\$ 12.93	\$ 135.23
	SF	2008	6	38	2.76	9.81	\$ 697.00	\$ 120.00	\$ 14.75	\$ 170.76

### Table 5.10: Processing labor hours and pay, CR Program fisheries

			Processors		Processing labor ho	ours	Labor Payment	s (\$1,000)	Processing wag	ges, median (\$)
				$\begin{array}{c} \text{Total} \\ (1,000) \end{array}$	$\begin{array}{c} \text{Median per plant} \\ (1,000) \end{array}$	Median per 1000 pounds (raw)	Total	Median per plant	per hour	per 1000 pounds (raw)
		2009	5	44	9.27	9.90	\$ 1,092.00	\$ 171.00	\$ 13.08	\$ 107.69
		2010	4	61	23.20	12.90	\$ 1,643.00	\$ 339.00	\$ 12.60	\$ 148.50
		2011	7	49	4.79	10.37	1,417.00	\$ 96.00	\$ 12.77	\$ 132.66
		2012	8	53	2.60	6.89	\$ 1,379.00	\$ 74.00	\$ 12.71	\$ 92.83
		2013	6	61	5.96	9.19	\$ 756.00	\$ 76.00	\$ 12.36	\$ 130.61
		2014	4	61	16.95	10.93	\$ 699.00	\$ 195.00	\$ 11.26	\$ 126.46
		2015	3	74	30.27	11.92	\$ 905.00	\$ 360.00	\$ 11.89	\$ 140.51
		2016	4	67	12.10	13.04	\$ 918.00	\$ 169.00	\$ 14.07	\$ 180.24
		2017	5	58	9.67	12.70	\$ 794.00	\$ 122.00	\$ 13.81	\$ 178.69
		2018	5	65	8.23	11.54	\$ 909.00	\$ 142.00	\$ 13.66	\$ 162.26
		2019	3	57	18.39	10.48	\$ 827.00	\$ 279.00	\$ 14.33	\$ 158.85
		2020	4	62	12.29	10.52	\$ 979.00	\$ 207.00	\$ 16.78	\$ 171.44
		2021	4	56	11.79	9.61	\$ 893.00	\$ 212.00	\$ 17.36	\$ 154.42
AIG	SF+CP	2022	3	41	10.50	8.69	\$ 735.00	\$ 166.00	\$ 18.51	\$ 160.93
		98/01/04	18(10)	-	-	-	\$ 337.00	\$ 52.00	-	*
		2005	4	-	-	-	\$ 525.00	\$ 140.00	-	*
		2006	3	-	-	-	\$ 193.00	\$ 63.00	-	*
		2007	3	-	-	-	\$ 211.00	\$ 59.00	-	\$
	CP	2008	3	-	-	-	\$ 397.00	\$ 89.00	-	*
		98/01/04	40(20)	142	9.96	12.47	\$ 1,979.00	\$ 128.00	\$ 15.25	\$ 176.35
		2005	11	202	12.12	12.61	\$ 2,822.00	\$ 254.00	\$ 13.78	\$ 161.88
		2006	11	180	10.76	13.73	\$ 2,527.00	\$ 203.00	\$ 13.50	\$ 185.24
		2007	11	261	25.22	13.17	3,494.00	\$ 287.00	\$ 14.12	\$ 185.99
	SF	2008	11	245	12.58	16.04	\$ 3,533.00	\$ 358.00	\$ 14.16	\$ 199.69
		2009	12	199	16.06	14.23	\$ 2,800.00	\$ 162.00	\$ 13.13	\$ 183.39
		2010	13	212	20.09	15.36	\$ 2,997.00	\$ 242.00	\$ 12.41	\$ 184.52
		2011	14	104	6.71	13.97	\$ 1,551.00	\$ 94.00	\$ 12.98	\$ 177.09
		2012	12	100	6.51	13.74	1,464.00	\$ 84.00	\$ 13.46	\$ 167.22
		2013	10	104	10.00	14.95	\$ 1,470.00	\$ 116.00	\$ 12.42	\$ 175.34
		2014	9	130	21.07	12.11	\$ 1,720.00	\$ 93.00	\$ 11.59	\$ 172.31
		2015	10	127	14.80	14.92	\$ 1,852.00	\$ 145.00	\$ 12.79	\$ 193.29
		2016	10	130	8.93	11.20	\$ 2,040.00	\$ 105.00	\$ 14.60	\$ 165.42
		2017	10	81	8.06	13.47	\$ 1,222.00	\$ 74.00	\$ 14.15	\$ 188.36
		2018	9	55	5.38	11.50	\$ 857.00	\$ 55.00	\$ 14.06	\$ 170.22
		2019	8	47	6.21	12.72	\$ 804.00	\$ 83.00	\$ 14.24	\$ 187.02
3BR	SF+CP	2020	8	52	6.90	16.24	\$ 768.00	\$ 88.00	\$ 16.72	\$ 267.04
		98/01/04	17(8)	-	-	-	\$ 881.00	\$ 137.00	-	к
		2005	6	-	-	-	\$ 345.00	\$ 43.00	-	×
		2006	4	-	-	-	\$ 1,051.00	\$ 197.00	-	*
		2007	4	-	-	-	\$ 889.00	\$ 223.00	-	*
	CP	2008	4	-	-	-	\$ 1,285.00	\$ 335.00	-	*
		98/01/04	50(24)	1,134	36.21	12.80	\$ 16,433.00	\$ 522.00	\$ 14.61	\$ 195.00
		2005	13	302	23.68	13.36	\$ 4,155.00	\$ 341.00	\$ 13.70	\$ 183.88
		2006	10	445	49.45	13.76	\$ 5,809.00	\$ 658.00	\$ 13.33	\$ 182.45
		2007	10	442	41.29	13.58	\$ 6,297.00	\$ 578.00	\$ 13.81	\$ 214.60
	SF	2008	12	712	30.52	13.17	\$ 11,238.00	\$ 644.00	\$ 13.78	\$ 188.49

### Table 5.10: Processing labor hours and pay, CR Program fisheries (continued)

			Processors		Processing labor ho	ours	Labor Payment	cs (\$1,000)	Processing wag	ges, median (\$)
				Total (1,000)	Median per plant (1,000)	Median per 1000 pounds (raw)	Total	Median per plant	per hour	per 1000 pound (raw
		2009	14	600	58.41	13.44	\$ 8,608.00	\$ 395.00	\$ 13.23	\$ 163.5
		2010	11	534	50.90	13.92	\$ 7,037.00	\$ 465.00	\$ 12.65	\$ 164.6
		2011	14	555	45.69	13.90	\$ 7,681.00	\$ 445.00	\$ 13.18	\$ 180.3
		2012	13	1,087	77.94	16.00	\$ 14,892.00	\$ 760.00	\$ 12.92	\$ 200.0
		2013	12	774	63.55	12.84	\$ 9,904.00	\$ 597.00	\$ 12.44	\$ 157.
		2014	10	590	76.01	12.08	\$ 7,771.00	\$ 562.00	\$ 13.01	\$ 149.
		2015	10	747	95.42	15.45	\$ 10,467.00	\$ 974.00	\$ 13.13	\$ 192.
		2016	8	447	69.40	12.96	\$ 6,807.00	\$ 645.00	\$ 14.35	\$ 187.
		2017	8	266	34.61	11.98	\$ 3,809.00	\$ 248.00	\$ 14.05	\$ 173.
		2018	8	232	30.48	12.39	\$ 3,293.00	\$ 189.00	\$ 13.91	\$ 172.
		2019	8	333	45.70	13.36	\$ 5,190.00	\$ 348.00	\$ 14.66	\$ 198.
		2020	8	360	50.53	13.87	\$ 6,730.00	\$ 472.00	\$ 16.67	\$ 226.
		2020	8	469	61.83	11.51	\$ 8,838.00	\$ 731.00	\$ 17.23	\$ 189.
BSS	$_{\rm SF+CP}$	2022	7	90	14.37	16.65	\$ 1,843.00	\$ 157.00	\$ 18.37	\$ 291.
		2006	1	-	-	-	*	*	-	
		2007	1	-	-	-	*	*	-	
	CP	2008	1	-	-	-	*	*	-	
		2005	7	8	0.40	17.54	\$ 109.00	\$ 6.00	\$ 13.36	\$ 212.
		2006	8	14	1.25	12.57	\$ 182.00	\$ 17.00	\$ 13.30	\$ 149.
		2007	7	35	4.97	13.85	\$ 446.00	\$ 56.00	\$ 12.94	\$ 179.
	SF	2008	8	27	2.93	15.81	\$ 553.00	\$ 59.00	\$ 13.84	\$ 233.
		2009	8	29	4.27	14.34	\$ 365.00	\$ 42.00	\$ 12.65	\$ 169.
		2010	5	6	0.70	23.87	\$ 80.00	\$ 9.00	\$ 12.67	\$ 302.
		2013	7	17	1.86	13.77	\$ 201.00	\$ 19.00	\$ 11.93	\$ 162.
		2014	8	122	8.51	11.96	\$ 1,505.00	\$ 97.00	\$ 11.79	\$ 143.
		2015	8	230	21.84	12.26	\$ 2,998.00	\$ 252.00	\$ 12.71	\$ 154.
		2016	7	145	18.44	11.56	\$ 2,053.00	\$ 240.00	\$ 14.17	\$ 164.
		2017	5	20	3.25	12.40	\$ 259.00	\$ 40.00	\$ 12.60	\$ 165.
		2018	7	29	2.01	10.37	\$ 398.00	\$ 26.00	\$ 13.25	\$ 141.
		2019	7	14	1.61	12.22	\$ 229.00	\$ 25.00	\$ 14.56	\$ 174.
		2020	5	13	2.73	15.14	\$ 191.00	\$ 45.00	\$ 16.64	\$ 215.
		2021	6	9	1.01	9.86	\$ 181.00	\$ 19.00	\$ 16.38	\$ 196.
BST	$_{\rm SF+CP}$	2022	6	28	4.53	14.15	\$ 537.00	\$ 78.00	\$ 18.55	\$ 254.
PIK	$\mathbf{SF}$	98/01/04	13(13)	25	1.03	14.27	\$ 301.00	\$ 20.00	\$ 13.78	\$ 203.
	CP	98/01/04	1(1)	-	-	-	*	*	-	
	SF	98/01/04	10(10)	55	3.08	13.64	\$ 738.00	\$ 40.00	\$ 13.12	\$ 211.
	-	2009	2	*	*	*	*	*	*	
		2010	5	19	0.40	14.48	\$ 214.00	\$ 5.00	\$ 12.35	\$ 167.
		2011	6	17	0.84	15.10	\$ 187.00	\$ 10.00	\$ 11.76	\$ 185.
		2012	6	21	0.76	11.09	\$ 302.00	\$ 9.00	12.14	\$ 155.
		2014	1	*	*	*	*	*	*	
SMB	$_{\rm SF+CP}$	2015	1	*	*	*	*	*	*	
	CP	98/01/04	2(1)	-	-	-	*	*	-	

Table 5.10: Processing labor hours and pay, CR Program fisheries (continued)

			Processors		Processing labor ho	ours	Labor Payment	ts (\$1,000)	Processing was	ges, median (\$)
				$\begin{array}{c} \text{Total} \\ (1,000) \end{array}$	Median per plant $(1,000)$	Median per 1000 pounds (raw)	Total	Median per plant	per hour	per 1000 pounds (raw)
WAI	SF	98/01/04	1(1)	*	*	*	*	*	*	*

#### Table 5.10: Processing labor hours and pay, CR Program fisheries (continued)

Note Data shown for all CR program crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by '\*', and data not available where indicated by '-'. Processing labor hours reflect hourly processing line workers employed by shoreside and floating processor sectors only; excludes salaried workers employed in the processing sectors (see Table 3.11). Processing labor payments exclude benefits and indirect expenses paid on behalf of processing workers and payments to salaried workers employed by processors (see Table 3.11). Where applicable, these figures include bonuses and deductions to labor payments for shared expenses such as food and provisions. Median pay per hour values are inclusive of, and representative of, the shoreside and floating processor sectors only. Pro rata statistics estimating processing labor hours per 1000 pounds and labor cost per 1000 pounds use the summed value of raw crab purchased and raw pounds custom processed for other buyers reported by shoreside and floating processing plants (excluding CPs) in EDR data; previous editions of this report used finished pounds in EDRs was discontinued beginning in 2012. For 2009 to current, results are summarized over all processing sectors (SF + CP) to preserve confidentiality. For the baseline period through 2008, results are shown by processing sector, with CP denoting the catcher-processor sector and SF denoting shore-based processors (shore-plants and stationary floating processors). Statistics for pre-rationalization base years are calculated as the annual average over the 1998, 2001, and 2004 calendar years, and the Processor column shows the number of unique data records and unique processors (in parentheses) for the period. Calculation of average prices and pro-rata statistics censors observation-level calculated value is outside two standard deviations of the group mean.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

		Processors	Salaried e	mployees		Salary cost	
			Total	Per plant, median	Total (\$1,000)	Per plant, median (\$1,000)	Cost per employee mediar (\$1000)
	98/01/04	17(9)	17	2	\$ 414.00	\$ 48.00	\$ 20.00
	2005	8	44	3	1,255.00	\$ 54.00	\$ 13.00
	2006	4	24	3	\$736.00	\$ 192.00	\$ 26.00
	2007	4	25	3	\$ 305.00	\$ 67.00	\$ 15.00
	2008	4	16	3	1,268.00	\$ 146.00	\$ 26.00
	2009	5	13	3	1,045.00	\$ 125.00	\$ 18.00
	2010	3	*	*	*	*	:
CP	2011	3	3	1	\$ 984.00	\$ 103.00	\$ 466.00
	98/01/04	65(32)	1,096	17	\$ 9,880.00	\$ 200.00	\$ 11.0
	2005	17	1,592	20	12,403.00	\$ 84.00	\$ 6.0
	2006	13	2,031	20	15,608.00	\$ 421.00	\$5.0
	2007	14	691	15	6,751.00	\$ 287.00	\$ 10.0
	2008	13	1,056	16	13,970.00	352.00	\$ 13.0
	2009	17	900	29	9,507.00	\$ 640.00	\$ 12.0
	2010	17	786	22	7,649.00	\$ 131.00	\$ 7.0
	2011	17	$1,\!148$	25	8,612.00	\$ 482.00	\$ 7.0
	2012	13	$1,\!428$	33	65,570.00	1,262.00	\$ 50.0
	2013	12	$1,\!459$	28	\$ 70,074.00	1,533.00	\$ 49.0
	2014	9	1,300	84	71,433.00	3,856.00	\$ 61.0
	2015	9	1,572	170	\$ 72,454.00	5,822.00	\$ 38.0
	2016	8	$1,\!473$	174	72,464.00	9,421.00	\$ 47.0
	2017	9	1,553	170	66,760.00	\$ 7,195.00	\$ 35.0
	2018	8	$1,\!397$	136	60,954.00	\$ 7,212.00	\$ 49.0
	2019	7	$1,\!488$	215	\$ 73,013.00	9,487.00	\$ 56.0
	2020	7	1,522	228	75,156.00	\$ 10,864.00	\$ 49.0
	2021	6	1,139	180	63,454.00	\$ 11,866.00	\$ 55.0
$\mathbf{SF}$	2022	5	812	139	53,910.00	\$ 11,293.00	\$ 81.0

Table 5.11: Processing sector employment and wages for non-processing employees, CR Program fisheries

Note Data shown for all CR program crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by '\*', and data not available where indicated by '-'. Results shown above summarize data reported by processors for number of employees and gross cost of salary and wages paid for non-processing positions at the processing facility (including foremen, managers, administrative, and other personnel not primarily employed as processing line laborers); wage costs include salary, hourly wages, and bonuses paid to employees, and exclude non-wage benefits, payroll taxes, and other employment costs. Statistics for pre-rationalization base years are calculated as the annual average over the 1998, 2001, and 2004 calendar years, and the Processors column shows the number of unique data records and unique processors (in parentheses) for the period. Due to changes in Crab EDR data collection beginning in 2012, reporting of this data was discontinued for the CP sector, and employment and salary data after 2012 represents total annual value over all production and sales activities, including but not exclusively crab production. Prior to 2012 and later. Calculation of average prices and pro-rata statistics censors observations where the observation-level calculated value is outside two standard deviations of the group mean. Asterisks indicate data suppressed due to confidentiality All dollar values are adjusted for inflation to 2022-equivalent value.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database. and eLandings

	Processors	Total Employees	Alaska	Washington-Oregon-Idaho	U.S. Other	Non-U.S.
2005	17	2872	605 (21%)	987 (34%)	1243 (43%)	37 (1%)
2006	13	2660	898 (34%)	882 (33%)	878 (33%)	2 (< 1%)
2007	14	3192	738 (23%)	970 (30%)	1477 (46%)	7 (<1%)
2008	13	3909	927 (24%)	960 (25%)	2018 (52%)	4 (<1%)
2009	12	3112	800 (26%)	774 (25%)	1515 (49%)	23 (1%)
2010	12	3323	767(23%)	868 (26%)	1321 (40%)	367 (11%)
2011	13	2816	800 (28%)	815 (29%)	1193 (42%)	8 (<1%)
2012	13	3291	647 (20%)	1087 (33%)	1545 (47%)	12 (< 1%)
2013	15	3133	932 (30%)	938 (30%)	1259 (40%)	4 (<1%)
2014	9	2370	780 (33%)	708 (30%)	876 (37%)	6 (<1%)
2015	9	2600	688(26%)	833 (32%)	1076 (41%)	3 (< 1%)
2016	8	2809	731 (26%)	722 (26%)	1356 (48%)	0 (<1%)
2017	9	2405	671 (28%)	380 (16%)	1354 (56%)	0 (<1%)
2018	9	2195	498 (23%)	317 (14%)	1378 (63%)	2(<1%)
2019	7	2257	640 (28%)	346 (15%)	1257(56%)	14 (1%)
2020	7	2663	614 (23%)	358 (13%)	1316 (49%)	375 (14%)
2021	6	2562	608 (24%)	469 (18%)	1273 (50%)	212 (8%)
2022	5	1399	483 (35%)	213 (15%)	595(43%)	108 (8%)

Table 5.12: Shore-based crab processing employee counts by state/region of employee residence, CR Program fisheries

**Note** Processing employee counts reported above reflect the number of distinct individuals employed as crab processing line workers during the calendar year by shoreside and floating processor sectors only, excluding the catcher-processor sector, and excluding salaried workers employed in all crab processing sectors (see Table 3.11). Percentage values shown in parentheses report the proportion of total crab processing employees ("Total employees' ') identified as resident of the respective state/region. **Source** NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

	Crew positions	(	Vessels			
Median pe vesse	Mean per vessel (sd)	Total				
	-	-	4(2)	98/01/04		
	*	*	1	2005		
	*	*	1	2006		
	*	*	1	2007		
	*	*	1	2008	CP	
6.5	6.65(0.99)	115	52(22)	98/01/04		
	5.8(1.14)	58	10	2005		
	6.33(0.52)	38	6	2006		
	6.33(0.52)	38	6	2007		
6.5	6.5(0.58)	26	4	2008	CV	
	7(1.22)	35	5	2009		
	7(1.22)	35	5	2010		
	7.2(1.1)	36	5	2011		
7.5	7.67(1.21)	46	6	2012		
	7.33(1.03)	44	6	2013		
	7(0.71)	35	5	2014		
	7(0.71)	35	5	2015		
	7.2(0.84)	36	5	2016		
	7.2(1.1)	36	5	2017		
	7.4(1.14)	37	5	2018		
	7.4(1.14)	37	5	2019		
	7(0.71)	35	5	2020		
	7.3(0.67)	37	5	2020		
	7.2(0.45)	36	5	2021	CVCP	AIG
		_	20(9)	98/01/04		
1	18(5)	54	3	2005		
2	21.33(4.51)	64	3	2006		
2	23(5.57)	69	3	2007		
2	21.33(4.73)	64	3	2008	CP	
	5.85(0.92)	1,233	633(250)	98/01/04		
	5.61(0.82)	472	84	2005		
	5.63(0.83)	445	79	2006		
	5.81(0.79)	407	70	2007		
	5.95(0.91)	452	76	2008	CV	
	6.33(2.41)	443	70	2009		
	6.48(2.93)	422	65	2010		
	6.66(3.23)	413	62	2011		
	6.68(2.69)	428	64	2012		
	6.63(2.53)	418	63	2013		
	6.7(2.49)	422	63	2014		
	6.89(3.26)	441	64	2015		
	6.71(2.52)	423	63	2016		
	6.86(2.98)	419	61	2017		
	6.64(3.26)	365	55	2018		
	6.61(3.33)	370	56	2019		
	7.09(3.85)	333	47	2020	CVCP	BBR
	-	-	18(8)	98/01/04		
1	11.5(4.81)	69	6	2005		
26.5	24.63(4.46)	99	4	2006		
	25.63(4.42)	103	4	2007		
27.7						

Table 5.13: Harvesting sector employment, CR Program fisheries	Table $5.13$ :	Harvesting sect	or employment,	CR Program	fisheries
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	Crew positions	(	Vessels			
Median pe vess	Mean per vessel (sd)	Total				
	6.01(0.89)	1,049	524(210)	98/01/04		
	5.71(0.73)	857	150	2005		
	5.65(0.78)	418	74	2006		
	5.79(0.79)	377	65	2007		
	6.03(0.79)	447	74	2008	CV	
	6.96(4.12)	536	77	2009		
	6.53(2.61)	444	68	2010		
	6.66(2.87)	453	68	2011		
	6.97(3.61)	502	72	2012		
	6.77(3.11)	481	71	2013		
	6.86(2.92)	480	70	2014		
	7.01(3.5)	491	70	2015		
	6.81(2.49)	463	68	2016		
	7(3.52)	441	63	2017		
	6.92(3.21)	436	63	2018		
	7.02(3.58)	428	61	2019		
	7.07(3.56)	417	59	2020		
	7.22(3.64)	448	62	2021		
	7.08(4.04)	298	42	2022	CVCP	BSS
	*	*	1	2006		
	*	*	1	2007		
	*	*	1	2008	CP	
	5.75(0.5)	23	4	2005		
	5.6(1)	140	25	2006		
	5.36(0.66)	118	22	2007		
	5.62(0.75)	146	26	2008	CV	
	7.29(5.2)	102	14	2009		
5.5	5.25(0.96)	21	4	2010		
	7.09(3.52)	156	22	2013		
	6.8(2.62)	279	41	2014		
	6.63(2.19)	365	55	2015		
	6.42(1.14)	296	46	2016		
	6.25(1)	100	16	2017		
	7.03(3.72)	211	30	2018		
	7.69(5.12)	139	18	2019		
	6.52(1.19)	163	25	2020		
6.5	7.45(3.99)	149	20	2021		
	6.76(3.18)	142	21	2022	CVCP	BST
	4.81(0.88)	207	43(43)	98/01/04	CV	PIK
	-	-	2(2)	98/01/04	CP	
	5.2(0.8)	489	94(94)	98/01/04		
	5.57(0.79)	39	7	2009		
	5.73(0.65)	63	11	2010		
	6.56(1.12)	112	17	2011		
	6.24(0.97)	106	17	2012		
	6	24	4	2014		
	5.67(0.58)	17	3	2015	CV	SMB
	-	-	2(1)	98/01/04	CP	
	6	18	3(3)	98/01/04	CV	WAI

Table 5.13: Harvesting sector employment, CR Program fisheries (continued)

Note Data shown by calendar year; statistics shown for 98/01/04 are calculated over the 1998, 2001, and 2004 calendar

years, with vessel column indicating count of vessel-level observations, and unique vessels (in parentheses) over the 3-year period. Starting in 2009, data are summarized over all harvesting sectors (CVCP) to preserve confidentiality. Total count and mean per vessel statistics by fishery/sector/year are shown for crew positions in the active fleet and unique crew members receiving payment for crab fishing; statistics include fishing crew and captain, excludes processing-only employees on CPs. Crew positions statistics are calculated using average fishing crew size reported in EDR data for 1998/04/05 (data not collected for CPs). As of 2005 calendar years (2006 for BSS fishery), crew positions are calculated using eLandings data on count of crew on-board reported by trip. CP crew positions statistics are inclusive of processing crew, as reported in the EDR and/or eLandings. Crew participant statistics published prior to 2013 used EDR data on number of crew receiving pay settlements for each crab fishery, but was discontinued in the EDR beginning in 2012 - see earlier editions of this report for by-fishery crab crew participant statistics for 1998 through 2012. No catcher/processor operations reported fishing activity in the SMB fishery from 2009 to 2012. Excludes 2001 Western Aleutian Islands red king crab Petrel Bank test fishery. As elsewhere in this document, data for EAG and WAG fisheries are summarized in aggregate for Aleutian Islands golden king crab (AIG) fishery to preserve confidentiality; where vessel crew data are reported for both the EAG and WAG fisheries, mean figures over the two fisheries for crew participants and crew positions were used in place of cumulative figures under the assumption that the same individuals are employed in both fisheries. Asterisks indicate data suppressed due to confidentiality

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database. and 2005 and later crew positions information from eLandings.

		Crew licens	e holders			Gear operators		Crew and gear operators	
	Alaska resident	Non-resident	Unknown	Total	Alaska resident	Non-resident	Total	Total	
1998	-	-	-	-	108	240	348	-	
1999	-	-	-	-	104	247	351	-	
2000	-	-	-	-	90	208	298	-	
2001	-	-	-	-	78	210	288	-	
2002	-	-	-	-	79	202	281	-	
2003	-	-	-	-	80	201	281	-	
2004	-	-	-	-	81	197	278	-	
2005	-	-	-	-	52	141	193	-	
2006	189	328	9	526	34	98	132	658	
2007	191	339	2	532	27	73	100	632	
2008	213	420	3	636	29	90	119	755	
2009	187	382	0	569	26	84	110	679	
2010	167	346	4	517	28	71	99	616	
2011	184	347	0	531	26	67	93	624	
2012	204	402	2	608	31	81	112	720	
2013	193	381	3	577	26	69	95	672	
2014	201	387	0	588	23	72	95	683	
2015	232	493	10	735	30	78	108	843	
2016	192	425	17	634	28	72	100	734	
2017	156	353	10	519	21	64	85	604	
2018	165	320	6	491	23	60	83	574	
2019	162	354	6	522	23	60	83	605	
2020	227	327	1	555	23	59	82	637	
2021	143	288	5	436	20	55	75	511	
2022	90	199	9	298	15	40	55	353	

Table 5.14: Alaska residency of participating licensed crew members and gear operators, CR Program fisheries

Note Data shown by calendar year. A commercial crew member license or CFEC Gear Operator permit is required of any individual participating directly or indirectly in taking of raw fishery products on a commercial vessel, including cooks, engineers, and individuals handling fishing gear or involved in maintenance or operation of the vessel; processing line workers on catcher-processors are not required to hold licenses, however the counts above may include crab CP processing line workers that held commercial vessel, including gear operator permit number reporting in EDR data was likely incomplete for 2005 and 2006, but is largely accurate for 2007 and subsequent years due to improvements in EDR administration implemented by the NMFS EDR data collection agent (PSMFC), including providing lookup support to EDR submitters and online access to crew license and gear operator permit registries.

Source ADF&G commercial crewmember license files, , ADF&G fish ticket data, eLandings, and NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

Table 5.15: Active CFEC Gear Operator Permit holders: count of permit holders reported on crab fishery landings, and share of CR fishery ex-vessel value landed on associated vessels, by state of residence

	_	Alaska r	residents	Non-re	sidents
		Permit holders	Associated share of landed ex-vessel value	Permit holders	Associated shar of landed ex-vesse valu
	1998	2	*	23	:
	1999	5	$11 \ \%$	21	89 %
	2000	3	*	23	
	2001	4	3~%	24	97 %
	2002	3	*	25	
	2003	3	6 %	19	94 9
	2004	3	*	21	
	2005	0	0 %	10	100 %
	2006	1	*	9	
	2007	1	*	5	
	2008	1	*	6	
	2009	0	0 %	7	100 9
	2010	2	*	6	
	2011	2	*	5	
	2012	1	*	7	
	2013	1	*	7	
	2014	1	*	5	
	2015	1	*	6	
	2016	1	*	6	
	2017	2	*	5	
	2018	2	*	5	
	2019	2	*	6	
	2020	2	*	6	
	2021	2	*	7	
AIG	2022	2	*	7	
	1998	87	24 %	186	76 9
	1999	72	26~%	185	74 9
	2000	70	27~%	174	73 9
	2001	66	$23 \ \%$	164	77 9
	2002	67	27~%	176	73 9
	2003	73	21~%	180	79 9
	2004	73	$22 \ \%$	183	78 9
	2005	33	$22 \ \%$	69	78 9
	2006	28	24~%	59	76 9
	2007	19	$22 \ \%$	55	78 9
	2008	21	$21 \ \%$	64	79 9
	2009	21	$22 \ \%$	54	78 9
	2010	18	$21 \ \%$	51	79 9
	2011	18	22~%	44	78 9
	2012	19	$23 \ \%$	46	77 9
	2013	16	$22 \ \%$	48	78 9
	2014	17	$24 \ \%$	46	76 9
	2015	16	21 %	48	79 9
	2016	15	24 %	48	76 9
	2017	16	24~%	45	76 9
	2018	15	23 %	40	77 9
	2019	16	27 %	41	73 9
	2020	14	33 %	33	67 9
BBR	2022	1	0 %	1	0 9

Table 5.15: Active CFEC Gear Operator Permit holders: count of permit holders reported on crab fishery landings, and share of CR fishery ex-vessel value landed on associated vessels, by state of residence *(continued)* 

	_	Alaska r	esidents	Non-re	sidents
		Permit holders	Associated share of landed ex-vessel value	Permit holders	Associated shar of landed ex-vesse valu
	1998	72	23~%	183	77 %
	1999	81	25 %	194	75 %
	2000	74	$28 \ \%$	156	72 %
	2001	54	$19 \ \%$	154	81 %
	2002	56	$23 \ \%$	138	77 %
	2003	56	24 %	136	76 9
	2004	53	22 %	137	78 9
	2005	45	22 %	126	78 9
	2006	18	16%	74	84 9
	2000	10	24%	58	76 9
	2007	21	18 %	72	82 9
	2008	19	13 % 17 %	69	83 9
					83 7 78 9
	2010	21	22 %	55	
	2011	19	21 %	55	79 9
	2012	24	21 %	69	79 9
	2013	18	20 %	60	80 9
	2014	22	18 %	59	82 9
	2015	22	20 %	61	80 9
	2016	19	$19 \ \%$	55	81 9
	2017	15	17 %	53	83 9
	2018	19	23~%	49	77 9
	2019	15	18 %	50	82
	2020	17	27 %	48	73
	2021	17	17 %	51	83 9
BSS	2022	12	27~%	30	73 9
	2005	0	0 %	4	100 9
	2006	10	11 %	38	89 9
	2007	9	$21 \ \%$	25	79 9
	2008	6	$17 \ \%$	28	83 9
	2009	3	14 %	17	86
	2010	2	*	2	
	2013	-7	31~%	15	69
	2010	13	19 %	31	81 9
	2014 2015	20	33%	46	67 9
	2015	15	33% 32%	40 37	68
			$\frac{52}{25}$ %		08 75 °
	2017	3		13	
	2018	8	34 %	21	66
	2019	6	39 %	12	61
	2020	9	41 %	16	59 5
	2021	5	26~%	16	74 9
BST	2022	10	52~%	11	48
PIK	1998	34	57 %	23	43
	1998	34	$25 \ \%$	97	75 9
	2009	2	*	5	
	2010	4	33~%	7	67 9
	2011	4	$24 \ \%$	14	76 9
	2012	8	44 %	10	56
	2014	2	*	2	
SMB	2015	2	*	1	
	1998	0	0 %	1	100
	2002	7	18 %	26	82 9
WAI	2003	4	12%	26	88 9

Note Data shown by calendar year. Information suppressed for confidentiality where indicated by '\*', and data not available where indicated by'-'. Count of unique holders of CFEC Gear Operator permits recorded on ADF&G fish tickets for BSAI crab landings. Percentage share of total aggregate crab fishery ex-vessel value represented by summed value of crab landings associated with Gear Operator permits, by State of Residence. Excludes 2001 Western Aleutian Islands red king crab Petrel Bank test fishery.

Source ADF&G fish ticket data, eLandings, CFEC ex-vessel pricing, and ADF&G Commercial Operator's Annual Report (COAR) data

			Vessels	Crew share	payment	Captain share	payment	CV Crew payment,crab equi	valent (1000 lbs
				Per vessel, median (\$1000)	Total (\$million)	Per vessel, median (\$1000)	Total (\$million)	Per vessel, median	Tota
		98/01/04	4(2)	*	*	*	*	-	
		2005	1	*	*	*	*	-	
		2006	1	*	*	*	*	-	
		2007	1	*	*	*	*	-	
	CP	2008	1	*	*	*	*	-	
		98/01/04	50(21)	160.90	4.49	78.99	2.17	40.24	1,002.5
		2005	10	188.75	2.21	79.24	1.20	46.18	583.7
		2006	6	138.46	1.06	79.03	0.59	58.24	386.1
		2007	6	216.29	1.39	101.79	0.69	66.47	466.0
	CV	2008	4	556.57	2.30	191.87	0.97	134.06	522.3
		2009	5	476.00	2.36	256.72	1.39	154.52	544.2
		2010	5	801.32	3.97	345.67	2.26	169.42	645.9
		2011	5	841.10	4.96	447.42	2.70	192.04	703.8
		2012	6	788.52	4.33	395.04	2.23	175.67	739.9
		2013	6	664.60	4.13	339.19	1.87	137.26	821.7
		2014	5	859.47	3.98	357.55	1.72	167.09	807.8
		2015	5	870.22	4.39	420.55	2.01	151.04	845.6
		2016	5	1,188.14	5.39	434.58	2.46	177.92	848.5
		2017	5	917.11	5.50	428.29	2.33	132.78	842.0
		2018	5	1,152.21	6.03	443.66	2.81	164.57	846.0
		2019	5	1,360.09	7.43	510.70	2.71	186.29	1,016.8
		2020	5	1,265.34	8.78	591.12	2.95	154.97	1,072.2
	CV +	2021	5	1,841.31	11.24	815.04	4.34	154.31	868.3
AIG	CP	2022	5	949.23	6.08	346.58	2.46	103.61	653.9
		2006	1	*	*	*	*	-	
		2007	1	*	*	*	*	-	
	CP	2008	1	*	*	*	*	-	
		2005	4	17.37	0.06	9.24	0.02	8.17	30.4
		2006	25	4.65	0.29	2.91	0.15	2.46	135.4
		2007	21	23.32	0.76	14.75	0.39	9.22	308.0
	CV	2008	26	17.82	0.66	9.71	0.38	6.73	259.6
		2009	14	34.89	0.67	19.67	0.41	13.71	256.9
		2010	4	43.44	0.16	23.99	0.09	19.32	70.1
		2013	19	17.98	0.55	9.25	0.26	6.92	198.
		2014	38	84.83	3.78	38.01	1.76	27.32	1,268.0
		2015	52	137.32	7.22	57.11	3.36	40.40	2,233.
		2016	45	94.24	5.85	47.10	2.67	27.34	1,631.6
		2017	16	75.94	1.14	29.95	0.51	15.48	239.6
		2018	31	43.76	1.62	21.26	0.69	9.64	326.
		2019	18	45.15	1.05	17.95	0.47	10.61	201.
		2020	20	14.46	0.43	6.78	0.18	2.47	92.
	CV +	2021	18	34.14	0.93	15.43	0.94	6.15	144.4
BST	CP	2022	20	43.45	1.14	15.85	0.60	9.11	202.3

## Table 5.16: Captain and crew share payments, and crab-equivalent crew pay, CR Program fisheries

			Vessels	Crew share	payment	Captain share	payment	CV Crew payment,crab equi	valent (1000 lbs
				Per vessel, median (\$1000)	Total (\$million)	Per vessel, median (\$1000)	Total (\$million)	Per vessel, median	Tota
		98/01/04	18(8)	308.24	1.98	102.16	0.64	_	
		2005	6	85.31	0.69	39.30	0.24	-	
		2006	4	348.13	1.53	136.52	0.57	-	
		2007	4	353.78	1.46	100.55	0.39	-	
	CP	2008	4	466.97	1.85	161.52	0.65	-	
		98/01/04	517(210)	93.05	23.14	46.99	11.16	33.92	18,059.
		2005	150	82.51	13.13	45.47	6.75	31.02	5,335.
		2006	74	86.83	7.43	45.22	3.72	56.65	4,787.
		2007	65	144.67	10.98	75.33	5.22	63.39	4,701.
	CV	2008	74	250.75	20.19	127.95	9.61	108.04	8,833.8
		2009	77	184.37	16.15	91.20	7.16	97.27	7,687.
		2010	68	154.11	11.64	73.73	5.23	88.79	6,625.
		2011	68	351.06	24.89	162.91	11.14	104.28	7,350.
		2012	72	463.28	33.67	217.52	15.16	164.03	11,961
		2013	71	351.21	27.30	175.24	12.42	119.71	9,132.
		2014	69	290.00	21.70	134.40	9.74	97.45	7,255.
		2015	70	288.30	20.59	136.62	9.32	116.01	7,952.
		2016	68	227.59	17.59	112.69	7.86	71.78	5,243
		2017	63	194.79	14.62	90.60	6.20	41.41	2,953
		2018	62	159.92	11.67	74.98	5.00	34.77	2,483
		2019	61	226.79	16.65	110.48	7.20	49.63	3,577.
		2020	59	302.28	20.22	138.12	8.89	67.67	4,433.
	CV +	2021	62	463.58	32.16	195.51	13.46	84.69	5,816
BSS	CP	2022	42	89.46	4.95	45.20	2.16	12.56	666.
		98/01/04	20(9)	106.45	0.81	35.84	0.26	-	
		2005	3	278.30	0.78	102.37	0.29	-	
		2006	3	131.82	0.36	30.55	0.12	-	
		2007	3	183.38	0.67	89.91	0.26	-	
	CP	2008	3	202.76	0.70	99.55	0.28	-	
		98/01/04	626(249)	67.08	15.99	34.12	7.72	10.88	2,551
		2005	84	144.33	14.65	78.02	7.70	22.81	2,261
		2006	79	124.29	10.73	65.71	5.44	23.45	2,002
		2007	70	176.57	14.51	93.13	7.23	27.60	2,391.
	CV	2008	76	202.47	17.78	97.76	8.03	29.74	2,568.

Table 5.16: Captain and crew share payments, and crab-equivalent crew pay, CR Program fisheries (continued)

			Vessels	Crew share p	payment	Captain share	payment	CV Crew payment,crab equi	valent $(1000 \text{ lbs})$
				Per vessel, median (\$1000)	Total (\$million)	Per vessel, median (\$1000)	Total (\$million)	Per vessel, median	Total
		2009	70	151.62	11.85	79.56	5.61	24.50	1,848.95
		2010	65	242.21	16.34	125.26	7.78	24.96	1,630.31
		2011	62	193.62	13.34	105.31	6.19	14.07	942.64
		2012	66	126.47	9.95	67.32	4.48	13.55	958.50
		2013	63	116.26	9.29	65.46	4.42	13.13	1,021.99
		2014	63	130.12	9.46	64.25	4.36	15.64	1,113.14
		2015	65	166.11	11.16	76.60	5.23	16.97	1,114.42
		2016	64	189.44	13.60	83.70	5.88	14.77	1,015.18
		2017	61	123.13	8.36	56.46	3.79	11.87	761.56
		2018	55	93.17	5.74	45.66	2.64	7.64	470.63
	CV +	2019	56	90.01	5.59	41.39	2.56	6.81	407.23
BBR	CP	2020	47	78.02	3.95	37.22	1.82	5.70	280.95
PIK	$_{\rm CV}$	98/01/04	42(42)	12.86	0.65	5.98	0.33	3.22	163.87
	CP	98/01/04	2(2)	*	*	*	*	-	-
		98/01/04	92(92)	13.34	1.45	7.60	0.79	4.09	429.84
		2009	7	22.28	0.19	9.61	0.08	5.97	49.67
		2010	11	89.53	1.14	53.52	0.59	13.60	163.26
		2011	17	74.01	1.58	40.09	0.74	10.69	232.83
		2012	17	54.60	1.06	27.83	0.48	10.16	197.23
		2014	4	54.11	0.22	23.53	0.10	10.27	41.73
SMB	CV	2015	3	22.76	0.08	11.05	0.03	3.90	13.79
	CP	98/01/04	2(1)	*	*	*	*	-	-
WAI	CV	98/01/04	3(3)	40.51	0.22	24.93	0.10	5.54	29.47

Table 5.16: Captain and crew share payments, and crab-equivalent crew pay, CR Program fisheries (continued)

Note Data shown for all CR program crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by '\*', and data not available where indicated by '-'. Statistics shown for 98/01/04 are calculated over the 1998, 2001, and 2004 calendar years, with vessel obs. indicating total vessel-level observations, and unique vessels (in parentheses) over the 3-year period. Starting in 2009, data are summarized over all harvesting sectors (CVCP) to preserve confidentiality. Crew and captain share payment statistics show total aggregate and vessel-level median payment by fishery/sector/year. Share payment reflects amount paid for harvesting labor and includes post-season adjustments, bonuses, and deductions for shared expenses such as fuel, bait, and food and provisions, where applicable; excludes any royalty or capital-rent payments for IFQ or vessel ownership share held by captain or crew members. Crab-equivalent crew pay represents crew share payment value in terms of pounds of landed crab, which normalizes over year-to-year changes in ex-vessel price; calculated for catcher vessels (excludes catcher/processor sector, which do not report ex-vessel landings or revenue) by dividing vessel crew share payment by the vessel-specific average ex-vessel price per pound (ex-vessel revenue/landed pounds). No catcher/processor operations reported fishing activity in the SMB fishery from 2009 to 2012. Excludes 2001 Western Aleutian Islands red king crab Petrel Bank test fishery. All dollar values are adjusted for inflation to 2022-equivalent value.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

		Obs (vessels)	Net a	share, me	lian	Gross	share, me	edian
			Labor total	Crew	Captain	Labor total	Crew	Captain
	98/01/04	660 (257)	-	$40 \ \%$	-	$35 \ \%$	$23 \ \%$	12 %
	2005	163	-	-	-	$31 \ \%$	20~%	$10 \ \%$
	2006	95	-	-	-	22 %	$15 \ \%$	7 %
	2007	82	-	-	-	22 %	$14 \ \%$	8 %
	2008	89	-	-	-	22 %	$14 \ \%$	7 %
	2009	83	-	-	-	$21 \ \%$	$14 \ \%$	7 %
	2010	74	-	-	-	20~%	$13 \ \%$	7 %
	2011	73	-	-	-	$20 \ \%$	$14 \ \%$	7 9
	2012	78	-	-	-	20~%	$14 \ \%$	6 %
	2013	78	-	-	-	$20 \ \%$	$13 \ \%$	6 %
	2014	74	-	-	-	$20 \ \%$	$13 \ \%$	79
	2015	79	-	-	-	$20 \ \%$	$13 \ \%$	7 9
	2016	77	-	-	-	$20 \ \%$	$13 \ \%$	7 9
	2017	70	-	-	-	20 %	$14 \ \%$	6 %
	2018	65	-	-	-	$20 \ \%$	$14 \ \%$	6 %
	2019	65	-	-	-	18 %	$12 \ \%$	6 %
	2020	61	-	-	-	$20 \ \%$	$14 \ \%$	6 %
All CR	2021	64	-	-	-	19 %	$14 \ \%$	6 %
Fisheries	2022	49	-	-	-	19~%	14~%	6 %
	98/01/04	48 (20)	-	-	-	$29 \ \%$	$18 \ \%$	9 %
	2005	10	35~%	$23 \ \%$	$14 \ \%$	$21 \ \%$	$14 \ \%$	8 %
	2006	6	36~%	25~%	$13 \ \%$	$17 \ \%$	$11 \ \%$	6 %
	2007	6	40 %	25~%	$13 \ \%$	18 %	$12 \ \%$	6 %
	2008	4	37~%	27~%	$12 \ \%$	$13 \ \%$	$10 \ \%$	4 %
	2009	4	39~%	27~%	$12 \ \%$	18 %	$12 \ \%$	5 %
	2010	4	38 %	27~%	$12 \ \%$	16 %	$11 \ \%$	5 %
	2011	4	38~%	27~%	$11 \ \%$	16 %	12~%	5 %
	2012	5	-	-	-	18 %	$13 \ \%$	5 %
	2013	6	-	-	-	18 %	$13 \ \%$	5 %
	2014	5	-	-	-	19 %	$13 \ \%$	6 %
	2015	5	-	-	-	19 %	$13 \ \%$	7 9
	2016	5	-	-	-	$21 \ \%$	$15 \ \%$	6 %
	2017	5	-	-	-	24 %	16 %	79
	2018	5	-	-	-	$22 \ \%$	$15 \ \%$	79
	2019	5	-	-	-	$21 \ \%$	$15 \ \%$	6 %
	2020	5	-	-	-	$23 \ \%$	16 %	6 %
	2021	5	-	-	-	$21 \ \%$	16 %	6 %
AIG	2022	5	-	-	-	21~%	16~%	6 %
	98/01/04	608(244)	-	-	-	$35 \ \%$	23~%	12 %
	2005	83	39~%	25~%	$13 \ \%$	$23 \ \%$	$15 \ \%$	8 9
	2006	78	39~%	26 %	$13 \ \%$	$23 \ \%$	$15 \ \%$	8 %
	2007	70	40~%	26~%	14~%	21~%	14~%	7 %
	2008	75	39~%	26~%	$14 \ \%$	21~%	$13 \ \%$	7 %
	2009	67	40~%	26~%	$12 \ \%$	20~%	12~%	6 %
	2010	62	40~%	27~%	13~%	18~%	12~%	6 %
	2011	59	40~%	27~%	12~%	19~%	13~%	7 9
	2012	60	-	-	-	20~%	14~%	6 %
	2013	60	-	-	-	$18 \ \%$	12~%	6 %
	2014	60	-	-	-	$18 \ \%$	12~%	6 %
	2015	62	-	-	-	17~%	11~%	6 %
	2016	60	-	-	-	$19 \ \%$	$13 \ \%$	6 %
	2017	59	-	-	-	18 %	$12 \ \%$	6 %
	2018	53	-	-	-	17 %	12~%	5 %
	2019	54	-	-	-	15 %	10 %	5 %
BBR	2020	44			-	15 %	10 %	5 %

Table 5.17: Harvest labor net and gross revenue share percentages, vessel-level median, CR Program fisheries

		Obs (vessels)	Net a	share, meo	lian	Gross	share, me	edian
			Labor total	Crew	Captain	Labor total	Crew	Captair
	98/01/04	496 (203)	-	-	-	34 %	23~%	11 %
	2005	150	40 %	26~%	$14 \ \%$	35 %	23~%	$12 \ \%$
	2006	73	39~%	26~%	$13 \ \%$	22~%	$15 \ \%$	7 %
	2007	63	39~%	26~%	$13 \ \%$	$23 \ \%$	$15 \ \%$	8 %
	2008	73	39~%	26~%	$13 \ \%$	$23 \ \%$	$15 \ \%$	8 %
	2009	74	39~%	26~%	$12 \ \%$	$22 \ \%$	$15 \ \%$	7 %
	2010	65	40 %	27~%	$13 \ \%$	22 %	$15 \ \%$	7 %
	2011	65	$40 \ \%$	27~%	$12 \ \%$	$21 \ \%$	$14 \ \%$	7 %
	2012	69	-	-	-	$21 \ \%$	$14 \ \%$	7 %
	2013	68	-	-	-	$20 \ \%$	$13 \ \%$	6 %
	2014	67	-	-	-	$20 \ \%$	$13 \ \%$	6 %
	2015	68	-	-	-	20 %	$13 \ \%$	6 %
	2016	64	-	-	-	20 %	$13 \ \%$	6 %
	2017	61	-	-	-	20 %	14 %	7 %
	2018	60	_	-	-	20%	14~%	7 %
	2019	59	_	-	-	$\frac{10}{20}$ %	13%	7 %
	2020	57	-	_	-	$\frac{20}{21}$ %	14 %	7 %
	2020	60	-	_	-	19%	14%	6 %
BSS	2022	40	-	-	-	19 %	13%	6 %
	2005	4	38 %	$27 \ \%$	10 %	15 %	10 %	5 %
	2006	31	40 %	26 %	$14 \ \%$	$27 \ \%$	$17 \ \%$	9 %
	2007	24	40 %	26 %	$14 \ \%$	$23 \ \%$	$15 \ \%$	8 %
	2008	25	40 %	26 %	$14 \ \%$	$22 \ \%$	15 %	8 %
	2009	15	40 %	26 %	$12 \ \%$	21 %	$15 \ \%$	7 %
	2010	4	40 %	26~%	$14 \ \%$	28 %	$18 \ \%$	10 %
	2013	18	_	_	_	24 %	$17 \ \%$	8 %
	2014	37	-	-	-	21 %	$15 \ \%$	7 %
	2015	50	-	-	-	23 %	15 %	7 %
	2016	41	-	-	-	24 %	17~%	8 %
	2017	16	_	-	-	22%	15 %	7 %
	2018	29	_	-	-	22%	15 %	7 %
	2019	16	_	-	-	$\frac{-2}{23}$ %	16%	7 %
	2020	19	-	_	-	$\frac{10}{22}$ %	15%	7 %
	2020	16	-	_	-	$\frac{22}{22}$ %	10 % 14 %	7 %
BST	2022	19	-	-	-	22 %	15%	6 %
	98/01/04	89 (89)	-	-	-	28 %	18 %	10 %
	2009	7	$40 \ \%$	26~%	$14 \ \%$	$17 \ \%$	$13 \ \%$	6 %
	2010	11	40 %	27 %	14 %	20 %	14 %	6 %
	2011	18	40%	30%	12~%	22%	14~%	5 %
	2012	17	-	-		18 %	13~%	6 %
	2014	4	-	-	-	$\frac{10}{22}$ %	15%	7 %
	2011	3				19%	10 % 14 %	5 %

Table 5.17: Harvest labor net and gross revenue share percentages, vessel-level median, CR Program fisheries *(continued)* 

Note Data shown by calendar year. Information suppressed for confidentiality where indicated by '\*', and data not available where indicated by '-'. Results exclude crab CPs and are shown for crab CVs only. Net revenue share percentages are estimated as the median value over vessel-level net share percentages reported in EDR data from 1998-2011, and represent crew and captain percentages of ex-vessel revenue after deductions for vessel operating expenses and crew-related costs, by crab fishery (for 1998/2001/2004, netshare percentage was reported in aggregate over all vessel labor (captain and crew) and over all crab fisheries). Net revenue share reporting for all sectors was discontinued in the EDR beginning in 2012. Gross revenue share percentages are estimated as median vessel-level values of crew and captain labor payments as a percentage of gross ex-vessel value, before deductions for vessel operating expenses and payments to harvest quota share-holders.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

		Days act total,(med		Days fish total,(med	
	Year	EDR	CIF	EDR	CII
	98/01/04	1464(46)	-	-	
	2005	684(54)	-	481(38)	
	2006	709(125)	-	516(89)	
	2007	601(76)	613(80)	435(64)	420(48)
	2008	695(124)	702(116)	494(83)	474(76
	2009	666(105)	645(109)	460(68)	439(69
	2010	719(105)	725(146)	486(77)	466(80
	2010	617(107)	582(131)	398(76)	400(82
	2012	011(101)	641(104)	000(10)	427(74
	2012 2013	_		-	
		-	662(104)	-	430(68
	2014	-	676(84)	-	449(53
	2015	-	673(74)	-	437(48
	2016	-	758(109)	-	493(60
	2017	-	748(163)	-	469(89
	2018	-	657(125)	-	405(83)
	2019	-	650(118)	-	423(75)
	2020	-	751(121)	-	487(83
	2021	-	815(118)	-	533(77)
AIG	2022	-	742(137)	-	492(92
	98/01/04	2669(10)	-	-	
	2005	2415(24)	-	1472(13)	
	2006	1810(21)	-	1096(12)	
	2007	2374(30)	2019(26)	1516(19)	1291(16
	2008	2556(29)	2410(28)	1780(20)	1635(19)
	2009	2126(29)	1936(27)	1408(19)	1306(18)
	2010	2321(34)	2023(30)	1604(22)	1429(22
	2011	1150(17)	910(14)	701(10)	538(8
	2012	-	843(13)	-	499(8
	2013	-	947(14)	-	587(9
	2014	-	1056(15)	-	660(10
	2015	-	954(15)	-	539(8
	2016	-	774(12)	-	422(6
	2017	-	944(14)	-	605(9
	2018	-	626(11)	-	396(7
	2019	-	723(12)	-	462(7
BBR	2020	-	474(9)	-	283(6
	98/01/04	6570(25)	-	-	
	2005	2898(16)	-	1355(7)	
	2006	3278(34)	-	2210(22)	
	2007	2453(36)	2157(31)	1585(21)	1172(15
	2008	3878(49)	3483(41)	2618(32)	1941(22
	2009	3869(49)	3602(44)	2600(32)	2111(26
	2010	3032(42)	2812(40)	2110(29)	1718(24
	2011	3303(46)	2878(40)	2217(30)	1734(24)
	2012	-	5665(79)		3391(48
	2012 2013	_	4581(58)	_	2998(38
	2013	_	3802(54)	_	2629(35
		-		-	
	2015	-	4294(62)	-	2947(4)
	2016	-	2842(39)	-	1949(27)
	2017	-	2155(33)	-	1475(22
	2018	-	2094(28)	-	1404(19
	2019	-	2714(43)	-	1704(27)
	2020	-	3759(63)	-	2654(45)
	2021	-	4769(83)	-	2759(46
BSS	2022	-	1038(20)	-	641(13

Table 5.18: Harvesting sector activity days, CR Program fisheries

		Days act total,(med		Days fish total,(med	
	Year	EDR	CIF	EDR	CIF
	2005	86(13)	-	39(7)	-
	2006	430(14)	-	297(10)	-
	2007	582(23)	472(18)	428(16)	316(12)
	2008	592(18)	568(19)	422(11)	405(13)
	2009	467(22)	350(17)	321(15)	238(12)
	2010	57(14)	59(14)	41(10)	33(8)
	2013	-	279(12)	_	200(9)
	2014	-	1245(28)	-	905(22)
	2015	-	2728(38)	-	1928(27)
	2016	-	1529(28)	-	1130(21
	2017	-	213(11)	-	132(7)
	2018	-	504(15)	-	331(10
	2019	-	244(14)	-	149(8)
	2020	-	389(15)	-	248(9)
	2021	-	398(19)	-	296(13)
BST	2022	-	501(19)	-	358(15)
PIK	98/01/04	762(15)	-	-	-
	98/01/04	1672(17)	-	-	
	2009	184(19)	166(16)	133(10)	112(11)
	2010	485(36)	429(36)	365(23)	313(27)
	2011	663(33)	710(36)	473(26)	468(24)
	2012	-	542(33)	-	363(19)
	2014	-	164(41)	-	115(28)
SMB	2015	-	96(33)	-	56(18)
WAI	98/01/04	32(14)	-	-	

Table 5.18: Harvesting sector activity days, CR Program fisheries (continued)

Note Data shown by calendar year. Information suppressed for confidentiality where indicated by '\*', and data not available where indicated by'-'. Statistics shown for 98/01/04 are calculated as the annual average over the 1998, 2001, and 2004 calendar years; 'Vessels' for 98/01/04 shows count of vessels operating each year, summed over all years; numbers in parentheses show count of unique vessels participating within the three years. Total statistics for Days Active and Days Fishing columns for 98/01/04 shows total aggregate count of vessel activity days averaged across years for participating/reporting vessels. Starting in 2009, data are summarized over all harvesting sectors (CVCP) to preserve confidentiality. Days active and days fishing are shown as calculated from EDR reporting (1998-2011 for days active, 2005-2011 for days fishing) and ADF&G Shellfish Observer Program confidential interview form data (CIF) supplemented with eLandings data (2009 and later). EDR days active by fishery is calculated using reported days at sea in the 1998-2004 data and, for 2005 and later, the sum of days fishing and days travelling and offloading (vessel activity was not reported by days fishing and traveling/offloading in the 1998-2004 EDR). Note that the 1998-2004 and 2005 and later figures for both total and median days active are not directly comparable, as the pre-2005 data do not include days spent queuing and offloading at processors. 2001 WAI data reflect activity in Petrel Bank test fishery.

Source ADF&G Shellfish Observer Program, Confidential Interview Form (CIF) data, eLandings, and NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

		Vessels	Total Costs (\$1,000)	Median Cost (\$1,000
	98/01/04	647(258)	\$ 3,213.00	\$ 10.0
	2005	156	\$ 1,818.00	\$ 7.0
	2006	70	\$ 1,132.00	\$ 9.0
	2000	61	\$ 1,018.00	\$ 12.0
	2008	69	\$ 1,887.00	\$ 18.0
	2009	60	\$ 1,122.00	\$ 14.0
	2003	49	\$ 1,317.00	\$ 17.0
	2010	43 52	\$ 1,052.00	\$ 15.0
	2011	81	\$ 2,268.00	\$ 10.0
	2012	76	\$ 1,576.00	\$ 9.0
	2019	72	\$ 1,912.00	\$ 8.0
	2014	72	\$ 2,346.00	\$ 9.0
	2015	75	\$1,761.00	\$ 9.0 \$ 7.0
	2010 2017	69	\$ 1,123.00	\$ 5.0
	2017 2018	64	\$ 1,125.00	\$ 5.0 \$ 5.0
	2018 2019	63	\$ 1,188.00	\$ 5.0 \$ 6.0
	2019 2020	60	\$ 1,540.00	\$ 7.0
All CR	2020	64		\$ 14.0
Fisheries	2021 2022	51	$     $ 1,471.00 \\     $ 756.00 $	\$ 14.0 \$ 6.0
r isliel les				
	2012	6	\$ 180.00	\$ 21.0
	2013	6	\$ 177.00	\$ 24.0
	2014	5	\$ 228.00	\$ 43.0
	2015	5	\$ 288.00	\$ 47.0
	2016	5	358.00	\$ 78.0
	2017	5	\$ 295.00	\$ 40.0
	2018	5	\$ 278.00	\$ 46.0
	2019	5	\$ 289.00	\$ 47.0
	2020	5	\$ 293.00	\$ 46.0
	2021	5	\$ 317.00	\$ 57.0
AIG	2022	5	\$ 294.00	\$ 40.0
	2012	62	\$ 432.00	\$ 5.0
	2013	59	\$ 400.00	\$ 5.0
	2014	59	\$ 494.00	\$ 6.0
	2015	60	\$ 485.00	\$ 7.0
	2016	61	\$ 390.00	\$ 5.0
	2017	59	\$ 340.00	\$ 5.0
	2018	52	\$ 257.00	\$ 4.0
	2019	53	\$ 269.00	\$ 4.0
BBR	2020	44	\$ 246.00	\$ 4.0
	2012	70	\$ 1,510.00	\$ 17.0
	2012	68	\$ 921.00	\$ 12.0
	2013	63	\$ 911.00	\$ 11.0
	2014 2015	65	\$ 979.00	\$ 14.0
	2015	62	\$ 672.00	\$ 9.0
	2010	60	\$ 443.00	\$ 9.0 \$ 7.0
	2017 2018	57		\$ 7.0 \$ 7.0
			\$ 477.00 \$ 585.00	\$ 7.0 \$ 9.0
	0010			n 9.U
	2019	57		
	2019 2020 2021	57 55 60	\$ 926.00 \$ 1,076.00	\$ 13.0 \$ 17.0

Table 5.19: Fishery expenditures - food and provisions costs, CR Program fisheries

		Vessels	Total Costs (\$1,000)	Median Costs (\$1,000)
	2013	16	\$ 78.00	\$ 4.00
	2014	35	\$ 269.00	\$ 4.00
	2015	47	\$ 592.00	\$ 7.00
	2016	37	\$ 341.00	\$ 7.00
	2017	14	\$ 45.00	\$ 3.00
	2018	27	\$ 89.00	\$ 3.00
	2019	16	\$ 44.00	\$ 3.00
	2020	18	\$ 75.00	\$ 3.00
	2021	16	\$ 74.00	\$ 3.00
BST	2022	19	\$ 125.00	\$ 4.00
	2012	16	\$ 147.00	\$ 7.00
	2014	2	*	*
SMB	2015	1	*	*

	Table 5.19: Fisher	y expenditures - food and	provisions costs,	CR Program fisheries	(continued)
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Note Bering Sea Tanner crab managed as a single fishery in 2005/2006 and as Eastern and Western fisheries in subsequent seasons. Eastern area closed as an in-season management measure in 2005/2006. Count of quota holding entities in the baseline, 2005/2006 and 2006/2007 seasons represent holders of Bering Sea Tanner quota; subsequent seasons show count of distinct holders of Eastern or Western quota. Asterisks indicate data suppressed due to confidentiality All dollar values are adjusted for inflation to 2022-equivalent value. Beginning in 2012, vessel food and provisions expenses are reported on a by-fishery basis. Collection of processing employee provisions costs paid by shoreside processors was discontinued after 2011; see earlier volumes of this report for processing plant provisions costs for 1998 through 2011.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

			Vessels	Bait cost	s (\$1000)	Bait usage (1	000  lbs)	Price (\$/l
		-		Per	Total	Per	Total	Weighted
				vessel,		vessel,		average
				median		median		2
		98/01/04	610(246)	\$ 15.46	\$ 5,623.00	21	7,980	\$ 0.70
		2005	169	\$ 11.29	\$ 3,062.00	17	4,453	\$ 0.69
		2006	99	\$ 15.61	\$ 2,354.00	24	$3,\!659$	\$ 0.64
		2007	86	\$ 19.38	\$ 2,311.00	30	3,676	\$ 0.63
		2008	96	\$ 24.20	\$ 3,156.00	33	4,474	\$ 0.71
		2009	89	\$ 28.67	\$ 3,396.00	38	4,719	\$ 0.72
		2000	79	\$ 31.80	3,386.00	43	4,614	\$ 0.73
		2010	76	31.00 30.25	3,000.00	36	4,086	\$ 0.76
		2011	83	\$ 14.14	3,636.00	50	4,000	ψ 0.10
		2012	81	\$14.14 \$15.07		-	-	
		$2013 \\ 2014$	81 76		\$ 3,614.00 \$ 4,317.00	-	-	
				\$ 13.98 \$ 15.07	\$ 4,317.00 \$ 5,455.00	-	-	
		2015	82	\$ 15.07 © 15.04	\$ 5,455.00 \$ 4,004.00	-	-	
		2016	80 70	\$ 15.04 © 0.04	\$ 4,004.00 \$ 2,711.00	-	-	
		2017	72	\$ 9.94	\$ 2,711.00	-	-	
		2018	67	\$ 9.96	\$ 2,633.00	-	-	
		2019	67	\$ 10.78	\$ 3,435.00	-	-	
		2020	64	\$ 12.31	\$ 3,307.00	-	-	
411		2021	66	\$ 19.41	\$ 3,192.00	-	-	
CR	CV+CP	2022	51	\$ 6.97	\$ 1,825.00	-	-	
		98/01/04	4(2)	*	*	*	*	>
		2005	1	*	*	*	*	2
		2006	1	*	*	*	*	2
		2007	1	*	*	*	*	;
	CP	2008	1	*	*	*	*	,
		98/01/04	50(21)	\$ 40.39	\$ 1,213.00	60	1,825	\$ 0.66
		2005	9	\$ 52.85	\$ 549.00	79	863	\$ 0.64
		2006	6	\$ 91.04	\$ 478.00	142	778	\$ 0.6
		2007	6	\$ 47.91	\$ 355.00	84	741	\$ 0.48
	CV	2008	4	\$ 104.14	\$ 462.00	209	816	\$ 0.57
		2009	7	\$ 87.08	\$ 766.00	169	1,137	\$ 0.67
		2010	6	\$ 129.53	\$ 847.00	215	1,259	\$ 0.6'
		2010	5	\$ 194.41	\$ 788.00	210 291	1,200 1,172	\$ 0.6'
		2011	6	\$ 96.17	\$ 682.00	-	- 1,112	Ψ 0.0
		2012	6	\$ 135.48	\$ 832.00	_	-	
		2013 2014	5	\$ 140.78	\$ 939.00	_	_	
		2014 2015	5 5	\$ 140.78 \$ 117.66	\$ 339.00 \$ 1,181.00	-	-	·
		2013 2016	5 5	\$ 99.21	\$ 926.00	-	-	
		$2010 \\ 2017$		\$ 99.21 \$ 155.09		-	-	
			5 5		\$ 953.00 \$ 806.00	-	-	
		2018	5	\$ 146.92 \$ 101.40	\$ 896.00 © 1 210.00	-	-	
		2019	5	\$ 191.40 \$ 225.19	\$ 1,210.00 \$ 1,222.00	-	-	
		2020	5	\$ 225.18	\$ 1,283.00 © 1,207.00	-	-	
		2021	5	\$ 329.03 © 174.72	\$ 1,397.00 \$ 1,974.00	-	-	
AIG	CV+CP	2022	5	\$ 174.73	\$ 1,254.00	-	-	
		98/01/04	15(8)	\$ 8.99	\$ 54.00	15	90	\$ 0.59
		2005	4	17.92	\$ 76.00	28	131	\$ 0.58
		2006	3	8.48	\$ 30.00	21	67	0.45
		2007	2	*	*	*	*	*
	CP	2008	3	7.92	\$ 40.00	15	61	\$ 0.66

	expenditures -		

			Vessels	Bait cost	s (\$1000)	Bait usage (1	000  lbs	Price (\$/ll
		-		Per	Total	Per	Total	Weighted
				vessel,		vessel,		average
				median		median		
		98/01/04	546(227)	\$ 5.96	\$ 1,272.00	8	1,742	\$ 0.73
		2005	82	7.92	\$ 1,012.00	13	1,380	\$ 0.73
		2006	73	\$ 8.71	\$ 762.00	13	1,162	0.66
		2007	70	\$ 13.24	\$ 1,016.00	19	1,488	0.68
	CV	2008	76	\$ 14.23	\$ 1,312.00	19	$1,\!683$	0.78
		2009	68	\$ 15.70	\$ 1,224.00	20	1,666	\$ 0.73
		2010	61	\$ 16.69	\$ 1,235.00	23	1,625	\$ 0.76
		2011	61	\$ 10.36	\$ 805.00	10	961	0.84
		2012	64	\$ 7.79	\$ 571.00	-	-	-
		2013	63	\$ 9.26	\$ 726.00	-	-	_
		2014	63	\$ 11.02	\$ 800.00	-	-	-
		2015	64	\$ 11.83	\$ 797.00	-	-	-
		2016	64	\$ 10.07	\$ 724.00	_	-	-
		$2010 \\ 2017$	61	\$ 9.38	\$ 594.00	_	_	_
		2011	53	\$ 8.16	\$ 468.00	_	_	_
		2010	53	\$ 8.72	\$ 583.00		_	
BBR	CV+CP	2019	46	\$ 6.11	\$ 497.00	-	-	-
		98/01/04	13(7)	\$ 17.65	\$ 94.00	28	147	\$ 0.64
		2005	5	\$ 13.37	\$ 62.00	23	102	\$ 0.61
		2005	4	\$ 32.48	\$ 132.00	48	229	\$ 0.58
		2000 2007	3	\$6.36	\$132.00 \$37.00	15	66	\$ 0.55
	CP	2007	3 4	\$ 18.43	\$ 37.00 \$ 71.00	26	103	\$ 0.55 \$ 0.69
		98/01/04		\$ 10.62	\$ 2,478.00	14	3,270	\$ 0.76
		2005	148	\$10.02 \$7.40	\$ 1,240.00	10	1,758	\$ 0.70 \$ 0.71
		2005	74	\$ 9.10	\$1,240.00 \$713.00	13	1,750 1,041	\$ 0.68
		2000 2007	64	\$ 9.10 \$ 8.40	\$713.00 \$571.00	13 12	869	\$ 0.66
	CV	2007 2008	$\frac{04}{72}$	\$ 0.40 \$ 10.38	\$ 971.00 \$ 900.00	12 16	1,288	\$ 0.80 \$ 0.70
	0.0							
		2009	75 67	\$ 13.29 © 12.49	\$ 1,170.00 \$ 1,027.00	18	1,616	\$ 0.72 © 0.72
		2010	67 67	\$ 13.48	\$ 1,037.00 \$ 1,120.00	18	1,374	\$ 0.75
		2011	67	\$ 15.82	\$ 1,130.00	19	1,504	\$ 0.75
		2012	72 72	\$ 27.17 \$ 21.04	\$ 2,083.00	-	-	-
		2013	72	\$ 21.84	\$ 1,882.00	-	-	-
		2014	69 69	\$ 25.92	\$ 1,871.00	-	-	-
		2015	69 87	\$ 30.97	\$ 2,330.00	-	-	-
		2016	67	\$ 20.50	\$ 1,529.00	-	-	-
		2017	63	\$ 14.03	\$ 1,076.00	-	-	-
		2018	62	\$ 14.05	\$ 1,074.00	-	-	-
		2019	61	\$ 14.06	\$ 1,577.00	-	-	-
		2020	59	\$ 21.01	1,396.00	-	-	-
		2021	62	\$ 21.31	1,630.00	-	-	-
BSS	CV+CP	2022	40	\$ 7.25	\$ 379.00	-	-	-
		2006	1	*	*	*	*	*
		2007	1	*	*	*	*	*
	CP	2008	1	*	*	*	*	*

Table 5.20: Fishery expenditures - bait usage and costs, CR Program fisheries (continued)

			Vessels	Bait cost	s (\$1000)	Bait usage (1	000  lbs)	Price (\$/lb
		-		Per vessel, median	Total	Per vessel, median	Total	Weighted average
		2005	4	\$ 3.81	\$ 19.00	10	38	\$ 0.49
		2006	15	\$ 1.20	\$ 30.00	2	41	0.73
		2007	16	\$ 5.22	\$ 104.00	8	191	0.55
	CV	2008	21	\$ 5.76	159.00	8	230	\$ 0.69
		2009	12	\$ 7.08	\$ 159.00	10	204	\$ 0.78
		2010	4	\$ 5.22	\$ 20.00	7	26	0.75
		2013	17	\$ 7.31	\$ 174.00	-	-	-
		2014	37	\$ 10.62	615.00	-	-	-
		2015	51	\$ 11.43	1,117.00	-	-	-
		2016	44	\$ 16.08	\$ 826.00	-	-	-
		2017	13	5.33	\$ 88.00	-	-	-
		2018	27	6.05	\$ 195.00	-	-	-
		2019	13	\$4.25	\$ 66.00	-	-	-
		2020	19	3.94	\$ 132.00	-	-	-
		2021	18	8.63	\$ 156.00	-	-	-
BST	CV+CP	2022	19	5.45	\$ 192.00	-	-	-
PIK	CV	98/01/04	35(35)	\$ 5.62	\$ 200.00	7	249	\$ 0.80
		98/01/04	72(72)	\$ 7.14	\$ 515.00	9	668	\$ 0.77
		2009	7	5.77	\$ 76.00	8	96	0.79
		2010	13	\$ 14.08	\$ 247.00	22	329	\$ 0.75
		2011	18	\$ 15.39	\$ 373.00	17	448	0.83
		2012	17	\$ 15.37	\$ 300.00	-	-	-
		2014	4	\$ 18.88	\$ 94.00	-	-	-
SMB	CV	2015	3	\$ 13.57	\$ 30.00	-	-	-
	CP	98/01/04	2(1)	*	*	*	*	*
WAI	CV	98/01/04	3(3)	\$ 5.04	\$ 16.00	7	22	\$ 0.73

Table 5.20: Fishery expenditures - bait usage and costs, CR Program fisheries (continued)

Note Data shown by calendar year. Asterisks indicate data suppressed due to confidentiality All dollar values are adjusted for inflation to 2022-equivalent value. Statistics shown for 98/01/04 are calculated as the annual average over the 1998, 2001, and 2004 calendar years; Vessels column for 98/01/04 shows count of vessels operating each year, summed over all years; numbers in parentheses show count of unique vessels participating within the three years. Starting in 2009, data are reported over all harvesting sectors (CVCP) to preserve confidentiality. Totals for 98/01/04 represent total annual bait pounds purchased or bait costs averaged across years with participating/reporting vessels. Changes in the reporting of bait quantity and costs in the EDR limit the comparability of bait statistics over the available time series. Beginning in 2006, EDR submitters were directed to report only pounds and costs of bait purchased during the reporting year; treatment of bait caught by the vessel or purchased in the prior year was not specified in EDR reporting instructions for 2005 and earlier years. Additionally, bait quantity reporting is differentiated by species and fishery in all years of EDR data collection, whereas bait costs are reported only by fishery for the years 1998-2004 and by fishery and species together for 2005 and later years. Methods for generating price per pound statistics differs across reporting years. For 1998 - 2004 statistics, reported bait quantities are aggregated by submitter and fishery to match reported bait costs; 2005 and later bait price statistics reflect the exclusion of quantity-cost observations that indicate zero or no reported costs, as well as of observations where the quantity of bait is less than 100 pounds. Bait quantity reporting was dropped from the EDR beginning in 2012. No catcher/processor operations reported fishing activity in the SMB fishery from 2009 to 2012. Source NMFS AFSC BSAI Crab Economic Data.

		Fuel expenses	(\$1,000)	Gallons purch	nased (1,000)	Fuel price (\$/gal
		Total	Median	Total	Median	Average
	2012	\$ 1,551	\$ 292	355	70	\$ 4.37
	2013	\$ 2,066	375	455	85	\$4.55
	2014	\$ 1,695	\$ 342	386	75	\$ 4.40
	2015	3,723	268	431	78	\$ 8.64
	2016	\$ 1,400	258	531	101	\$ 2.63
	2017	1,257	259	469	100	\$ 2.68
	2018	\$ 1,426	253	445	91	\$ 3.21
	2019	\$ 1,793	271	613	87	\$ 2.92
	2020	\$ 1,587	\$ 242	557	106	\$ 2.85
	2021	\$ 1,400	277	493	92	\$ 2.84
AIG	2022	\$ 2,865	\$598	615	115	\$ 4.66
	2012	\$ 3,785	\$ 41	731	8	\$ 5.18
	2013	\$ 4,146	\$ 46	813	9	\$ 5.10
	2014	\$ 3,126	37	681	8	\$ 4.59
	2015	2,414	\$ 30	670	8	\$ 3.61
	2016	\$ 1,641	\$ 23	573	8	\$ 2.86
	2017	\$ 1,870	\$ 23	602	8	\$ 3.10
	2018	\$ 1,489	\$ 23	447	7	\$ 3.33
	2019	1,497	\$ 26	458	8	3.27
BBR	2020	\$ 987	\$ 19	346	6	\$ 2.85
	2012	\$ 17,597	\$ 200	$3,\!431$	38	\$ 5.13
	2013	13,597	\$ 144	2,645	28	\$ 5.14
	2014	\$ 10,006	\$ 121	2,172	27	\$ 4.61
	2015	\$ 11,062	108	2,398	30	\$ 4.61
	2016	\$ 4,822	\$ 65	1,667	20	\$ 2.89
	2017	3,739	\$ 50	1,241	16	\$ 3.01
	2018	3,914	\$ 53	1,200	16	\$ 3.26
	2019	\$ 4,643	<b>\$</b> 65	1,420	19	3.27
	2020	5,756	\$ 80	2,023	29	\$ 2.85
	2021	\$ 7,675	\$ 118	2,792	45	2.75
BSS	2022	\$ 2,756	\$ 56	671	13	\$ 4.11
	2013	\$ 646	\$ 28	137	6	\$ 4.70
	2014	2,511	\$ 56	546	12	\$ 4.60
	2015	4,559	57	1,208	16	\$ 3.77
	2016	\$ 2,324	\$ 46	790	16	\$ 2.94
	2017	\$ 319	\$ 16	106	5	\$ 3.01
	2018	\$ 829	\$ 21	235	6	3.52
	2019	\$ 403	\$ 21	123	6	\$ 3.28
	2020	\$ 401	\$ 15	148	5	\$ 2.71
	2021	\$ 638	\$ 27	248	9	\$ 2.58
BST	2022	\$ 1,127	\$ 32	259	8	\$ 4.36
	2012	\$ 1,561	\$ 102	296	19	\$ 5.27
	2014	\$ 227	\$ 54	47	11	\$ 4.87
SMB	2015	\$ 100	38	26	10	3.88

Table 5.21: Fishery expenditures - vessel fuel costs, CR Program fisheries

 ${\bf Note}$  All dollar values are adjusted for inflation to 2022-equivalent value.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

	Port	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	$\operatorname{Sep}$	Oct	Nov	Dec
	Dutch	-	\$ 1.56	\$ 1.57	\$ 1.74	\$ 1.80	\$ 1.82	\$ 1.79	\$ 1.78	1.77	\$ 1.44	\$ 1.38	\$ 1.6
	Harbor												
	Kodiak	-	1.64	1.64	1.76	1.77	1.79	1.79	1.82	1.83	1.29	1.29	\$1.5
1999	Seattle	0.89	\$ 1.06	\$ 1.27	\$ 1.48	\$ 1.29	\$ 1.49	\$ 1.43	\$ 1.36	\$ 1.41	0.97	0.88	1.4
	Dutch	\$ 1.77	\$ 2.10	-	\$ 2.13	\$ 2.15	\$ 2.28	\$ 2.50	\$ 2.58	\$ 2.59	\$ 1.93	\$ 2.34	\$ 2.3
	Harbor												
	Kodiak	\$ 1.79	\$ 2.21	2.14	\$ 2.22	\$ 2.22	2.33	2.46	2.60	2.60	1.94	\$ 2.26	2.2
2000	Seattle	1.55	1.54	1.55	1.78	\$ 1.60	\$ 2.24	2.25	\$ 2.14	\$ 2.30	1.59	1.76	1.7
	Adak	-	\$ 2.28	\$ 2.20	\$ 2.28	\$ 2.09	\$ 2.09	\$ 2.20	-	\$ 2.01	-	\$ 2.44	\$ 2.2
	Dutch	2.53	\$ 2.21	\$ 2.20	\$ 2.21	\$ 2.08	2.17	\$ 2.19	2.07	1.95	2.38	2.38	2.2
	Harbor												
	Kodiak	2.54	\$ 2.16	2.17	2.17	\$ 2.13	2.17	2.05	\$ 1.99	1.78	2.44	\$ 2.32	2.1
2001	Seattle	\$ 2.08	\$ 1.73	1.67	1.53	1.48	1.79	1.37	1.35	1.07	\$ 1.75	\$ 1.66	1.7
	Adak	\$ 1.98	\$ 2.13	-	-	\$ 1.98	\$ 2.11	\$ 2.27	_	-	\$ 1.98	\$ 1.98	\$ 1.9
	Dutch	\$ 1.81	1.78	1.78	1.78	1.78	\$ 1.86	1.93	1.98	\$ 2.01	1.55	1.54	1.7
	Harbor												
	Kodiak	1.73	\$ 1.72	\$ 1.72	\$ 1.99	\$ 1.70	\$ 1.80	\$ 1.84	\$ 1.84	\$ 1.84	1.63	\$ 1.62	\$ 1.6
2002	Seattle	\$ 1.19	1.55	1.54	1.56	1.53	1.76	1.57	1.73	1.55	1.08	1.34	1.4
	Adak	\$ 2.22	\$ 2.45	\$ 2.45	\$ 2.37	\$ 2.37	\$ 2.37	\$ 2.37	\$ 2.37	\$ 2.37	\$ 2.22	-	\$ 2.5
	Dutch	1.97	2.25	\$ 2.21	\$ 2.21	\$ 2.21	\$ 2.30	\$ 2.29	\$ 2.29	\$ 2.29	\$ 2.06	\$ 2.23	2.3
	Harbor												
	Kodiak	\$ 1.82	2.15	\$ 2.09	\$ 2.09	\$ 2.10	2.07	\$ 2.28	2.07	2.07	\$ 1.89	\$ 2.11	2.3
2003	Seattle	\$ 1.75	\$ 1.81	\$ 1.76	\$ 1.92	\$ 1.90	\$ 1.89	1.80	1.83	1.85	1.77	2.57	\$ 2.1
	Adak	\$ 2.39	\$ 2.61	\$ 2.91	\$ 2.91	\$ 2.91	-	\$ 3.06	\$ 3.13	\$ 3.13	\$ 2.39	\$ 2.39	-
	Dutch	\$ 2.23	2.45	2.65	2.65	\$ 2.75	2.76	\$ 2.90	2.98	2.98	\$ 2.23	\$ 2.44	2.3
	Harbor												
	Kodiak	\$ 2.01	\$ 2.43	\$ 2.63	\$ 2.66	\$ 2.66	\$ 2.66	\$ 2.74	\$ 2.93	2.95	2.05	\$ 2.21	\$ 2.2
2004	Seattle	\$ 1.92	\$ 2.63	\$ 2.54	\$ 2.47	\$ 2.50	\$ 2.52	\$ 2.96	\$ 2.99	\$ 2.51	\$ 2.10	\$ 2.21	\$ 2.2
	Adak	\$ 3.04	-	\$ 3.83	\$ 3.33	\$ 3.40	\$ 3.63	\$ 3.83	\$ 3.83	\$ 3.83	\$ 3.04	\$ 3.11	\$ 3.2
	Dutch	\$ 2.89	\$ 3.18	\$ 3.18	\$ 3.18	\$ 3.33	\$ 3.63	\$ 3.66	\$ 3.74	\$ 3.72	\$ 2.89	\$ 3.01	\$ 3.1
	Harbor												
	Kodiak	\$ 2.78	\$ 3.23	\$ 3.23	\$ 3.22	\$ 3.23	3.59	3.88	\$ 3.81	\$ 3.76	\$ 2.78	\$ 2.84	3.0
		\$ 2.40	\$ 3.24	\$ 3.01	\$ 3.22	\$ 3.43	\$ 4.15	\$ 4.08	\$ 3.66	\$ 3.21	\$ 2.65	\$ 3.23	\$ 3.3

Table 5.22: Average monthly fuel prices for selected ports

	Port	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Adak	-	\$ 4.77	\$ 3.96	\$ 3.96	\$ 3.96	\$ 4.20	\$ 4.20	\$ 4.13	\$ 4.13	\$ 3.59	\$ 3.59	-
	Dutch	3.47	3.71	3.80	3.79	3.88	\$ 4.00	3.81	3.62	3.59	3.45	3.45	\$ 3.4
	Harbor												
	Kodiak	\$ 3.49	\$ 3.77	\$ 3.78	\$ 3.78	\$ 3.85	\$ 4.06	\$ 3.85	\$ 3.56	\$ 3.64	\$ 3.50	\$ 3.49	\$ 3.5
2006	Seattle	\$ 3.26	\$ 3.96	\$ 4.07	\$ 3.90	\$ 4.15	\$ 4.24	\$ 3.44	\$ 3.47	\$ 3.79	\$ 3.07	\$ 3.54	\$ 3.4
	Adak	\$ 4.09	\$ 3.91	3.91	3.91	3.91	\$ 3.91	\$ 4.00	\$ 4.09	4.37	\$ 4.09	3.77	\$ 3.6
	Dutch	\$ 3.49	3.59	3.71	3.71	3.73	3.84	3.86	4.09	4.35	3.44	3.39	3.42
	Harbor												
	Kodiak	\$ 3.47	3.54	3.68	3.68	3.68	\$ 3.88	\$ 3.82	\$ 4.02	\$ 4.11	3.44	\$ 3.40	\$ 3.40
2007	Seattle	\$ 3.64	\$ 3.80	\$ 3.80	\$ 3.89	\$ 3.95	\$ 3.79	\$ 4.07	\$ 4.66	\$ 4.41	\$ 3.56	\$ 3.39	\$ 3.70
	Adak	\$ 4.29	-	5.57	\$ 6.04	\$ 6.24	\$ 6.24	\$ 6.24	\$ 6.24	\$ 6.24	\$ 4.29	\$ 4.39	\$ 4.8
	Dutch	\$ 4.01	-	5.81	\$ 6.00	6.19	5.98	5.77	5.28	5.16	\$ 4.03	4.31	\$5.0
	Harbor												
	Kodiak	\$ 4.04	-	5.70	5.89	6.22	6.02	5.68	5.34	\$ 4.41	\$ 4.10	4.24	\$ 5.08
2008	Seattle	\$ 4.47	-	5.96	\$ 5.92	5.78	5.46	\$ 4.21	\$ 3.94	\$ 3.27	\$ 4.26	\$ 4.73	\$5.0
	Adak	\$ 6.20	\$ 4.18	\$ 3.85	\$ 3.85	\$ 3.85	-	\$ 3.98	\$ 3.98	\$ 3.98	\$ 4.45	\$ 4.32	\$ 4.18
	Dutch	4.07	\$ 3.41	\$ 3.41	\$ 3.71	\$ 3.66	3.71	3.86	3.86	3.93	\$ 3.61	3.41	3.4
	Harbor												
	Kodiak	3.85	\$ 3.32	3.45	3.58	3.58	\$ 3.63	3.85	3.68	\$ 3.72	3.65	3.45	\$ 3.32
2009	Seattle	3.05	\$ 3.02	3.19	\$ 3.20	\$ 3.25	3.61	3.45	\$ 3.60	3.59	2.87	2.67	\$ 2.78
	Adak	\$ 3.94	\$ 4.11	\$ 4.11	\$ 4.11	\$ 4.11	\$ 4.20	\$ 4.20	\$ 4.40	\$ 4.40	\$ 3.94	-	\$ 3.94
	Dutch	\$ 3.82	\$ 4.02	\$ 3.99	\$ 4.11	\$ 4.02	\$ 4.02	\$ 4.02	\$ 4.21	\$ 4.21	\$ 3.88	\$ 3.82	\$ 3.9
	Harbor												
	Kodiak	3.67	\$ 4.13	4.07	3.94	3.94	\$ 3.94	3.97	\$ 4.14	\$ 4.13	3.88	3.81	\$ 3.94
2010	Seattle	\$ 3.72	\$ 4.14	3.83	3.65	3.81	3.94	3.81	\$ 4.11	\$ 4.04	3.53	3.62	\$ 3.89
	Adak	\$ 4.31	\$ 5.53	\$ 5.34	-	\$ 5.41	\$ 5.28	\$ 5.28	\$ 5.43	\$ 5.66	\$ 4.53	\$ 4.76	\$ 5.15
	Dutch	\$ 4.13	\$ 4.93	\$ 4.97	\$ 4.97	\$ 4.97	\$ 4.97	\$ 4.97	\$ 4.97	\$ 4.97	\$ 4.26	\$ 4.39	\$ 4.84
	Harbor												
	Kodiak	\$ 4.05	\$ 4.93	\$ 5.04	\$4.99	\$ 5.01	\$ 4.93	\$ 5.01	\$ 4.98	\$ 5.00	\$ 4.18	\$ 4.23	\$ 4.8
2011	Seattle	4.07	\$ 5.21	5.09	4.71	\$ 4.84	\$ 5.11	\$ 4.72	4.84	4.74	\$ 4.29	4.83	\$ 5.10
	Adak	\$ 5.56	\$ 5.51	\$ 5.51	\$ 5.51	\$ 5.51	\$ 5.51	\$ 5.51	\$ 5.51	\$ 5.51	_	_	_
	Dutch	\$ 4.88	\$5.25	\$5.21	\$5.00	\$ 4.88	\$5.00	\$5.07	\$5.01	\$5.07	\$ 4.88	5.13	\$ 5.13
	Harbor	÷ 1.00	÷ 0. <b>-</b> 0	¥ 0. <b>-</b> 1	\$ 0.00	÷ 1.00	\$ 0.00	\$ 0.01	\$ 0.01	\$ 0.01	÷ 1.00	÷ 0.10	ψ 0.1
	Kodiak	\$ 4.76	\$ 5.24	\$ 5.18	\$ 4.98	\$ 4.79	\$ 4.93	\$ 5.12	\$ 5.05	5.05	\$ 4.81	\$ 4.91	$5.1_{-}$
2012	Seattle	\$ 4.49	\$ 5.18	\$ 4.53	\$ 4.17	\$ 4.76	\$ 5.20	\$ 4.83	\$ 4.80	\$ 4.67	\$ 4.63	\$ 5.05	\$ 5.2

Table 5.22: Average monthly fuel prices for selected ports (continued)

	Port	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Adak	-	\$ 5.46	\$ 5.46	-	\$ 5.46	\$ 5.46	\$ 5.46	\$ 5.46	\$ 5.46	\$ 5.42	\$ 5.42	-
	Dutch	4.98	4.97	4.98	4.98	\$ 4.99	5.01	4.98	4.97	\$ 4.89	\$ 4.92	5.00	\$ 4.9
	Harbor												
	Kodiak	\$ 4.90	\$ 4.97	\$ 4.99	\$ 4.94	\$ 4.99	\$ 5.02	\$ 5.01	\$ 4.93	\$ 4.91	\$ 4.90	\$ 4.97	\$ 4.9
2013	Seattle	\$ 4.45	\$ 4.41	\$ 4.46	\$ 4.40	\$ 4.62	\$ 4.66	\$ 4.51	\$ 4.48	\$ 4.57	\$ 4.62	\$ 4.63	\$ 4.65
	Adak	-	-	5.37	5.37	5.37	5.37	-	-	-	5.37	5.37	\$5.3'
	Dutch	\$ 4.81	4.71	4.71	4.85	4.83	\$ 4.86	4.83	4.67	4.59	\$ 4.71	4.74	\$4.7
	Harbor												
	Kodiak	\$ 4.83	4.77	4.83	4.89	4.74	4.77	4.70	\$ 4.61	4.44	4.88	4.76	\$ 4.76
2014	Seattle	\$ 4.39	\$ 4.43	4.51	\$ 4.52	\$ 4.46	\$ 4.81	\$ 4.36	\$ 4.03	\$ 3.90	\$ 4.50	4.51	\$4.52
	Adak	\$ 5.33	\$ 5.31	\$ 5.33	\$ 5.33	-	\$ 4.80	-	\$ 4.55	-	\$ 5.33	\$ 5.33	\$ 5.33
	Dutch	\$ 4.27	3.94	\$ 3.94	\$ 4.04	3.94	\$ 3.64	\$ 3.64	\$ 3.64	\$ 3.64	\$ 4.12	\$ 4.06	\$ 3.96
	Harbor												
	Kodiak	\$ 4.18	3.63	\$ 3.69	3.81	3.83	3.74	3.48	3.48	\$ 3.30	3.61	3.61	\$ 3.63
2015	Seattle	\$ 3.24	\$ 3.30	3.57	3.44	3.12	\$ 2.93	\$ 2.92	\$ 2.81	2.59	\$ 2.92	3.28	\$ 2.94
	Adak	\$ 4.51	\$ 3.90	\$ 3.90	\$ 3.90	\$ 3.66	\$ 3.66	\$ 3.66	\$ 3.66	\$ 3.66	\$ 3.90	\$ 3.90	-
	Dutch	\$ 3.12	\$ 2.76	\$ 2.88	\$ 2.92	\$ 3.00	\$ 3.00	\$ 3.00	\$ 3.00	\$ 3.00	\$ 2.94	\$ 3.02	\$ 2.90
	Harbor												
	Kodiak	3.08	\$ 2.69	2.87	3.01	3.03	\$ 2.99	\$ 2.99	\$ 3.11	3.12	2.87	2.67	\$ 2.78
2016	Seattle	2.37	2.59	2.86	\$ 2.93	2.56	\$ 2.73	\$ 2.70	3.05	2.78	2.17	2.18	\$ 2.26
	Adak	\$ 3.61	-	\$ 3.81	\$ 3.81	\$ 3.81	\$ 3.78	-	\$ 3.81	\$ 3.59	\$ 3.61	\$ 3.60	-
	Dutch	\$ 2.99	\$ 3.13	3.07	3.07	\$ 2.90	\$ 3.09	\$ 3.30	\$ 3.30	3.47	\$ 3.13	\$ 3.09	3.09
	Harbor												
	Kodiak	\$ 3.12	3.12	3.12	\$ 3.12	\$ 3.12	3.15	\$ 3.29	\$ 3.22	3.35	\$ 3.12	3.12	\$ 3.12
2017	Seattle	\$ 3.06	2.72	\$ 2.90	2.74	\$ 2.88	\$ 3.22	3.03	\$ 3.37	3.35	2.88	2.89	\$ 2.90
	Adak	\$ 3.51	\$ 3.76	-	\$ 3.76	\$ 3.76	\$ 4.14	\$ 4.14	\$ 4.14	\$ 4.14	\$ 3.77	\$ 3.75	\$ 3.75
	Dutch	3.35	\$ 3.23	\$ 3.46	\$ 3.46	3.89	3.58	3.58	\$ 3.69	3.69	\$ 3.32	\$ 3.29	\$ 3.32
	Harbor												
	Kodiak	\$ 3.22	3.19	\$ 3.44	\$ 3.62	\$ 3.63	\$ 3.73	3.65	\$ 3.70	3.56	\$ 3.21	\$ 3.28	\$ 3.22
2018	Seattle	\$ 3.22	3.58	3.75	3.73	3.59	\$ 3.53	\$ 3.71	\$ 3.70	\$ 3.39	\$ 3.31	\$ 3.02	\$ 3.47
	Adak	\$ 4.07	\$ 4.12	\$ 4.12	\$ 4.12	\$ 4.11	\$ 4.11	\$ 4.11	\$ 4.11	\$ 4.11	\$ 4.07	-	\$ 4.07
	Dutch	\$ 3.74	\$ 3.52	\$ 3.63	\$ 3.63	\$ 3.63	\$ 3.57	\$ 3.57	\$ 3.55	\$ 3.63	\$ 3.40	\$ 3.69	\$ 3.40
	Harbor												
	Kodiak	\$ 3.52	\$ 3.31	3.38	\$ 3.47	\$ 3.41	\$ 3.44	\$ 3.44	\$ 3.53	\$ 3.56	3.35	\$ 3.34	\$ 3.32
2019	Seattle	\$ 3.03	3.57	\$ 3.41	\$ 3.11	\$ 3.36	\$ 3.16	\$ 3.10	\$ 3.71	3.37	3.05	\$ 3.41	\$ 3.70

Table 5.22: Average monthly fuel prices for selected ports (continued)

	Port	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	$\operatorname{Sep}$	Oct	Nov	Dec
	Adak	\$ 4.06	\$ 3.24	\$ 3.24	\$ 3.24	\$ 3.24	\$ 3.24	\$ 3.24	\$ 3.24	\$ 3.24	\$ 4.06	\$ 4.06	\$ 4.06
	Dutch	3.58	2.84	2.74	2.78	2.74	\$ 2.85	\$ 2.85	\$ 2.85	2.85	\$ 3.69	3.69	2.35
	Harbor												
	Kodiak	3.52	2.56	\$ 2.43	\$ 2.39	\$ 2.39	\$ 2.39	2.38	\$ 2.40	\$ 2.39	3.51	3.52	3.41
2020	Seattle	3.48	\$ 2.12	\$ 2.23	\$ 2.48	\$ 2.47	\$ 2.24	\$ 2.69	\$ 2.59	2.85	\$ 3.21	\$ 2.75	\$ 2.39
	Adak	\$ 3.10	\$ 3.10	\$ 3.10	\$ 3.10	\$ 3.98	\$ 3.98	\$ 3.98	\$ 3.98	\$ 3.98	\$ 3.10	\$ 3.10	\$ 3.10
	Dutch	\$ 2.73	3.05	3.43	3.43	\$ 3.46	3.64	3.64	3.94	3.91	\$ 2.73	2.68	\$ 2.89
	Harbor												
	Kodiak	\$ 2.39	2.87	\$ 2.93	\$ 3.20	3.15	\$ 3.36	\$ 3.36	3.45	3.45	2.44	2.61	\$ 2.83
2021	Seattle	2.57	3.45	3.97	3.65	3.78	3.54	3.83	\$ 3.66	\$ 4.14	\$ 2.42	\$ 2.82	\$ 3.45
	Adak	\$ 3.72	\$ 4.32	\$ 4.32	\$ 5.52	\$ 5.52	\$ 5.80	\$ 5.80	\$ 5.80	\$ 5.66	\$ 3.72	\$ 4.32	\$ 4.32
	Dutch	3.68	5.03	\$ 5.11	5.50	5.54	5.28	5.28	\$ 5.20	5.28	3.78	4.08	\$4.85
	Harbor												
	Kodiak	\$ 3.20	\$ 4.51	\$ 4.78	5.65	5.74	5.51	5.28	5.31	5.31	\$ 3.33	3.42	\$ 4.24
2022	Seattle	\$ 3.69	5.28	5.88	\$ 6.42	5.19	\$ 5.04	\$ 4.95	\$ 5.44	\$ 3.84	3.95	\$ 4.00	\$5.55

Table 5.22: Average monthly fuel prices for selected ports (continued)

Note All dollar values are adjusted for inflation to 2022-equivalent value.

Source Pacific States Marine Fisheries Commission EFIN monthly marine fuel price data [http://www.psmfc.org/efin/data/fuel.html#FUEL\_AK].

Table 5.23: Vessel-level mean operating costs and revenue residuals, BBR, BSS, and all CR Program fisheries in aggregate, 2018 to 2022.

	2013-2017	2018	2019	2020	2021	202
All						
Number of active vessels	114	67	67	64	65	5
Pounds landed, millions	657	451	574	667	763	21
Quota pounds leased, thousands (% of landed)	345: (0.41%)	357: (0.79%)	452: (0.79%)	510: (0.77%)	627: (0.82%)	186: (0.86%)
Monetary values in \$1000 (\$2022)						
Gross ex-vessel revenue	\$ 2,174	\$ 2,719	\$ 3,332	\$ 3,629	\$ 4,729	\$ 1,67
Quota lease cost	(678): (0.23%)	(1,090): (0.4%)	(1,326): (0.4%)	(1,399): (0.39%)	(1,830): (0.39%)	(635): (0.38%)
Gross residual after lease cost	\$ 1,502: 0.78%	\$ 1,628: 0.6%	\$ 2,006: 0.6%	\$ 2,229: 0.61%	\$ 2,900: 0.61%	\$ 1,037: 0.62
Provisions	(15): (0.01%)	(16): (0.006%)	(17): (0.005%)	(24): (0.007%)	(22): (0.005%)	(15): (0.009%)
Bait	(33): (0.02%)	(39): (0.014%)	(50): $(0.015%)$	(51): (0.014%)	(47): (0.01%)	(36): (0.021%)
Fuel	(129): (0.06%)	(112):	(123):	(135):	(145):	(132
		(0.041%)	(0.037%)	(0.037%)	(0.031%)	(0.079%)
Non-labor vessel cost (Total)	(178): (0.09%)	(167): (0.06%)	(191): (0.06%)	(209): (0.06%)	(215): (0.04%)	(183): (0.11%)
Gross residual (non-labor)	1,324: 0.69%	1,461: 0.54%	1,816: 0.54%	\$ 2,020: 0.56%	2,685: 0.57%	\$ 854: 0.51
Labor cost	(482): (0.26%)	(537): (0.2%)	(652): (0.2%)	(739): (0.2%)	(961): (0.2%)	(345): (0.21%)
Harvesting cost (Total)	(1,337):	(1,794):	(2,169):	(2,348):	(3,005):	(1,162): (0.7%)
	(0.58%)	(0.66%)	(0.65%)	(0.65%)	(0.64%)	
Gross ex-vessel profit	\$ 842: 0.43%	<b>\$ 924: 0.34%</b>	$$1,164:\ 0.35\%$	$     $ 1,281: \\     0.35\% $	$\begin{array}{c} \$ \ 1,724: \ 0.36\% \end{array}$	\$ 509: 0.39
BBR						
Number of active vessels	94	55	56	47	_	
Pounds landed, millions	127	76	68	56	_	
Quota pounds leased, thousands (% of landed)	75: $(0.41\%)$	61: (0.79%)	52: (0.77%)	44: (0.78%)	-	
Monetary values in \$1000 (\$2022)						
Gross ex-vessel revenue	\$ 969	\$ 900	\$ 901	\$ 756	-	
Quota lease cost	(367): (0.27%)	(462): (0.51%)	(446): (0.49%)	(380): (0.5%)	-	
Gross residual after lease cost	\$ 606: 0.75%	\$ 438: 0.49%	\$ 455: 0.51%	\$ 375: 0.5%	-	
Provisions	(5): (0.01%)	(5): (0.005%)	(5): (0.005%)	(5): (0.007%)	-	
Bait	(10): (0.01%)	(8): (0.009%)	(10): (0.011%)	(10): (0.014%)	-	
Fuel	(41): (0.05%)	(27): (0.03%)	(26): (0.029%)	(21): (0.027%)	-	
Non-labor vessel cost (Total)	(56): (0.07%)	(40): (0.04%)	(41): (0.05%)	(36): (0.05%)	-	
Gross residual (non-labor)	\$ 549: 0.68%	398: 0.44%	414: 0.46%	\$ 339: 0.45%	-	
Labor cost	(200): (0.25%)	(152): (0.17%)	(146): (0.16%)	(123): (0.16%)	-	
Harvesting cost (Total)	(623): (0.59%)	(653): (0.73%)	(633): (0.7%)	(540): (0.71%)	-	
Gross ex-vessel profit	\$ 350: 0.42%	\$ 247: 0.27%	\$ 268: 0.3%	\$ 216: 0.29%	_	

Table 5.23: Vessel-level mean operating costs and revenue residuals, BBR, BSS, and all CR Program fisheries in aggregate, 2018 to 2022. *(continued)* 

	2013-2017	2018	2019	2020	2021	2022
BSS						
Number of active vessels	94	62	61	59	62	42
Pounds landed, millions	577	292	441	563	701	13
Quota pounds leased, thousands (% of landed)	286: (0.39%)	226: $(0.77\%)$	347: (0.79%)	430: (0.76%)	571: $(0.81\%)$	110: $(0.84\%)$
Monetary values in \$1000 (\$2022)						
Gross ex-vessel revenue	\$ 1,279	\$ 1,326	\$ 1,961	\$ 2,444	\$ 3,701	\$ 92
Quota lease cost	(358): (0.2%)	(492): (0.37%)	(735): (0.37%)	(931): (0.38%)	(1,434): (0.39%)	(381): (0.41%)
Gross residual after lease cost	\$ 924: 0.81%	834: 0.63%	\$ 1,226: 0.63%	\$ 1,513: 0.62%	\$ 2,267: 0.61%	\$ 547: 0.599
Provisions	(10): (0.01%)	(8): (0.006%)	(9): (0.005%)	(15): (0.006%)	(17): (0.005%)	(8): (0.009%
Bait	(17): (0.02%)	(17): (0.013%)	(25): (0.013%)	(23): (0.01%)	(26): (0.007%)	(9): (0.01%
Fuel	(82): (0.07%)	(62): (0.047%)	(75): (0.038%)	(96): (0.039%)	(123): (0.033%)	(66): (0.071%
Non-labor vessel cost (Total)	(109): (0.1%)	(87): (0.06%)	(110): (0.06%)	(135): (0.06%)	(166): $(0.04%)$	(83): (0.09%)
Gross residual (non-labor)	\$ 815: 0.71%	\$ 747: 0.56%	\$ 1,116: 0.57%	\$ 1,378: 0.56%	\$ 2,101: 0.57%	\$ 465: 0.59
Labor cost	(297): (0.27%)	(269): (0.2%)	(394): (0.2%)	(497): (0.2%)	(749): (0.2%)	(173): (0.19%)
Harvesting cost (Total)	(764): (0.57%)	(848): (0.64%)	(1,239): (0.63%)	(1,564): (0.64%)	(2,350): (0.63%)	(637): (0.69%
Gross ex-vessel profit	\$ 518: 0.44%	\$ 478: 0.36%	\$ 722: 0.37%	\$ 880: 0.36%	\$ 1,352: 0.37%	\$ 291: 0.319

Note Data shown for all CR program crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by "\*", and data not available where indicated by "-". Cost and revenue values are shown in \$1000. Vessel-level mean monetary and percentage statistics are calculated across all included vessels. Data reflect total commercial volume and value across all management programs (LLP/open access, IFQ, CDQ, ACA) inclusive of all harvesting sector production; approximation of ex-vessel sale value of CP and catcher-seller volume is incorporated in revenue total by multiplying volume of retained catch by the weighted average ex-vessel sale price sourced from CV sector EDR data. Note that cost information reported in the crab EDR data collection program is limited; vessel operating (i.e., variable) costs are not comprehensive, and fixed cost and capital expenditures are not collected. As a result, cost and revenue residual aggregates shown in table represent partial indices of costs and net earnings, and estimated gross profit from represent upper bound approximations of gross profit. This value does not take into account fixed, overhead, finance/interest, and associated costs and is not a measure of vessel-level net profit. 2013 - 2017 figures represent the mean of vessel-level annual mean operating costs and revenue residuals from 2013 - 2017, weighted by the number of vessels in each year.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database

Table 5.24: Fleet-level aggregate operating costs and revenue residuals, BBR, BSS, and all CR Program fisheries in aggregate, 2018 to 2022.

	2013-2017	2018	2019	2020	2021	2022
All						
Number of active vessels	78	67.0	67.0	64.0	65.0	51.0
Pounds landed, million	69	30.2	38.5	42.7	49.6	11.0
IFQ leased (% of landed)	51:~75%	23.9:79%	30.3: 79%	32.6: 77%	40.7:82%	9.5:86%
Monetary values in \$1000 (\$2022)						
Gross ex-vessel revenue	\$285	\$182.2	\$223.3	\$232.2	\$307.4	\$ 85.3
Provisions	(2): (1%)	(1.1): (1%)	(1.2): (1%)	(1.5): (1%)	(1.4): 0%	(0.8): (1%)
Bait	(4): (1%)	(2.6): $(1%)$	(3.4): (2%)	(3.3): (1%)	(3.1): (1%)	(1.8): (2%)
Fuel	(14): (5%)	(7.5): (4%)	(8.2): (4%)	(8.6): (4%)	(9.4): (3%)	(6.7): (8%)
Non-labor vessel cost (Total)	(20): (7%)	(11.2): (6%)	(12.8): (6%)	(13.4): (6%)	(14.0): (5%)	(9.3): (11%)
Gross residual (non-labor)	\$265: 93%	\$170.9: 94%	\$210.5: 94%	\$218.8: 94%	\$293.4: 95%	\$ 75.9: 89%
Labor cost	(56): (20%)	(36.0): (20%)	(43.7): $(20%)$	(47.3): $(20%)$	(62.5): (20%)	(17.6): (21%)
Harvesting cost (Total)	(76): (27%)	(47.2): $(26%)$	(56.4): (25%)	(60.7): $(26%)$	(76.4): (25%)	(26.9): (32%)
Gross ex-vessel profit	<b>\$209: 73</b> %	\$135.0: 74%	\$166.8: 75%	\$171.5: 74%	<b>\$231.0: 75</b> %	\$ 58.3: 68%
Gross returns to vessel sector	\$103: 49%	\$ 61.9: 46%	\$ 78.0: 47%	\$ 82.0: 48%	\$112.1: 49%	\$ 26.0: 45%
Lease royalties (QS sector)	106: 51%	73.1: 54%	88.9: 53%	89.6: 52%	118.9: 51%	32.4: 55%
BBR						
Number of active vessels	63	55.0	56.0	47.0	-	-
Pounds landed, million	9	4.2	3.8	2.6	-	-
IFQ leased ( $\%$ of landed)	6: 70%	3.3: 79%	2.9:77%	2.1:~78%	-	-
Monetary values in \$1000 (\$2022)						
Gross ex-vessel revenue	\$ 87	\$ 49.5	\$ 50.5	\$ 35.5	-	-
Provisions	0: 0%	(0.3): (1%)	(0.3): (1%)	(0.2): $(1%)$	-	-
Bait	(1): (1%)	(0.5): (1%)	(0.6): (1%)	(0.5): (1%)	-	-
Fuel	(2): (3%)	(1.5): (3%)	(1.5): (3%)	(1.0): (3%)	-	-
Non-labor vessel cost (Total)	(3): (4%)	(2.2): (4%)	(2.3): (5%)	(1.7): (5%)	-	-
Gross residual (non-labor)	\$ 84: 96%	\$ 47.3: 96%	\$ 48.2: 95%	\$ 33.8: 95%	-	-
			(8.2): (16%)	(5.8): (16%)	-	-
Labor cost	(15): (17%)	(8.4): (17%)				
Harvesting cost (Total)	$\begin{array}{c} (15): \ (17\%) \\ (19): \ (21\%) \end{array}$	(8.4): (17%) (10.5): (21%)	(10.5): (21%)	(7.5): (21%)	-	-
				\$ 28.0: 79%	-	-
Harvesting cost (Total)	(19): (21%)	(10.5): (21%)	(10.5): (21%)		- -	-
Harvesting cost (Total) Gross ex-vessel profit	(19): (21%) <b>\$ 69: 79%</b>	(10.5): (21%) <b>\$ 39.0: 79%</b>	(10.5): (21%) <b>\$ 40.0: 79%</b>	\$ 28.0: 79%	- - -	- - -
Harvesting cost (Total) Gross ex-vessel profit Gross returns to vessel sector	(19): (21%) <b>\$ 69: 79%</b> <b>\$</b> 30: 42%	(10.5): (21%) <b>\$ 39.0: 79%</b> \$ 13.6: 35%	(10.5): (21%) <b>\$ 40.0: 79%</b> \$ 15.0: 38%	<b>\$ 28.0: 79%</b> \$ 10.1: 36%		-
Harvesting cost (Total) Gross ex-vessel profit Gross returns to vessel sector Lease royalties (QS sector)	(19): (21%) <b>\$ 69: 79%</b> <b>\$</b> 30: 42%	(10.5): (21%) <b>\$ 39.0: 79%</b> \$ 13.6: 35%	(10.5): (21%) <b>\$ 40.0: 79%</b> \$ 15.0: 38%	<b>\$ 28.0: 79%</b> \$ 10.1: 36%	- - - 62.0	- - - 42.0
Harvesting cost (Total) <b>Gross ex-vessel profit</b> Gross returns to vessel sector Lease royalties (QS sector) BSS	(19): (21%) <b>\$ 69: 79%</b> <b>\$ 30: 42%</b> 39: 58%	(10.5): (21%) <b>\$ 39.0: 79%</b> <b>\$</b> 13.6: 35% 25.4: 65%	(10.5): (21%) <b>\$ 40.0: 79%</b> <b>\$</b> 15.0: 38% 25.0: 62%	<b>\$ 28.0: 79%</b> \$ 10.1: 36% 17.9: 64%	- - - 62.0 43.5	- - - 42.0 5.5

Table 5.24: Fleet-level aggregate operating costs and revenue residuals,	BBR, BSS, and all CR Program fisheries in aggregate, 2018 to
2022. (continued)	

	2013-2017	2018	2019	2020	2021	2022
Monetary values in \$1000 (\$2022)						
Gross ex-vessel revenue	\$135	\$ 82.2	\$119.6	\$144.2	\$229.5	\$ 39.0
Provisions	(1): (1%)	(0.5): (1%)	(0.6): 0%	(0.9): $(1%)$	(1.1): 0%	(0.3): (1%)
Bait	(2): (1%)	(1.1): $(1%)$	(1.6): $(1%)$	(1.4): $(1%)$	(1.6): $(1%)$	(0.4): $(1%)$
Fuel	(7): (5%)	(3.9): (5%)	(4.6): $(4%)$	(5.7): $(4%)$	(7.6): $(3%)$	(2.8): $(7%)$
Non-labor vessel cost (Total)	(10): (7%)	(5.4): (7%)	(6.7): $(6%)$	(8.0): $(6%)$	(10.3): (4%)	(3.5): (9%)
Gross residual (non-labor)	\$125: 93%	\$ 76.8: 93%	\$112.9: 94%	\$136.2: 94%	\$219.2: 96%	\$ 35.5: 91%
Labor cost	(27): (20%)	(16.7): (20%)	(24.0): $(20%)$	(29.3): (20%)	(46.4): $(20%)$	(7.3): (19%)
Harvesting cost (Total)	(37): (28%)	(22.0): (27%)	(30.7): (26%)	(37.3): (26%)	(56.7): (25%)	(10.8): (28%)
Gross ex-vessel profit	\$ 98: 72%	\$ 60.2: 73%	\$ 88.9: 74%	\$106.9: 74%	\$172.7: 75%	\$ 28.2: 72%
Gross returns to vessel sector	\$ 51: 52%	\$ 29.6: 49%	\$ 44.0: 50%	\$ 51.9: 49%	\$ 83.8: 49%	\$ 12.2: 43%
Lease royalties (QS sector)	47: 48%	30.5: 51%	44.8: 50%	55.0: 51%	88.9: 51%	16.0:57%

Note Data shown for all CR program crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by "\*", and data not available where indicated by "-". Cost and revenue values are shown in \$ million. Fleet-level monetary and percentage statistics are calculated across all included vessels. Data reflect total commercial volume and value across all management programs (LLP/open access, IFQ, CDQ, ACA) inclusive of all harvesting sector production; approximation of ex-vessel sale value of CP and catcher-seller volume is incorporated in revenue total by multiplying volume of retained catch by the weighted average ex-vessel sale price sourced from CV sector EDR data. Note that cost information reported in the crab EDR data collection program is limited; vessel operating (i.e., variable) costs are not comprehensive, and fixed cost and capital expenditures are entirely excluded. As a result, cost and revenue residual aggregates shown in table represent partial indices of costs and net earnings, and estimated gross profit from represent upper bound approximations of gross profit. This value does not take into account fixed, overhead, finance/interest, and associated costs and is not a complete measure of net income or economic profit. 2013 - 2017 figures represent the mean of vessel-level annual mean operating costs and revenue residuals from 2013 - 2017, weighted by the number of vessels in each year. Residual percentages are vessel and QS sector share of gross ex-vessel profit; all other percentages are cost shares or residuals with respect to gross revenue.

Source NMFS AFSC BSAI Crab Economic Data Report (EDR) database

		Vessels	(pe	se rate rcent of ssel price)		ounds Leased 000 pounds)			Cost (\$1000)		Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gros
			Median	Wtd mean	Total	Median	Mean	Total	Median	Mean	Wtd mean	Wtd mean
	2012	5	42 %	45 %	4,202	553	840	\$ 9,428	\$ 1,283.14	\$ 1,885.55	71 %	37 %
	2013	6	36 %	42 %	3,664	589	611	\$ 7,733	\$ 1,155.21	\$ 1,288.78	62 %	43 %
	2014	4	51 %	45 %	4,250	1,164	1,062	\$ 9,916	\$ 2,513.14	\$ 2,478.95	70 %	42 %
	2015	5	49 %	45 %	4,013	1,094	803	\$ 9,923	\$ 1,919.53	\$ 1,984.58	69 %	36 %
	2016	4	51 %	46 %	4,114	1,157	1,029	\$ 13,131	\$ 3,106.08	\$ 3,282.76	73 %	43 %
	2017	5	51 %	54 %	4,524	934	905	\$ 16,102	\$ 3,037.71	\$ 3,220.46	81 %	45 %
	2018	4	45 %	44 %	4,674	1,180	1,169	\$ 14,625	\$ 3,502.96	\$ 3,656.17	72 %	42 %
	2019	4	48 %	47 %	5,197	1,265	1,299	\$ 17,627	3,853.78	\$ 4,406.74	77 %	43 %
	2020	4	41 %	43 %	4,645	1,068	1,161	\$ 16,105	3,657.93	\$ 4,026.15	81 %	42 %
All	2021	4	46 %	47 %	4,941	1,131	1,235	\$ 29,728	\$ 7,285.77	\$ 7,432.03	84 %	47 %
Quota	2022	4	44~%	41 %	3,626	775	906	\$ 14,146	\$ 2,345.99	3,536.41	89 %	43 %
	2012	4	46 %	45 %	2,809	549	702	\$ 6,405	\$ 1,457.87	\$ 1,601.16	-	-
	2013	5	35 %	43 %	2,026	328	405	\$ 4,465	\$ 713.43	\$ 893.03	-	-
	2014	4	51 %	48 %	2,653	658	663	\$ 6,614	1,614.22	\$ 1,653.43	-	-
	2015	5	49 %	49 %	2,252	351	450	\$ 6,315	1,121.26	\$ 1,263.06	-	-
	2016	3	51 %	52 %	2,204	826	735	\$ 8,104	\$ 2,932.56	\$ 2,701.29	-	-
	2017	5	51 %	53 %	2,368	570	474	\$ 8,360	1,707.92	1,671.97	-	-
	2018	4	44 %	48 %	2,763	776	691	\$ 9,261	\$ 2,547.30	\$ 2,315.22	-	-
	2019	4	47 %	51 %	3,129	890	782	11,427	3,015.17	\$ 2,856.73	-	-
	2020	4	40 %	47 %	2,970	830	742	\$ 11,050	\$ 2,907.10	\$ 2,762.61	-	-
	2021	4	41 %	50 %	2,901	851	725	\$ 20,234	5,555.38	5,058.47	-	-
CVO A	2022	4	47 %	46 %	2,011	325	503	\$ 8,648	\$ 1,240.07	\$ 2,161.92	-	-
	2012	4	48~%	45 %	660	196	165	\$ 1,455	\$ 345.51	\$ 363.85	-	-
	2013	6	36~%	37 %	1,285	195	214	\$ 2,280	\$ 374.24	\$ 380.05	-	-
	2014	4	51 %	37 %	1,179	130	295	\$ 2,108	\$ 351.57	\$ 527.11	-	-
	2015	5	37~%	36 %	1,375	105	275	\$ 2,453	\$ 256	\$ 490.51	-	-
	2016	4	44 %	34 %	1,504	133	376	\$ 3,460	\$ 392.32	\$ 865.02	-	-
	2017	5	52 %	40 %	1,285	118	257	\$ 3,490	438.98	\$ 697.90	-	-
	2018	4	39~%	35 %	1,525	221	381	\$ 3,987	\$ 817.23	\$ 996.69	-	-
	2019	4	49~%	37 %	1,635	266	409	\$ 4,651	1,072.49	1,162.84	-	-
	2020	4	40~%	35 %	$1,\!440$	207	360	\$ 4,155	\$ 798.12	1,038.76	-	-
CVO B	2021	4	48 %	38~%	1,431	175	358	6,574	1,354.84	1,643.53	-	-
+ CPO	2022	4	36 %	31 %	1,231	161	308	\$ 3,797	\$ 769.43	\$ 949.29	-	-

Table 5.25: Crab Harvest Quota Lease Activity, Volume, Cost, and Average Lease Prices and Rates, CR Program Fisheries

			Vessels	(per	se rate rcent of sel price)		ounds Leased 1000 pounds)			Cost (\$1000)		Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gross
				Median	Wtd mean	Total	Median	Mean	Total	Median	Mean	Wtd mean	Wtd mean
		2012	4	48 %	63 %	130	32	33	\$ 367	\$ 65.77	\$ 91.67	-	-
		2013	5	41 %	49 %	151	32	30	\$ 381	\$ 67.62	\$ 76.29	-	-
		2014	4	53 %	58 %	87	21	22	\$ 269	\$ 59.08	\$ 67.14	-	-
		2015	4	44 %	47 %	55	13	14	\$ 155	\$ 39.28	\$ 38.72	-	-
		2016	3	51 %	43 %	76	23	25	\$ 212	\$ 94.51	\$ 70.77	-	-
		2017	5	52 %	74 %	204	23	41	\$ 1,038	\$ 86.29	\$ 207.60	-	-
		2018	3	38 %	37 %	91	16	30	\$ 309	\$ 43.81	\$ 102.85	-	-
		2019	4	49 %	49 %	145	31	36	\$ 587	\$ 129.95	146.77	-	-
		2020	3	38 %	40 %	114	19	38	\$ 384	\$ 54.72	\$ 127.96	-	-
	CVC +	2021	4	$53 \ \%$	52 %	121	30	30	\$ 842	\$ 226.43	\$ 210.47	-	-
	CPC	2022	3	49~%	52~%	51	23	17	\$ 257	\$ 123.43	\$ 85.57	-	-
		2012	4	53~%	41 %	602	131	151	\$ 1,201	\$ 323.27	\$ 300.25	-	-
		2013	2	*	*	*	*	*	*	*	*	-	-
		2014	3	53 %	55 %	331	116	110	\$ 925	\$ 362.94	\$ 308.37	-	-
		2015	3	53 %	54 %	331	116	110	\$ 1,000	\$ 398.51	\$ 333.40	-	-
		2016	3	52 %	54 %	331	116	110	\$ 1,355	\$ 494.32	\$ 451.59	-	-
		2017	4	55 %	78 %	668	115	167	\$ 3,215	\$ 406.99	\$ 803.72	-	-
		2018	2	*	*	*	*	*	*	*	*	-	-
		2019	2	*	*	*	*	*	*	*	*	-	-
		2020	2	*	*	*	*	*	*	*	*	-	-
	CDQ +	2021	3	$53 \ \%$	46 %	488	234	163	\$ 2,078	\$ 404.58	\$ 692.75	-	-
IG	ACA	2022	3	53~%	48 %	332	86	111	\$ 1,444	\$ 352.89	\$ 481.37	-	-
		2012	53	$65 \ \%$	$63 \ \%$	4,698	80	89	\$ 30,121	\$ 522.10	\$ 568.33	60 %	50 %
		2013	55	65 %	65 %	6,116	88	111	\$ 35,351	\$ 500.23	642.74	72 %	53 %
		2014	52	64 %	63 %	7,122	108	137	37,468	\$ 585.88	\$ 720.54	72 %	56 %
		2015	52	63 %	66 %	6,515	106	125	\$ 41,476	638.47	\$ 797.62	67 %	$53 \ \%$
		2016	53	62 %	63 %	5,786	89	109	\$ 47,340	\$ 742.43	\$ 893.20	69 %	51 %
		2017	52	62 %	64 %	4,959	70	95	\$ 34,253	\$ 474.12	658.72	76 %	54 %
		2018	45	63 %	65 %	3,328	48	74	\$ 25,796	\$ 387.06	\$ 573.24	79 %	58 %
	All	2019	46	63 %	64 %	2,938	42	64	\$ 25,339	\$ 359.72	\$ 550.85	78 %	57 %
	Quota	2020	38	64 %	64~%	2,061	41	54	\$ 18,108	\$ 337.60	\$ 476.54	78 %	60 %
		2012	50	65 %	62 %	$3,\!619$	65	72	\$ 22,553	\$ 386.69	\$ 451.05	-	-
		2013	51	64 %	65 %	4,425	79	87	\$ 25,225	\$ 427.47	\$ 494.60	-	-
		2014	50	62 %	64 %	5,229	88	105	\$ 27,240	\$ 457.08	\$ 544.80	-	-
		2015	49	63 %	65 %	5,129	90	105	\$ 32,219	\$ 537.78	657.53	-	-
		2016	50	62~%	62 %	4,433	75	89	35,582	\$ 593.11	\$ 711.65	-	-
		2017	50	62~%	63~%	3,709	56	74	\$ 25,503	\$ 378.87	\$ 510.07	-	-
		2018	42	62~%	64 %	2,503	41	60	\$ 19,095	\$ 317.05	\$ 454.64	-	-
		2019	42	62~%	63 %	2,164	35	52	\$ 18,199	\$ 295.23	\$ 433.30	-	-
	CVO A	2020	36	64 %	64 %	1,578	33	44	\$ 13,661	\$ 287.37	\$ 379.46	-	-

Table 5.25: Crab Harvest Quota Lease Activity, Volume, Cost, and Average Lease Prices and Rates, CR Program Fisheries (continued)

			Vessels	(per	se rate ccent of sel price)		ounds Leased 1000 pounds)			Cost (\$1000)		Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gross
				Median	Wtd mean	Total	Median	Mean	Total	Median	Mean	Wtd mean	Wtd mean
		2012	42	65 %	67 %	539	8	13	\$ 3,672	\$ 60.25	\$ 87.82	-	-
		2013	45	64 %	64 %	778	10	17	\$ 4,606	\$ 63.86	\$ 102.36	-	-
		2014	43	64~%	62~%	854	13	20	\$ 4,566	\$ 76.30	\$ 106.18	-	-
		2015	42	63~%	66 %	697	11	17	\$ 4,631	\$ 80.83	\$ 110.25	-	-
		2016	43	63~%	65 %	610	10	14	\$ 5,341	\$ 86.15	\$ 124.20	-	-
		2017	43	63 %	63 %	546	9	13	\$ 3,800	\$ 60.23	\$ 88.37	-	-
		2018	39	63~%	65 %	358	6	9	\$ 2,890	\$ 44.69	\$ 74.10	-	-
	CVO B	2019	42	63 %	67 %	366	7	9	\$ 3,414	\$ 61.87	\$ 81.29	-	-
	+ CPO	2020	35	63~%	64 %	203	4	6	\$ 1,826	\$ 37.31	\$ 52.16	-	-
		2012	36	63~%	64 %	172	5	5	\$ 1,136	\$ 30.88	\$ 31.55	-	-
		2013	37	66 %	66 %	199	5	5	1,212	\$ 31.41	\$ 32.75	-	-
		2014	34	65 %	64 %	213	6	6	\$ 1,135	\$ 32.65	\$ 33.39	-	-
		2015	40	64 %	65 %	222	5	6	1,467	\$ 36.75	\$ 36.67	-	-
		2016	35	62 %	62 %	193	5	6	\$ 1,604	\$ 44.82	\$ 45.83	-	-
		2017	39	62 %	64 %	153	3	4	\$ 1,089	\$ 26.43	\$ 27.93	-	-
		2018	35	64 %	67 %	109	3	3	\$ 882	\$ 24.80	\$ 25.21	-	-
	CVC +	2019	35	63 %	65 %	93	3	3	\$ 845	\$ 24.74	\$ 24.13	-	-
	CPC	2020	33	65 %	62 %	60	2	2	\$ 543	\$ 14.17	\$ 16.45	-	-
		2012	5	64~%	72 %	369	71	74	\$ 2,761	\$ 547.80	\$ 552.26	-	-
		2013	8	67 %	66 %	713	77	89	\$ 4,308	465.86	538.47	-	-
		2014	7	63 %	66 %	826	118	118	4,527	\$ 616	\$ 646.78	-	-
		2015	5	67 %	68 %	468	100	94	\$ 3,160	\$ 658.95	\$ 631.96	-	-
		2016	5	63 %	67 %	550	121	110	4,812	1,016.63	962.48	-	-
		2017	6	63 %	64 %	551	94	92	\$ 3,861	\$ 646.81	\$ 643.50	-	-
		2018	6	66 %	67 %	357	71	60	\$ 2,929	\$ 566.77	\$ 488.10	-	-
	CDQ +	2019	6	67 %	68 %	315	54	52	\$ 2,881	\$ 480.22	\$ 480.24	-	-
BBR	ACA	2020	5	68 %	68 %	220	48	44	\$ 2,079	\$ 439.38	\$ 415.87	-	-
		2012	60	46~%	47 %	58,129	830	969	\$ 75,523	1,108.72	\$ 1,258.71	66 %	39 %
		2013	61	47 %	48 %	50,270	671	824	\$ 70,324	852.92	\$ 1,152.84	71 %	41 %
		2014	59	46 %	47 %	42,296	556	717	\$ 57,938	\$ 761.25	\$ 982	77 %	40 %
		2015	57	46 %	48 %	42,317	641	742	\$ 50,895	\$ 771.91	\$ 892.89	69 %	40 %
		2016	56	46 %	49 %	27,475	412	491	\$ 44,488	\$ 613.10	\$ 794.43	69 %	41 %
		2017	54	46 %	48 %	16,448	218	305	\$ 38,191	\$ 505.71	\$ 707.23	77 %	42 %
		2018	52	47 %	48 %	14,030	187	270	\$ 31,003	\$ 394.40	\$ 596.22	74 %	43 %
		2019	51	46~%	48 %	21,151	303	415	\$ 45,489	\$ 670.54	\$ 891.94	78 %	43 %
		2020	47	46~%	50 %	25,348	429	539	\$ 55,689	959.44	\$ 1,184.87	75 %	44 %
	All	2021	51	46~%	47 %	35,392	541	694	\$ 89,520	\$ 1,332.69	\$ 1,755.28	80 %	44 %
	Quota	2022	35	46 %	48 %	4,629	108	132	15,997	\$ 355.35	\$ 457.05	85 %	47 %

Table 5.25: Crab Harvest Quota Lease Activity, Volume, Cost, and Average Lease Prices and Rates, CR Program Fisheries (continued)

		Vessels	(per	se rate rcent of sel price)		ounds Leased .000 pounds)			Cost (\$1000)		Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gros
			Median	Wtd mean	Total	Median	Mean	Total	Median	Mean	Wtd mean	Wtd mean
	2012	55	46 %	46 %	42,796	640	778	\$ 53,874	\$ 830.93	\$ 979.52	-	-
	2013	56	46 %	47 %	34,353	487	613	\$ 45,921	\$ 640	\$ 820.02	-	-
	2014	57	46 %	46 %	29,683	442	521	\$ 39,597	\$ 598.51	\$ 694.68	-	-
	2015	55	46 %	48 %	30,362	523	552	\$ 35,818	\$ 588.54	\$ 651.23	-	-
	2016	54	46 %	49 %	$19,\!640$	337	364	\$ 31,184	\$ 483.69	\$ 577.47	-	-
	2017	52	46 %	47 %	11,518	176	222	\$ 26,042	\$ 381.33	\$ 500.80	-	-
	2018	48	46 %	47 %	10,046	153	209	\$ 21,598	\$ 325.24	\$ 449.95	-	-
	2019	48	46 %	47 %	15,318	235	319	\$ 32,125	\$ 496.38	\$ 669.27	-	-
	2020	45	46 %	49 %	18,443	338	410	\$ 39,630	\$ 712.05	\$ 880.67	-	-
	2021	49	46 %	46 %	25,135	428	513	\$ 61,301	\$ 1,015.76	\$ 1,251.03	-	-
CVO A	2022	33	46~%	47 %	3,369	87	102	\$ 11,359	\$ 276.01	\$ 344.22	-	-
	2012	47	46~%	48 %	6,990	84	149	\$ 9,883	\$ 126.94	\$ 210.28	-	-
	2013	50	47 %	50 %	7,741	83	155	\$ 11,872	\$ 119.39	\$ 237.44	-	-
	2014	48	47 %	49 %	5,988	76	125	\$ 8,794	\$ 124.48	\$ 183.21	-	-
	2015	47	46 %	48 %	6,289	82	134	\$ 7,849	\$ 94.77	\$ 167	-	-
	2016	45	46 %	50 %	3,868	45	86	6,563	\$ 83.93	\$ 145.85	-	-
	2017	48	48 %	50 %	2,469	28	51	\$ 6,050	65.74	126.04	-	-
	2018	42	47 %	48 %	2,091	32	50	\$ 4,885	\$ 71.33	\$ 116.31	-	-
	2019	45	46 %	47 %	3,094	44	69	\$ 6,886	\$ 95.71	153.03	-	-
	2020	41	46 %	53 %	3,585	55	87	\$ 8,442	\$ 128.15	\$ 205.91	-	-
CVO B	2021	39	46 %	50 %	4,913	92	126	\$ 13,379	\$ 220.97	\$ 343.05	-	-
+ CPO	2022	33	46~%	51 %	625	15	19	\$ 2,231	\$ 50.86	\$ 67.60	-	-
	2012	39	46~%	46 %	1,880	48	47	\$ 2,539	\$ 62.67	\$ 65.10	-	-
	2013	41	46 %	48 %	1,767	36	43	\$ 2,589	\$ 49.73	\$ 63.16	-	-
	2014	37	46 %	46 %	1,258	32	33	\$ 1,792	\$ 46.58	\$ 48.43	-	-
	2015	37	46 %	49 %	1,516	38	40	\$ 1,889	\$ 47.65	\$ 51.04	-	-
	2016	36	46 %	47 %	925	24	26	\$ 1,528	\$ 39.31	\$ 42.43	-	-
	2017	37	49~%	55 %	479	12	13	\$ 1,229	\$ 26.23	\$ 33.21	-	-
	2018	36	46 %	50 %	500	12	14	\$ 1,199	\$ 29.56	\$ 33.31	-	-
	2019	37	46 %	49 %	704	18	19	\$ 1,658	\$ 43.44	\$ 44.80	-	-
	2020	34	46~%	50 %	829	21	24	\$ 1,921	\$ 49.63	\$ 56.50	-	-
CVC +	2021	33	46~%	49 %	1,234	32	37	\$ 3,388	\$ 80.63	\$ 102.68	-	-
CPC	2022	29	46 %	49 %	124	4	4	\$ 455	\$ 13.66	\$ 15.69	-	-

Table 5.25: Crab Harvest Quota Lease Activity, Volume, Cost, and Average Lease Prices and Rates, CR Program Fisheries (continued)

			Vessels	(per	se rate ccent of sel price)		ounds Leased 1000 pounds)			Cost (\$1000)		Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gross
				Median	Wtd mean	Total	Median	Mean	Total	Median	Mean	Wtd mean	Wtd mean
		2012	11	49 %	50 %	6,464	563	588	\$ 9,227	\$ 838.21	\$ 838.81	-	-
		2013	11	54 %	53 %	6,409	564	583	\$ 9,941	\$ 930.71	\$ 903.74	-	-
		2014	10	49 %	51 %	5,367	423	537	\$ 7,755	\$ 624.54	\$ 775.49	-	-
		2015	7	51 %	52 %	4,150	509	593	\$ 5,340	655.92	\$ 762.79	-	-
		2016	7	51 %	52 %	3,042	335	435	\$ 5,214	549.47	\$ 744.85	-	-
		2017	8	50 %	51 %	1,982	222	248	\$ 4,870	\$ 553.88	\$ 608.77	-	-
		2018	6	51 %	51 %	1,393	228	232	\$ 3,322	\$ 552.06	\$ 553.61	-	-
		2019	8	48 %	51 %	2,035	228	254	\$ 4,820	\$ 541.93	\$ 602.52	-	-
		2020	8	51 %	51 %	2,491	294	311	\$ 5,695	\$ 696.27	\$ 711.92	-	-
	CDQ +	2021	12	51 %	51 %	4,110	234	343	\$ 11,451	\$ 667.40	\$ 954.28	-	-
BSS	ACA	2022	4	55 %	54 %	511	111	128	\$ 1,951	\$ 453.84	\$ 487.83	-	-
		2013	19	30 %	31 %	1,022	32	54	\$ 946	\$ 34.62	\$ 49.77	82 %	28 %
		2014	36	28 %	27 %	7,231	191	201	\$ 5,878	\$ 145.14	\$ 163.27	80 %	27 %
		2015	45	$28 \ \%$	30 %	12,737	215	283	\$ 11,882	\$ 198.96	\$ 264.05	85 %	29 %
		2016	38	28 %	30 %	9,862	158	260	\$ 10,466	\$ 168.88	\$ 275.42	94 %	32 %
		2017	15	28 %	29 %	1,188	70	79	\$ 1,657	\$ 92.05	\$ 110.48	84 %	26 %
		2018	30	31%	31 %	1,891	54	63	\$ 2,860	\$ 82.48	\$ 95.34	83 %	29 %
		2019	16	32%	33 %	1,010	42	63	\$ 1,697	\$ 69.99	\$ 106.05	86 %	33 %
		2010	17	30 %	32%	592	22	35	\$ 858	\$ 25.87	\$ 50.46	96 %	31%
	All	2020	17	$\frac{30}{29}$ %	32%	806	39	47	\$ 1,508	\$ 53.88	\$ 88.73	85 %	31%
	Quota	2021	17	32%	35%	1,221	51	72	\$1,308 \$2,224	\$ 92.38	\$ 130.83	82 %	31 % 35 %
		2013	16	28 %	29 %	777	53	49	\$ 677	\$ 31.41	\$ 42.31	-	-
		2014	32	28 %	27 %	5,256	143	164	\$ 4,201	\$ 120.86	\$ 131.28	-	-
		2015	43	28 %	30 %	9,487	158	221	\$ 8,678	\$ 150.93	\$ 201.81	_	_
		2016	37	$\frac{28}{28}$ %	29%	7,470	131	202	\$ 7,548	\$ 132.89	\$ 204		
		2010	15	$\frac{28}{28}$ %	$\frac{23}{29}$ %	829	60	55	\$ 1,126	\$ 62.42	\$ 75.04		
		2018	28	$\frac{20}{29}$ %	30 %	1,394	44	50	\$ 2,031	\$ 61.15	\$ 72.54		
		2010	15	32%	33 %	691	32	46	\$ 1,174	\$ 60.01	\$ 78.30	_	_
		2010	17	30 %	32%	488	19	29	\$ 702	\$ 25.60	\$ 41.31	_	_
		2020	13	30% 31%	31%	556	44	43	\$ 1,023	\$ 73.98	\$ 78.72	_	_
	CVO A	2021	16	31 % 31 %	36%	912	44	43 57	\$1,025 \$1,645	\$ 72.13	\$ 102.83	-	-
		2013	13	28 %	47 %	130	8	10	\$ 149	\$ 8.13	\$ 11.42	_	-
		2014	25	28 %	26 %	820	16	33	\$ 739	\$ 15.51	\$ 29.55	-	-
		2015	27	$\frac{28}{28}$ %	29 %	1,527	37	57	\$ 1,456	\$ 28.70	\$ 53.91	-	-
		2016	31	$\frac{28}{28}$ %	33 %	1,125	23	36	\$ 1,365	\$ 28.66	\$ 44.03	_	-
		2010	15	$\frac{28}{28}$ %	29%	1,120	7	11	\$ 252	\$ 8.75	\$ 16.78	_	_
		2017	26	$\frac{23}{31}$ %	$\frac{23}{35}$ %	244	5	9	\$ 429	\$ 7.98	\$ 16.49	-	-
		2018	20 14	31 % 32 %	33 %	146	5	9 10	\$ 244	\$ 7.40	\$ 10.49 \$ 17.41	-	-
		2019	9	$\frac{32}{28}$ %	27%	51	3	6	\$ 69	\$ 7.40 \$ 3.74	\$ 17.41 \$ 7.68	-	-
	CVO B				$\frac{27\%}{34\%}$		3					-	-
	+ CPO B	2021	13	32 %		125		10	\$ 251 \$ 207	\$ 15.82	\$ 19.33 © 18.50	-	-
	+ 0P0	2022	16	$31 \ \%$	34 %	158	6	10	\$ 297	\$ 11.24	\$ 18.59		-

Table 5.25: Crab Harvest Quota Lease Activity, Volume, Cost, and Average Lease Prices and Rates, CR Program Fisheries (continued)

			Vessels	(per	se rate ccent of sel price)		ounds Leased 1000 pounds)			Cost (\$1000)		Lease pounds as % of pounds landed	Lease cost as % of ex-vessel gross
				Median	Wtd mean	Total	Median	Mean	Total	Median	Mean	Wtd mean	Wtd mean
		2013	9	28 %	33 %	27	2	3	\$ 28	\$ 1.59	\$ 3.08	-	-
		2014	24	28 %	16 %	428	6	18	\$ 223	\$ 5.39	\$ 9.29	-	-
		2015	24	28 %	27 %	382	11	16	\$ 317	\$ 9.57	\$ 13.19	-	-
		2016	23	28 %	39 %	438	11	19	\$ 633	\$ 11.84	\$ 27.54	-	-
		2017	14	28 %	28 %	31	2	2	\$ 44	\$ 2.38	\$ 3.16	-	-
		2018	22	$29 \ \%$	30 %	54	2	2	\$ 78	\$ 2.31	\$ 3.53	-	-
		2019	14	32 %	32 %	42	1	3	\$ 69	\$ 1.98	\$ 4.94	-	-
		2020	9	$27 \ \%$	28 %	14	1	2	\$ 18	\$ 1.45	\$ 1.97	-	-
	CVC +	2021	10	31 %	34 %	33	2	3	\$ 65	\$ 4.15	\$ 6.53	-	-
	CPC	2022	14	32~%	40 %	57	2	4	\$ 114	\$ 3.24	\$ 8.14	-	-
		2013	5	34 %	34 %	88	25	18	\$ 92	\$ 19.47	\$ 18.49	-	-
		2014	6	29 %	30 %	729	115	121	\$ 715	\$ 110.24	\$ 119.12	-	-
		2015	8	29 %	35 %	1,342	119	168	\$ 1,432	\$ 103.70	\$ 179.03	-	-
		2016	7	$29 \ \%$	32 %	830	96	119	\$ 920	\$ 95.09	\$ 131.37	-	-
		2017	4	32 %	31 %	156	44	39	\$ 236	\$ 63.37	\$ 58.94	-	-
		2018	5	29 %	31 %	199	44	40	\$ 323	\$ 68.61	\$ 64.56	-	-
		2019	3	29 %	32 %	132	46	44	\$ 209	\$ 67.41	\$ 69.83	-	-
		2020	1	*	*	*	*	*	*	*	*	-	-
	CDQ +	2021	3	29 %	29 %	92	35	31	\$ 168	\$ 44.34	\$ 56.10	-	-
BST	ACA	2022	4	30~%	32 %	94	25	24	\$ 167	\$ 43.39	\$ 41.86	-	-
		2012	17	33~%	32 %	1,488	68	88	\$ 2,588	\$ 139.27	\$ 152.22	93 %	35 %
	All	2014	4	32 %	28 %	134	18	33	\$ 199	\$ 30.26	\$ 49.86	44 %	20 %
	Quota	2015	3	22~%	$21 \ \%$	86	26	29	\$ 110	\$ 37.93	\$ 36.75	82 %	18 %
		2012	17	32~%	34 %	1,149	49	68	\$ 2,061	\$ 83.71	\$ 121.25	-	-
		2014	3	32 %	28 %	101	16	34	\$ 148	\$ 26.96	\$ 49.25	-	-
	CVO A	2015	3	$22 \ \%$	21 %	73	23	24	\$ 93	\$ 31.98	\$ 30.89	-	-
		2012	10	33~%	35 %	144	12	14	\$ 263	\$ 24.21	\$ 26.27	-	-
	CVO B	2014	2	*	*	*	*	*	*	*	*	-	-
	+ CPO	2015	3	22 %	$21 \ \%$	11	2	4	\$ 14	\$ 3.33	\$ 4.78	-	-
		2012	9	34~%	11 %	95	2	11	\$ 57	\$ 6.78	\$ 6.33	-	-
	CVC +	2014	2	*	*	*	*	*	*	*	*	-	-
	CPC	2015	2	*	*	*	*	*	*	*	*	-	-
	CDQ +	2012	3	40~%	$40 \ \%$	100	23	33	\$ 207	\$ 48.62	\$ 68.97	-	_
SMB	ACA	2014	1	*	*	*	*	*	*	*	*	-	-

Table 5.25: Crab Harvest Quota Lease Activity, Volume, Cost, and Average Lease Prices and Rates, CR Program Fisheries (continued)

**Notes** Asterisks indicate data suppressed due to confidentiality All dollar values are adjusted for inflation to 2022-equivalent value. Harvest quota types are categorized in this report as the following: CVO A (catcher vessel owner Class A IFQ), CVO B + CPO (catcher vessel owner Class B IFQ and catcher/processor owner IFQ), and CVC + CPC (catcher vessel crew IFQ and catcher/processor crew IFQ). Statistics reported represent results pooled over all quota types and/or regional designations within each category. Lease data shown represent arms-length lease transactions reported by vessel owners in the Crab EDR. Vessels column shows total count of vessel-level observations where both pounds and cost of quota lease dwere reported as non-zero values, noting that a segment of active vessels do not report leasing quota of any type, i.e., harvest only quota held by the vessel owner. Lease rate statistics by fishery and quota type are calculated as the median and weighted mean, respectively, of the ratio of quota lease cost

per pound to ex-vessel revenue per pound, over all observations where all four elements were reported as non-zero values. Lease pounds as **Source** NMFS AFSC BSAI Crab Economic Data Report (EDR) database.

		Harvest		Process	sing
	Coop lease	Non-coop lease	QS sale	PQS sale	PQS lease
2005/06	144	113	199	7	40
2006/07	171	39	329	7	39
2007/08	211	16	292	12	32
2008/09	229	-	209	42	45
2009/10	190	-	221	4	31
2010/11	247	-	192	-	2
2011/12	163	4	126	-	28
2012/13	180	-	211	3	3!
2013/14	281	-	215	4	30
2014/15	342	-	193	16	3'
2015/16	255	-	86	-	5
2016/17	172	-	140	-	2
2017/18	215	-	243	5	3
2018/19	252	-	128	3	50
2019/20	191	-	167	-	38
2020/21	296	-	154	-	6
2021/22	160	-	56	3	39
2022/23	112	-	53	-	3

Table 5.26: Counts of QS/PQS sales and IFQ/IPQ lease transfers, all CR Program fisheries

**Notes** Counts of Cooperative and Non-cooperative lease transfers represent the number of distinct transfers completed through submission of an Application for Transfer of IFQ Between Fishing Cooperatives and Application for Transfer (Lease) of Crab IFQ forms, respectively; each individual transfer of IFQ pounds in a given crab fishery (e.g., BBR, BSS) between one IFQ permit/entity and another IFQ permit/entity identified in submitted forms is counted separately, and counts are aggregated over all crab fisheries for a given crab year. IFQ leasing (or other transfer arrangements) between crab harvest cooperative members within a cooperative are not subject to reporting to NMFS and are not included in these counts. **Source** NMFS AKRO RAM division Quota Share and Processor Quota Share holder files

			CVC	$\mathbf{QS}$			CVO	QS	
		Transfers (transferors, transferees)	Total units transferred (1,000)	Median units per transfer (1,000)	Median price per QS unit	Transfers (transferors, transferees)	Total units transferred (1,000)	Median units per transfer (1,000)	Median price per QS unit
	2005/06	21(19,14)	1,221	56	1.21	14(6,10)	7,140	115	0.75
	2006/07	24(20,17)	1,130	40	0.87	27(17,11)	24,420	404	1.26
	2007/08	10(8,5)	525	56	0.96	21(11,13)	7,145	289	1.60
	2008/09	9(7,7)	482	54	1.05	25(16,19)	13,988	274	1.60
	2009/10	9(6,7)	428	38	0.97	12(10,11)	4,526	375	1.33
	2010/11	5(5,5)	293	46	0.86	33(15,22)	14,596	195	1.15
	2011/12	3(3,2)	*	*	*	3(3,3)	*	*	*
	2012/13	4(3,3)	*	*	*	21(9,16)	7,044	141	1.00
	2013/14	9(8,7)	283	34	1.00	7(6,4)	5,424	1,051	1.18
	2014/15	10(8,6)	484	48	1.10	18(8,11)	8,903	86	1.50
	2015/16	3(2,2)	*	*	*	6(5,5)	2,866	364	1.63
	2016/17	11(7,10)	603	51	1.11	9(7,7)	$3,\!138$	71	1.56
	2017/18	17(17, 14)	1,020	58	0.68	10(7,8)	2,207	223	1.15
	2018/19	4(4,3)	*	*	*	4(3,4)	*	*	*
	2019/20	8(6,7)	254	24	0.36	8(5,7)	5,007	427	0.59
	2020/21	12(10,8)	873	65	0.24	16(10,10)	4,022	25	0.25
	2021/22	1(1,1)	*	*	*	-	-	-	-
BBR	2022/23	2(1,1)	*	*	*	-	-	-	-

Table 5.27: Crab harvest quota (QS) sale transfers, estimated price per QS unit, catcher vessel owner and crew QS

			CVC	$\mathbf{QS}$			CVO	QS	
		Transfers	Total units	Median	Median	Transfers	Total units	Median	Median
		(transferors,	transferred	units per	price per QS	(transferors,	transferred	units per	price per QS
		transferees)	(1,000)	transfer	unit	transferees)	(1,000)	transfer	unit
		,		(1,000)		,		(1,000)	
	2005/06	25(14,12)	2,793	110	0.30	22(9,12)	24,619	442	0.49
	2006/07	35(17,15)	2,864	65	0.28	36(17,8)	48,984	604	0.38
	2007/08	12(5,5)	822	51	0.41	26(10,13)	24,752	1,000	0.73
	2008/09	10(5,6)	758	48	0.56	15(9,11)	$12,\!649$	382	0.67
	2009/10	15(6,8)	1,121	49	0.37	14(8,10)	6,452	366	0.53
	2010/11	11(6,6)	852	81	0.47	56(17, 24)	34,572	248	0.65
	2011/12	2(1,1)	*	*	*	21(10,12)	12,598	289	0.75
	2012/13	9(4,5)	*	*	*	40(9,18)	16,223	179	1.15
	2013/14	12(6,6)	674	34	0.89	50(15, 18)	20,656	121	1.33
	2014/15	9(5,3)	*	*	*	23(13,14)	22,281	396	1.30
	2015/16	3(2,1)	*	*	*	16(9,10)	7,089	119	0.96
	2016/17	13(7,8)	1,433	138	0.35	7(4,5)	*	*	*
	2017/18	26(14,13)	2,305	76	0.33	4(2,3)	*	*	×
	2018/19	6(3,3)	*	*	*	16(4,10)	3,611	104	0.59
	2019/20	14(8,5)	1,058	62	0.59	14(8,10)	9,647	321	0.74
	2020/21	24(11,8)	2,219	70	0.78	28(9,18)	11,467	256	1.37
	2021/22	-	-	-	-	2(1,2)	*	*	*
BSS	2022/23	3(1,1)	*	*	*	-	-	-	-
	2005/06	14(13,11)	401	30	0.24	10(8,9)	5,203	407	0.38
BST	2006/07	3(3,3)	*	*	*	-	-	-	-
	2005/06	2(2,1)	*	*	*	2(1,1)	*	*	*
	2007/08	2(2,2)	*	*	*	-	-	-	-
	2008/09	4(4,3)	*	*	*	1(1,1)	*	*	*
	2009/10	1(1,1)	*	*	*	5(2,5)	*	*	*
	2010/11	3(2,3)	*	*	*	-	-	-	-
	2013/14	-	-	-	-	9(2,9)	*	*	*
	2014/15	1(1,1)	*	*	*	-	-	-	-
	2015/16	3(2,2)	*	*	*	-	-	-	-
	2016/17	1(1,1)	*	*	*	-	-	-	-
	2017/18	1(1,1)	*	*	*	-	-	-	-
	2019/20	1(1,1)	*	*	*	-	-	-	-
	2020/21	3(1,1)	*	*	*	1(1,1)	*	*	*
	2021/22	-	-	-	-	2(1,2)	*	*	*
EAG	2022/23	-	-	-	-	1(1,1)	*	*	*

Table 5.27: Crab harvest quota (QS) sale transfers, estimated price per QS unit, catcher vessel owner and crew QS (continued)

			CVC	QS			CVO	QS	
		Transfers (transferors, transferees)	Total units transferred (1,000)	Median units per transfer (1,000)	Median price per QS unit	Transfers (transferors, transferees)	Total units transferred (1,000)	Median units per transfer (1,000)	Median price per QS unit
	2006/07	17(14, 14)	394	22	0.06	17(13,8)	6,578	417	0.11
	2007/08	5(4,3)	*	*	*	9(7,8)	3,031	388	0.20
	2008/09	4(4,4)	*	*	*	14(8,9)	6,246	373	0.20
	2009/10	3(2,3)	*	*	*	5(4,5)	*	*	*
	2010/11	3(3,3)	*	*	*	6(6,2)	*	*	*
	2011/12	-	-	-	-	2(2,2)	*	*	*
	2012/13	2(2,2)	*	*	*	12(5,10)	2,825	44	0.13
	2013/14	6(5,6)	127	27	0.07	10(5,6)	1,412	121	0.06
	2014/15	8(8,7)	185	25	0.23	15(7,11)	4,355	153	0.53
	2015/16	5(2,3)	*	*	*	7(6,7)	4,481	314	0.42
	2016/17	8(7,7)	288	28	0.22	8(5,7)	2,766	304	0.55
	2017/18	19(19, 14)	584	30	0.07	9(6,7)	1,657	122	0.35
	2018/19	3(3,3)	*	*	*	2(2,2)	*	*	×
	2019/20	5(4,5)	*	*	*	3(3,3)	*	*	2
	2020/21	2(2,2)	*	*	*	4(3,2)	*	*	>
	2021/22	1(1,1)	*	*	*	1(1,1)	*	*	*
EBT	2022/23	2(1,1)	*	*	*	-	-	-	
	2007/08	-	-	-	-	8(2,3)	*	*	\$
	2008/09	4(2,1)	*	*	*	-	-	-	
	2010/11	1(1,1)	*	*	*	6(3,1)	*	*	2
	2012/13	2(1,1)	*	*	*	4(1,2)	*	*	2
	2016/17	4(2,2)	*	*	*	-	-	-	
	2017/18	3(2,2)	*	*	*	-	-	-	
PIK	2018/19	-	-	-	-	2(1,1)	*	*	>

Table 5.27: Crab harvest quota (QS) sale transfers, estimated price per QS unit, catcher vessel owner and crew QS (continued)

		$\operatorname{CVC}$ QS				CVO QS			
		Transfers (transferors, transferees)	Total units transferred (1,000)	Median units per transfer (1,000)	Median price per QS unit	Transfers (transferors, transferees)	Total units transferred (1,000)	Median units per transfer (1,000)	Mediar price per QS uni
	2005/06	1(1,1)	*	*	*	2(1,2)	*	*	>
	2006/07	4(3,3)	*	*	*	6(1,3)	*	*	>
	2007/08	4(2,1)	*	*	*	10(3,4)	*	*	2
	2008/09	2(1,1)	*	*	*	-	-	-	
	2009/10	2(1,1)	*	*	*	4(2,2)	*	*	:
	2010/11	3(2,2)	*	*	*	1(1,1)	*	*	2
	2011/12	2(2,1)	*	*	*	2(2,2)	*	*	:
	2012/13	2(1,1)	*	*	*	23(8,12)	1,003	21	1.1
	2013/14	6(3,3)	*	*	*	2(1,1)	*	*	
	2014/15	2(1,1)	*	*	*	2(2,2)	*	*	
	2015/16	1(1,1)	*	*	*	-	-	-	
	2016/17	2(1,1)	*	*	*	-	-	-	
	2017/18	12(8,9)	115	8	0.06	2(1,1)	*	*	
	2018/19	3(2,2)	*	*	*	-	-	-	
	2019/20	1(1,1)	*	*	*	2(1,2)	*	*	
	2021/22	1(1,1)	*	*	*	1(1,1)	*	*	
SMB	2022/23	-	-	-	-	2(2,1)	*	*	:
	2005/06	2(1,1)	*	*	*	1(1,1)	*	*	:
	2007/08	2(1,1)	*	*	*	-	-	-	
	2008/09	1(1,1)	*	*	*	-	-	-	
	2010/11	-	-	-	-	2(1,1)	*	*	
	2011/12	-	-	-	-	2(1,1)	*	*	
	2012/13	-	-	-	-	2(1,1)	*	*	
	2013/14	-	-	-	-	1(1,1)	*	*	
	2014/15	1(1,1)	*	*	*	-	-	-	
WAG	2020/21	2(1,1)	*	*	*	-	-	-	
WAI	2013/14	-	-	-	-	2(2,1)	*	*	:

Table 5.27: Crab harvest quota (QS) sale transfers, estimated price per QS unit, catcher vessel owner and crew QS (continued)

			CVC	QS			CVO	QS	
		Transfers (transferors, transferees)	Total units transferred (1,000)	Median units per transfer (1,000)	Median price per QS unit	Transfers (transferors, transferees)	Total units transferred (1,000)	Median units per transfer (1,000)	Median price per QS unit
	2006/07	16(13,13)	372	22	0.06	22(18,9)	8,512	359	0.07
	2007/08	5(4,3)	*	*	*	8(6,7)	2,948	388	0.13
	2008/09	4(4,4)	*	*	*	14(8,9)	6,246	373	0.13
	2009/10	2(2,2)	*	*	*	5(4,5)	*	*	*
	2010/11	3(3,3)	*	*	*	5(5,2)	*	*	*
	2011/12	-	-	-	-	1(1,1)	*	*	*
	2012/13	2(2,2)	*	*	*	11(5,9)	885	36	0.10
	2013/14	6(5,6)	127	27	0.06	10(5,6)	1,412	121	0.06
	2014/15	6(6,5)	136	25	0.27	16(8,12)	4,677	172	0.41
	2015/16	5(2,3)	*	*	*	7(6,7)	4,481	314	0.42
	2016/17	9(8,8)	408	34	0.21	7(4,6)	1,894	192	0.50
	2017/18	19(19,15)	616	30	0.10	9(6,7)	1,637	122	0.35
	2018/19	3(3,3)	*	*	*	1(1,1)	*	*	*
	2019/20	6(5,5)	170	27	0.08	3(3,3)	*	*	*
	2020/21	5(5,4)	*	*	*	6(4,4)	*	*	*
	2021/22	2(2,2)	*	*	*	1(1,1)	*	*	*
WBT	2022/23	2(1,1)	*	*	*	-	-	-	-

Table 5.27: Crab harvest quota (QS) sale transfers, estimated price per QS unit, catcher vessel owner and crew QS (continued)

**Notes** Data shown for all CR program crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by '\*', and data not available where indicated by '-'. The counts of transfers reported in the first column represent the number of distinct bi-lateral transfers for which transfer applications were submitted to RAM by QS holders; counts of transferors represents the number of distinct QS holders submitting applications to sell QS shares, and transferees identifies the number of distinct entities receiving transfers. **Source** NMFS Alaska Region - Restricted Access Management, Quota share transfer data.

			Process	sor QS	
		Transfers (transferors, transferees)	Total units transferred (1,000)	Median units per transfer (1,000)	Median price per QS unit
	2008/09	4(4,3)	31,159.18	4,680.19	0.12
	2009/10	1(1,1)	*	*	*
BBR	2014/15	3(1,1)	*	*	*
	2008/09	2(2,2)	*	*	*
	2009/10	2(1,1)	*	*	*
	2013/14	1(1,1)	*	*	*
	2014/15	3(1,1)	*	*	*
BSS	2017/18	1(1,1)	*	*	*
	2005/06	1(1,1)	*	*	*
	2008/09	3(2,2)	*	*	*
	2014/15	1(1,1)	*	*	*
EAG	2017/18	1(1,1)	*	*	*
WAG	2008/09	8(4,3)	$18,\!921.69$	979.27	0.08
	2008/09	5(5,4)	12,152.78	1,645.50	0.05
	2014/15	1(1,1)	*	*	*
	2017/18	1(1,1)	*	*	*
	2018/19	1(1,1)	*	*	*
EBT	2021/22	1(1,1)	*	*	*
	2008/09	5(5,4)	12,152.78	1,645.50	0.00
	2014/15	1(1,1)	*	*	*
WBT	2018/19	1(1,1)	*	*	*
	2012/13	3(2,1)	*	*	*
SMB	2014/15	2(1,1)	*	*	*

Table 5.28:	Crab processor of	quota (PQS) sa	ale transfers, e	estimated price p	er PQS unit
10010 0.20.	eras processor (	quota (1 40) o	are cramprorp, c	price p	or 1 4,0 anno

**Notes** Data shown for all CR program crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by '\*', and data not available where indicated by '-'.

Source NMFS Alaska Region - Restricted Access Management, Quota share transfer data.

	Season	QS Pool for LLP Holders (CVO and CPO)	QS Pool for Captains/Crew (QS units)	QS Pool for all Harvester QS Units (Holders + Crew)	Final Ratio QS units/IFQ pound
BSS	2021/22	970,675,714	30,207,732	1,000,883,446	198.59
	2021/22 2022/23	9,700,156 9,700,156	299,989 299,989	10,000,145 10,000,145	$3.08 \\ 3.35$
EAG	2023/24	9,700,156	299,989	10,000,145	2.99
WAG	$\begin{array}{c} 2021/22 \\ 2022/23 \\ 2023/24 \end{array}$	38,800,000 38,800,000 38,800,000	1,200,058 1,200,058 1,200,058	40,000,058 40,000,058 40,000,058	$19.16 \\ 25.69 \\ 24.55$
EBT	2022/23 2023/24	194,308,390 194,308,390	5,734,553 5,605,009	200,042,943 199,913,399	191.12 292.27
WBT	2021/22 2022/23 2023/24	$194,308,390 \\193,986,406 \\194,308,390$	5,920,159 5,734,553 5,605,009	200,228,549 199,720,959 199,913,399	$202.25 \\ 261.07 \\ 168.28$

Table 5.29: CI	R Program	computation	quota share	(QS)	and IFQ ratio
	-	-	-	,	-

Source NMFS AKRO RAM division Quota Share and Processor Quota Share Pools and Ratios

				CVC QS					CVO QS		
	Season	Average	Ratio QS	QS	Average	IFQ/QS	Average	Ratio QS	QS	Average	IFQ/QS
		$\operatorname{price}/\operatorname{QS}$	units:IFQ	$\operatorname{Price}/\operatorname{IFQ}$	IFQ Lease	Price	$\operatorname{price}/\operatorname{QS}$	units:IFQ	$\operatorname{Price}/\operatorname{IFQ}$	IFQ Lease	Price
		$\operatorname{unit}$	pounds	Pound	Price	Ratio	unit	pounds	Pound	Price	Ratio
	2005/06	\$ 1.26	24.27	\$ 30.55	-	-	\$ 0.75	24.27	\$ 18.26	-	-
	2006/07	\$ 1.12	28.75	\$ 32.08	-	-	\$ 1.53	28.75	43.98	-	-
	2007/08	0.86	21.91	18.86	-	-	\$ 1.11	21.91	\$ 24.25	-	-
	2008/09	\$ 1.09	21.92	23.81	-	-	\$ 1.60	21.92	\$ 34.99	-	-
	2009/10	0.97	27.88	27.12	-	-	1.35	27.88	37.52	-	-
	2010/11	0.86	30.08	25.75	-	-	\$ 1.16	30.08	\$ 34.85	-	-
	2011/12	0.68	56.71	38.77	-	-	0.67	56.71	\$ 38.04	-	-
	2012/13	-	-	-	-	-	0.84	56.57	47.47	6.92	0.15
	2013/14	0.88	51.66	\$45.66	\$ 6.11	0.13	\$ 1.10	51.66	56.59	5.73	0.10
	2014/15	\$ 1.06	44.49	47.36	5.40	0.11	\$ 1.42	44.49	\$ 63.14	5.24	0.08
	2015/16	\$ 1.10	44.54	\$48.94	6.64	0.14	\$ 1.50	44.54	66.99	\$ 6.41	0.10
	2016/17	\$ 1.08	52.46	\$ 56.72	8.52	0.15	\$ 1.62	52.46	85.08	\$ 8.26	0.10
	2017/18	\$ 1.09	67.30	\$ 73.06	7.03	0.10	\$ 1.30	67.30	\$ 87.35	6.91	0.08
	2018/19	0.67	103.12	68.99	8.07	0.12	1.07	103.12	\$ 110.63	\$ 7.86	0.07
	2019/20	\$ 0.41	117.00	48.45	8.99	0.19	0.64	117.00	\$ 74.33	\$ 8.63	0.12
BBR	2020/21	0.34	167.77	\$ 56.34	\$ 9.16	\$ 0.16	\$ 0.40	167.77	\$ 67.61	\$ 8.73	\$ 0.13
	2005/06	\$ 0.30	29.88	\$ 9.08	-	-	\$ 0.75	29.88	\$ 22.49	-	-
	2006/07	0.31	30.60	\$ 9.45	-	-	0.41	30.60	12.67	-	-
	2007/08	0.27	17.75	\$ 4.85	-	-	0.27	17.75	\$ 4.85	-	-
	2008/09	0.56	19.11	10.77	-	-	0.74	19.11	\$ 14.10	-	-
	2009/10	0.43	23.31	9.94	-	-	0.64	23.31	\$ 14.91	-	-
	2010/11	0.37	20.62	\$ 7.60	-	-	0.65	20.62	\$ 13.30	-	-
	2011/12	-	-	-	-	-	0.68	12.51	8.55	\$ 1.35	0.16
	2012/13	1.17	16.76	\$19.53	1.51	0.08	\$ 1.11	16.76	\$ 18.68	\$ 1.39	0.07
	2013/14	\$ 1.13	20.60	\$ 23.34	\$ 1.50	0.06	\$ 1.26	20.60	\$ 25.90	\$ 1.43	\$ 0.06
	2014/15	0.89	16.37	\$ 14.62	\$ 1.31	0.09	\$ 1.14	16.37	\$ 18.62	\$ 1.20	\$ 0.06
	2015/16	-	-	-	-	-	\$ 1.30	27.38	\$ 35.54	1.65	0.05
	2016/17	0.42	51.56	\$ 21.68	\$ 2.50	0.12	0.83	51.56	\$ 42.74	2.46	\$ 0.06
	2017/18	0.35	58.65	\$ 20.54	\$ 2.42	0.12	-	-	-	-	-
	2018/19	0.31	40.31	\$ 12.56	\$ 2.33	0.19	0.59	40.31	\$ 23.72	\$ 2.14	\$ 0.09
	2019/20	0.50	32.69	\$ 16.32	\$ 2.43	0.15	0.78	32.69	25.59	2.17	0.08
	2020/21	0.64	24.71	\$ 15.88	\$ 2.72	0.17	0.96	24.71	\$ 23.79	\$ 2.51	\$ 0.11
BSS	2021/22	0.78	198.59	\$ 155.20	\$ 3.62	0.02	\$ 1.48	198.59	\$ 293.39	3.37	\$ 0.01

Table 5.30: Comparison of crab QS sale price to IFQ lease price

				CVC QS					CVO QS		
	Season	Average	Ratio QS	QS	Average	IFQ/QS	Average	Ratio QS	QS	Average	IFQ/QS
		$\operatorname{price}/\operatorname{QS}$	units:IFQ	$\operatorname{Price}/\operatorname{IFQ}$	IFQ Lease	Price	$\operatorname{price}/\operatorname{QS}$	units:IFQ	$\operatorname{Price}/\operatorname{IFQ}$	IFQ Lease	Price
		$\operatorname{unit}$	pounds	Pound	Price	Ratio	$\operatorname{unit}$	pounds	Pound	Price	Ratio
	2006/07	\$ 0.06	118.90	6.67	-	-	\$ 0.10	118.90	\$ 11.68	-	-
	2007/08	0.07	64.72	\$ 4.81	-	-	0.11	64.72	\$ 7.07	-	-
	2008/09	\$ 0.16	80.69	12.99	-	-	\$ 0.20	80.69	\$ 16.23	-	-
	2009/10	-	-	-	-	-	0.12	165.14	\$ 19.80	-	-
	2013/14	\$ 0.06	152.13	9.47	0.99	0.10	0.06	152.13	9.47	\$ 0.92	0.10
	2014/15	0.11	26.23	\$ 2.89	0.93	0.32	0.51	26.23	\$ 13.48	\$ 0.92	0.07
EBT	2015/16	\$ 0.36	19.74	\$ 7.18	0.98	0.14	0.53	19.74	\$ 10.54	\$ 1.00	\$ 0.09
	2006/07	\$ 0.06	203.77	\$ 11.44	-	-	\$ 0.31	203.77	\$ 62.92	-	-
	2007/08	0.05	102.46	\$ 5.60	-	-	0.07	102.46	\$ 7.00	-	-
	2008/09	0.09	145.05	13.62	-	-	0.13	145.05	19.45	-	-
	2013/14	0.05	135.26	\$ 6.74	-	-	\$ 0.06	135.26	\$ 8.42	-	-
	2014/15	\$ 0.10	33.56	\$ 3.28	\$ 1.04	0.32	0.40	33.56	13.55	0.92	0.07
	2015/16	\$ 0.29	26.50	\$ 7.71	0.81	0.10	0.46	26.50	\$ 12.22	0.89	0.07
	2017/18	\$ 0.22	89.00	\$19.95	1.55	0.08	0.35	89.00	31.51	\$ 1.39	0.04
	2018/19	0.09	91.20	\$ 7.89	\$ 1.54	\$ 0.20	-	-	-	-	-
	2020/21	0.09	94.75	\$ 8.49	\$ 1.25	0.15	-	-	-	-	-
WBT	2021/22	0.07	202.25	\$ 15.16	\$ 1.93	0.13	0.13	202.25	25.98	\$ 1.93	0.07
SMB	2012/13	-	-	-	-	_	\$ 1.34	20.47	\$ 27.48	\$ 1.96	\$ 0.07

Table 5.30: Comparison of crab QS sale price to IFQ lease price (continued)

Note Data shown for all CR program crab fisheries by calendar year. All dollar values are adjusted for inflation to 2022-equivalent value. Information suppressed for confidentiality where indicated by '\*', and data not available where indicated by '-'. Average price/QS unit is calculated as the median price of quota share sales as reported by QS transfer applicants to NMFS Alaska Region - Restricted Access Management; Ratio of QS units/IFQ pounds is the season-specific conversion factor used by RAM in determining annual IFQ issuance in pounds per QS share; QS Price/IFQ Pound is the ratio of the preceding quotients, used to convert the QS price from price/QS unit to price/IFQ pound, to facilitate comparison of QS price to IFQ price on the same per-unit basis. Source NMFS AKRO RAM division Quota Share and Processor Quota Share Pools and Ratios

			Crew QS	3			Owner (	S	
	Season	QS holders	Mean(sd) holding	Median holding	Max holding	QS holders	Mean(sd) holding	Median holding	Max holding
	Initial	181	0.55(0.21) %	0.52~%	1.23~%	252	0.4(0.3)~%	0.36~%	2.24 %
BBR	allocation								
	2021/22	102	0.98(0.6) %	0.73~%	2.00~%	240	0.42(0.54) %	0.31~%	$5.00 \ \%$
	2022/23	102	0.98(0.6)~%	0.73~%	2.00~%	240	0.42(0.54) %	0.31~%	5.00~%
BSS	Initial allocation	155	0.65(0.25) %	0.64 %	1.59~%	241	0.41(0.32) %	0.39~%	2.35~%
	2021/22	96	1.04(0.6) %	0.84~%	1.99~%	272	0.37(0.56) %	0.24~%	5.00~%
	2022/23	95	1.05(0.61) %	0.84~%	1.99~%	269	0.37(0.57) %	0.25~%	5.00~%
EAG	Initial allocation	13	7.69(3.28) %	8.20 %	12.79~%	15	6.67(5.18) %	5.90~%	20.11 %
Liid	2021/22	10	10(8.31) %	8.55~%	20.00~%	24	4.17(5) %	1.63~%	20.00~%
	2022/23	10	10(8.31)%	8.55 %	20.00 %	23	4.35(5.03) %	1.63%	20.00 %
EBT	Initial allocation	166	0.6(0.34)~%	0.56~%	1.99~%	256	0.39(0.39)~%	0.30 %	3.87 %
	2021/22	110	0.91(0.6)~%	0.69~%	1.99~%	228	0.44(0.59) %	0.27~%	$4.97 \ \%$
	2021/22 2022/23	110	0.91(0.6) %	0.69 %	1.99 %	228	0.44(0.59)%	0.27%	4.97 %
PIK	Initial allocation	40	2.5(1.05) %	2.47~%	4.81 %	112	0.89(0.85) %	0.53~%	3.41 %
	2021/22	39	2.56(1.14) %	2.68~%	4.81 %	120	0.83(0.91) %	0.53~%	6.96~%
	2022/23	39	2.56(1.14)%	2.68 %	4.81 %	120	0.83(0.91) %	0.53~%	6.96 %
SMB	Initial allocation	73	1.37(0.44) %	1.35~%	3.10~%	137	0.73(0.61)~%	0.62~%	4.43 %
	2021/22	60	1.67(0.86) %	1.43~%	3.95~%	132	0.76(0.95) %	0.53~%	7.94~%
	2022/23	60	1.67(0.86)~%	1.43~%	3.95~%	132	0.76(0.95) %	0.54~%	7.94 %
WAG	Initial allocation	9	11.11(12.84) %	6.17~%	41.74 %	15	6.67(12.38) %	1.78 %	45.73 %
	2021/22	8	12.5(13.37) %	7.45~%	41.74 %	13	7.69(13.33) %	1.81~%	45.73~%
	2022/23	8	12.5(13.37) %	7.45~%	41.74 %	13	7.69(13.33) %	1.81~%	45.73~%
WAI	Initial allocation	4	25(17.29) %	20.84~%	49.46~%	30	3.33(8.46) %	0.65~%	45.16 %
	2021/22	4	25(17.29) %	20.84~%	49.46~%	38	2.63(7.53) %	0.63~%	45.16~%
	2022/23	4	25(17.29) %	20.84~%	49.46~%	38	2.63(7.53) %	0.63~%	45.16~%
WBT	Initial allocation	166	0.6(0.34)~%	0.56~%	1.99~%	256	0.39(0.39)~%	0.30 %	3.87 %
	2021/22	110	0.91(0.6) %	0.69~%	1.99~%	229	0.44(0.59) %	0.27~%	$4.97 \ \%$
	2022/23	110	0.91(0.6) %	0.69~%	1.99~%	229	0.44(0.59) %	0.27~%	4.97~%

Table 5.31: CR Program Crew (CVC/CPC) and Vessel Owner (CVO/CPO) - summary of QS account registry

Note Statistics shown for Crew QS and Owner QS report combined crab catcher vessel and catcher/processor crew (CVC and CPC) QS, and combined (CVO and CPO) quota share pools, including the number of distinct persons directly holding QS (number of individual persons directly holding crew QS, and number of persons directly holding owner QS including both individual persons and non-individual entities), and the mean and standard deviation (shown as mean(sd)), median and maximum percentage of QS pool shares held amongst distinct entities in the pool., Owner QS statistics include QS held by CDQ groups and wholly owned direct subsidiaries of CDQ groups. Initial allocation reports the status of the quota pool as of the beginning of the 2005/06 crab season; statistics shown for the two most recent crab seasons reports the status of the quota pool as of the beginning of the first crab season under the CR program, 2005/06. In the Tanner crab fishery, BST quota was initially issued, and the pool was subsequently split into Eastern and Western BST quota (EBT, WBT); statistics shown for Initial allocation for EBT and WBT are identical and represent the same pool, while statistics for subsequent periods are calculated separately for the distinct Eastern and Western fisheries.

Source NMFS Alaska Region, Restricted Access Management, BSAI Crab - Quota Share (QS) Holders files;

[https://www.fisheries.noaa.gov/alaska/commercial-fishing/permits-and-licenses-issued-alaska](https://www.fisheries.noaa.gov/alaska/commercial-fishing/permits-and-licenses-issued-alaska)

	Season	PQS holders	Median holding	Max holding	Mean holding in fishery PQS pool (sd)
BBR	Initial allocation	17	1.64 %	22.98 %	5.88(7.07) %
	2021/22	14	6.12~%	23.20~%	7.14(6.79) %
	2022/23	14	6.12 %	23.20~%	7.14(6.79) %
BSS	Initial allocation	20	2.08~%	25.18 %	5(6.73) %
	2021/22	17	3.42~%	25.18~%	5.88(7.52) %
	2022/23	17	3.42~%	25.18~%	5.88(7.52) %
EAG	Initial allocation	9	3.55~%	45.36 %	11.11(15.37) %
-	2021/22	10	5.68~%	45.36~%	10(13.61) %
	2022/23	10	5.68~%	45.36~%	10(13.61) %
WAG	Initial allocation	9	1.03 %	62.98~%	11.11(21.23) %
	2021/22	10	3.41~%	29.98~%	10(12.04) %
	2022/23	10	3.41~%	29.98~%	10(12.04) %
EBT	Initial allocation	23	0.83~%	24.26~%	4.35(6.51) %
	2021/22	18	1.87~%	24.37~%	5.56(7.13) %
	2022/23	18	1.87~%	24.37~%	5.56(7.13) %
WBT	Initial allocation	23	0.83~%	24.26~%	4.35(6.51) %
	2021/22	18	1.87~%	24.37~%	5.56(7.13) %
	2022/23	18	1.87~%	24.37~%	5.56(7.13) %
SMB	Initial allocation	12	5.06~%	32.67~%	8.33(10.56) %
	2021/22	10	4.18~%	32.67~%	10(11.3) %
	2022/23	10	4.18 %	32.67~%	10(11.3) %
PIK	Initial allocation	14	3.17~%	24.49~%	7.14(8.09) %
	2021/22	12	4.99~%	25.46~%	8.33(8.47) %
	2022/23	12	4.99~%	25.46~%	8.33(8.47) %
WAI	Initial allocation	9	1.03~%	62.98~%	11.11(21.23) %
	2021/22	8	4.03~%	32.99~%	12.5(14.67) %
	2022/23	8	4.03~%	32.99~%	12.5(14.67) %

Table 5.32: CR Program Processor QS - summary of PQS account registry

Note Reports the number of distinct PQS holders (entities or individuals), and the median and maximum percentage of PQS pool shares held amongst distinct registroiters of more and and maximum percentage of registroiters below and the more and and maximum percentage of registroiters below and the pool., Owner QS statistics include QS held by CDQ groups and wholly owned direct subsidiaries of CDQ groups., Initial allocation reports the status of the quota pool as of the beginning of the 2005/06 crab season; statistics shown for the two most recent crab seasons reports the status of the QS pool as of the end of the respective reports. season. Source NMFS Alaska Region, Restricted Access Management, BSAI Crab - Quota Share (QS) Holders files; https://www.

fisheries. no aa.gov/alaska/commercial-fishing/permits-and-licenses-issued-alaska/commercial-fishing/commercial-fishing/commercial-fishing/commercial-fishing/commercial-fishing/commercial-fishing/commercial-fishing/commercial-fishing/commercial-fishing/commercial-fishing/commercial-fishing/commercial-fishing/commer

		Owner Q	S, Alaska		er QS, DR-ID	Owne Other I	er QS, Location
	Season	QS holders	Percent of pool	QS holders	Percent of pool	QS holders	Percent of pool
DDD	Initial	41	$16 \ \%$	203	82~%	8	2~%
BBR	allocation	62	$34 \ \%$	169	63~%	9	3~%
	2021/22 2022/23	62 62	34 % 34 %	169 165	$63 \ \%$	9 13	3 % 4 %
	,						
BSS	Initial allocation	40	16~%	195	82~%	6	2 %
	2021/22	67	36~%	192	$61 \ \%$	13	3~%
	2022/23	66	36~%	186	60~%	17	4 %
EAG	Initial allocation	1	2~%	14	$98 \ \%$	0	0 %
LAG	2021/22	7	$35 \ \%$	15	$52 \ \%$	2	14 %
	2021/22 2022/23	7	35 %	10	52%	2	14% 14 %
БDШ	Initial	40	16~%	209	82~%	7	2 %
EBT	allocation	59	36~%	158	$60 \ \%$	11	4 %
	2021/22 2022/23	59 59	30% 36%	$158 \\ 154$	50%	11	4 % 4 %
PIK	Initial allocation	22	25~%	86	72~%	4	3~%
	2021/22	40	40~%	74	$52 \ \%$	6	8 %
	2022/23	41	41 %	72	50~%	7	9 %
SMB	Initial allocation	20	19~%	113	80 %	4	1 %
	2021/22	38	42 %	88	$55 \ \%$	6	4 %
	2022/23	38	42 %	85	53~%	9	5 %
WAG	Initial allocation	1	2~%	14	98 %	0	0 %
WIG	2021/22	6	63~%	6	$30 \ \%$	1	7 %
	2022/23	6	63 %	6	30%	1	7%
	Initial	6	3 %	24	97 %	0	0 %
WAI	allocation						
	2021/22	16	60 %	22	40 %	0	0 %
	2022/23	16	60~%	21	40 %	1	0 %
WBT	Initial allocation	40	$16 \ \%$	209	82 %	7	2 %
, <b>.</b>	2021/22	60	37~%	158	60 %	11	4 %
	2022/23	60	37 %	154	59 %	15	4 %

Table 5.33: CR Program Vessel Owner (CVO/CPO) QS holdings by holder location

**Note** Statistics shown for Owner QS report combined crab catcher vessel and catcher/processor owner (CVO and CPO) quota share pools, report the number of distinct QS holders and percentage of QS pool shares held by individuals by state of residence or entities by state of registration. Owner QS statistics include QS held by CDQ groups and wholly owned direct subsidiaries of CDQ groups. Initial allocation reports the status of the quota pool as of the beginning of the 2005/06 crab season; statistics shown for the two most recent crab seasons reports the status of the QS pool as of the end of the respective season.

Source NMFS Alaska Region, Restricted Access Management, BSAI Crab - Quota Share (QS) Holders files; https://www.fisheries.noaa.gov/alaska/commercial-fishing/permits-and-licenses-issued-alaska

		Crew QS	, Alaska	Crew WA-O		Owne Other L	
	Season	QS holders	Percent of pool	QS holders	Percent of pool	QS holders	Percent of pool
	Initial allocation	44	$19 \ \%$	128	$75 \ \%$	9	6 %
	2021/22	28	$25 \ \%$	69	70~%	5	4 %
BBR	2021/22 2022/23	20	25%	69	70 %	6	4 %
	Initial allocation	35	$19 \ \%$	111	76~%	9	5 %
	2021/22	27	$24 \ \%$	64	72~%	5	3~%
BSS	2022/23	24	24 %	64	72%	7	4 %
	Initial allocation	1	2~%	11	94~%	1	4 %
	2021/22	0	0 %	10	$100 \ \%$	0	0 %
EAG	2022/23	0	0 %	10	100 %	0	0 %
	Initial allocation	40	20~%	117	75 %	9	5 %
	2021/22	29	26~%	72	67~%	9	6 %
EBT	2022/23	28	26~%	73	68~%	9	6~%
	Initial allocation	16	34 %	19	$55 \ \%$	5	11 %
	2021/22	13	$29 \ \%$	20	55 %	6	16~%
PIK	2022/23	12	24 %	21	60~%	6	16~%
	Initial allocation	17	24 %	53	72~%	3	4 %
	2021/22	16	$27 \ \%$	41	$70 \ \%$	3	4 %
$\mathbf{SMB}$	2022/23	16	26~%	41	70~%	3	4 %
	Initial allocation	0	0 %	8	94 %	1	6 %
	2021/22	0	0 %	8	$100 \ \%$	0	0 %
WAG	2022/23	0	0 %	8	100~%	0	0 %
	Initial allocation	0	0 %	4	100 %	0	0 %
	2021/22	0	0 %	4	$100 \ \%$	0	0 %
WAI	2022/23	0	0 %	4	100~%	0	0 %
	Initial allocation	40	20~%	117	75 %	9	5 %
	2021/22	29	26~%	72	67~%	9	6~%
WBT	2022/23	28	26~%	73	68~%	9	6 %

Table 5.34: CR Program Crew (CVC/CPC) QS holdings by holder location

Note Statistics shown for Crew QS report combined crab catcher vessel and catcher/processor crew (CVC and CPC) quota share pools, report the number of distinct QS holders and percentage of QS pool shares held by individuals by state of residence. Initial allocation reports the status of the quota pool as of the beginning of the 2005/06 crab season; statistics shown for the two most recent crab seasons reports the status of the QS pool as of the end of the respective season.

Source NMFS AKRO RAM division Quota Share and Processor Quota Share holder files

	Season	Total QS holders at season end	QS holders active during season	Percent of Crew QS holders active during season	Percent of Crev QS held b active vesse operator
	2005/06	224	95	42 %	54 9
	2006/07	214	82	38 %	52 9
	2007/08	211	84	40 %	51 9
	2008/09	206	82	40 %	50 9
	2009/10	207	72	35 %	49 9
	2010/11	204	71	35%	48 9
	2010/11 2011/12	203	72	35%	46 9
	2011/12 2012/13	203	65	32%	43 9
	2012/13 2013/14	202	64	32% 32%	43 42 9
	,			32% 32%	
	2014/15	204	66		41 9
	2015/16	203	71	35 %	43 9
	2016/17	201	61	30 %	40 9
	2017/18	175	65	37 %	45 9
	2018/19	172	59	34 %	42 9
	2019/20	166	59	36 %	44 9
	2020/21	164	50	30 %	37 9
	2021/22	162	37	$23 \ \%$	31 0
Combined	2022/23	160	19	12 %	17 9
	2005/06	218	94	43 %	53 9
	2006/07	208	81	39 %	51 9
	2007/08	205	83	40 %	51 9
	2008/09	200	80	40 %	49 0
	2009/10	201	72	36 %	49 9
	2010/11	198	70	35 %	47 9
	2011/12	197	71	36 %	45 9
	2012/13	196	64	33 %	43 9
	2013/14	197	63	32 %	42 9
	2014/15	198	65	33 %	42 9
	2015/16	197	70	36~%	44 0
	2016/17	196	60	31 %	40 9
	2017/18	172	63	37 %	46
	2018/19	169	58	34%	43 9
	2019/20	162	58	36 %	44 9
	2019/20 2020/21	162	49	30 % 31 %	37 9
	2020/21 2021/22	158	49 36	23%	29 9
CVC	2021/22 2022/23	156	19	12 %	18 9
	2005/06	24	13	54 %	69 9
	2005/00	24 24	10	42 %	69 9
	,			42% 50 %	60 9
	2007/08	24 24	12		
	2008/09		13	54 %	60 %
	2009/10	25	9	36 %	43 9
	2010/11	27	12	44 %	51 9
	2011/12	28	12	43 %	51 9
	2012/13	28	11	39 %	49 9
	2013/14	29	11	38 %	49 0
	2014/15	28	8	29 %	27 9
	2015/16	28	12	43 %	33 9
	2016/17	28	10	36 %	44 9
	2017/18	28	10	36 %	32 9
	2018/19	27	9	$33 \ \%$	25 9
	2019/20	27	10	$37 \ \%$	44 9
	2020/21	27	11	41 %	49 9
	2020/21 2021/22	27	10	37%	49 9
CPC	2021/22 2022/23	27	3	11 %	6 9

Table 5.35: CR Program Crew (CVC/CPC) QS allocation held by active CFEC-licensed gear operators

**Note** Active gear operators are those who made landings of any CR-program crab (including landings on IFQ, CDQ, and ACA permits), irrespective of fishery, during the given season. Data show gear operators active during the season and holding crew-type quota share (CVC, CPC) at season end.

**Source** eLandings, CFEC Gear Operator Permit registry, NMFS AKRO RAM division Quota Share and Processor Quota Share holder files and IFQ accounting database

		CPO	QS	CVO	QS	All C	$\mathbf{S}$	PQ	5
	Season	CDQ Groups	Share of QS held						
	Initial allocation	1	4.29 %	3	1.23~%	4	1.37~%	-	-
	2021/22	4	40.98~%	5	14.37~%	5	15.57~%	2	13.84~%
BBR	2022/23	4	40.98~%	5	14.37~%	5	15.57~%	2	13.84~%
	Initial allocation	1	3.86~%	3	1.42~%	4	1.64 %	-	-
	2021/22	4	44.53~%	6	15.16~%	6	17.82~%	3	22.90~%
BSS	2022/23	4	44.53 %	6	15.16 %	6	17.82%	3	22.90 %
	2021/22	_	_	4	28.30~%	4	26.97~%	2	11.72~%
EAG	2022/23	-	-	4	28.36~%	4	27.03~%	2	11.72~%
	2021/22	1	96.19~%	3	27.83~%	4	59.35~%	1	29.98~%
WAG	2022/23	1	96.19~%	3	27.83~%	4	59.35~%	1	29.98~%
	Initial allocation	1	3.39~%	3	1.42~%	4	1.55~%	-	-
	2021/22	4	62.68~%	6	13.28~%	6	16.63~%	2	18.56~%
EBT	2022/23	4	62.68~%	6	13.28~%	6	16.63~%	2	18.56~%
	Initial allocation	1	3.39~%	3	1.42~%	4	1.55~%	-	-
	2021/22	4	62.68~%	6	13.28~%	6	16.63~%	2	18.56~%
WBT	2022/23	4	62.68~%	6	13.28~%	6	16.63~%	2	18.56~%
	Initial allocation	-	-	2	1.14 %	2	1.11 %	-	-
	2021/22	2	100.00~%	4	16.51~%	5	18.12~%	2	23.74~%
SMB	2022/23	2	100.00~%	4	16.51~%	5	18.12~%	2	23.74~%
	Initial allocation	-	-	1	2.34 %	1	2.33 %	-	-
	2021/22	-	-	6	15.78~%	6	15.70~%	2	15.77~%
PIK	2022/23	-	-	6	15.78~%	6	15.70~%	2	15.77~%
	Initial allocation	-	-	1	0.16 %	1	0.10 %	-	-
	2021/22	1	95.82~%	5	16.95~%	5	47.13~%	-	-
WAI	2022/23	1	95.82~%	5	16.95~%	5	47.13~%	-	-

Table 5.36: CDQ group direct holdings of CR Program QS and PQS allocation

Note Share of QS held reports the proportion of CVO and CPO QS pools held by CDQ groups, including QS held through wholly owned direct subsidiaries; does not include QS held indirectly through partial interest in other QS entities. Initial allocation reports the status of the quota pool as of the beginning of the 2005/06 crab season; statistics shown for the two most recent crab seasons reports the status of the QS pool as of the end of the respective season.

Source NMFS AKRO RAM division Quota Share and Processor Quota Share holder files

	Quota	Initial issuance	2021/2022	2022/2023	Net change from initial issuance	Net chang from previou yea
	CPC	8	5	4	-4	-
	CPO	13	5	5	-8	
	CVC	178	60	59	-119	-
	CVO	242	151	151	-91	(
	All Harvest	426	218	216	-210	-:
	QS					
BBR	$\frac{2}{Processor}$ QS	17	8	8	-9	(
	CPC	8	4	4	-4	
	CPO	14	5	5	-9	(
	$\operatorname{CVC}$	152	52	51	-101	-
	CVO	231	145	145	-86	
	All Harvest	389	202	201	-188	-
	QS					
BSS	Processor QS	20	10	10	-10	(
	CPC	15	-	-	-	
	CPO	14	-	-	-	
	CVC	170	-	-	-	
	CVO	248	-	-	-	
	All Harvest	426	-	-	-	
	QS					
BST	Processor QS	23	-	-	-	
	CPC	15	8	7	-8	-
	CPO	13	5	5	-8	
	$\operatorname{CVC}$	160	68	66	-94	-
	CVO	246	151	151	-95	
	All Harvest	413	228	225	-188	-
	QS					
BTE	Processor QS	23	12	12	-11	
	CPC	15	8	7	-8	-
	CPO	13	5	5	-8	
	CVC	160	68	66	-94	-
	CVO	246	151	151	-95	
	All Harvest	413	228	225	-188	-
	QS					
BTW	Processor QS	23	12	12	-11	
	CPO	2	0	0	-2	
	CVC	13	2	2	-11	
	CVO	13	8	8	-5	
	All Harvest	28	10	10	-18	
	QS					
EAG	Processor QS	9	4	4	-5	
	CPO	1	1	1	0	
	CVC	40	26	26	-14	
	CVO	111	73	72	-39	-
	All Harvest	148	98	97	-51	-
	QS			· ·		
PIK	Processor QS	14	9	9	-5	

## Table 5.37: CR Program QS/PQS initial recipients currently remaining in QS Pools

	Quota	Initial issuance	2021/2022	2022/2023	Net change from initial issuance	Net change from previous year
	CPO	5	1	1	-4	0
	CVC	73	29	28	-45	-1
	CVO	133	79	78	-55	-1
	All Harvest QS	210	110	108	-102	-2
SMB	Processor QS	12	5	5	-7	0
	CPC	2	1	1	-1	0
	CPO	2	1	1	-1	0
	CVC	8	5	5	-3	0
	CVO	13	8	8	-5	0
	All Harvest QS	24	15	15	-9	0
WAG	Processor QS	9	6	6	-3	0
	CPC	1	1	1	0	0
	CPO	2	2	2	0	0
	CVC	4	3	3	-1	0
	CVO	29	17	17	-12	0
	All Harvest QS	34	21	21	-13	0
WAI	Processor QS	9	5	5	-4	0

Table 5.37: CR Program QS/PQS initial recipients currently remaining in QS Pools (continued)

Note Initial issuance shows the number of initial Crab QS/PQS recipients in each of the respective quota pools as of the beginning of the 2005/06 crab season; counts for the most recent seasons show the current number and net change (exit) in the number of initial issuees in the respective pool remaining as of the end of the two most recent crab seasons.

Quota initially issued for the Bering Sea Tanner crab (BST) was reissued for the 2006/07 season corresponding to division of the fishery into eastern and Western management units (EBT, WBT). The table reports initial BST quota holders as of 2005, and initial EBT and WBT holders as of 2006; net change from initial issues remaining reported for EBT and WBT is relative to 2006. Source NMFS AKRO RAM division Quota Share and Processor Quota Share holder files

		Owne: New in	• /	Owner New in all		Crew New in			v QS, ll fisheries		QS, fishery	PQ New in all	
	Relative to season	Entrants	Share of QS type acquired	Entrants	Share of QS type acquired	Entrants	Share of QS type acquired	Entrants	Share of QS type acquired	Entrants	Share of QS type acquired	Entrants	Share of QS type acquired
	2022 season end	1	0 %	1	0 %	3	4 %	1	1 %	-	-	-	-
BBR	Initial allocation	85	30~%	79	27~%	42	51~%	39	49 %	6	33 %	5	32~%
	2022 season end	1	0 %	1	0 %	1	1 %	-	-	-	-	-	-
BSS	Initial allocation	120	29~%	110	27~%	42	52~%	40	51~%	7	32 %	6	31~%
EAG	Initial allocation	15	51 %	11	46 %	8	80 %	6	78 %	6	$25 \ \%$	5	24~%
	2022 season end	1	0 %	1	0 %	1	3 %	-	-	-	-	-	-
PIK	Initial allocation	47	48 %	33	35 %	13	34~%	10	24~%	3	30 %	2	16 %
	2022 season end	2	1 %	2	1 %	1	1 %	-	-	-	-	-	-
SMB	Initial allocation	53	29~%	43	22~%	32	56 %	26	49 %	5	35 %	4	27~%
WAG	Initial allocation	4	16~%	3	4 %	2	20~%	2	20~%	4	53~%	3	53~%
WAI	Initial allocation	20	28~%	12	14 %	1	9 %	1	9 %	3	62~%	2	$35 \ \%$

Table 5.38: New holders of Crab QS and PQS in 2022/23 relative to initial allocation and prior season end

Note Entrants and share of QS type acquired columns show the change in entry to the respective quota pools, as of the beginning of the 2022/23 crab season, relative to the end of the 2021/22 and 2005/06 (initial allocation) seasons.

Source NMFS Alaska Region - Restricted Access Management,, Quota shareholder files.

	Season	QS Entities	Owners	Herfindah Inde
	2005/06	251	396	0.3
	2006/07	255	462	0.3
	2007/08	249	466	0.3
	2008/09	254	575	0.3
	2009/10	256	576	0.3
	2010/11	264	574	0.3
	2011/12	261	551	0.3
	2012/13	257	584	0.3
	2013/14	261	599	0.3
	2014/15	256	622	0.3
	2015/16	249	499	0.3
	2016/17	247	526	0.3
	2017/18	246	523	0.3
	2018/19	248	519	0.3
	2019/20	243	517	0.3
	2020/21	241	513	0.3
	2021/22	240	540	0.3
	2022/23	240	549	0.3
	2023/24	241	555	0.3
BBR	2024/25	239	239	0.3
	2005/06	240	374	0.3
	2006/07	239	430	0.3
	2007/08	237	435	0.3
	2008/09	245	542	0.3
	2009/10	249	551	0.3
	2010/11	250	518	0.3
	2011/12	263	519	0.3
	2012/13	258	550	0.3
	2013/14	266	569	0.3
	2014/15	260	573	0.3
	2015/16	261	452	0.3
	2016/17	263	481	0.3
	2017/18	261	481	0.3
	2018/19	264	486	0.3
	2019/20	263	472	0.3
	2020/21	266	477	0.3
	2021/22	268	505	0.3
	2022/23	272	513	0.3
	2023/24	270	512	0.3
BSS	2024/25	270	270	0.3

Table 5.39: CVO/CPO total entity decomposition, BBR and BSS QS pools

			BBR			BSS	
		QS Entities - Count	Owners - Count	Owners - QS Percent	QS Entities - Count	Owners - Count	Owners QS Percer
	Individual	26	272	65.34~%	25	261	66.35
	Corp/Invest Fund	222	66	17.64~%	212	60	16.53
	CDQ/Nonprofit	2	5	6.83~%	2	5	7.45
	Trust/Estate	-	19	2.40~%	-	18	2.42
2005/06	Unknown	-	34	4.78 %	-	30	4.24
	Individual	30	360	75.71~%	27	341	76.47
	Corp/Invest Fund	222	38	7.26~%	209	29	6.66
	CDQ/Nonprofit	2	6	8.06~%	2	6	8.42
	Trust/Estate	-	20	1.98~%	-	19	2.08
2006/07	Unknown	-	38	4.04 %	-	35	3.34
	Individual	32	394	78.08~%	30	368	77.87
	Corp/Invest Fund	212	18	4.82~%	202	16	4.77
	CDQ/Nonprofit	4	6	11.61~%	4	6	11.74
	Trust/Estate	-	24	2.24~%	-	23	2.36
2007/08	Unknown	-	24	0.26 %	-	22	0.26
	Individual	32	430	77.77~%	29	402	77.70
	Corp/Invest Fund	217	80	4.09~%	211	78	4.25
	CDQ/Nonprofit	4	7	12.42~%	4	7	12.23
	Trust/Estate	-	31	2.47~%	-	30	2.57
2008/09	Unknown	-	27	0.27~%	-	25	0.26
	Individual	35	430	75.29~%	32	408	76.22
	Corp/Invest Fund	216	76	3.10~%	211	75	3.06
	CDQ/Nonprofit	4	7	14.25~%	4	7	13.70
	Trust/Estate	-	32	4.20~%	1	32	3.87
2009/10	Unknown	-	31	0.18 %	-	29	0.17
	Individual	38	424	75.38~%	35	376	75.49
	Corp/Invest Fund	221	76	2.83~%	209	74	2.38
	CDQ/Nonprofit	4	7	14.65~%	4	7	15.08
010/11	Trust/Estate	-	31	3.97%	1	31	3.87
2010/11	Unknown	-	36	0.18 %	-	30	0.17
	Individual	41	409	73.54 %	46	382	73.85
	Corp/Invest Fund	215	72	3.14 %	211	73	2.82
	CDQ/Nonprofit	4	7	16.30 %	5	7	16.60
011/10	Trust/Estate	-	32	3.67 %	-	31	3.39
2011/12	Unknown	-	31	0.37 %	-	26	0.34
	Individual	39	433	73.86 %	42	405	74
	Corp/Invest Fund	213	74	2.79 %	210	73	2.47
	CDQ/Nonprofit	4	7	16.41 %	5	7	16.87
2012/13	Trust/Estate Unknown	-	40 30	$3.73~\% \\ 0.20~\%$	-	$     40 \\     25 $	$3.46 \\ 0.19$
	Individual	39	439	72.34 %	44	413	72.61
	Corp/Invest Fund CDQ/Nonprofit	217	73	2.79 %	216	72	2.45
	Trust/Estate	4	7     48	$16.41 \ \% 5.24 \ \%$	5	7     48	16.96 4.78
2013/14	Unknown	-	40 32	0.20%	-	40 29	4.78 0.19
		80			10		
	Individual Corp/Invest Fund	38 213	$456 \\ 74$	$70.85 \ \%$ $2.70 \ \%$	$42 \\ 212$	$416 \\ 71$	70.32 2.34
	Corp/Invest Fund CDQ/Nonprofit	213	74 7	2.70 % 17.48 %	212 5	71 7	2.34 18.85
	Trust/Estate	4	50	5.78 %	J	49	5.29
2014/15	Unknown	-	30 35	0.20%	-	49 30	0.18
,	Individual	90			A A		
	Individual Corp/Invest Fund	38 206	417 8	$69.45 \ \% 2.06 \ \%$	44 211	$376 \\ 5$	$68.95 \\ 1.87$
	CDQ/Nonprofit	4	6	19.91%	5	6	21.09
	Trust/Estate	-	35	5.40 %	-	34	4.90
2015/16	Unknown	-	33	0.20 %	-	34	4.90 0.18
	C 111110 W 11	-	00	0.20 /0	-	01	0.10

## Table 5.40: CVO/CPO entity decomposition by entity type, BBR and BSS QS pools

			BBR			BSS	
		QS Entities - Count	Owners - Count	Owners - QS Percent	QS Entities - Count	Owners - Count	Owners - QS Percent
	Individual	36	426	68.58~%	45	386	68.21 %
	Corp/Invest Fund	206	7	1.09~%	212	4	0.93~%
	CDQ/Nonprofit	4	6	19.91~%	5	6	21.09 %
	Trust/Estate	-	51	7.39~%	-	51	6.72%
2016/17	Unknown	-	36	0.04~%	-	34	0.04 %
	Individual	35	425	68.80~%	45	389	68.41 %
	Corp/Invest Fund	206	7	1.09~%	210	4	0.93~%
	CDQ/Nonprofit	4	6	19.59~%	5	6	20.82 %
	Trust/Estate	-	51	7.49~%	-	51	6.82 %
2017/18	Unknown	-	34	0.03~%	-	31	0.02~%
	Individual	37	418	67.99~%	44	390	68.26 %
	Corp/Invest Fund	206	7	1.08~%	214	4	0.94 %
	CDQ/Nonprofit	4	5	19.34~%	5	6	20.64 %
	Trust/Estate	-	56	8.60~%	-	55	$7.15 \ \%$
2018/19	Unknown	-	33	0.01~%	-	31	0 %
	Individual	34	415	67.17~%	46	31 377 4	67.62 %
	Corp/Invest Fund	204	7	1.05~%	211	4	$0.94 \ \%$
	CDQ/Nonprofit	4	5	19.34~%	5	6	20.64 %
	Trust/Estate	-	61	9.43~%	-	58	7.78 %
2019/20	Unknown	-	29	0.01 %	-	27	0 %
	Individual	35	411	68.33~%	46	376	68.53 %
	Corp/Invest Fund	201	5	0.53~%	214	3	$0.41 \ \%$
	CDQ/Nonprofit	4	5	19.35~%	5	6	20.65 %
	Trust/Estate	-	60	8.79~%	-	59	7.40~%
2020/21	Unknown	-	32	0.01 %	-	33	0.01 %
	Individual	35	398	64.09~%	48	366	64.88 %
	Corp/Invest Fund	200	5	1.01~%	214	4	0.94 %
	CDQ/Nonprofit	4	40	22.42~%	5	41	23.34 %
	Trust/Estate	-	62	9.47~%	-	60	7.81 %
2021/22	Unknown	-	35	0.01 %	-	34	0.01 %
	Individual	31	399	62.53~%	44	368	63.72 %
	Corp/Invest Fund	204	4	1 %	222	3	0.94~%
	CDQ/Nonprofit	4	40	22.41~%	5	41	23.32 %
	Trust/Estate	-	65	11.03~%	-	61	$8.97 \ \%$
2022/23	Unknown	-	41	0.04~%	-	40	0.03~%

## Table 5.40: CVO/CPO entity decomposition by entity type, BBR and BSS QS pools (continued)

Note Statistics shown for Owner QS report combined crab catcher vessel and catcher/processor owner (CVO and CPO) quota share pools, and report the number of distinct QS entities ("Entities"), and number of distinct individuals and equity owners of QS entities ("Owners") obtained by decomposition of ownership information reported to NMFS in Annual IFQ Permit applications, and summed percentages of QS pool shares collectively by Entities and Owners, categorized by type – Individual, CDQ Group/Non-profit, Corporate, Trust/Estate, and Unknown (rounding error and incomplete company ownership data, particularly in the early years of the CR program, result in residual shares that are assigned to "Unknown" entities).

Source NMFS Alaska Region - Restricted Access Management, Quota Share holder files; Alaska Fisheries Information Network (AKFIN).

			Count of QS	Holders			Share of QS F	ool Held	
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive
	2005/06	175	39	183	211	0.58	0.12	0.59	0.41
	2006/07	204	39	212	247	0.62	0.07	0.63	0.37
	2007/08	205	34	212	251	0.63	0.06	0.64	0.36
	2008/09	297	31	307	266	0.60	0.05	0.62	0.38
	2009/10	286	31	294	278	0.62	0.06	0.63	0.37
	2010/11	267	28	275	292	0.61	0.04	0.62	0.38
	2011/12	248	28	256	294	0.62	0.03	0.63	0.37
	2012/13	291	25	296	288	0.65	0.04	0.65	0.35
	2013/14	290	23	294	303	0.60	0.04	0.61	0.39
	2014/15	293	21	297	324	0.61	0.04	0.62	0.38
	2015/16	180	20	186	313	0.64	0.03	0.65	0.35
	2016/17	210	21	215	311	0.64	0.04	0.65	0.35
	2017/18	203	25	209	314	0.61	0.05	0.63	0.37
	2018/19	198	23	203	316	0.61	0.04	0.62	0.38
	2019/20	202	23	207	310	0.62	0.04	0.63	0.37
	2020/21	195	20	200	313	0.61	0.03	0.61	0.39
	2021/22	168	13	170	370	0.55	0.02	0.55	0.45
	2022/23	85	6	87	462	0.33	0.01	0.34	0.66
BBR	2023/24	159	14	162	393	0.47	0.02	0.47	0.53

Table 5.41: Estimated active and inactive QS owners and share of QS pool held

			Count of QS	Holders			Share of QS F	ool Held	
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive
	2005/06	171	39	179	195	0.60	0.12	0.61	0.39
	2006/07	204	38	212	217	0.64	0.07	0.66	0.34
	2007/08	204	34	211	219	0.65	0.06	0.66	0.34
	2008/09	297	32	307	233	0.62	0.05	0.63	0.37
	2009/10	284	30	291	255	0.59	0.05	0.61	0.39
	2010/11	264	26	271	243	0.61	0.04	0.61	0.39
	2011/12	252	29	260	258	0.63	0.04	0.64	0.36
	2012/13	297	26	302	247	0.65	0.04	0.66	0.34
	2013/14	294	28	301	264	0.61	0.04	0.62	0.38
	2014/15	297	27	305	268	0.64	0.04	0.65	0.35
	2015/16	192	27	200	252	0.67	0.04	0.67	0.33
	2016/17	219	26	226	255	0.66	0.04	0.67	0.33
	2017/18	212	29	219	262	0.64	0.05	0.65	0.35
	2018/19	205	26	210	275	0.62	0.04	0.63	0.37
	2019/20	208	28	215	255	0.64	0.04	0.65	0.35
	2020/21	205	23	210	264	0.63	0.03	0.63	0.37
	2021/22	178	18	182	321	0.57	0.02	0.57	0.43
	2022/23	86	8	89	421	0.34	0.01	0.34	0.66
BSS	2023/24	164	15	167	342	0.49	0.02	0.49	0.51

Table 5.41: Estimated active and inactive QS owners and share of QS pool held *(continued)* 

			Count of QS	Holders			Share of QS F	ool Held	
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive
	2006/07	204	40	212	263	0.63	0.08	0.64	0.36
	2007/08	202	34	208	263	0.62	0.07	0.64	0.36
	2008/09	296	32	305	275	0.59	0.05	0.60	0.40
	2009/10	282	31	290	283	0.57	0.06	0.59	0.41
	2010/11	263	27	270	287	0.58	0.04	0.59	0.41
	2011/12	243	26	250	290	0.58	0.04	0.59	0.41
	2012/13	285	24	290	280	0.60	0.04	0.61	0.39
	2013/14	284	22	288	297	0.57	0.04	0.58	0.42
	2014/15	288	21	292	316	0.60	0.04	0.61	0.39
	2015/16	175	19	180	308	0.61	0.03	0.62	0.38
	2016/17	209	21	214	301	0.63	0.04	0.64	0.36
	2017/18	202	25	208	309	0.60	0.05	0.61	0.39
	2018/19	195	23	200	311	0.59	0.04	0.60	0.40
	2019/20	199	23	204	303	0.62	0.04	0.62	0.38
	2020/21	192	20	197	309	0.60	0.04	0.61	0.39
	2021/22	165	13	167	367	0.53	0.03	0.53	0.47
	2022/23	84	6	86	454	0.33	0.02	0.34	0.66
EBT	2023/24	154	13	157	388	0.46	0.03	0.47	0.53

Table 5.41: Estimated active and inactive QS owners and share of QS pool held *(continued)* 

			Count of QS	Holders			Share of QS P	ool Held	
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive
	2006/07	204	40	212	263	0.63	0.08	0.64	0.36
	2007/08	202	34	208	263	0.62	0.07	0.64	0.36
	2008/09	296	32	305	276	0.59	0.05	0.60	0.40
	2009/10	282	31	290	284	0.57	0.06	0.59	0.41
	2010/11	263	27	270	288	0.58	0.04	0.58	0.42
	2011/12	243	26	250	291	0.58	0.04	0.59	0.41
	2012/13	285	24	290	281	0.60	0.04	0.61	0.39
	2013/14	284	22	288	298	0.57	0.04	0.58	0.42
	2014/15	288	21	292	317	0.60	0.04	0.61	0.39
	2015/16	175	20	181	308	0.61	0.04	0.62	0.38
	2016/17	209	22	215	301	0.63	0.04	0.64	0.36
	2017/18	202	26	209	309	0.60	0.05	0.61	0.39
	2018/19	195	24	201	309	0.60	0.05	0.60	0.40
	2019/20	199	24	205	303	0.62	0.05	0.63	0.37
	2020/21	192	20	197	310	0.60	0.04	0.61	0.39
	2021/22	165	13	167	367	0.53	0.03	0.53	0.47
	2022/23	84	6	86	454	0.34	0.02	0.34	0.66
WBT	2023/24	154	13	157	388	0.46	0.03	0.47	0.53

Table 5.41: Estimated active and inactive QS owners and share of QS pool held *(continued)* 

			Count of QS	Holders			Share of QS F	ool Held	
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive
	2005/06	16	3	16	21	0.64	0.11	0.64	0.36
	2006/07	30	3	30	15	0.72	0.02	0.72	0.28
	2007/08	32	2	33	11	0.81	0.01	0.82	0.18
	2008/09	24	3	27	2	0.76	0.08	0.84	0.16
	2009/10	17	3	18	3	0.63	0.08	0.64	0.36
	2010/11	18	3	19	7	0.79	0.11	0.80	0.20
	2011/12	16	3	17	9	0.74	0.11	0.75	0.25
	2012/13	16	2	16	10	0.74	0.10	0.74	0.26
	2013/14	16	2	16	13	0.64	0.10	0.64	0.36
	2014/15	20	5	23	15	0.72	0.07	0.73	0.27
	2015/16	19	7	23	12	0.72	0.08	0.74	0.26
	2016/17	20	6	23	12	0.86	0.08	0.87	0.13
	2017/18	27	5	29	13	0.86	0.07	0.86	0.14
	2018/19	25	6	28	13	0.86	0.07	0.86	0.14
	2019/20	26	6	29	12	0.88	0.08	0.88	0.12
	2020/21	25	6	28	13	0.86	0.08	0.86	0.14
	2021/22	25	5	27	15	0.85	0.08	0.85	0.15
	2022/23	21	4	22	19	0.71	0.07	0.71	0.29
EAG	2023/24	23	3	23	17	0.78	0.07	0.78	0.22

Table 5.41: Estimated active and inactive QS owners and share of QS pool held *(continued)* 

			Count of QS	Holders		Share of QS Pool Held				
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	
	2005/06	17	3	17	12	0.89	0.03	0.89	0.11	
	2006/07	23	3	23	13	0.89	0.01	0.89	0.11	
	2007/08	25	2	26	12	0.91	0	0.91	0.09	
	2008/09	18	2	20	4	0.91	0	0.91	0.09	
	2009/10	17	3	20	4	0.81	0	0.81	0.19	
	2010/11	18	2	20	4	0.91	0	0.91	0.09	
	2011/12	14	2	16	6	0.90	0	0.90	0.10	
	2012/13	14	1	15	7	0.90	0	0.90	0.10	
	2013/14	15	0	15	10	0.88	0	0.88	0.12	
	2014/15	16	0	16	7	0.88	0	0.88	0.12	
	2015/16	16	1	16	7	0.88	0	0.88	0.12	
	2016/17	17	1	17	6	0.95	0	0.95	0.05	
	2017/18	24	1	24	6	0.95	0	0.95	0.05	
	2018/19	25	1	25	7	0.95	0	0.95	0.05	
	2019/20	26	1	26	6	0.97	0	0.97	0.03	
	2020/21	25	1	25	7	0.95	0	0.95	0.05	
	2021/22	25	1	25	7	0.95	0	0.95	0.05	
	2022/23	22	1	22	10	0.82	0	0.82	0.18	
WAG	2023/24	23	1	23	10	0.88	0	0.88	0.12	

Table 5.41: Estimated active and inactive QS owners and share of QS pool held *(continued)* 

			Count of QS	Holders		Share of QS Pool Held				
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	
	2005/06	126	26	130	108	0.65	0.13	0.65	0.35	
	2006/07	154	26	158	134	0.68	0.07	0.69	0.31	
	2007/08	149	24	153	136	0.65	0.05	0.65	0.35	
	2008/09	242	20	248	138	0.57	0.04	0.58	0.42	
	2009/10	226	20	231	147	0.58	0.05	0.59	0.41	
	2010/11	208	17	212	148	0.55	0.04	0.56	0.44	
	2011/12	210	16	214	151	0.61	0.03	0.62	0.38	
	2012/13	248	14	250	147	0.64	0.04	0.65	0.35	
	2013/14	250	14	252	148	0.60	0.04	0.61	0.39	
	2014/15	253	12	255	155	0.64	0.04	0.65	0.35	
	2015/16	145	13	147	141	0.66	0.04	0.67	0.33	
	2016/17	173	13	176	150	0.67	0.04	0.68	0.32	
	2017/18	169	15	172	160	0.65	0.04	0.66	0.34	
	2018/19	160	13	162	169	0.63	0.03	0.63	0.37	
	2019/20	164	14	167	151	0.66	0.03	0.67	0.33	
	2020/21	161	12	164	152	0.64	0.03	0.64	0.36	
	2021/22	138	9	140	211	0.57	0.01	0.57	0.43	
	2022/23	71	5	73	248	0.37	0.01	0.38	0.62	
SMB	2023/24	130	9	133	194	0.45	0.01	0.46	0.54	

Table 5.41: Estimated active and inactive QS owners and share of QS pool held *(continued)* 

			Count of QS	Holders			Share of QS F	ool Held	
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive
	2005/06	112	20	116	95	0.47	0.11	0.49	0.51
	2006/07	136	22	139	85	0.57	0.10	0.59	0.41
	2007/08	153	23	157	87	0.59	0.11	0.61	0.39
	2008/09	232	22	239	110	0.52	0.08	0.55	0.45
	2009/10	226	20	232	113	0.59	0.08	0.60	0.40
	2010/11	217	18	222	112	0.59	0.07	0.60	0.40
	2011/12	201	19	206	104	0.59	0.06	0.60	0.40
	2012/13	238	16	242	102	0.61	0.08	0.62	0.38
	2013/14	239	16	242	114	0.61	0.07	0.61	0.39
	2014/15	242	14	245	128	0.63	0.07	0.64	0.36
	2015/16	130	14	135	122	0.60	0.07	0.62	0.38
	2016/17	157	12	160	118	0.61	0.06	0.62	0.38
	2017/18	156	16	160	126	0.58	0.06	0.59	0.41
	2018/19	144	14	147	139	0.55	0.05	0.56	0.44
	2019/20	142	15	146	134	0.53	0.06	0.54	0.46
	2020/21	148	11	151	140	0.57	0.05	0.58	0.42
	2021/22	130	7	132	176	0.51	0.03	0.51	0.49
	2022/23	75	1	75	236	0.35	0	0.35	0.65
PIK	2023/24	134	8	135	175	0.43	0.03	0.43	0.57

Table 5.41: Estimated active and inactive QS owners and share of QS pool held *(continued)* 

			Count of QS	Holders		Share of QS Pool Held				
	Season	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	Active (vessel owner)	Active (gear operator)	Active (total)	Inactive	
	2005/06	58	9	61	17	0.74	0.03	0.74	0.26	
	2006/07	83	7	83	8	0.76	0.01	0.76	0.24	
	2007/08	71	5	71	31	0.82	0.01	0.82	0.18	
	2008/09	72	5	74	19	0.81	0.01	0.82	0.18	
	2009/10	51	5	52	32	0.91	0.01	0.91	0.09	
	2010/11	52	5	53	32	0.91	0.01	0.91	0.09	
	2011/12	52	3	52	33	0.88	0.01	0.88	0.12	
	2012/13	51	5	52	31	0.88	0.02	0.88	0.12	
	2013/14	54	6	55	25	0.83	0.02	0.84	0.16	
	2014/15	55	6	56	33	0.84	0.02	0.85	0.15	
	2015/16	55	7	57	33	0.84	0.06	0.89	0.11	
	2016/17	55	6	56	35	0.84	0.02	0.85	0.15	
	2017/18	53	9	55	40	0.84	0.02	0.85	0.15	
	2018/19	53	7	55	41	0.84	0.01	0.85	0.15	
	2019/20	52	7	54	40	0.84	0.01	0.85	0.15	
	2020/21	51	6	53	37	0.85	0.01	0.86	0.14	
	2021/22	32	5	34	68	0.80	0.01	0.81	0.19	
	2022/23	20	2	20	82	0.76	0	0.76	0.24	
WAI	2023/24	40	3	41	63	0.71	0.01	0.72	0.28	

Table 5.41: Estimated active and inactive QS owners and share of QS pool held (continued)

Note Active QS owners are decomposed owners of CVO/CPO QS that meet at least one of the following requirements during the year that QS is owned: 1) held ownership interest in a vessel that fished for BSAI crab during the year of QS ownership; 2) participated in the IFQ crab fishery as a gear operator. Due to incomplete data on decomposed QS and vessel ownership, these plots show the estimated minimum share of the QS pool held by active QS owners.

Source NMFS Alaska Region - Restricted Access Management, crab IFQ quota holdings, vessel ownership, company company ownership data; eLandings landing reports.

	Season	IFQ permit holders	RCR permit holders	Landings	IFQ pounds (million)	Sold pounds (million)	Personal use pounds (1,000)	Deadloss pounds (1,000)
	2005/06	83	13	255.00	16.50	16.40	18.40	77.50
	2005/00	36	13	183.00	13.90	13.80	10.30	98.70
	2007/08	27	13	246.00	18.30	18.20	33.80	132.00
	2007/08	25	16	240.00 252.00	18.30	18.20	21.00	160.80
	2008/09 2009/10	13	10	252.00 212.00	14.40	14.20	20.80	111.50
	2009/10 2010/11	10	14	223.00	13.30	14.20 13.20	25.90	99.50
	2010/11 2011/12	10	14 15	223.00 254.00	7.10	7.00	15.10	30.20
	2011/12 2012/13	9	15	219.00	7.10	7.00	15.10 15.20	28.80
	2012/13 2013/14	9 10	15	219.00 250.00	7.10	7.00 7.70	18.70	28.80 60.60
	2013/14 2014/15	10	15		9.00	8.90	14.40	94.50
	2014/15 2015/16	10 9	14 12	$241.00 \\ 243.00$	9.00 9.00	8.90 8.80	14.40 12.80	94.50 178.00
	,							
	2016/17	8	14 14	249.00	7.60 5.00	7.60 5.00	19.30 15.80	35.40
	2017/18	8	14	237.00	5.90	5.90	15.80	23.00 26.70
	2018/19	8	12	208.00	3.90	3.80	15.90	
DDD	2019/20	8	12	197.00	3.40	3.40	14.80	7.50
BBR	2020/21	7	14	141.00	2.40	2.40	14.00	3.70
	2005/06	70	13	301.00	33.30	32.90	0.70	322.60
	2006/07	30	16	272.00	32.70	32.30	0.30	378.80
	2007/08	25	17	459.00	56.70	56.20	6.50	500.10
	2008/09	24	15	428.00	52.70	52.30	0.60	403.30
	2009/10	12	11	321.00	43.20	42.70	1.80	500.00
	2010/11	10	14	466.00	48.80	48.50	3.30	314.00
	2011/12	11	14	798.00	79.90	79.40	5.40	582.40
	2012/13	9	14	585.00	59.60	59.20	2.10	427.30
	2013/14	10	13	573.00	48.60	48.20	1.50	354.50
	2014/15	10	13	640.00	61.10	60.60	1.30	546.00
	2015/16	9	11	492.00	36.60	36.20	2.00	352.70
	2016/17	8	13	360.00	19.40	19.20	0.70	234.70
	2017/18	8	11	356.00	17.10	16.90	1.30	153.50
	2018/19	8	12	413.00	24.80	24.60	0.30	237.60
	2019/20	7	12	460.00	30.60	30.20	0.70	372.40
	2020/21	8	12	463.00	40.50	39.70	1.70	788.10
	2021/22	8	9	170.00	5.00	4.90	0.80	63.80
BSS	2022/23	1	2	2.00	*	*	*	*
BST	2005/06	34	9	73.00	0.80	0.80	2.90	14.60
	2006/07	21	10	57.00	1.30	1.30	0.70	8.40
	2007/08	10	8	58.00	1.40	1.40	0.10	15.60
	2008/09	10	10	60.00	1.60	1.50	0.80	11.90
	2009/10	8	12	45.00	1.20	1.20	3.50	7.10
	2013/14	5	13	107.00	1.30	1.30	2.10	6.20
	2014/15	7	13	194.00	7.60	7.60	1.20	48.20
	2015/16	8	12	244.00	10.10	10.00	1.10	115.00
	2018/19	1	4	8.00	*	*	*	*
	2020/21	1	1	1.00	*	*	*	*
EBT	2022/23	4	8	67.00	1.00	1.00	0.50	9.60

Table 5.42: CR Program fisheries - catch, landings, and deadloss, by season

	Season	IFQ permit holders	RCR permit holders	Landings	IFQ pounds (million)	Sold pounds (million)	$\begin{array}{c} \text{Personal} \\ \text{use pounds} \\ (1,000) \end{array}$	Deadloss pounds (1,000)
	2006/07	14	10	60.00	0.60	0.60	0.00	18.50
	2007/08	8	8	44.00	0.50	0.50	1.10	4.10
	2008/09	10	7	50.00	0.10	0.10	0.10	2.60
	2009/10	4	1	22.00	*	*	*	*
	2013/14	8	13	186.00	1.20	1.20	0.00	15.00
	2014/15	8	13	234.00	4.60	4.50	1.70	92.40
	2015/16	7	11	268.00	7.50	7.50	0.60	49.60
	2017/18	8	14	133.00	2.20	2.20	2.90	15.80
	2018/19	8	13	149.00	2.20	2.20	1.90	39.10
	2019/20	2	2	5.00	*	*	*	×
	2020/21	6	13	94.00	1.30	1.30	0.80	24.90
	2021/22	7	10	95.00	1.00	1.00	1.90	8.60
WBT	2022/23	4	8	69.00	0.80	0.80	1.20	8.80
	2005/06	6	5	32.00	2.60	2.50	0.10	23.80
	2006/07	4	6	32.00	2.70	2.70	0.00	31.30
	2007/08	4	4	36.00	2.70	2.70	0.00	21.00
	2008/09	3	5	29.00	2.80	2.80	0.00	24.10
	2009/10	2	6	32.00	*	*	*	*
	2010/11	2	7	30.00	*	*	*	*
	2011/12	2	9	45.00	*	*	*	*
	2012/13	2	10	46.00	*	*	*	*
	2013/14	2	9	39.00	*	*	*	2
	2014/15	2	7	37.00	*	*	*	2
	2015/16	2	6	37.00	*	*	*	k
	2016/17	2	7	41.00	*	*	*	*
	2017/18	2	7	41.00	*	*	*	ł
	2018/19	3	8	49.00	3.50	3.40	0.00	47.50
	2019/20	3	8	49.00	3.90	3.80	0.00	51.50
	2020/21	3	9	46.00	3.30	3.30	0.00	29.80
240	2021/22	3	7	39.00	3.30	3.20	0.00	27.80
EAG	2022/23	3	8	41.00	3.00	3.00	0.00	27.80
	2005/06	3	5	42.00	2.40	2.40	3.50	26.30
	2006/07	3	5	31.00	2.00	2.00	0.00	19.80
	2007/08	3	4	34.00	2.20	2.20	0.00	23.20
	2008/09	3	7	37.00	2.30	2.20	0.20	22.80
	2009/10	2	5	38.00	*	*	*	د
	2010/11	2	7	37.00	*	*	*	k k
	2011/12	2	7	43.00	*	*	*	\$
	2012/13	2	8	46.00	*	*	*	4
	2013/14	2	6	42.00	*	*	*	*
	2014/15	1	8	44.00	*	*	*	*
	2015/16	1	8	48.00	*	*	*	
	2016/17	2	8	41.00				
	2017/18	3	7	45.00	2.00	2.00	0.60	55.80
	2018/19	3	6	44.00	2.30	2.20	0.00	48.50
	2019/20	3	6	50.00	2.60	2.50	0.00	52.00
	2020/21	3	8	42.00	$2.50 \\ *$	$2.40 \\ *$	$2.00 \\ *$	56.60
WAG	2021/22 2022/23	$2 \\ 2$	6 7	$43.00 \\ 43.00$	*	*	*	:
					*	*	*	3
	2009/10 2010/11	1	6	30.00	*	*	*	
		2	8 10	63.00				
	2011/12	6	10 10	107.00 125.00	1.70	1.70	2.90	25.60
	2012/13	3	10	125.00	$1.50 \\ *$	1.40 *	$0.90 \\ *$	19.80
SMB	2014/15 2015/16	1 1		$28.00 \\ 21.00$	*	*	*	*

Table 5.42: CR Program fisheries - catch, landings, and deadloss, by season (continued)

**Note** Excludes harvest from CDQ programs. Asterisks indicate data suppressed due to confidentiality A landing is an offload by a vessel to a registered crab receiver, and includes at sea landings on catcher/processors and stationary floating processors.

A fishing cooperative and its members are counted as a single IFQ permit holder. **Source** NMFS AKRO RAM division Quota Share and Processor Quota Share holder files and IFQ accounting database

	Year	Vessels	Sold weight (million	Median vessel	Median vessel	Gini rati
			lbs)	weight sold	harvest as	
				(1,000 lbs)	percent of	
					fishery-year	
					commercial	
					lbs	
	1998	274	14.70	49.34	0.34	0.3
	1999	256	11.53	37.92	0.33	0.2
	2000	$244 \\ 230$	8.07	28.46	$0.35 \\ 0.35$	0.3
	2001 2002	$230 \\ 241$	$8.30 \\ 9.48$	$29.26 \\ 36.09$	0.35	0.3 0.2
	2002	$241 \\ 250$	15.39	48.19	0.31	0.2
	2003	$250 \\ 251$	15.02	48.19 53.79	0.36	0.3
	2004	89	18.14	177.99	0.98	0.2
	2006	81	15.55	169.27	1.09	0.3
	2007	73	20.17	259.63	1.29	0.3
	2008	79	20.13	240.73	1.20	0.3
	2009	70	15.78	209.29	1.33	0.2
	2010	65	14.73	214.69	1.46	0.2
	2011	62	7.79	109.07	1.40	0.3
	2012	64	7.80	108.53	1.39	0.3
	2013	63	8.52	122.03	1.43	0.2
	2014	63	9.87	134.03	1.36	0.2
	2015	64	9.77	134.73	1.38	0.2
	2016	63	8.41	112.63	1.34	0.2
	2017	61	6.55	86.43	1.32	0.3
	2018	55	4.23	64.23	1.52	0.3
	2019	56	3.77	57.29	1.52	0.3
BBR	2020	47	2.64	47.32	1.79	0.3
	1998	230	249.05	1,050.76	0.42	0.2
	1999	241	192.41	813.75	0.42	0.2
	2000	231	32.81	132.61	0.40	0.2
	2001	207	24.78	88.71	0.36	0.4
	2002	191	31.94	149.81	0.47	0.3
	2003	190	27.51	127.15	0.46	0.2
	2004	189	23.69	113.04	0.48	0.2
	$2005 \\ 2006$	167 78	$24.86 \\ 38.02$	$131.14 \\ 402.31$	$0.53 \\ 1.06$	0.2 0.3
	2000	68	34.76	402.31	1.29	0.3
	2007	78	62.23	702.73	1.13	0.3
	2009	77	57.68	599.96	1.04	0.3
	2010	68	47.84	642.93	1.34	0.3
	2011	68	54.05	693.58	1.28	0.3
	2012	72	88.23	1,126.73	1.28	0.3
	2013	71	70.69	892.41	1.26	0.3
	2014	70	55.22	733.59	1.33	0.3
	2015	70	60.91	862.01	1.42	0.2
	2016	68	39.57	526.21	1.33	0.3
	2017	63	21.32	294.17	1.38	0.3
	2018	63	18.84	232.46	1.23	0.3
	2019	61	27.26	357.64	1.31	0.3
	2020	59	33.61	462.94	1.38	0.3
	2021	62	44.14	598.74	1.36	0.3
BSS	2022	42	5.48	90.44	1.65	0.3

Table 5.43: CR Program fisheries - distribution of vessel catch and landings volume, by calendar year

	Year	Vessels	Sold weight (million lbs)	Median vessel weight sold (1,000lbs)	Median vessel harvest as percent of fishery-year commercial lbs	Gini ratio
	2005	4	0.26	78.57	30.59	0.37
	2006	45	0.99	5.94	0.60	0.72
	2007	29	2.25	56.02	2.49	0.52
	2008	30	2.33	45.52	1.95	0.65
	2009	18	2.14	91.97	4.30	0.63
	2010	4	0.37	101.52	27.09	0.25
	2013	22	1.25	45.51	3.64	0.49
	2014	40	9.09	195.02	2.14	0.38
	2015	55	14.98	201.28	1.34	0.45
	2016	46	10.45	160.29	1.53	0.39
	2017	16	1.41	92.38	6.57	0.30
	2018	30	2.29	65.40	2.86	0.34
	2019	18	1.18	50.56	4.28	0.37
	2020	25	0.62	12.76	2.06	0.60
	2021	20	0.95	32.08	3.38	0.46
BST	2022	21	1.48	55.74	3.76	0.43
	1998	131	2.95	20.54	0.70	0.22
	2009	7	0.45	33.85	7.52	0.42
	2010	11	1.25	117.30	9.36	0.34
	2011	18	1.85	80.15	4.33	0.32
	2012	17	1.59	83.71	5.25	0.31
	2014	4	0.30	74.41	24.55	0.36
SMB	2015	3	0.10	34.50	32.89	0.18

Table 5.43: CR Program fisheries - distribution of vessel catch and landings volume, by calendar year *(continued)* 

**Note** Data shown by calendar year. Includes harvest from CDQ and IFQ fisheries and pre-rationalization general access fisheries, as well as landings and harvest made on catcher/processors. The Gini coefficient measures the relative evenness of the distribution of vessel-level total IFQ landings across the set of active vessels in a given crab fishery season. The index varies between 0 and 1, with higher values indicating greater relative concentration of catch; see section 3.4.5 for discussion of Gini coefficient results shown in the table.

Source ADF&G fish ticket data and eLandings

Fishery	Year	Processors	Purchased weight (million lbs)	Median purchased weight (million	Median as percent of fishery year commercial	Gini rati
				lbs)	lbs	
	1998	9	5.24	0.23	4.30	0.6
	1999	8	4.89	0.29	5.90	0.5
	2000	7	5.76	0.65	11.30	0.4
	2001	7	6.36	0.36	5.70	0.5
	2002	6	5.54	0.83	15.10	0.5
	2003	6	5.82	1.08	18.60	0.4
	2004	5	6.02	1.35	22.50	0.4
	2005	6	4.44	0.48	10.80	0.4
	2006	6	5.24	0.71	13.50	0.5
	2007	6	5.44	0.79	14.50	0.4
	2008	7	5.73	1.04	18.10	0.3
	2009	9	5.51	0.30	5.40	0.5
	2010	9	6.09	0.49	8.00	0.4
	2011	14	6.00	0.28	4.70	0.5
	2012	14	5.92	0.20	3.30	0.5
	2013	13	5.94	0.25	4.20	0.5
	2014	12	6.07	0.26	4.20	0.6
	2015	9	5.80	0.32	5.50	0.5
	2016	11	5.60	0.30	5.30	0.6
	2017	13	5.56	0.25	4.50	0.5
	2018	11	6.51	0.24	3.70	0.5
	2019	11	6.78	0.34	5.00	0.5
	2020	12	5.72	0.30	5.20	0.5
	2021	10	5.90	0.34	5.70	0.5
AIG	2022	9	4.09	0.19	4.60	0.5
	1998	28	14.70	0.26	1.80	0.6
	1999	24	11.53	0.21	1.90	0.6
	2000	24	8.07	0.11	1.40	0.6
	2001	25	8.30	0.10	1.20	0.6
	2002	26	9.48	0.13	1.40	0.6
	2003	26	15.39	0.29	1.90	0.5
	2004	25	15.02	0.23	1.50	0.6
	2005	16	18.14	0.50	2.80	0.6
	2006	15	15.55	0.54	3.50	0.6
	2007	18	20.17	0.52	2.60	0.6
	2008	17	20.13	0.61	3.00	0.5
	2009	16	15.78	0.48	3.10	0.5
	2010	17	14.73	0.39	2.70	0.5
	2011	18	7.79	0.20	2.50	0.5
	2012	17	7.80	0.33	4.20	0.5
	2013	17	8.52	0.34	4.00	0.5
	2014	17	9.87	0.39	4.00	0.5
	2011	15	9.77	0.29	2.90	0.6
	2016	17	8.41	0.19	2.20	0.5
	2010 2017	17	6.55	0.15	2.20	0.6
	2017	15	4.23	0.15	4.00	0.5
	2010	14	3.77	0.14	3.70	0.5
BBR	2019	14	2.64	0.09	3.40	0.5

Table 5.44: CR Program fisheries - distribution of crab processor purchasing volume, by calendar year

Fishery	Year	Processors	Purchased weight	Median purchased	Median as percent of	Gini rati
			(million	weight	fishery year	
			lbs)	(million	commercial	
				lbs)	lbs	
	1998	44	249.05	1.73	0.70	0.5
	1999	37	192.41	3.79	2.00	0.5
	2000	28	32.81	0.86	2.60	0.5
	2001	24	24.78	0.63	2.50	0.5
	2002	27	31.94	0.35	1.10	0.6
	2003	21	27.51	0.97	3.50	0.4
	2004	23	23.69	0.61	2.60	0.5
	2005	20	24.86	0.86	3.50	0.5
	2006	13	38.02	2.27	6.00	0.4
	2007	18	34.76	1.74	5.00	0.4
	2008	17	62.23	2.96	4.80	0.4
	2009	18 13	57.68	2.51	4.30	0.5
	2010	15 16	47.84 54.05	3.30	6.90 4.10	0.4
	$2011 \\ 2012$	16 16	$54.05 \\ 88.23$	$2.21 \\ 3.73$	$4.10 \\ 4.20$	0.4 0.5
	2012 2013	10	70.69	3.14	4.20 4.40	0.5
	2013 2014	13	55.22	3.14 4.43	4.40 8.00	0.4
	2014 2015	13	60.91	2.82	4.60	0.4
	2015	14	39.57	2.56	4.00 6.50	0.4
	2010	12	21.32	0.86	4.00	0.5
	2017	13	18.84	0.00	4.10	0.4
	2010	13	27.26	1.11	4.10	0.4
	2010	13	33.61	1.37	4.10	0.4
	2021	13	44.14	2.15	4.90	0.5
BSS	2022	10	5.48	0.57	10.50	0.3
	2005	5	0.26	0.02	6.00	0.7
	2006	9	0.99	0.07	7.50	0.6
	2007	9	2.25	0.21	9.40	0.4
	2008	11	2.33	0.16	6.90	0.5
	2009	11	2.14	0.16	7.50	0.4
	2010	7	0.37	0.04	9.60	0.4
	2013	13	1.25	0.06	4.70	0.6
	2014	13	9.09	0.34	3.80	0.5
	2015	13	14.98	0.59	3.90	0.5
	2016	12	10.45	0.66	6.40	0.5
	2017	11	1.41	0.07	5.10	0.4
	2018	14	2.29	0.07	3.20	0.5
	2019	10	1.18	0.13	10.70	0.4
	2020	9	0.62	0.04	6.40	0.5
Dam	2021	11	0.95	0.04	4.30	0.5
BST	2022	10	1.48	0.14	9.40	0.5
PIK	1998	17	1.03	0.03	2.80	0.5
	1998	16	2.95	0.09	3.10	0.6
	2009	6	0.45	0.06	12.20	0.4
	2010	9	1.25	0.07	5.70	0.5
	2011	11	1.85	0.08	4.10	0.6
	2012	11	1.59	0.07	4.40	0.5
CMD	2014	6	0.30	0.03	9.00	0.6
SMB	2015	4	0.10	0.03	24.30	0.5
	$1998 \\ 2002$	$\frac{1}{9}$	* 0.50	* 0.04	* 8.20	0.4
WAT						0.4
WAI	2003	10	0.48	0.04	8.20	0.

Table 5.44: CR Program fisheries - distribution of crab processor purchasing volume, by calendar year (continued)

Note Data shown by calendar year. Asterisks indicate data suppressed due to confidentiality Includes purchased crab landings

from CDQ and IFQ fisheries and pre-rationalization general access fisheries. Landings/harvest made by and self-processed by catcher/processors are treated as purchases, with catcher/processors counted as buyers. Buyers include catcher/processors landing and processing their own crab. The Gini coefficient measures the relative evenness of the distribution of catch purchasing across the set of active buyers in a given crab fishery season. The index varies between 0 and 1, with higher values indicating greater relative concentration of purchasing; see section 3.4.5 for discussion of Gini coefficient results shown in the table.

**Source** ADF&G fish ticket data and eLandings

Landings per trip mean(sd) (1,000 pounds	Trips total	Landings per delivery, mean(sd) (1,000 pounds)	Trips per vessel means(sd)	Deliveries per vessel mean(sd)	Deliveries total	Vessels	Season
	-	50.2(27.3)	-	1.1(0.3)	293	274	1998
	-	42.2(22.8)	-	1.1(0.3)	273	256	1999
	-	30.7(16.2)	-	1.1(0.4)	263	244	2000
	-	33.3(20.1)	-	1.1(0.4)	249	230	2001
	-	36.7(14.6)	-	1.1(0.4)	258	241	2002
	-	56.2(35.5)	-	1.1(0.4)	274	250	2003
	-	54(25.1)	-	1.1(0.4)	278	251	2004
	-	69.8(47.8)	-	2.9(1.7)	261	89	2005/06
88.7(67)	176	82.8(61.6)	2.2(1)	2.3(1.1)	187	81	2006/07
98.4(55.7)	207	81.7(53.7)	2.8(1.4)	3.3(1.6)	247	74	2007/08
85.8(51.3	237	76.5(48.1)	3(1.5)	3.4(1.8)	263	78	2008/09
80.5(50.3	198	74.8(48.4)	2.8(1.1)	3(1.2)	211	70	2009/10
73.8(45.7	201	69(42.7)	3.1(1.1)	3.3(1.3)	213	65	2010/11
68.1(51.9)	114	62.8(49.8)	1.8(0.9)	2(0.9)	124	62	2011/12
77.7(57.1	101	66.1(45.2)	1.6(0.7)	1.8(0.9)	118	64	2012/13
81.9(52.7	105	71.6(47.7)	1.7(0.7)	1.9(1)	119	63	2013/14
87.6(56.1	113	84.4(51.6)	1.8(0.6)	1.9(0.6)	117	63	2014/15
87.5(53.5	114	84.3(51.9)	1.8(0.7)	1.8(0.7)	116	64	2015/16
73(42.4	115	71.8(41.6)	1.8(0.8)	1.9(0.8)	117	63	2016/17
58.9(37	112	58.6(36.9)	1.8(0.8)	1.8(0.8)	112	61	2017/18
50.7(30.3	85	47.9(30.4)	1.5(0.8)	1.6(0.9)	89	55	2018/19
44.1(30.1	86	43.8(30)	1.5(0.7)	1.5(0.7)	86	56	2019/20
43.4(28.4	61	41.1(27.1)	1.3(0.6)	1.4(0.7)	64	47	2020/21

Table 5.45: CR Program fisheries - delivery and trip statistics, by season

Landings per trip, mean(sd) (1,000 pounds)	Trips total	Landings per delivery, mean(sd) (1,000 pounds)	Trips per vessel means(sd)	Deliveries per vessel mean(sd)	Deliveries total	Vessels	Season	
-	-	111.9(71.8)	-	7.1(2.7)	1,720	241	1999	
-	-	104.8(53.8)	-	1.4(0.7)	313	231	2000	
-	-	78.4(56.3)	-	1.5(1)	316	207	2001	
-	-	74.3(57.5)	-	2.3(1.1)	430	191	2002	
-	-	105.4(55.9)	-	1.4(1)	261	190	2003	
-	-	97.5(53.9)	-	1.3(0.8)	243	189	2004	
-	-	116.1(52.3)	-	1.3(0.7)	211	167	2005	
-	-	115.9(75.7)	-	4.1(2.9)	316	78	2005/06	
169.1(104.1)	215	131.5(83.1)	3.1(2)	4(2.5)	273	69	2006/07	
149.4(84.6)	420	134.1(81.2)	5.4(2.6)	6(2.9)	466	78	2007/08	
153.7(84.4)	381	132.9(78)	4.9(2.3)	5.7(2.7)	437	77	2008/09	
165(88.7)	289	154.1(85.4)	4.3(1.7)	4.5(1.9)	308	68	2009/10	
168(84.6)	323	157.2(83.9)	4.8(2.1)	5(2.2)	343	68	2010/11	
139.7(87.8)	636	134(85.4)	8.8(3.7)	9.1(3.7)	658	72	2011/12	
157(82.7)	422	151.2(81.9)	6(2.4)	6.2(2.5)	435	70	2012/13	
145.1(78.5)	370	141.4(76.7)	5.3(2.3)	5.4(2.3)	379	70	2013/14	
146.7(84.4)	458	143(79.3)	6.5(2.8)	6.7(2.9)	471	70	2014/15	
124.9(92.8)	289	136.4(83.1)	4.1(1.6)	4.2(1.7)	295	70	2015/16	
111.8(79.3)	192	106.1(76.4)	3(1)	3.2(1.1)	201	63	2016/17	
99.3(80.3)	187	98.9(76.5)	3(1.4)	3(1.4)	190	63	2017/18	
116.4(85.4)	230	112.9(79.9)	3.8(1.8)	4(1.8)	242	61	2018/19	
114.9(77.4)	296	110.2(74.4)	5(1.8)	5.2(1.8)	305	59	2019/20	
147.1(92.8)	305	142.8(90.4)	4.9(1.5)	5(1.6)	309	62	2020/21	
67.7(64.4)	80	63.7(52.6)	1.9(1.2)	2(1.4)	86	42	2021/22	BSS
-	-	14.6(22.8)	-	1.9(1.1)	64	33	2005/06	
18.1(28.1)	82	23.8(28.2)	2.1(1.2)	2.3(1.3)	88	39	2006/07	
17.7(25.2)	93	21.9(25.3)	3.4(2.4)	3.5(2.4)	95	27	2007/08	
14.7(33.8)	59	28.7(35.8)	3(2.3)	3.4(3)	67	20	2008/09	
14.9(35.7)	28	41(43)	2.2(1.2)	2.5(1.6)	32	13	2009/10	
10.9(26)	71	37.2(35.2)	2.8(2)	3(2)	74	25	2013/14	
44.8(54.8)	184	70.9(51.4)	4.1(2.5)	4.2(2.6)	191	45	2014/15	
52.1(49.5)	280	69(44.3)	5(2.5)	5(2.6)	282	56	2015/16	
34.2(40)	53	45.1(36.6)	1.7(1.1)	1.7(1.1)	55	32	2017/18	
31.3(36.1)	52	42.1(32.1)	1.6(0.8)	1.7(1.1)	57	33	2018/19	
19.1(23.8)	55	25.4(21.2)	1.6(0.8)	1.6(0.8)	56	35	2020/21	
24.2(23.3)	40	24.5(21.3)	2.2(1.2)	2.4(1.5)	44	18	2021/22	BST

Table 5.45: CR Program fisheries - delivery and trip statistics, by season (continued)

Landings per trip mean(sd) (1,000 pounds)	Trips total	Landings per delivery, mean(sd) (1,000 pounds)	Trips per vessel means(sd)	Deliveries per vessel mean(sd)	Deliveries total	Vessels	Season
-	-	59.8(35.8)	-	3.6(1.5)	51	14	1998
	-	48.7(33)	-	3.9(1.2)	59	15	1999
	-	59(34.3)	-	3.3(0.8)	50	15	2000
	-	69.5(44.3)	-	2.4(0.6)	45	19	2001
	-	64.3(38.1)	-	2.3(0.5)	43	19	2002
	-	78.4(38)	-	2.1(0.2)	37	18	2003
	-	88.8(54.7)	-	1.7(0.5)	32	19	2004
	-	83.5(47.3)	-	4.9(2.1)	34	7	2005/06
124.7(57.9)	24	105.6(59.5)	4(2.7)	4.7(4.2)	28	6	2006/07
106.8(62.3)	28	84.8(57.7)	7(2.4)	8.8(1.3)	35	4	2007/08
149.7(39.2)	21	111.2(60.8)	7(3)	9.3(2.5)	28	3	2008/09
137(44.1)	23	115.5(47)	7.7(3.5)	9(3.5)	27	3	2009/10
149.9(40.4)	21	118.3(50.9)	7(3)	8.7(4.5)	26	3	2010/11
165.8(23.7)	19	111.6(48.5)	6.3(2.1)	9.3(4.7)	28	3	2011/12
127.5(44.4)	26	107.7(47.2)	8.7(4.2)	10(5.6)	30	3	2012/13
143.6(44.9)	23	109.1(51.2)	7.7(2.3)	10(4.4)	30	3	2013/14
150.3(44.1)	22	149(43.7)	7.3(2.5)	7.3(2.5)	22	3	2014/15
157.3(52.9)	21	147.7(49.3)	7(2.6)	7.3(2.5)	22	3	2015/16
132.3(52.6)	25	120.1(54.9)	6.3(3.9)	6.8(4.6)	27	4	2016/17
137.8(65)	24	125.2(65.5)	6(4.7)	6.5(5.6)	26	4	2017/18
145.2(65)	28	138.4(63.9)	9.3(4)	9.7(4.5)	29	3	2018/19
141.3(59.9)	29	144.5(56.4)	9.7(4)	9.3(4.2)	28	3	2019/20
130.9(59.7)	28	121.1(64.6)	9.3(3.5)	10(3.6)	30	3	2020/21
144(42.7)	25	142.9(42.4)	8.3(4)	8.3(4)	25	3	2021/22
	-	11.3(8.7)	-	1.6(0.7)	91	58	1998
	-	11.4(7.1)	-	2(0.5)	259	131	1998
30.7(22.3)	15	28.1(16.5)	2.1(1.5)	2.3(1.5)	16	7	2009/10
33.3(17.7)	38	31.3(17.8)	3.5(1.4)	3.6(1.5)	40	11	2010/11
33(21)	57	31.9(17)	3.2(1.4)	3.2(1.4)	58	18	2011/12
35.9(18.1)	45	35.4(17.7)	2.6(1.4)	2.6(1.4)	45	17	2012/13
22(15.9)	14	21.6(15.5)	3.5(0.6)	3.5(0.6)	14	4	2014/15
17.7(9)	6	17.5(8.8)	2(1)	2(1)	6	3	2015/16

Table 5.45: CR Program fisheries - delivery and trip statistics, by season (continued)

Landings per trip, mean(sd) (1,000 pounds)	Trips total	Landings per delivery, mean(sd) (1,000 pounds)	Trips per vessel means(sd)	Deliveries per vessel mean(sd)	Deliveries total	Vessels	Season	
-	-	37.8(23)	-	14.7(18.7)	44	3	1998/99	
-	-	23.2(15.3)	-	7.5(10.4)	113	15	1999/00	
-	-	28(17.5)	-	8.1(9.4)	97	12	2000/01	
-	-	29.9(16.2)	-	10(8.2)	90	9	2001/02	
-	-	36.2(20.7)	-	12(9.2)	72	6	2002/03	
-	-	44(29.5)	-	10(6.8)	60	6	2003/04	
-	-	51.8(36.2)	-	8.5(5.9)	51	6	2004/05	
-	-	59.5(33.7)	-	14.7(5.5)	44	3	2005/06	
77.7(32)	29	67.6(29.6)	7.3(6.7)	8.3(7.9)	33	4	2006/07	
81.2(28)	31	71.2(31.7)	10.3(7.4)	11.7(7.6)	35	3	2007/08	
76.8(32.1)	33	69.7(32.3)	11(9.2)	12(9.8)	36	3	2008/09	
89.1(35.4)	31	82.5(35.2)	10.3(7.6)	11(8.2)	33	3	2009/10	
94(42.5)	30	86.9(42.2)	10(7)	10.7(7)	32	3	2010/11	
93.8(35.2)	30	79.3(36.6)	10(6)	11.7(6.1)	35	3	2011/12	
109.4(40.2)	27	90.5(40.1)	6.8(3.5)	8(4.1)	32	4	2012/13	
135(18.3)	22	99.2(40.9)	7.3(3.2)	9.7(3.1)	29	3	2013/14	
*	*	*	*	*	*	2	2014/15	
*	*	*	*	*	*	2	2015/16	
82.8(42.6)	27	74.1(41.9)	9(4.6)	9.7(5.7)	29	3	2016/17	
82.8(43.6)	27	75(41.8)	9(3)	9.7(3.1)	29	3	2017/18	
90.1(48.7)	28	82.3(46.4)	9.3(1.5)	10(2)	30	3	2018/19	
90.9(42.9)	31	86.4(42.5)	10.3(0.6)	10.7(0.6)	32	3	2019/20	
99.7(34.1)	28	97.4(33.4)	9.3(3.8)	9.3(3.8)	28	3	2020/21	
81.1(24.8)	27	79.1(24.2)	9(2.6)	9(2.6)	27	3	2021/22	WAG
-	-	*	-	*	*	1	1998/99	
-	-	14.4(8.3)	-	1.1(0.2)	35	33	2002/03	
-	-	15.8(9.7)	-	1	30	30	2003/04	WAI

Table 5.45: CR Program fisheries - delivery and trip statistics, by season (continued)

Note A delivery is counted as each unique day that a vessel landed crab and may include landings to multiple processors; a single fishing trip may result in multiple deliveries if crab was landed on multiple days. Includes landings on and by catcher/processors. Trip accounting data unavailable prior to 2006/2007 season. Asterisks indicate data suppressed due to confidentiality

Source NMFS AKRO RAM division Quota Share and Processor Quota Share holder files and IFQ accounting database and eLandings

	Year	Season dates	Season length, days	Earliest landing	Latest landing	Days fished	Percent o season fishe
	1998	01-Nov - 06-Nov	6	_	-	_	
	1999	15-Oct - 20-Oct	6	-	-	-	
	2000	16-Oct - 20-Oct	5	-	-	-	
	2001	15-Oct - 18-Oct	4	-	-	-	
	2002	15-Oct - 18-Oct	4	-	-	-	
	2003	15-Oct - 20-Oct	6	-	-	-	
	2004	15-Oct - 18-Oct	4	-	-	-	
	2005/06	15-Oct - 15-Jan	93	20-Oct	16-Jan	89	96 9
	2006/07	15-Oct - 15-Jan	93	19-Oct	28-Nov	41	44 9
	2007/08	15-Oct - 15-Jan	93	18-Oct	15-Jan	90	97 9
	2008/09	15-Oct - 15-Jan	93	18-Oct	17-Jan	92	99 9
	2009/10	15-Oct - 15-Jan	93	17-Oct	16-Jan	92	99 9
	2010/11	15-Oct - 15-Jan	93	16-Oct	10-Dec	56	60 9
	2010/11 2011/12	15-Oct - 15-Jan	93	18-Oct	18-Nov	32	34
	2012/12	15-Oct - 15-Jan	93	18-Oct	16-Dec	60	65
	2012/10 2013/14	15-Oct - 15-Jan	93	21-Oct	15-Nov	26	28
	2013/11 2014/15	15-Oct - 15-Jan	93	19-Oct	17-Nov	30	32
	2011/10 2015/16	15-Oct - 15-Jan	93	17-Oct	17-Nov	32	34
	2016/10 2016/17	15-Oct - 15-Jan	93	18-Oct	18-Nov	32	34
	2010/11 2017/18	15-Oct - 15-Jan	93	19-Oct	06-Jan	80	86
	2017/10 2018/19	15-Oct - 15-Jan 15-Oct - 15-Jan	93	19-Oct	08-Jan	82	88
	2010/19 2019/20	15-Oct - 15-Jan	93	21-Oct	11-Jan	83	89
BBR	2019/20 2020/21	15-Oct - 15-Jan 15-Oct - 15-Jan	93	21-Oct 20-Oct	15-Jan	88	95
	,			20 000	10 0411		
	1998	15-Jan - 20-Mar 15-Jan - 22-Mar	65 67	-	-	-	
	$1999 \\ 2000$		67 8	-	-	-	
		01-Apr - 08-Apr		-	-	-	
	2001	15-Jan - 14-Feb	31	-	-	-	
	2002	15-Jan - 08-Feb	25	-	-	-	
	2003	15-Jan - 25-Jan	11	-	-	-	
	2004	15-Jan - 23-Jan	9	-	-	-	
	2005	15-Jan - 20-Jan	6	-	-	-	
	2005/06	15-Oct - 31-May	229	27-Oct	27-May	213	93
	2006/07	15-Oct - 31-May	229	07-Nov	05-May	180	79
	2007/08	15-Oct - 31-May	230	18-Nov	10-May	175	76
	2008/09	15-Oct - 31-May	229	30-Nov	16-May	168	73
	2009/10	15-Oct - 31-May	229	11-Jan	06-May	116	51
	2010/11	15-Oct - 31-May	229	18-Nov	09-Apr	143	62
	2011/12	15-Oct - 15-Jun	245	02-Nov	19-Jun	231	94
	2012/13	15-Oct - 31-May	229	24-Nov	05-Jun	194	85
	2013/14	15-Oct - 31-May	229	20-Oct	29-Apr	192	84
	2014/15	15-Oct - 31-May	229	03-Nov	30-May	209	91
	2015/16	15-Oct - 31-May	230	05-Nov	14-May	192	83
	2016/17	15-Oct - 31-May	229	07-Jan	25-Apr	109	48
	2017/18	15-Oct - 31-May	229	12-Jan	16-Apr	95	41
	2018/19	15-Oct - 31-May	229	05-Nov	26-Apr	173	76
	2019/20	15-Oct - 31-May	230	11-Jan	19-May	130	57
	2020/21	15-Oct - 04-Jun	233	09-Jan	02-Jun	145	62
BSS	2021/22	15-Oct - 06-Jun	235	14-Jan	04-Jun	142	60
	2005/06	15-Oct - 31-Mar	168	27-Oct	02-Apr	158	94

Table 5.46: Opening and closing dates, season length, and days fished by season, CR Program fisheries

	Year	Season dates	Season length, days	Earliest landing	Latest landing	Days fished	Percent of season fished
	2006/07	15-Oct - 31-Mar	168	23-Oct	27-Mar	156	93 %
	2007/08	15-Oct - 31-Mar	169	20-Oct	02-Apr	166	98 %
	2008/09	15-Oct - 31-Mar	168	19-Oct	11-Mar	144	86 %
	2009/10	15-Oct - 31-Mar	168	17-Oct	01-Mar	136	81 %
	2013/14	15-Oct - 31-Mar	168	29-Oct	29-Mar	152	90 %
	2014/15	15-Oct - 31-Mar	168	21-Oct	01-Apr	163	97 %
	2015/16	15-Oct - 31-Mar	169	23-Oct	27-Mar	157	93 %
BTE	2022/23	15-Oct - 31-Mar	168	25-Oct	21-Mar	148	88 %
	2006/07	15-Oct - 31-Mar	168	04-Nov	26-Mar	143	86 %
	2007/08	15-Oct - 31-Mar	169	16-Nov	31-Mar	137	81 %
	2008/09	15-Oct - 31-Mar	168	13-Jan	25-Mar	72	43 %
	2013/14	15-Oct - 31-May	229	07-Nov	08-Apr	153	67 %
	2014/15	15-Oct - 31-Mar	168	03-Nov	18-Apr	167	99 %
	2015/16	15-Oct - 31-Mar	169	31-Oct	03-Apr	156	92 %
	2017/18	15-Oct - 31-Mar	168	18-Oct	29-Mar	163	97 %
	2018/19	15-Oct - 31-Mar	168	24-Oct	01-Apr	160	95 %
	2020/21	15-Oct - $05$ -Apr	173	29-Oct	04-Apr	158	91 %
	2021/22	15-Oct - 31-Mar	168	25-Oct	27-Mar	154	92 %
BTW	2022/23	15-Oct - 31-Mar	168	18-Nov	25-Mar	128	76~%
PIK	1998	15-Sep - 28-Sep	14	-	-	-	-
	1998	15-Sep - 26-Sep	12	-	-	-	-
	2009/10	15-Oct - 01-Feb	110	23-Oct	07-Dec	46	42 %
	2010/11	15-Oct - 01-Feb	110	23-Oct	11-Dec	50	45 %
	2011/12	15-Oct - 01-Feb	110	21-Oct	15-Dec	56	51 %
	2012/13	15-Oct - 01-Feb	110	23-Oct	08-Dec	47	43 %
	2014/15	15-Oct - 01-Feb	110	28-Oct	05-Dec	39	35 %
SMB	2015/16	15-Oct - 01-Feb	110	30-Oct	28-Nov	30	27 %
	1998/99	01-Nov - 31-Jul	273	-	-	-	-
WAI	2002/03 2003/04	25-Oct - 27-Oct 24-Oct - 29-Oct	3 372	-	-	-	-
	1998	01-Sep - 07-Nov	68	_	-	_	-
	1999	01-Sep - 25-Oct	55	-	-	-	-
	2000	15-Aug - 24-Sep	41	-	-	-	-
	2001	15-Aug - 10-Sep	27	-	-	-	-
	2002	15-Aug - 07-Sep	24	-	-	-	-
	2003	15-Aug - 08-Sep	25	-	-	-	-
	2004	15-Aug - 29-Aug	15	-	-	-	-
	2005/06	15-Aug - 15-May	274	30-Aug	28-Mar	211	77 %
	2006/07	15-Aug - 15-May	274	31-Aug	13-Jan	136	50 %
	2007'/08	15-Aug - 15-May	275	30-Aug	09-Feb	164	60 %
	2008/09	15-Aug - 15-May	274	07-Sep	22-Dec	107	39 %
	2009/10	15-Aug - 15-May	274	31-Aug	10-Jan	133	49 %
	2010/11	15-Aug - 15-May	274	22-Aug	16-Dec	117	43 %
	2011/12	15-Aug - 15-May	275	26-Aug	24-Nov	91	33 %
	2012/13	15-Aug - 15-May	274	25-Aug	03-Dec	101	37 %
	2013/14	15-Aug - 15-May	274	30-Aug	26-Nov	89	32 %
	2014/15	15-Aug - 15-May	274	30-Aug	13-Nov	76	28 %
	2011/10 2015/16	01-Aug - 30-Apr	274	23-Aug	13-Nov	83	30 %
	2016/10 2016/17	01-Aug - 30-Apr	274	19-Aug	02-Apr	227	83 %
	2010/11 2017/18	01-Aug - 30-Apr	273	14-Aug	25-Mar	224	82 %
	2017/18 2018/19	01-Aug - 30-Apr	273	13-Aug	09-Feb	181	66 %
	2018/19 2019/20	15-Jul - 18-May	309	29-Jul	09-Feb 08-Feb	181	63 %
	2019/20 2020/21	01-Aug - 30-Apr	273	16-Aug	21-Feb	195	03 7 70 %
	2020/21 2021/22	01-Jul - 30-Apr	273 304	15-Aug 15-Aug	31-Jan	190 170	70 % 56 %
EAG	$\frac{2021}{22}$ $\frac{2022}{23}$	01-Jul - 30-Apr	304 304	12-Aug	03-Apr	235	50 % 77 %
LAG	2022/20	01-3ui - 30-Api	504	12-Aug	00-Apr	200	11 /

Table 5.46: Opening and closing dates, season length, and days fished by season, CR Program fisheries (continued)

	Year	Season dates	Season length, days	Earliest landing	Latest landing	Days fished	Percent of season fished
	1998/99	01-Sep - 31-Aug	365	-	-	-	-
	1999/00	01-Sep - 14-Aug	349	-	-	-	-
	2000/01	01-Sep - 28-May	270	-	-	-	-
	2001/02	15-Aug - 30-Mar	228	-	-	-	-
	2002/03	15-Aug - 08-Mar	206	-	-	-	-
	2003/04	15-Aug - 06-Feb	176	-	-	-	-
	2005/06	15-Aug - 15-May	274	06-Sep	25-Mar	201	73 %
	2006/07	15-Aug - 15-May	274	10-Sep	06-May	239	87~%
	2007/08	15-Aug - 15-May	275	14-Sep	21-May	251	$91 \ \%$
	2008/09	15-Aug - 15-May	274	13-Sep	12-May	242	88 %
	2009/10	15-Aug - 15-May	274	05-Sep	18-May	256	93~%
	2010/11	15-Aug - 15-May	274	11-Sep	18-Mar	189	$69 \ \%$
	2011/12	15-Aug - 15-May	275	06-Sep	10-Apr	218	79~%
	2012/13	15-Aug - 15-May	274	10-Sep	05-May	238	87 %
	2013/14	15-Aug - 15-May	274	09-Sep	08-May	242	88 %
	2014/15	15-Aug - 15-May	274	06-Sep	17-May	254	$93 \ \%$
	2015/16	01-Aug - 30-Apr	274	14-Aug	02-May	263	96 %
	2016/17	01-Aug - 30-Apr	273	02-Sep	17-Mar	197	72 %
	2017/18	01-Aug - 30-Apr	273	13-Aug	06-Mar	206	75 %
	2018/19	01-Aug - 30-Apr	273	14-Aug	14-Mar	213	78 %
	2019/20	15-Jul - 18-May	309	22-Aug	12-May	265	86 %
	2020/21	01-Aug - 24-May	297	25-Aug	18-May	267	$90 \ \%$
	2021/22	01-Aug - 30-Apr	273	28-Aug	25-May	271	$99 \ \%$
WAG	2022/23	01-Aug - 30-Apr	273	31-Aug	12-Mar	194	71~%

Table 5.46: Opening and closing dates, season length, and days fished by season, CR Program fisheries *(continued)* 

Note Days fished is calculated as the difference between latest and earliest landing dates during a given season. Percent of season fished is calculated as days fished divided by season length. In some fishery seasons, deliveries made were after the season closing date. Includes landings made on catcher/processors. 2011/2012 Bering Sea Snow crab fishery season extended past regular season closing date (May 31) due to sea ice coverage.

Source Season dates and season length from ADF&G. Earliest and latest landing dates in 2005/2006 and later seasons from NMFS AKRO RAM division IFQ accounting.

	Season	Vessels with one delivery	Vessels with multiple deliveries	Average days between first and last delivery, mean(sd)	Median days	Minimum days	Maximum day:
	2005/06	3	10	17(10)	14	4	35
	2005/00 2006/07	5 6	10	17(10) 10(7)	14 9	$\frac{4}{2}$	19
	2007/08	1	9	15(12)	14	4	43
	2008/09	3	$12^{-3}$	13(12) 13(10)	14	1	34
	2000/00 2009/10	5	6	16(10) 16(14)	10	1	38
	2000/10 2010/11	4	6	24(13)	21	12	40
	2010/11 2011/12	7	2	7(1)	-1 7	6	8
	2012/12	5	4	5(3)	6	1	(
	2012/10 2013/14	9	1	11	11	11	11
	2010/11 2014/15	3	6	7(2)	8	3	1(
	2011/10 2015/16	5	3	8(4)	6	6	13
	2016/17	6	2	13(6)	13	9	1'
	2010/11 2017/18	5	3	15(5)	10	9	1
	2017/18 2018/19	6	$\frac{5}{2}$	7(2)	7	5	1
	2010/10 2019/20	5	3	7(2) 7(3)	7	4	1
BBR	2010/20 2020/21	4	3	8(4)	6	5	1
	2005/06	4	11	25(20)	18	4	6
	2006/07	4	8	25(20) 25(16)	20	11	5
	2007/08	2	13	23(10) 24(14)	20 24	2	4
	2008/09	2	13	29(15)	25	9	5
	2009/10	1	10	17(13)	25 15	1	4
	2000/10 2010/11	2	12	18(11)	18	4	4
	2010/11 2011/12	1	15	78(46)	82	15	15
	2012/12	0	13	56(30)	65	17	10
	2012/10 2013/14	0	10	31(23)	23	12	8
	2013/11 2014/15	0	11	54(35)	46	8	11
	2011/10 2015/16	0	11	22(13)	16	4	4
	2016/10 2016/17	2	8	16(13)	10	5	4
	2017/18	1	8	24(15)	25	$\ddot{3}$	4
	2018/19	3	8	24(16)	21	4	5
	2019/20	1	10	43(16)	41	23	7
	2020/21	2	12	42(24)	35	13	8
BSS	2021/22	0	5	22(12)	18	11	4
	2005/06	3	3	11(12)	7	2	2
	2006/07	3	4	45(48)	27	11	11
	2007/08	0	4	29(42)	12	3	9
	2008/09	1	2	30(27)	30	11	4
	2009/10	4	0	-	-	-	
	2013/14	4	4	73(58)	66	12	14
	2014/15	1	7	69(53)	77	12	13
	2015/16	5	9	46(49)	19	4	13
	2017/18	5	2	2	2	2	
	2018/19	5	1	112	112	112	11:
	2020/21	2	1	118	118	118	11
	2021/22	2	3	41(46)	22	8	93
BST	2022/23	0	4	31(24)	24	13	6

Table 5.47: Days between	first and last	delivery by season,	CR Program fisheries

	Season	Vessels	Vessels	Average	Median	Minimum	Maximur
		with one	with	days	days	days	day
		delivery	multiple deliveries	between			
			denveries	first and			
				last			
				delivery,			
				mean(sd)			
	2005/06	0	3	22(24)	15	2	4
	2006/07	1	2	13(8)	13	7	1
	2007/08	2	1	2	2	2	
	2008/09	0	3	31(22)	30	10	5
	2009/10	1	2	29(1)	29	28	3
	2010/11	2	1	27	27	27	2
	2011/12	1	2	56(39)	56	28	8
	2012/13	1	2	37(21)	37	22	5
	2013/14	1	2	42(6)	42	37	4
	2014/15	3	0	-	-	-	
	2015/16	1	2	21(1)	21	20	2
	2016/17	2	1	44	44	44	4
	2017/18	0	3	42(17)	51	22	5
	2018/19	1	2	16(3)	16	14	1
	2019/20	0	3	24(12)	27	11	3
	2020/21	0	3	45(17)	40	30	6
	2021/22	1	2	50(19)	50	36	6
EAG	2022/23	0	3	25(22)	15	9	5
	2005/06	0	1	126	126	126	12
	2006/07	0	2	14(11)	14	6	2
	2007/08	0	1	163	163	163	16
	2008/09	0	1	168	168	168	16
	2009/10	0	1	41	41	41	4
	2010/11	0	1	33	33	33	3
	2011/12	0	1	33	33	33	3
	2012/13	0	1	52	52	52	Ę
	2013/14	0	1	46	46	46	4
	2014/15	0	1	94	94	94	9
	2015/16	0	1	137	137	137	13
	2016/17	0	1	237	237	237	23
	2017/18	0	1	112	112	112	11
	2018/19	0	2	58(57)	58	18	6
	2019/20	0	2	63(42)	63	33	6
	2020/21	0	1	200	200	200	20
	2021/22	0	1	114	114	114	11
WAG	2022/23	1	1	61	61	61	6
	2010/11	1	2	22(13)	22	12	3
	2011/12	3	2	19(18)	19	6	3
	2012/13	2	2	21(5)	21	17	2
SMB	2014/15	1	0	-	-	-	

Table 5.47: Days between first and last delivery by season, CR Program fisheries (continued)

**Note** A delivery is counted as each unique day that a vessel landed crab and may include landings to multiple processors; a single fishing trip may result in multiple deliveries if crab was landed on multiple days. Includes landings on and by catcher/processors. Trip accounting data unavailable prior to 2006/2007 season.

	2018/	19	2019	9/20	2020	0/21	2021	/22	2022	2/23
Week	Vessels	Percent of pounds landed								
1: 15-Oct	17	19(22,15)	0	0(2,0)	18	25(26,17)	0	-	0	-
2: 22-Oct	40	80(83,77)	47	64(67, 45)	27	87(90,78)	0	-	0	-
3: 29-Oct	13	94(95, 93)	25	90(90, 90)	6	99(100, 98)	0	-	0	-
4: 05-Nov	7	99(100, 100)	6	99(100, 100)	0	99(100, 98)	0	-	0	-
5: 12-Nov	0	99(100, 100)	0	99(100, 100)	1	99(100, 100)	0	-	0	-
6: 19-Nov	0	99(100,100)	0	99(100,100)	0	99(100,100)	0	-	0	-
7: 26-Nov	0	99(100,100)	0	99(100, 100)	0	99(100,100)	0	-	0	-
8: 03-Dec	0	99(100, 100)	0	99(100, 100)	0	99(100, 100)	0	-	0	-
9: 10-Dec	0	99(100, 100)	0	99(100, 100)	0	99(100, 100)	0	-	0	-
10: 17-Dec	0	99(100, 100)	0	99(100, 100)	0	99(100, 100)	0	-	0	-
11: 24-Dec	0	99(100,100)	0	99(100, 100)	0	99(100,100)	0	-	0	-
12: 31-Dec	1	99(100, 100)	1	99(100, 100)	0	99(100, 100)	0	-	0	-
13: 07-Jan	1	100(100, 100)	1	100(100,100)	1	99(100,100)	0	-	0	-
14: 14-Jan	0	100(100, 100)	0	100(100, 100)	1	100(100, 100)	0	-	0	-
Postseason: 16-Jan	0	100(100,100)	0	100(100,100)	0	100(100,100)	0	-	0	-

Table 5.48: BBR fishery harvest by week of season

Note The BBR fishery season is open by regulation from October 15 to January 15. Percent of pounds column shows the cumulative proportion of pounds landed for combined IFQ and CDQ sold pounds, including catcher/processor landings, and, in parentheses: a) sold pounds landed on catcher vessel owner A-type IFQ permits (CVOA); and b) sold pounds landed on catcher vessel owner B-type IFQ permits or catcher vessel crew type IFQ permits (CVOB + CVC). CVOA IFQ permits are subject to matching to processing quota, whereas CVC and CVOB may be landed at any processor.

Source NMFS RAM IFQ accounting database via eLandings.

	2018	3/19	2019	/20	2020	/21	2021	/22	2022/	23
Week	Vessels	Percent of pounds landed								
1: 15-Oct	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
2: 22-Oct	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
3: 29-Oct	0	$_{0(0,0)}$	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
4: 05-Nov	2	$_{0(0,0)}$	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
5: 12-Nov	1	$_{0(0,0)}$	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
6: 19-Nov	1	0(0,0)	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
7: 26-Nov	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
8: 03-Dec	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
9: 10-Dec	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
10: 17-Dec	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
11: 24-Dec	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
12: 31-Dec	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	0(0,0)	0	-
13: 07-Jan	11	3(3,1)	1	0(0,0)	4	1(2,0)	0	0(0,0)	0	-
14: 14-Jan	11	7(8,3)	10	4(4,0)	8	5(7,1)	2	2(2,0)	0	-
15: 21-Jan	17	15(18,3)	20	11(14,2)	13	10(13,2)	9	15(16,1)	0	-
16: 28-Jan	27	30(33,7)	24	21(24,2)	18	16(20,2)	10	35(36,12)	0	-
17: 04-Feb	31	45(49,13)	35	30(36,4)	15	21(25,4)	8	48(50,19)	0	-
18: 11-Feb	33	59(64, 20)	23	37(42,6)	28	30(34,6)	12	59(61, 34)	0	-
19: 18-Feb	24	69(74, 32)	37	49(55,22)	20	36(41,7)	7	66(67, 38)	0	-
20: 25-Feb	19	79(83,60)	26	58(65, 24)	28	44(49,9)	5	70(71,44)	0	-
21: 04-Mar	22	88(90,75)	25	65(71,35)	26	49(55, 14)	4	72(73,44)	0	-
22: 11-Mar	10	92(93, 83)	23	71(75,51)	11	53(58,18)	3	74(74,49)	0	-
23: 18-Mar	9	97(97, 93)	18	77(80,53)	24	61(66, 25)	4	77(77,53)	0	-
24: 25-Mar	6	98(98,95)	12	83(87,58)	26	72(75,37)	1	77(77,53)	0	-
25: 01-Apr	4	99(99,99)	15	90(92,65)	19	79(82, 46)	2	77(78,53)	0	-
26: 08-Apr	1	99(99,99)	5	92(94,77)	18	85(86,61)	0	77(78,53)	0	-
27: 15-Apr	1	100(100,100)	11	98(99,87)	10	88(87,72)	0	77(78,53)	0	-
28: 22-Apr	1	100(100,100)	6	99(99,99)	13	93(92,87)	0	77(78,53)	0	-
29: 29-Apr	0	100(100,100)	1	99(99,100)	10	96(95,90)	3	84(86,65)	0	-
30: 06-May	0	100(100,100)	0	99(99,100)	3	97(97,92)	3	90(92,84)	0	-
31: 13-May	0	100(100,100)	0	99(99,100)	4	98(98,95)	3	96(96,89)	0	-
32: 20-May	0	100(100,100)	1	100(100,100)	3	99(99,98)	2	99(100,91)	0	-
33: 27-May	0	100(100,100)	0	100(100,100)	2	100(100,100)	0	99(100,91)	0	-
Postseason:	0	100(100,100)	0	100(100,100)	1	100(100,100)	1	100(100,100)	0	-
01-Jun	2	- • (-••,-••)	Ŷ	()	-		-	()	Č.	

Table 5.49: BSS fishery harvest by week of season

Note The BSS fishery is open by regulation from October 15 to May 31. Percent of pounds column shows the cumulative proportion of pounds landed for combined IFQ and CDQ sold pounds, including catcher/processor landings, and, in parentheses: a) sold pounds landed on catcher vessel owner A-type IFQ permits (CVOA); and b) sold pounds landed on catcher vessel owner B-type IFQ permits or catcher vessel crew type IFQ permits (CVOB + CVC). CVOA IFQ permits are subject to matching to processing quota, whereas CVC and CVOB may be landed at any processor.

Source NMFS RAM IFQ accounting database via eLandings.

	Vessels		CPUE (lb legal crab)		Pot lifts		RPUE (\$)	
	Season		Mean(sd) CPUE per vessel, 1,000	Weighted mean	Mean(sd) per vessel, 1,000	Total	Mean(sd) RPUE per vessel, 1,000	Weightee mear
	1998	274	15.3(6.7)	15.20	0.5(0.2)	144.90	440(193)	43
	1999	257	12.6(6.1)	12.50	0.6(0.2)	150.00	777(385)	77.
	2000	244	11.9(5.2)	12.00	0.4(0.1)	103.40	575(252)	58
	2001	230	19.1(10)	19.20	0.3(0.1)	66.20	915(486)	91
	2002	242	20.6(7.1)	20.40	0.3(0.1)	72.20	1249(424)	1,23
	2003	250	18.2(9.5)	18.40	0.5(0.2)	134.10	858(446)	87
	2004	251	22.9(9)	22.90	0.4(0.1)	96.30	1065(407)	1,06
	2005/06	89	28(10.5)	23.70	1.3(1)	114.60	1166(440)	99
	2006/07	81	33.3(9.9)	34.00	0.9(0.5)	71.70	1062(325)	1,08
	2007/08	74	27.9(7.2)	27.50	1.5(0.9)	113.10	1056(277)	1,04
	2008/09	78	23.7(7.1)	21.70	1.8(1.1)	139.70	1029(319)	94
	2009/10	70	22.3(5.9)	21.20	1.7(0.8)	118.40	837(221)	79
	2010/11	65	18.6(5.1)	18.10	2(1)	131.40	1089(306)	1,05
	2011/12	62	27.6(7.3)	28.20	0.7(0.3)	45.10	2295(607)	2,33
	2012/13	64	30.7(9)	30.20	0.6(0.3)	38.00	2057(619)	2,03
	2013/14	63	27(8.9)	26.90	0.7(0.3)	45.80	1553(526)	1,54
	2014/15	63	29(28.7)	25.30	0.9(0.5)	58.50	1580(1619)	1,37
	2015/16	64	31.7(9.7)	30.60	0.7(0.4)	48.00	2012(630)	1,94
	2016/17	63	39.2(9.1)	37.80	0.5(0.3)	33.00	3043(672)	2,94
	2017/18	61	20.5(7.8)	19.90	0.8(0.4)	48.20	1368(507)	1,32
	2018/19	55	19.7(6.3)	19.60	0.6(0.3)	30.60	1567(511)	1,56
	2019/20	56	16(6)	15.40	0.6(0.3)	34.40	1452(544)	1,39
BBR	2020/21	47	22.1(7.7)	21.30	0.4(0.2)	20.20	1762(605)	1,71
	1999	241	155.4(42)	158.30	3.9(1.5)	945.40	317(80)	32
	2000	231	138.5(59.9)	136.20	0.8(0.3)	181.50	538(240)	52
	2001	207	91.6(48)	95.60	0.9(0.5)	191.00	296(142)	31
	2002	191	76.2(35.2)	75.60	1.7(0.8)	325.60	208(96)	20
	2003	190	151.6(63)	146.90	0.8(0.4)	153.70	508(201)	49
	2004	189	156(60.3)	149.60	0.7(0.4)	123.40	599(224)	57
	2005	168	246.2(87.9)	242.80	0.4(0.1)	72.90	875(328)	86
	2005/06 2006/07	78 60	$211.4(71.9) \\ 349.1(74.7)$	202.60	$1.5(1.1) \\ 1.2(0.8)$	$120.00 \\ 85.30$	$505(163) \\ 923(213)$	$48 \\ 89$
	2000/07 2007/08	$\frac{69}{78}$	349.1(74.7) 354.7(74.1)	$343.00 \\ 352.70$	1.2(0.8) 1.8(1)			89 98
	2007/08 2008/09	78 77	284.6(70.5)	352.70 279.10	2.1(1.3)	$\begin{array}{c} 141.40\\ 163.30\end{array}$	$986(202) \\ 661(168)$	98 64
	2008/03 2009/10	69	255.8(55.6)	275.10 255.00	2.1(1.5) 2(1.1)	136.80	585(120)	58
	2009/10 2010/11	68	255.3(51.4)	253.00 254.90	2(1.1) 2.2(1.1)	130.30 147.20	1165(232)	1,16
	2010/11 2011/12	72	233.3(31.4) 224.7(63.4)	234.50 222.70	3.7(1.8)	270.00	871(244)	1,10
	2011/12 2012/13	70	218.9(64)	209.80	3.2(1.6)	210.00 224.60	849(239)	81
	2012/13 2013/14	70 70	181.8(49.9)	179.80	3.3(1.7)	224.00 231.40	663(185)	65
	2013/14 2014/15	70 71	192.4(57)	190.60	4(1.9)	231.40 286.10	585(181)	57
	2014/15 2015/16	71 74	132.4(57) 143(53.7)	130.00 137.50	2.9(1.6)	230.10 213.40	616(220)	59
	2016/10 2016/17	63	135.7(48.8)	137.30	1.9(0.8)	118.10	669(241)	67
	2010/11 2017/18	63	140.4(61.6)	137.50 132.80	1.9(0.8) 1.9(1)	117.10	725(339)	68
	2017/10 2018/19	61	181(46.6)	152.00 176.30	2.1(1.2)	126.20	944(271)	92
	2010/10 2019/20	59	149.5(38.7)	150.10	3.2(1.7)	188.30	771(202)	52 77
	2020/21	62	211.7(77.7)	217.20	2.7(1.1)	169.30	1344(492)	1,37
BSS	2020/21 2021/22	43	129.2(64.8)	115.70	0.9(0.5)	39.20	1114(579)	99

Table 5.50: Fishing effort (pot lifts, CPUE, and RPUE) by season, CR Program fisheries

	Vessel		CPUE (lb legal crab)		Pot lifts		RPUE (\$)	
	Season		Mean(sd) CPUE per vessel, 1,000	Weighted mean	Mean(sd) per vessel, 1,000	Total	Mean(sd) RPUE per vessel, 1,000	Weighte mea
	2005/06	43	19.1(16.7)	15.00	0.7(0.6)	29.00	83(76)	6
	2006/07	52	16.8(15.4)	17.20	1(0.8)	52.90	84(76)	8
	2007/08	41	18.6(10.1)	17.60	1.3(1.3)	52.00	92(51)	8
	2008/09	49	14.7(15.7)	12.90	1.3(1.3)	63.90	72(77)	6
	2009/10	41	38.8(30.9)	11.80	1(0.7)	40.60	227(182)	7
	2010/11	49	0	0.00	0.8(0.5)	38.60	0	
	2011/12	56	0	0.00	1.2(0.7)	64.20	0	
	2012/13	59	0	0.00	1.4(0.9)	81.10	0	
	2013/14	66	15.2(12)	9.70	2.3(1.5)	147.60	93(74)	5
	2014/15	64	34.9(15.2)	33.50	3.5(2.6)	221.70	190(84)	17
	2015/16	70	41.8(19.4)	38.40	4(3.2)	280.40	210(99)	19
	2016/17	47	Ó	0.00	1(0.7)	49.20	Ó	
	2017/18	39	52.3(28.9)	41.20	0.8(0.6)	32.30	432(251)	33
	2018/19	37	37.2(18.1)	30.40	1.2(0.7)	44.60	312(157)	25
	2019/20	8	0	0.00	0.8(0.5)	6.40	0	
	2020/21	41	18.8(12.6)	18.70	1.1(0.8)	45.80	164(123)	16
BST	2021/22	20	32.4(16.8)	35.70	1.1(0.5)	21.70	311(162)	33
	1998	14	8(4.4)	9.00	5.6(2.6)	78.10	110(57)	12
	1999	15	9(4.7)	9.00	5(2)	74.30	194(102)	19
	2000	15	9.7(4.3)	9.70	4.6(1.6)	68.40	234(112)	23
	2001	19	11.2(5.6)	11.50	3.3(1.1)	62.60	245(116)	24
	2002	19	12.2(4.9)	12.10	2.7(0.7)	52.00	280(110)	28
	2003	18	10.6(2.9)	10.60	3.3(0.7)	58.90	259(72)	26
	2004	19	18.6(7.1)	18.00	1.8(0.4)	34.80	391(139)	37
	2005/06	7	25.3(7.9)	25.20	3.5(1.9)	24.60	418(155)	43
	2006/07	6	23.7(5.4)	24.50	4.4(3.5)	26.20	268(70)	29
	2007/08	4	29.1(5.2)	27.80	5.7(5.2)	22.70	364(147)	39
	2008/09	3	26(4.6)	27.00	8.2(3.4)	24.50	603(90)	61
	2009/10	3	24.7(4)	25.60	8.8(3.3)	26.30	364(61)	37
	2010/11	3	24.5(4.1)	25.40	8.6(2.6)	25.90	562(107)	58
	2011/12	3	36.2(3.7)	37.00	6(2.5)	17.90	1002(77)	1,01
	2012/13		32(0.9)	32.20	6.9(3.1)	20.80	731(25)	72
	2013/14	3	33(4.6)	33.50	6.9(2.3)	20.70	734(77)	74
	2014/15	3	41.9(8.7)	42.00	5.5(2.2)	16.40	980(169)	97
	2015/16	3	37.7(9.5)	38.20	6.2(2)	18.50	923(164)	92
	2016/17	4	42.3(22.4)	31.60	5.8(4.6)	23.40	1233(653)	90
	2017/18	4	30(2.7)	30.70	6.2(5.9)	24.60	840(81)	84
	2018/19	3	35.8(3.7)	35.20	8.8(5.3)	26.50	1017(42)	1,01
	2019/20	3	34.9(2.7)	34.60	9.2(5.1)	27.70	1021(52)	1,00
	2020/21	3	28.6(3.2)	29.70	9.7(5)	29.00	1070(170)	1,03
EAG	2021/22	3	27.3(6.8)	27.90	9.8(5.2)	29.40	1592(341)	1,60
PIK	1998	58	3(1.7)	3.00	0.8(0.3)	46.00	86(47)	8

Table 5.50: Fishing effort (pot lifts, CPUE, and RPUE) by season, CR Program fisheries (continued)

		Vessels	CPUE (lb l	egal crab)	Pot li	fts	RPUE	E (\$)
	Season		Mean(sd) CPUE per vessel, 1,000	Weighted mean	Mean(sd) per vessel, 1,000	Total	Mean(sd) RPUE per vessel, 1,000	Weighted mean
	1998	132	7.1(2)	6.90	0.7(0.3)	91.70	104(28)	101
	2009/10	7	9.3(1.4)	9.60	1.5(1)	10.60	117(18)	122
	2010/11	11	9.7(2)	10.10	2.7(1.2)	29.30	261(52)	272
	2011/12	18	8.5(2.1)	8.90	2.7(1.1)	48.60	216(53)	224
	2012/13	17	9.8(2.6)	10.10	2.2(1)	37.00	226(61)	231
	2014/15	4	6.2(1.7)	6.70	2.5(0.9)	10.10	112(31)	120
$\mathbf{SMB}$	2015/16	3	4.8(1.8)	4.40	1.8(0.8)	5.50	100(38)	92
	1998/99	3	8.2(5.7)	11.20	12(10.9)	35.90	153(98)	202
	1999/00	15	4.2(2.7)	6.10	(7.7)	104.30	89(55)	128
	2000/01	12	4.7(3.3)	6.80	8.2(6.7)	97.90	100(65)	140
	2001/02	9	5.8(1.7)	6.40	11.7(9.4)	105.50	118(31)	128
	2002/03	6	6.4(3.4)	8.30	13.2(10.5)	79.00	133(66)	172
	2003/04	6	8.5(3.3)	10.00	11(7.8)	66.20	176(67)	205
	2004/05	6	9.3(4.4)	11.90	9.5(7.1)	56.80	169(77)	214
	2005/06	3	20.7(5.8)	21.00	10(2.9)	30.00	293(71)	295
	2006/07	4	18.6(5.7)	20.00	6.5(2.6)	25.90	176(35)	181
	2007/08	3	21(3.3)	19.90	10(9.2)	29.90	223(72)	208
	2008/09	3	23.3(3.8)	22.30	8.7(7.2)	26.10	272(105)	253
	2009/10	3	25.9(6.9)	23.40	8.8(7)	26.50	482(120)	418
	2010/11	3	21.2(6.3)	20.60	10(5.9)	29.90	516(131)	487
	2011/12	3	22.3(4.1)	23.10	8.8(3.5)	26.30	528(123)	548
	2012/13	4	20.8(4.2)	20.20	8.2(4.6)	32.70	421(100)	400
	2013/14	3	15.6(2.4)	15.90	13.9(2.7)	41.80	321(45)	326
	2014/15	2	*	*	*	*	*	*
	2015/16	2	*	*	*	*	*	*
	2016/17	3	13.4(1.2)	13.70	12.7(6.2)	38.10	341(46)	349
	2017/18	3	16.1(2.1)	16.40	10.3(3.1)	30.90	395(63)	407
	2018/19	3	20(7.2)	19.30	9.8(3.8)	29.50	530(162)	522
	2019/20	3	15.3(6)	14.90	14.2(3.2)	42.50	476(160)	466
	2020/21	3	12.5(6.3)	14.30	15.6(7.6)	46.70	499(237)	571
WAG	2021/22	3	11.1(2.5)	11.40	15.4(7.3)	46.20	519(163)	539
	1998/99	1	*	*	*	*	*	*
	2002'/03	33	18.7(12.7)	17.90	0.1	3.80	1305(887)	1,247
WAI	2003/04	30	10.2(5.4)	10.30	0.2(0.1)	5.80	620(333)	629

Table 5.50: Fishing effort (pot lifts, CPUE, and RPUE) by season, CR Program fisheries (continued)

Note Effort statistics for the most recent crab year shown in the table represent fishing activity occurring during the early part of the season, before December 31. CPUE = number of legal crab per potlift; RPUE = ex-vessel value of commercially sold crab per potlift. Dollars are inflation-adjusted to 2022-equivalent value using the GDP deflator. Includes catcher/processor harvest and effort.

Source ADF&G fish ticket data and eLandings

Yea	r Export (million lbs)	Export value	Export Unit Value	Import (million lbs)	Import value	Import Unit Value	Net export (million lbs)	Net export value
	. ,	(\$million)	(\$/metric ton)		(\$million)	(\$/metric ton)		(\$million)
199	1 8.55	\$ 103.29	26.83	0.67	\$ 7.68	25.60	7.88	\$ 95.61
199	2 8.22	\$ 112.34	30.36	4.86	\$ 41.78	19.08	3.35	\$ 70.56
199		\$ 158.45	26.59	2.49	\$ 23.69	21.15	10.75	\$ 134.76
199		\$ 86.17	23.80	5.77	\$ 61.41	23.62	2.26	\$ 24.76
199		\$ 61.44	21.56	8.90	\$ 79.63	19.86	-2.58	\$ -18.19
199		\$ 97.99	21.97	13.92	\$ 111.10	17.72	-4.02	\$ -13.11
199		\$ 48.06	17.16	21.69	\$ 187.66	19.21	-15.48	\$ -139.60
199		\$ 38.32	12.36	26.25	\$ 204.91	17.34	-19.36	\$ -166.59
199		\$ 42.45 \$ 73.63	$15.55 \\ 24.14$	25.51 22.32	\$ 225.70 \$ 235.21	$19.64 \\ 23.40$	-19.45 -15.54	\$ -183.25
200 200		\$ 73.03 \$ 52.40	24.14 28.63	22.32	\$ 235.21 \$ 218.99	23.40 23.57	-15.54 -16.56	\$ -161.58 \$ -166.59
200		\$52.40 \$52.18	28.03	20.03	\$ 289.76	23.57	-18.07	\$ -237.58
200		\$ 52.18 \$ 76.79	19.49	23.14 22.12	\$ 289.70 \$ 247.48	24.85	-13.37	\$ -170.69
200		\$ 57.84	17.80	23.43	\$ 222.43	24.85	-16.21	\$ -164.59
200		\$ 77.53	19.88	40.83	\$ 359.90	19.57	-32.17	\$ -282.37
200		\$ 80.54	18.64	62.33	\$ 466.99	16.64	-52.74	\$ -386.45
200		\$ 66.39	20.06	67.39	\$ 496.30	16.35	-60.04	\$ -429.91
200		\$ 92.33	21.32	35.35	\$ 353.17	22.18	-25.74	\$ -260.84
200		\$ 87.96	26.18	35.15	\$ 324.47	20.50	-27.69	\$ -236.51
201	0 8.04	\$ 106.86	29.52	22.34	\$ 234.51	23.31	-14.30	\$ -127.65
201	1 5.91	\$ 81.75	30.73	18.87	\$ 220.26	25.91	-12.97	\$ -138.51
201	2 4.40	\$ 63.96	32.30	20.89	\$ 208.03	22.11	-16.50	\$ -144.07
201		\$ 54.20	30.45	23.74	\$ 240.71	22.52	-19.78	\$ -186.51
201		\$ 62.35	28.47	27.40	\$ 298.26	24.17	-22.54	\$ -235.91
201		\$ 20.51	27.35	20.76	\$ 228.80	24.47	-19.10	\$ -208.29
201		\$ 39.24	33.54	23.07	\$ 335.49	32.29	-20.47	\$ -296.25
201		\$ 46.38	31.77	22.23	\$ 360.33	36.00	-18.98	\$ -313.95
201		\$ 43.93	33.03	24.47	\$ 411.17	37.31	-21.52	\$ -367.24
201		\$ 24.93	31.96	27.51	\$ 514.80	41.55	-25.78	\$ -489.87
202 Vin n 202		\$ 17.03 \$ 3.49	24.33	28.40	\$ 570.85 \$ 380.19	44.63	-26.85	\$ -553.82 • 276.70
King 202 crab 202		5 3.49 \$ 0.68	20.53 17.00	$19.01 \\ 8.57$	\$ 380.19 \$ 282.32	$44.41 \\ 73.14$	-18.63 -8.48	\$ -376.70 \$ -281.64
199	1 71.50	\$ 295.42	9.17	1.64	\$ 10.23	13.82	69.86	\$ 285.19
199		\$ 568.56	9.23	1.95	\$ 8.85	10.06	134.85	\$ 559.71
199		\$ 494.03	10.84	2.95	\$ 15.72	11.82	98.21	\$ 478.31
199	4 69.10	\$ 459.94	14.78	6.35	\$ 38.64	13.51	62.75	\$ 421.30
199	5 27.22	\$ 218.08	17.79	5.02	\$ 32.69	14.46	22.20	\$ 185.39
199	6 21.16	\$ 121.09	12.71	7.51	\$ 38.29	11.33	13.66	\$ 82.80
199	7 22.58	\$ 91.37	8.98	15.32	\$ 61.42	8.90	7.26	\$ 29.95
199	8 26.62	\$ 90.25	7.53	27.22	\$ 105.11	8.57	-0.60	\$ -14.86
199		\$ 153.57	9.83	54.80	\$ 276.05	11.19	-20.12	\$ -122.48
200		\$ 67.04	14.11	63.53	\$ 389.45	13.61	-52.98	\$ -322.41
200		\$ 39.59	12.81	93.66	\$ 462.19	10.96	-86.80	\$ -422.60
200		\$ 41.24	12.27	98.61	\$ 487.62	10.98	-91.15	\$ -446.38
200		\$ 57.78	14.74	114.58	\$ 666.37	12.91	-105.87	\$ -608.59
200		\$ 58.86 \$ 42.10	14.39	109.02	\$ 625.54 \$ 467.76	12.74	-99.94	\$ -566.68
200		\$ 43.12 \$ 56.62	12.61	102.07	\$ 467.76 \$ 492.21	10.18	-94.48	\$ -424.64
200		\$ 56.63 \$ 20.62	11.82	102.76	\$ 423.31 \$ 548.80	9.15	-92.13	\$ -366.68
200 200		20.63 59.45	9.73 10.71	$106.54 \\ 93.26$	\$ 548.89 \$ 492.83	$11.44 \\ 11.73$	-101.83 -80.94	\$ -528.20 \$ -433.38
200 200		59.45 \$59.75	10.71	93.26 114.69	\$ 492.83 \$ 506.82	9.81	-80.94 -102.52	\$ -433.38 \$ -447.0'
200 201		\$ 59.75 \$ 54.43	10.90	96.75	\$ 506.82 \$ 491.94	9.81 11.29	-102.52 -85.73	\$ -447.0 \$ -437.5
201 201		\$ 116.85	13.78	91.13	\$ 647.83	11.29	-72.30	\$ -530.98
201 201		\$ 162.67	13.78	92.55	\$ 549.18	13.18	-64.30	\$ -386.5
201 201		\$ 112.95	13.74	115.58	\$ 685.71	13.17	-97.32	\$ -572.7
201		\$ 105.81	14.61	101.01	\$ 617.15	13.57	-84.93	\$ -511.3
201		\$ 94.98	12.30	101.67	\$ 598.52	13.07	-84.53	\$ -503.5
201		\$ 89.22	14.58	110.36	\$ 751.93	15.13	-96.77	\$ -662.7
201		\$ 53.51	17.78	102.36	\$ 839.37	18.21	-95.68	\$ -785.8
201		\$ 47.98	19.35	90.91	\$ 819.26	20.01	-85.40	\$ -771.2
201		\$ 68.56	18.53	102.67	\$ 941.56	20.36	-94.46	\$ -873.0
202		\$ 75.90	18.42	127.79	\$ 1,111.83	19.32	-118.64	\$ -1,035.9
		\$ 91.54	18.16	106.80	\$ 1,418.08	29.48	-95.61	\$ -1,326.5
Snow 202	1 11.15	Φ 51.04	10.10	100.80	$\Phi_{1,410.00}$	20.40	-55.01	Φ 1,0±0.0

Table 5.51: Snow and king crab exports and imports

Note Imports and exports shown for product codes 306144010 (frozen king crab) and 306144020 (frozen snow crab) from the

Tariff Schedule for the United States, Annotated (TSUSA). Dollars are inflation-adjusted to 2022-equivalent value using the GDP deflator.

**Source** U.S. Foreign Census Bureau Foreign Trade Division, via NMFS Fisheries Statistics Division, U.S. Foreign Trade Database [http://www.st.nmfs.noaa.gov/st1/trade/].

Year	GDP	2022 GDP	PCE	2022 PCE
Tear	Index	Adjustment	Index	Adjustment
	Index	Factor	muex	Factor
				1 actor
1991	61.30	1.92	61.77	1.88
1992	62.70	1.88	63.42	1.83
1993	64.19	1.84	65.00	1.79
1994	65.56	1.80	66.36	1.75
1995	66.93	1.76	67.75	1.71
1996	68.16	1.73	69.20	1.68
1997	69.34	1.70	70.41	1.65
1998	70.10	1.68	70.97	1.64
1999	71.08	1.66	72.00	1.61
2000	72.71	1.62	73.82	1.57
2001	74.38	1.59	75.30	1.54
2002	75.50	1.56	76.29	1.52
2003	77.01	1.53	77.89	1.49
2004	79.07	1.49	79.83	1.45
2005	81.54	1.45	82.13	1.41
2006	84.07	1.40	84.44	1.37
2007	86.35	1.37	86.61	1.34
2008	87.98	1.34	89.17	1.30
2009	88.56	1.33	88.92	1.31
2010	89.62	1.32	90.51	1.28
2011	91.47	1.29	92.80	1.25
2012	93.18	1.27	94.53	1.23
2013	94.79	1.24	95.78	1.21
2014	96.44	1.22	97.12	1.19
2015	97.28	1.21	97.30	1.19
2016	98.21	1.20	98.28	1.18
2017	100.00	1.18	100.00	1.16
2018	102.29	1.15	102.05	1.14
2019	104.01	1.13	103.51	1.12
2020	105.41	1.12	104.63	1.11
2021	110.22	1.07	109.00	1.06
2022	118.00	1.00	116.04	1.00
2023	122.28	0.96	120.38	0.96

Table 5.52: Inflation-adjustment indices

**Note** The Personal Consumption Expenditures (PCE) chain-type price index is used where noted in this report to deflate estimates of ex-vessel revenues, fishing costs, crew earnings, and associated monetary values to account for price inflation in US general personal consumption expenditures. The Gross Domestic Production (GDP) chain-type price index is used where noted to deflate estimates of wholesale production revenues and production costs to account for change in the general price level of US domestic production of all goods and services.

**Source** U.S. Bureau of Economic Analysis, Gross Domestic Product: Chain-type Price Index [GDPCTPI], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GDPCTPI. U.S. Bureau of Economic Analysis, Personal Consumption Expenditures: Chain-type Price Index [PCEPI], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/PCEPI, retrieved December