2019 Crab Economic SAFE Overview

• Executive Summary

• Economic Status and Trends
  • Economic output
    • TACs, landings, ex-vessel and finished product volume
    • Ex-vessel and first wholesale revenue and average prices
  • Employment and labor income
  • Harvest sector operating costs and financial performance
  • Quota market and holdings
  • Fishing capacity and effort
  • International trade
Economic SAFÉ availability

Economic and Social Sciences Research

Annual Economic Status Reports from the Stock Assessment and Fishery Evaluations

The Alaska Fisheries Science Center (AFSC) invites users of the Groundfish and BSAI Crab Economic Status Reports to provide feedback regarding the quality and usefulness of the reports and to make recommendations for improvement. We welcome any and all comments and suggestions, and have developed an online survey to facilitate user feedback:

Click here to participate in the survey

Groundfish Fisheries of the Gulf of Alaska and Bering Sea/Aleutian Islands

The Groundfish Economic Status Report summarizes available economic data about the federal groundfish fisheries in the Gulf of Alaska and the Bering Sea/Aleutian Islands. Published annually as an appendix to the Stock Assessment and Fishery Evaluation reports, the Economic Status Report presents summary statistics on catch, discards, prohibited species catch, ex-vessel and first-wholesale production and value, participation by small entities, and effort in these fisheries.

King and Tanner Crab Fisheries of the Bering Sea and Aleutian Islands

The BSAI Crab Economic Status Report summarizes available economic information about the commercial crab fisheries managed under the Harvest Management Plan for Bering Sea and Aleutian Islands King and Tanner Crab, with particular attention to the subset of fisheries included in the Crab Rationalization program. The report includes information on: production, sales, revenue, and price indices in the harvesting and processing sectors; income, employment, and demographics of labor in both sectors; capital and operating expenditures in the fishery; quota share lease and sale market activity; changes in distribution of quota holdings; productivity in the harvesting sector; U.S. imports and exports of king and Tanner crab; price forecasts; performance metrics for catch share programs and other information regarding data collection and ongoing economic and social science research related to the BSAI crab fisheries and related communities.

https://www.afsc.noaa.gov/REFM/Socioeconomics/SAFE/default.php

or

SSC Comments

…recommends that [net earnings] metrics be developed for the processing sector as well. The SSC also recommends that the Crab SAFE include report card indices that parallel those in the groundfish SAFE. The SSC notes that these indices do not need to be the same as those of the groundfish SAFE but should be informative about the current performance of the crab fisheries relative to past performance. The SSC also recommends that data presented in the Crab Economic SAFE tables be available for download by the public, similar to the data in the Groundfish SAFE.” February, 2018

- Very limited non-confidential cost data available for crab processors.

- Report card indices and additional ESPs will be developed for May CPT meeting

- **New!** Executive Summary data available online via AKFIN: https://reports.psmfc.org/akfin
SSC Comments

“The upcoming crab SAFE analysis of the extent of quota leasing, the degree to which quota is being fished by leaseholders rather than quota owners, and how ownership patterns have changed over time should include a disaggregation to the community level where possible… Vessel ownership by community should be similarly tracked on an annual basis in the SAFE document to allow the identification of trends, as should the number of reductions in the amount of employment throughout the fisheries noted (e.g., the number of crew positions decreasing by 10%). … information on average daily and total seasonal [processing] wages be provided by community and tracked over time. ” June, 2018

- Ownership decomposition still in development
- Community/regional disaggregation of results will be addressed as possible in annual community participation document (ACEPO, forthcoming).
- Crab processing labor statistics generally cannot be disaggregated to community level due to confidentiality limits.
SSC Comments

“…The SSC agrees with the CPT that the Norton Sound red king crab fishery would be a good candidate for a pilot socio-economic report as it would be particularly valuable for evaluating the efficacy of multiple community protection measures”” June, 2019

- ESP was produced for SMB fishery; CPT has prioritized BBR as next crab ESP
2018 Production & Value

Gross Revenue, All Fisheries by Sector

Production Volume, All Fisheries by Sector

Crab Fishery

- AIG
- BBR
- BSS
- BST
- NSR
- SMB
Ex-vessel & Wholesale Price

Ex-vessel and First Wholesale Price

Ex-vessel/First Wholesale Price Ratio

Price: $ per pound

Ex-vessel price as % of wholesale price
2018 Employment & Income (CR program)
2018 Employment & Income (CR program)
2018 Employment & Income (CR program)

Crab Labor Wage Rates
-Captain/Crew share earnings/vessel-day
-Processing wages per 12-hr shift

Average wage rate ($/day)

Year

2014 2015 2016 2017 2018

Crew member
Captain
Processing employee

AIG  BBR  BSS  BST
IFQ Lease Activity and Rates

- BBR CVO A: 62-63%
- BSS CVO A: 46%
- Over all QS:
  - 81-88% Leased
  - 39-42% Gross
Vessel Income Statement - 2018

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of active vessels</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Pounds landed</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>Quota pounds leased (% of landed)</td>
<td>61</td>
<td>(68%)</td>
</tr>
<tr>
<td>Gross ex-vessel revenue</td>
<td>$792</td>
<td></td>
</tr>
<tr>
<td>—— Quota lease cost</td>
<td>($407)</td>
<td>(44%)</td>
</tr>
<tr>
<td>Gross residual after lease cost</td>
<td>$386</td>
<td>56%</td>
</tr>
<tr>
<td>BBR —— Provisions</td>
<td>($4.05)</td>
<td>(0.5%)</td>
</tr>
<tr>
<td>—— Bait</td>
<td>($7.37)</td>
<td>(0.9%)</td>
</tr>
<tr>
<td>—— Fuel</td>
<td>($7.50)</td>
<td>(1.0%)</td>
</tr>
<tr>
<td>—- Non-labor vessel cost (Total)</td>
<td>($19)</td>
<td>(3%)</td>
</tr>
<tr>
<td>Gross residual (non-labor)</td>
<td>$367</td>
<td>54%</td>
</tr>
<tr>
<td>—- Labor cost</td>
<td>($132)</td>
<td>(19%)</td>
</tr>
<tr>
<td>– Harvesting cost (Total)</td>
<td>($557)</td>
<td>(65%)</td>
</tr>
<tr>
<td>Gross ex-vessel profit</td>
<td>$235</td>
<td>35%</td>
</tr>
</tbody>
</table>
# Vessel Income Statement - 2018

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of active vessels</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Pounds landed</td>
<td>292</td>
<td></td>
</tr>
<tr>
<td>Quota pounds leased (% of landed)</td>
<td>226 (66%)</td>
<td></td>
</tr>
<tr>
<td>Gross ex-vessel revenue</td>
<td>$1167</td>
<td></td>
</tr>
<tr>
<td>→ Quota lease cost</td>
<td>($433) (32%)</td>
<td></td>
</tr>
<tr>
<td>Gross residual after lease cost</td>
<td>$734</td>
<td>68%</td>
</tr>
<tr>
<td>BSS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>→ Provisions</td>
<td>($6.66) (0.6%)</td>
<td></td>
</tr>
<tr>
<td>→ Bait</td>
<td>($15.02) (1.3%)</td>
<td></td>
</tr>
<tr>
<td>→ Fuel</td>
<td>($15.14) (1.3%)</td>
<td></td>
</tr>
<tr>
<td>→ Non-labor vessel cost (Total)</td>
<td>($37) (4%)</td>
<td></td>
</tr>
<tr>
<td>Gross residual (non-labor)</td>
<td>$697</td>
<td>64%</td>
</tr>
<tr>
<td>→ Labor cost</td>
<td>($246) (22%)</td>
<td></td>
</tr>
<tr>
<td>→ Harvesting cost (Total)</td>
<td>($716) (58%)</td>
<td></td>
</tr>
<tr>
<td>Gross ex-vessel profit</td>
<td>$451</td>
<td>42%</td>
</tr>
</tbody>
</table>
Vessel Income Statement

- Gross ex-vessel revenue
- Gross profit as share of revenue
- Quota lease cost
- Labor cost
- Non-labor vessel cost

Vessel gross profit and fishing cost as % of gross ex-vessel revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>20%</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>20%</td>
<td>40%</td>
<td>60%</td>
<td>80%</td>
</tr>
<tr>
<td>40%</td>
<td>60%</td>
<td>80%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Fleet Income Statement

![Graphs showing income statement for fleet operations, including gross ex-vessel revenue, gross profit, and harvesting costs for All CRP, BBR, and BSS. The graphs also show the distribution of harvest sector gross profit, including gross returns to vessel sector and lease royalties (QS sector).]
Fleet Income Statement

[Bar chart showing Fleet Income Statement for All CRP, BBR, and BSS. The chart indicates the gross ex-vessel revenue, gross profit, labor cost, and non-labor vessel cost for each year from 2011 to 2019.]

- **Gross ex-vessel revenue**
- **Gross Profit, as portion of Gross Revenue**
- **Labor cost**
- **Non-labor vessel cost**

**Fleet costs and gross profit as % of gross revenue**

**Vessel and quota sector % share of gross profit**

- **Gross returns to vessel sector**
- **Lease royalties (QS sector)**

Year:

- 2011
- 2013
- 2015
- 2017
- 2019
ESPs

- Candidate stocks
- Standardize metrics
Discussion

Priorities for 2020 SAFE:
• Report card metrics, ESP integration
• Price forecasts & current-year estimates
• Demographics (Community chapter)
• Processing sector income analysis
• Consistency with Groundfish Econ SAFE

• Council EDR Review