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**Alaska
Fisheries
Science
Center**

Economic Status of the Groundfish Fisheries off Alaska, 2020

Ben Fissel
AFSC Economics and Social
Sciences Research Program (ESSRP)

Feb. 2, 2022



Structure of the Economic SAFE

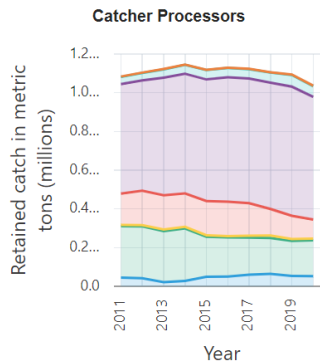
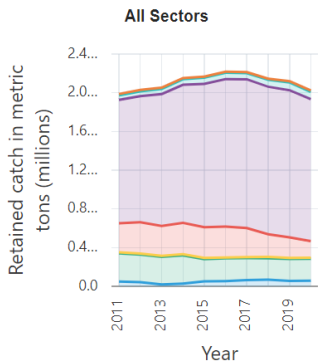
Economic Status Report, 2020:

- Executive Summary: 2020 highlights
 - Report Card Metrics
 - Plan Team Reports
- Overview of the Economic Data Tables
- Economic Data Tables
 - All Alaska summary Tables (1-9)
 - BSAI data Tables (10-25)
 - GOA data Tables (26-41)
 - Halibut data Tables (H1-H10).

Tables primarily cover: Retained catch, ex-vessel value and prices, first-wholesale production and prices, vessel counts, and fishing and crew weeks.

Where to find the economic groundfish data

<https://reports.psmfc.org/akfin/f?p=501:2001>



Atka Mackerel Pollock
Flatfish Rockfish
Other Groundfish Sablefish

Atka Mackerel Pollock
Flatfish Rockfish
Other Groundfish Sablefish

- + Catch and discards
- + Ex-vessel value
- + Wholesale production and value
- + Effort
- + Fleets

Atka Mackerel Pollock
Flatfish Rockfish
Other Groundfish Sablefish

AKFIN/AFSC Human Dimensions of Fisheries Data Explorer

<https://reports.psmfc.org/akfin/f?p=501:2000>

Economic Status Reports

- Groundfish Econ SAFE
- Crab Econ SAFE

Fishing Community information

- Community Profiles
- Community Landings dashboard
- Social Indicators Toolbox
- ACEPO dashboard
- A Way of Life storymap

Other resources

- Catch Share performance metrics
- 10 MRSAM regional economic impact modeling Toolbox

Alaska Fisheries Science Center
Human Dimensions of Fisheries Data Explorer
NOAA FISHERIES

About the Human Dimensions Data Explorer

The Human Dimensions Data Explorer provides access to data, data visualizations, and other tools for understanding the economic and sociocultural dimensions of Alaska fisheries. These resources have been developed by, in or in collaboration with, the Alaska Fisheries Science Center Economics and Social Science Research Program (ESSRP), which collects and analyzes economic and sociocultural data to support the conservation and management of Alaska marine resources. ESSRP's research foci include seafood markets and trade, recreational fisheries, and non-market valuation, regional economic modeling, catch share programs and quota markets, economic performance indicators, and fishing behavior models, among others.

Economic Status Reports (SAFE)

Economic Status Reports are published with the annual **Stock Assessment and Fishery Evaluation (SAFE) Reports** for federally-managed groundfish and crab stocks in the North Pacific. The Economic SAFEs provide social and economic context to fisheries managers to support regulatory decision making and the evaluation of management measures such as catch share programs.

Groundfish Economic SAFE

Annual report on the economic performance of the federally-managed groundfish fisheries in the Gulf of Alaska and the Bering Sea/Chukotka Islands, including statistics on catch, ex-vessel and first-wholesale production and value and effort.

BSAI Crab Economic SAFE

Annual report on the economic performance of the federally-managed king and Tanner crab fisheries of the Bering Sea and Aleutian Islands, including statistics on production and revenue in the harvesting and processing sectors, labor employment, demographics, and income and quota holdings, leasing, and sales.

Fishing Communities

The Economic and Social Sciences Research Program conducts research on Alaska communities in order to examine the social and economic impacts of federal fishery policies and regulations.

The **Magnuson-Stevens Fishery Conservation and Management Act (MSA)** defines a fishing community as a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and United States fish processors that are based in such community. As mandated under MSA National Standard B, those policies and regulations shall take into account the importance of fishery resources to fishing communities in order to (1) provide for the sustained participation of such communities; and (2) to the extent practicable, minimize adverse economic impacts on such communities.

Executive Order 12868 additionally mandates that each federal agency, to the greatest extent practicable and permitted by law, shall make achieving environmental justice part of its mission by identifying and addressing the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations.

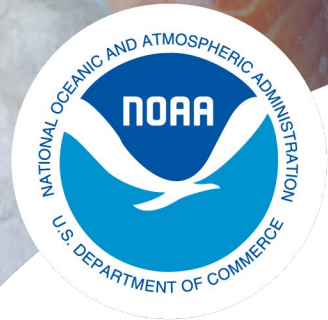
Community Profiles for North Pacific Fisheries

In-depth profiles of the 196 Alaska communities most involved in Alaska and North Pacific fisheries, describing the historic, demographic, cultural, and economic context for each community's involvement.

Community Landings Dashboard

A mapping and graphing tool for exploring communities where catch from the commercial fisheries of the North Pacific is landed.

This application is available to approved users of confidential fisheries data with institutional ArcGIS accounts. Please contact joan.lend@noaa.gov to inquire about access.



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Analytic Content of the Economic Status Report, 2020:

- Economic Performance Indices
- 2021 In-season harvest and revenue estimates
- Wholesale and ex-vessel price projections
- Market Profiles (update next year)
- Amendment 80 Economic Data Report
- Gulf Trawl Economic Data Report

Economic Performance Report (EPR) and Ecosystem and Socioeconomic Profiles

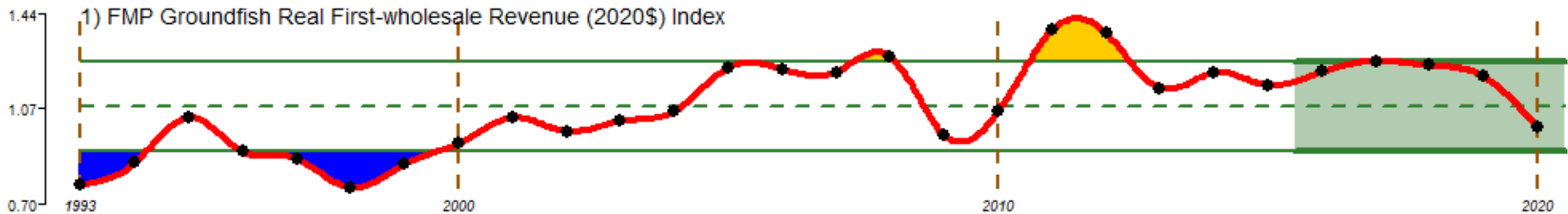
These documents provide stock specific socio-economic information to stock assessment authors

- **BSAI**: pollock, *Pacific cod (ESP)*, flatfish complex (yellowfin sole, rock sole, flathead, arrowtooth) , rockfish (Pac. ocean perch, northern rockfish), Atka mackerel.
- **GOA**: *pollock (ESP)*, *Pacific cod (ESP)*, flatfish (arrowtooth), rockfish (Pac. ocean perch, northern rockfish).
- Combined: *sablefish (ESP)*.

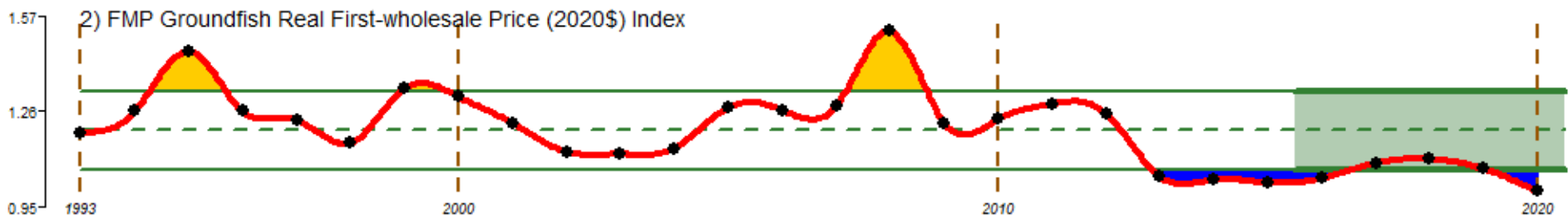
Status and Trends

Report Card Indices

FMP Groundfish real first-wholesale revenue (2020\$) index

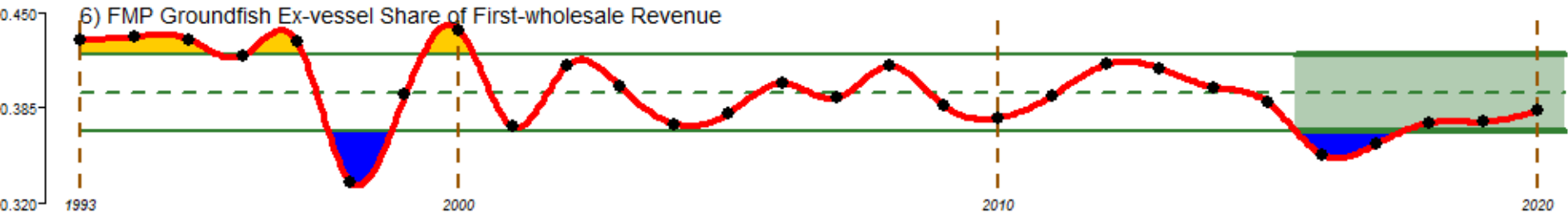


FMP Groundfish real first-wholesale price (2020\$) index

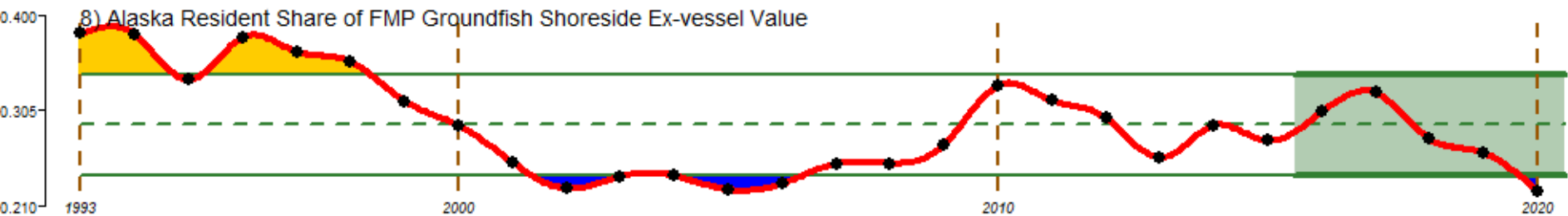


Report Card Indices

FMP groundfish ex-vessel share of first-wholesale revenue

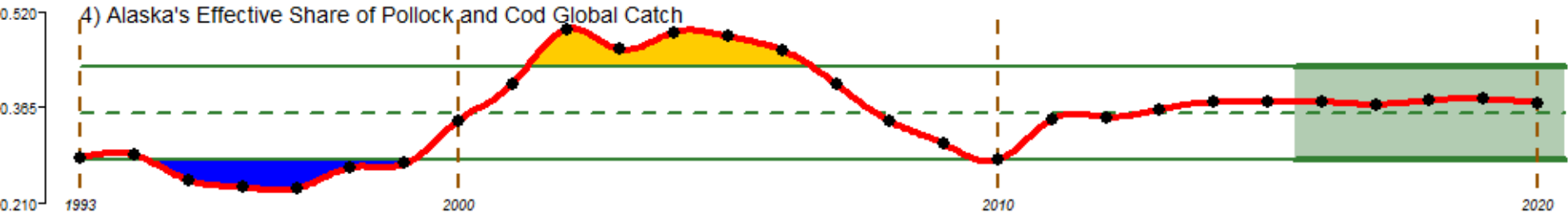


Alaska resident share of FMP groundfish shoreside ex-vessel value

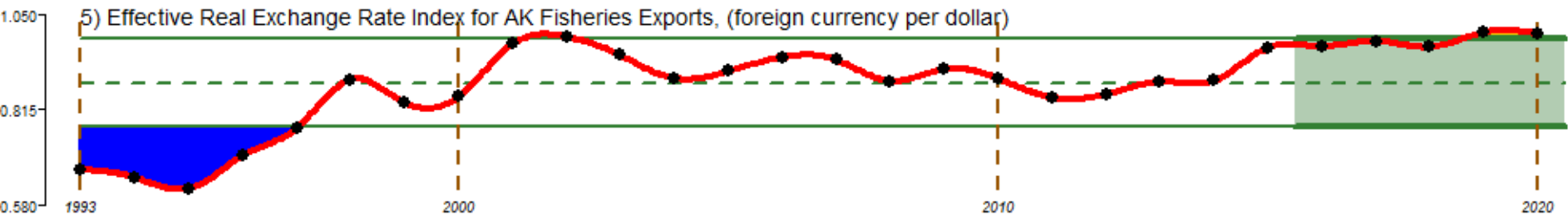


Report Card Indices

Alaska's effective share of pollock and cod global catch



Effective real exchange rate index for AK fisheries exports (foreign currency per dollar)



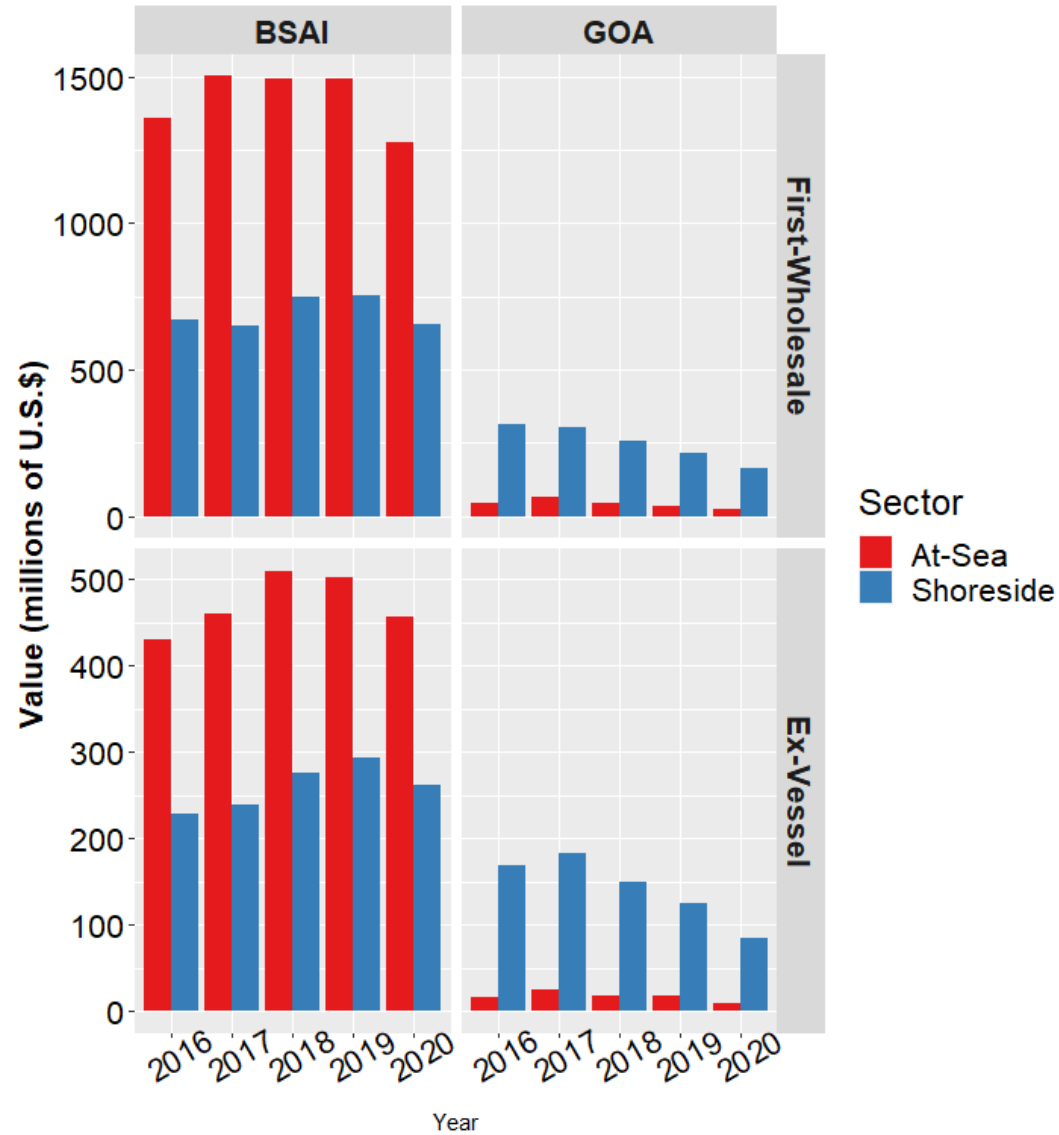
Alaska's Groundfish Fisheries in 2020

Total catch: 2.01 million t
(decreased 4%)

Aggregate ex-vessel value decreased in the BSAI and GOA.

Wholesale value:
\$2.12 billion (down 16%)

Ex-vessel value:
\$810.6 million (down 15%)

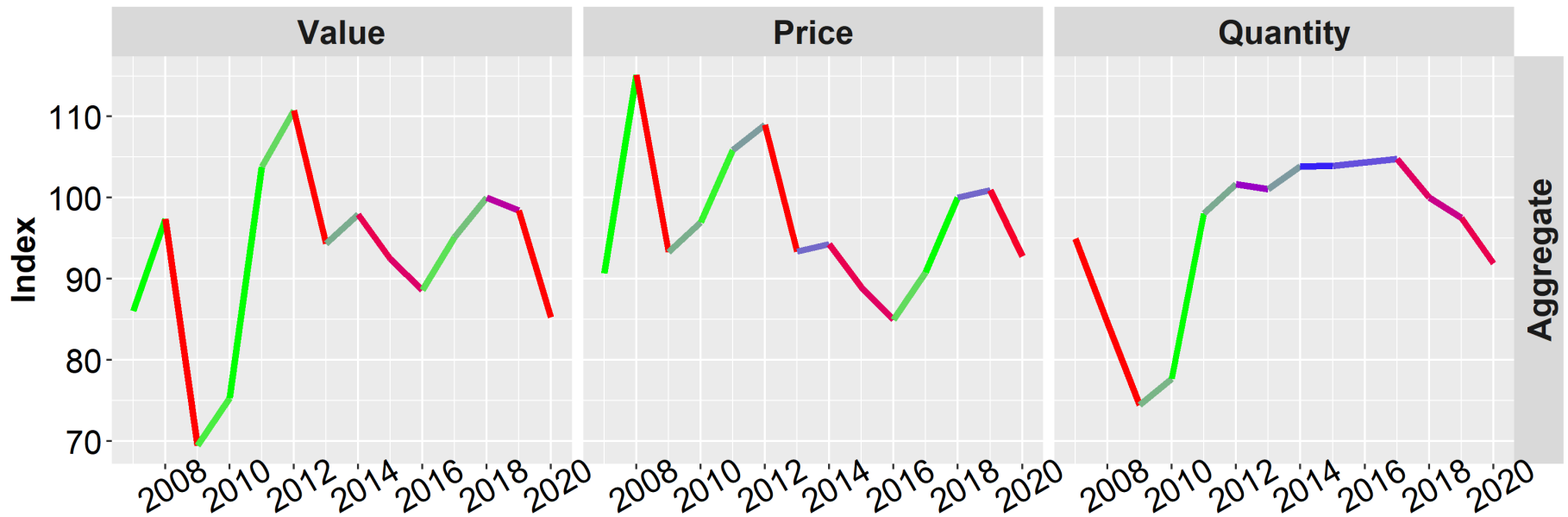


Percent change adjusted for inflation.

Values in figure nominal (not adjusted for inflation)

Alaska's Groundfish Fisheries in 2020

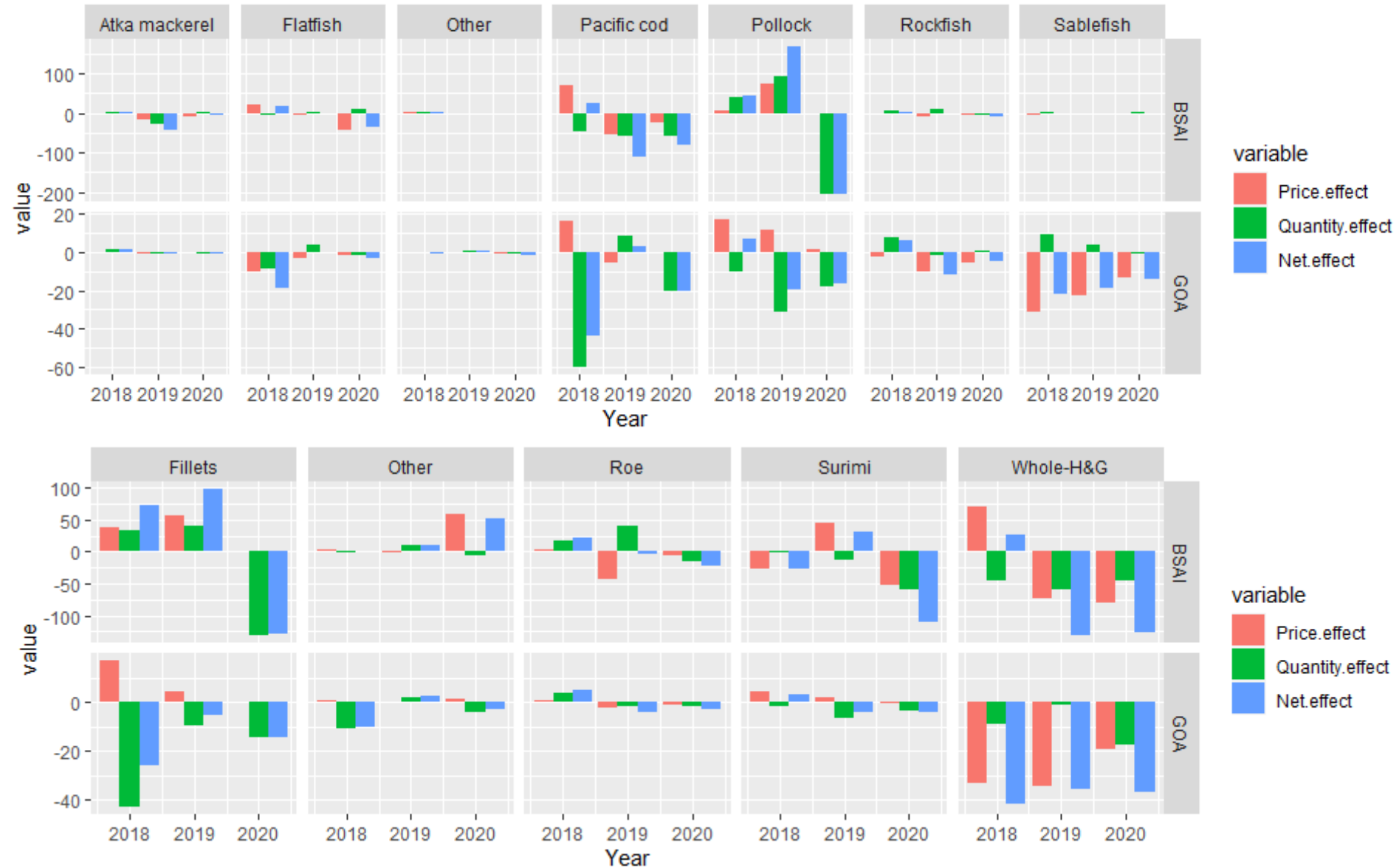
Alaska Ex-vessel Economic Indices



In the aggregate:

The decrease in value was driven by significant decreases volume and price

Year-over-year Revenue Decompositions 2019-2020



Revenue impacts from COVID

Revenue impacts from COVID-19 largely price related

- Notable decrease in prices for many of the products with significant exports to Asia.
- Ex-vessel prices down with pressure from low product prices and cost pressure from COVID mitigation.

Some impacts in 2020 were not COVID related.

- Reductions in catch generally the result of reductions in TAC
 - Catch/TAC within a typical range. Except for BSAI pollock where unharvested pollock result of dispersed stock, difficult fishing conditions, and small fish size.

COVID-19 Impacts Survey



2020 COVID-19 Impacts Harvester Survey

PREPARED FOR:

Alaska Seafood Marketing Institute

April 2021



2020 COVID-19 Impacts Processor Survey

PREPARED FOR:

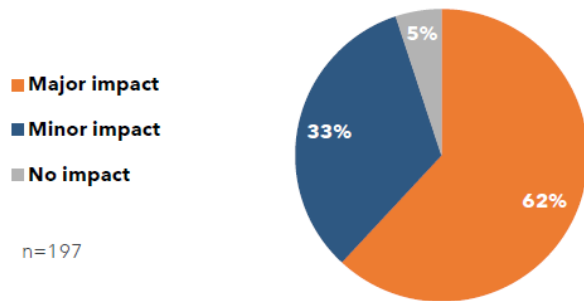
Alaska Seafood Marketing Institute

April 2021

- The most comprehensive and targeted surveys of COVID-19 impacts (particularly for costs) on Alaska's seafood industry to date was fielded by McKinley Research Group for ASMI.
- <https://www.alaskaseafood.org/covid-19-impact-reports/>
- Due to response rates and the voluntary nature of the surveys it's difficult to determine how representative the results are for the industry as a whole

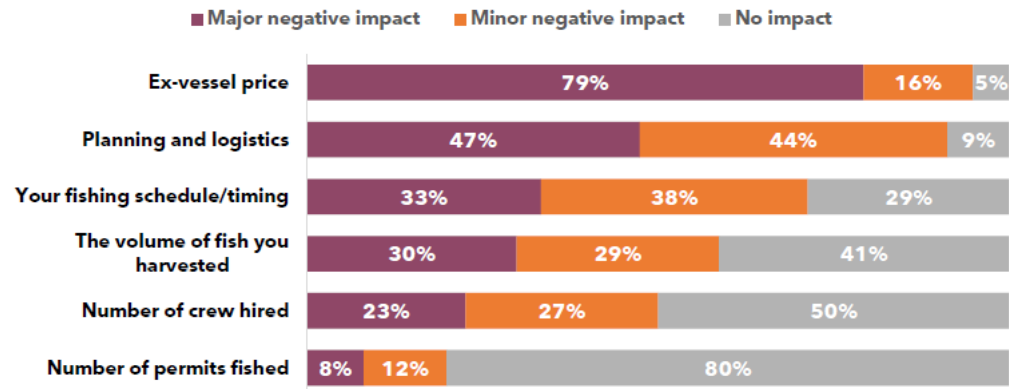
COVID-19 Impacts Harvester Survey

Figure 4. Considering all the 2020 fisheries you participated in, did COVID-19 have a major, minor, or no impact on your fishing operation expenses?



McKinley Research Group 2021

Figure 6. Did COVID-19 have a major, minor, or no impact on each of the following other aspects of your fishing business?



n=173 to 195

- Salmon heavily represented in the survey.
- Most harvesters reported some (major or minor) impact to their business.
- The most significant harvester impacts were reduced prices followed by logistics and planning costs.
- Roughly two-thirds reported no reduction in crew sizes.

COVID-19 Impacts Processor Survey

Figure 4. Percentage of total mitigation costs by expense type

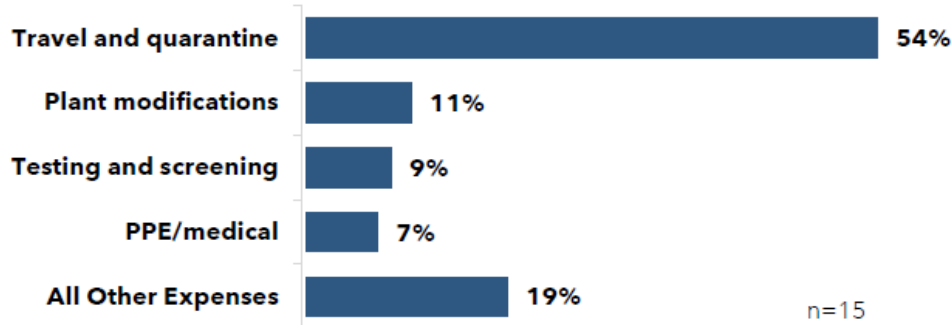
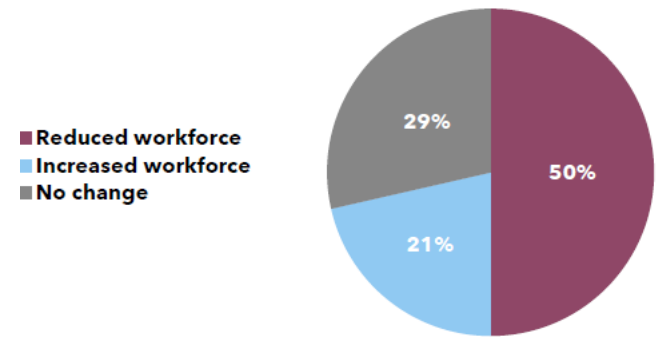


Figure 7: Did you reduce or increase your Alaska workforce in 2020 due to COVID-19, or was there no change?

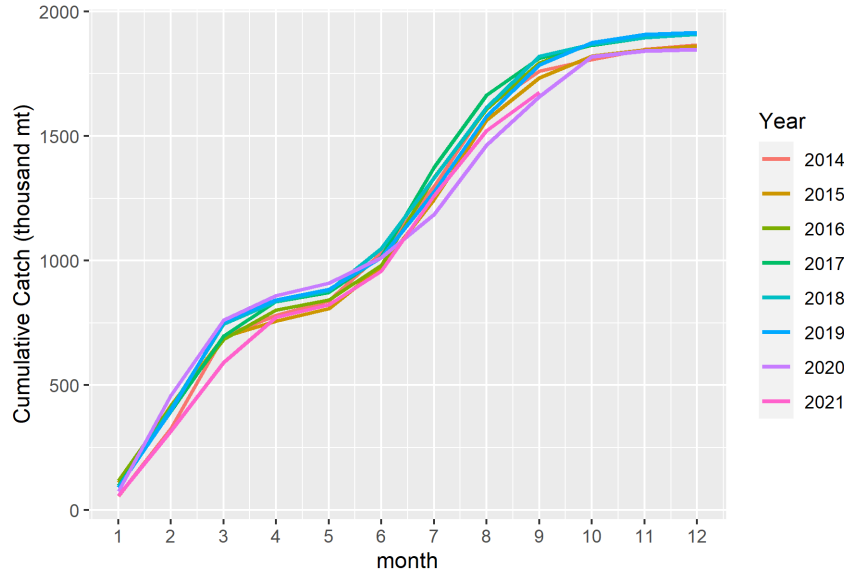


McKinley Research Group 2021

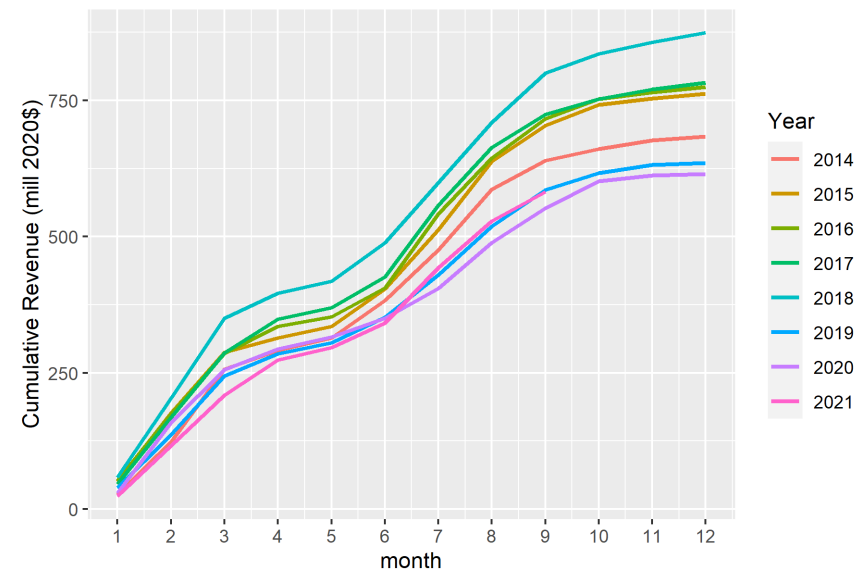
- Estimated COVID-19 mitigation costs to processing industry were \$70 million.
 - Travel and quarantine costs represented over half of the costs.
- Half reported a reduction in workforce.
- Half reported either a minor or major change in product mix and anticipate further changes in 2021.

In-season Ex-Vessel Harvest and Revenue Estimates for 2021

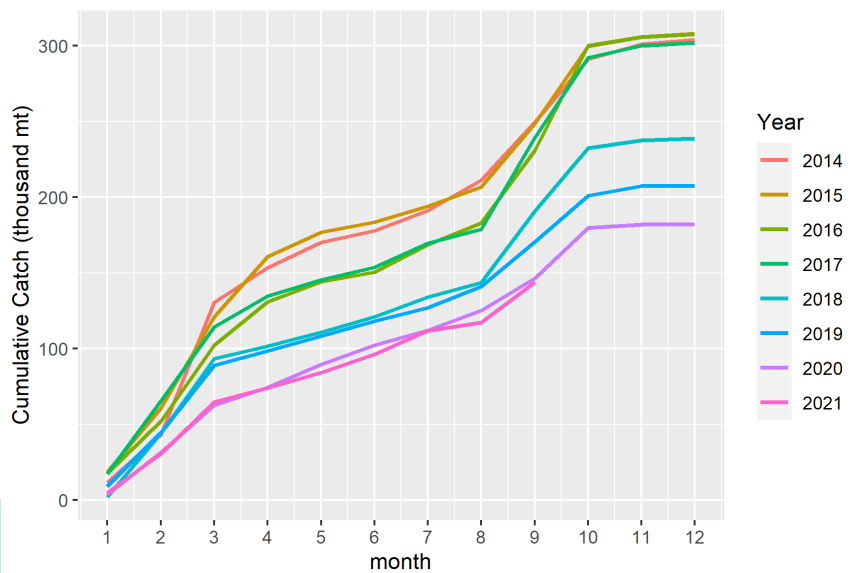
BSAI Groundfish Cumulative Catch (thousand mt) 2014-2021



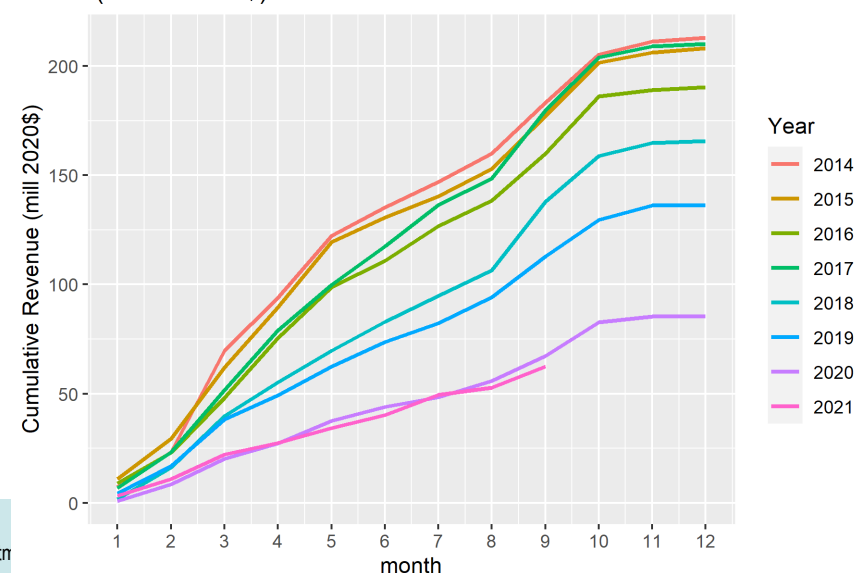
BSAI Groundfish Cumulative Estimated Revenue (million 2020\$) 2014-2021



GOA Groundfish Cumulative Catch (thousand mt) 2014-2021



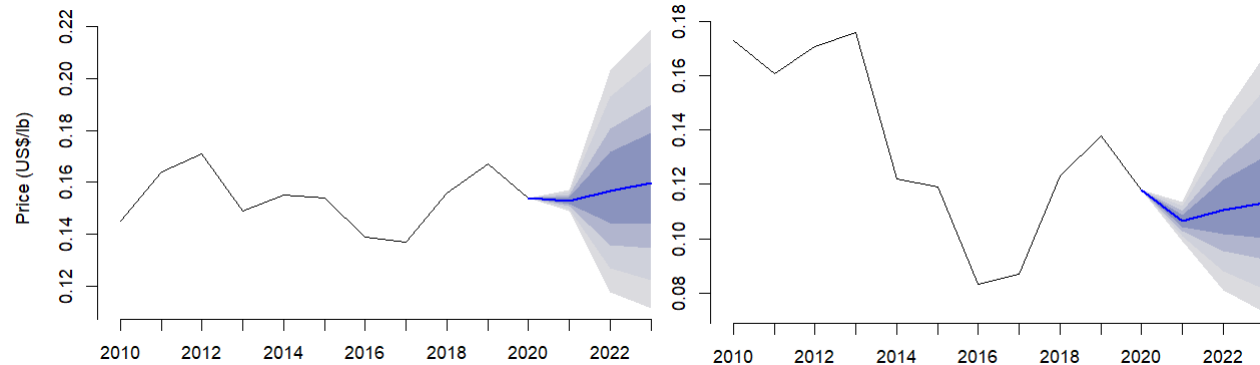
GOA Groundfish Cumulative Estimated Revenue (million 2020\$) 2014-2021



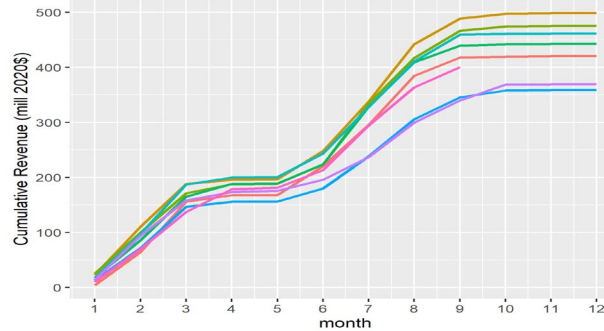
Pollock

- Decreases in 2020 ex-vessel prices.
- 2021 ex-vessel prices projected to be stable or decrease.
- Year-over-year revenue changes largely driven by catch volumes.
 - Up in BSAI
 - Down in GOA

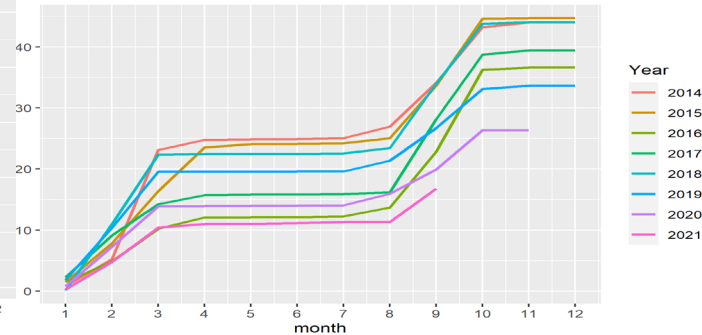
BSAI shoreside Ex-vessel Price/lb GOA shoreside



BSAI Pollock Cumulative Estimated Revenue (million 2020\$) 2014-2021



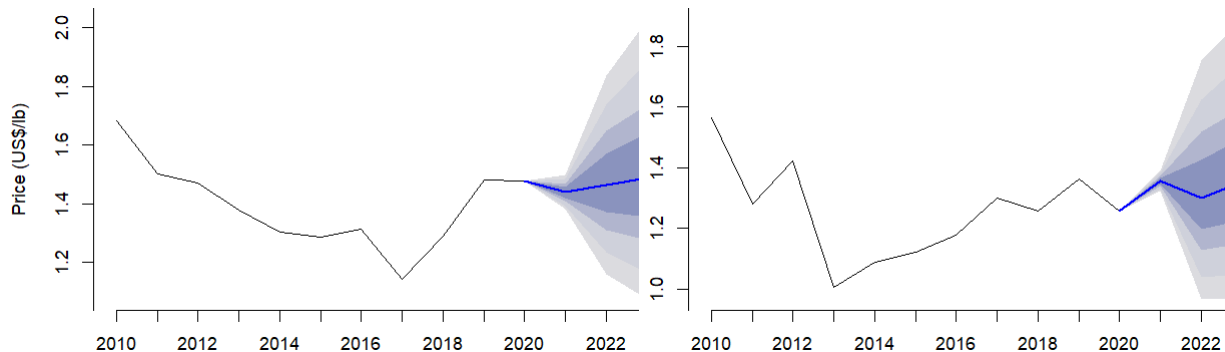
GOA Pollock Cumulative Estimated Revenue (million 2020\$) 2014-2021



Fillet

First-Wholesale

Surimi

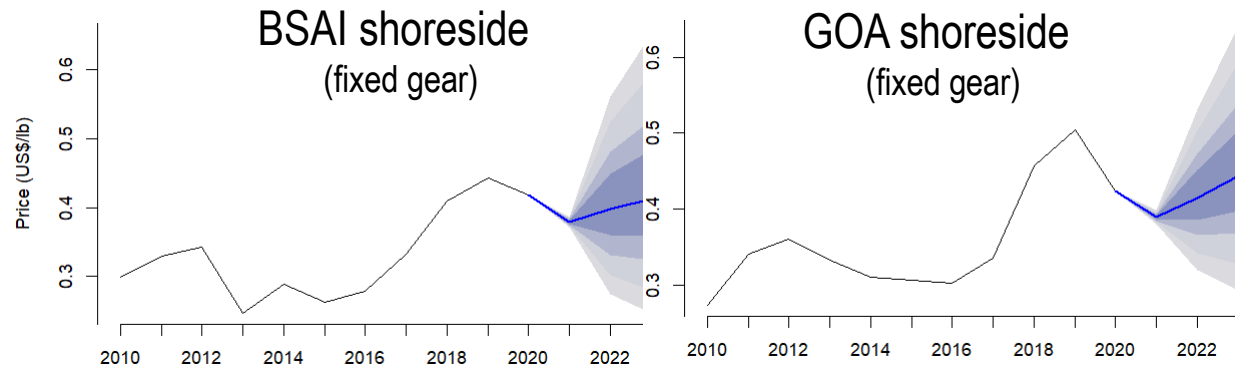


- Fillet price stable in 2020. Surimi prices down a bit but still strong. H&G prices decreased.
- First-wholesale prices for 2021 show price stable for fillets and H&G, Rebound in prices for surimi. Decreasing price for roe.

Pacific cod

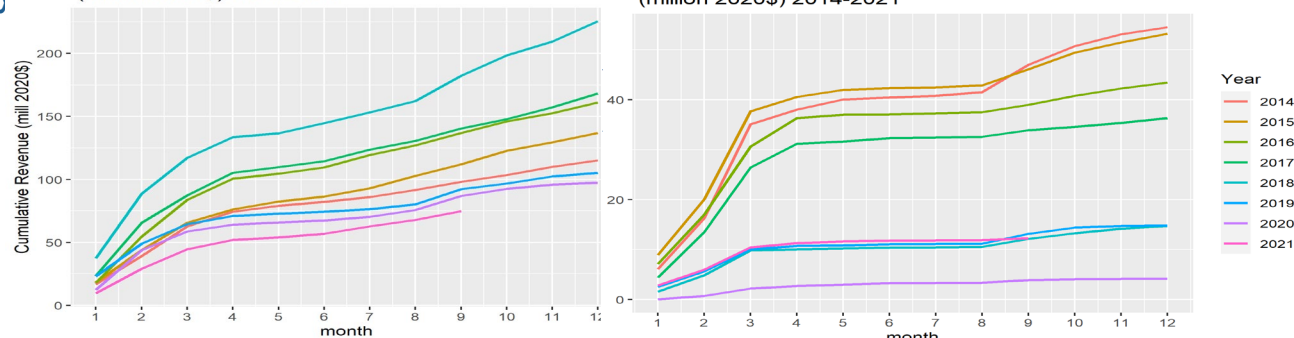
- Ex-vessel prices decreased in 2020 across all sectors and regions.
- Prices expected to decrease (fixed) or flat (trawl) in 2021.
- YoY changes largely driven by changes in volume.
 - Down in BSAI
 - Up in GOA

Ex-vessel Price/lb



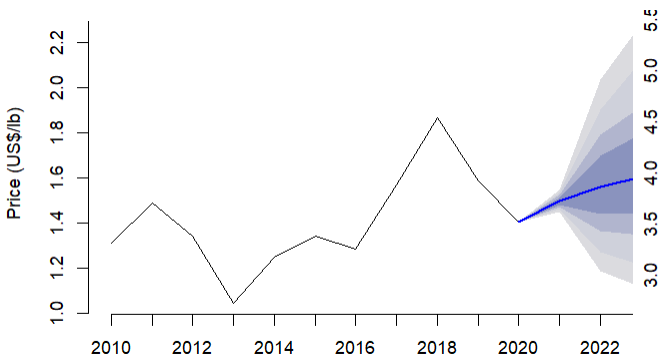
BSAI Pacific cod Cumulative Estimated Revenue (million 2020\$) 2014-2021

GOA Pacific cod Cumulative Estimated Revenue (million 2020\$) 2014-2021

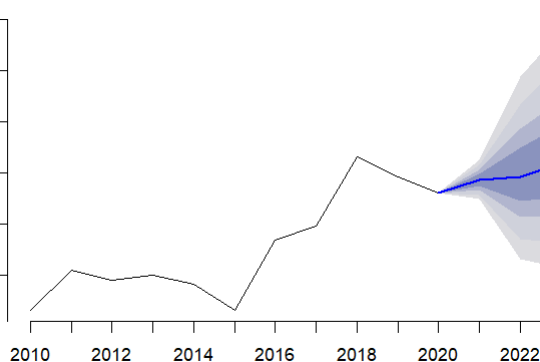


First-Wholesale

H&G



Fillet

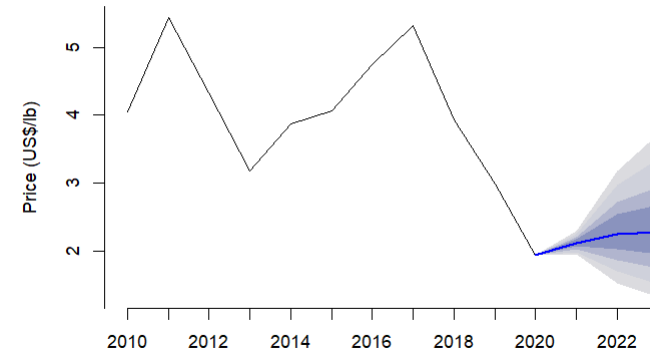


- First-whole prices for fillets and H&G decreased in 2020 and expected to rebound in 2021.
- 2021 prices to be at approximately 2017/2018 levels and remain strong relative to historical levels.

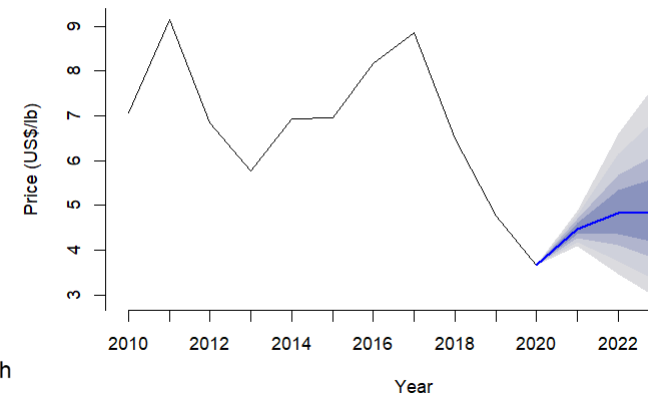
Sablefish

- Catch volumes are up in 2021 for both BSAI and GOA.
- Ex-vessel prices are estimated to be stable or increasing. First wholesale H&G prices are estimated to increase.
- Low prices driven by small in size of average fish and decreased food service demand.

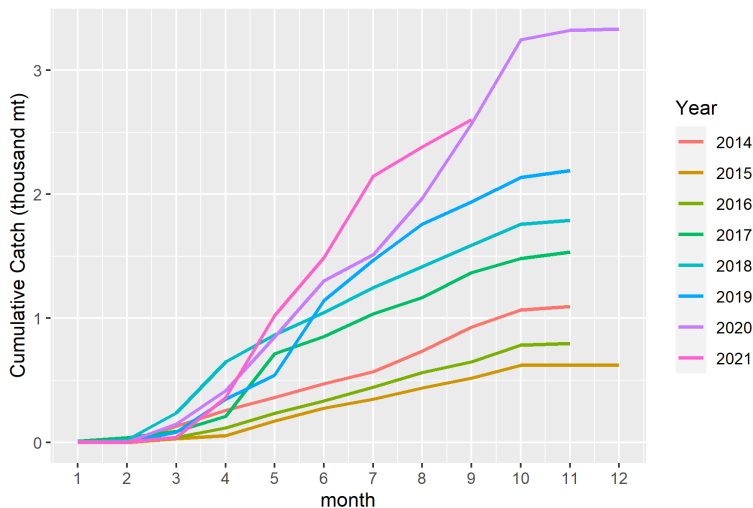
Sablefish GOA fixed price projection



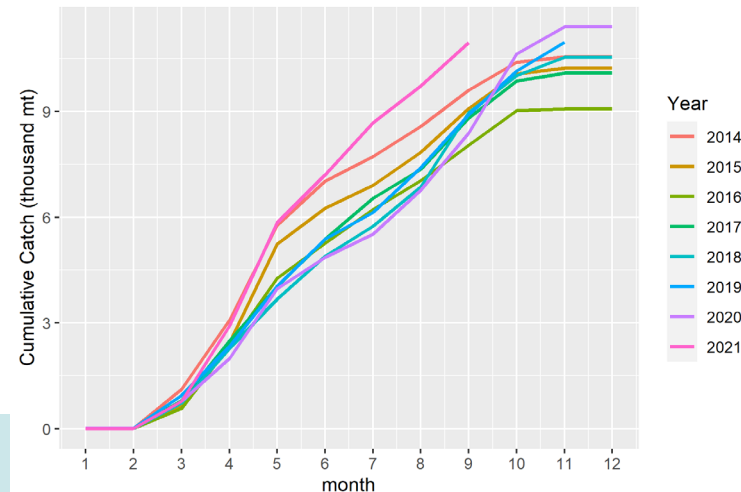
Sablefish head and gut price projection



BSAI Sablefish Cumulative Catch (thousand mt) 2014-2021

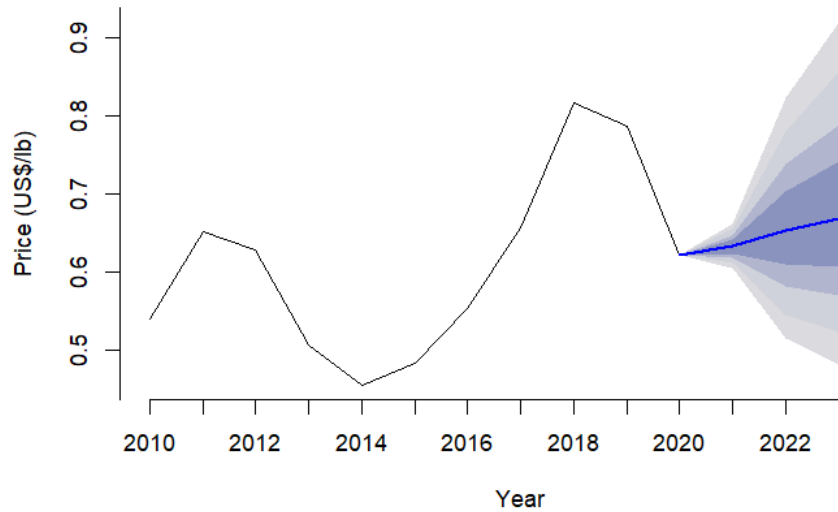


GOA Sablefish Cumulative Catch (thousand mt) 2014-2021

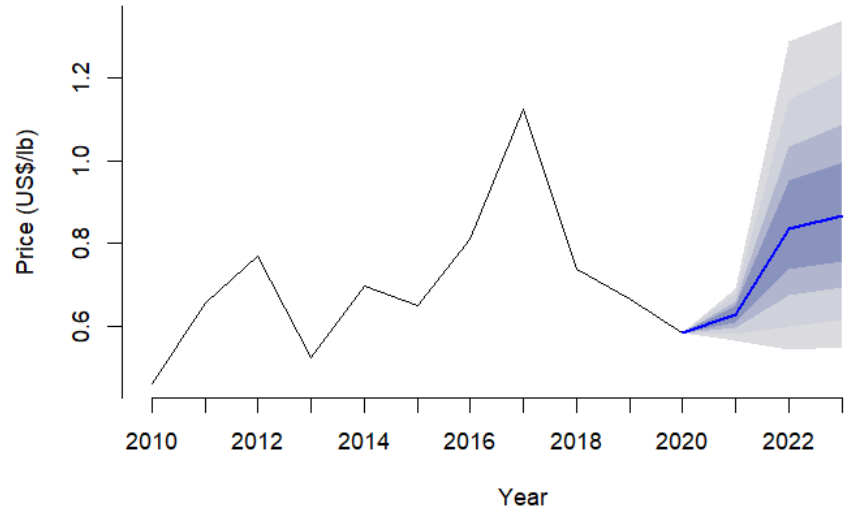


Flatfish

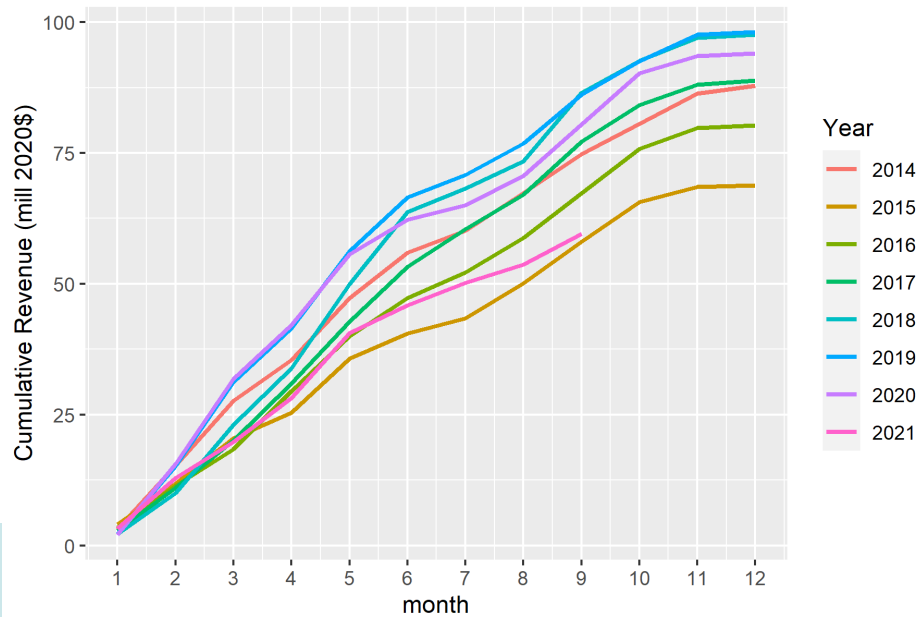
Yellowfin (BSAI) head and gut price projection



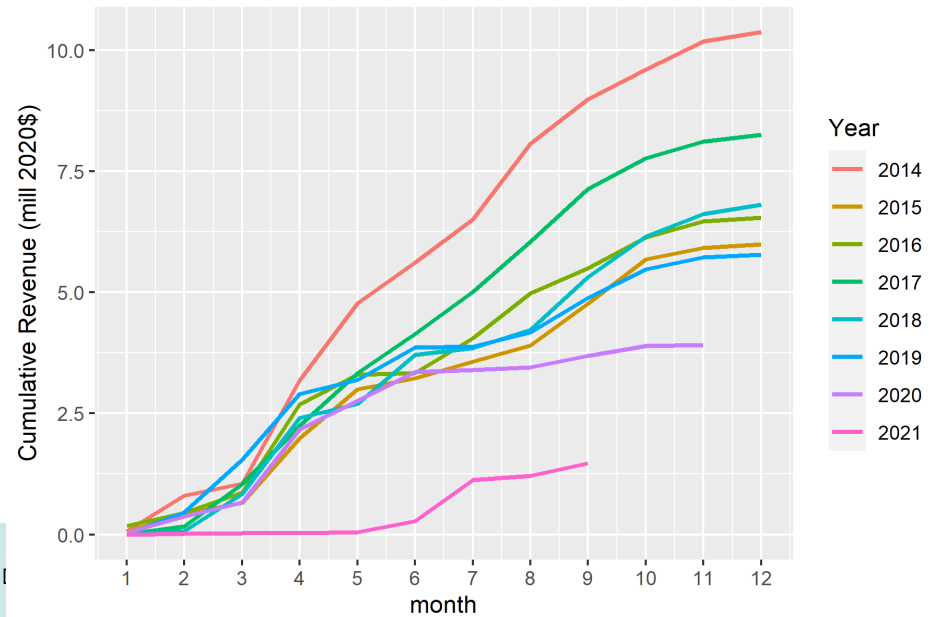
Arrowtooth head and gut price projection



BSAI Flatfish Cumulative Estimated Revenue (million 2020\$) 2014-2021

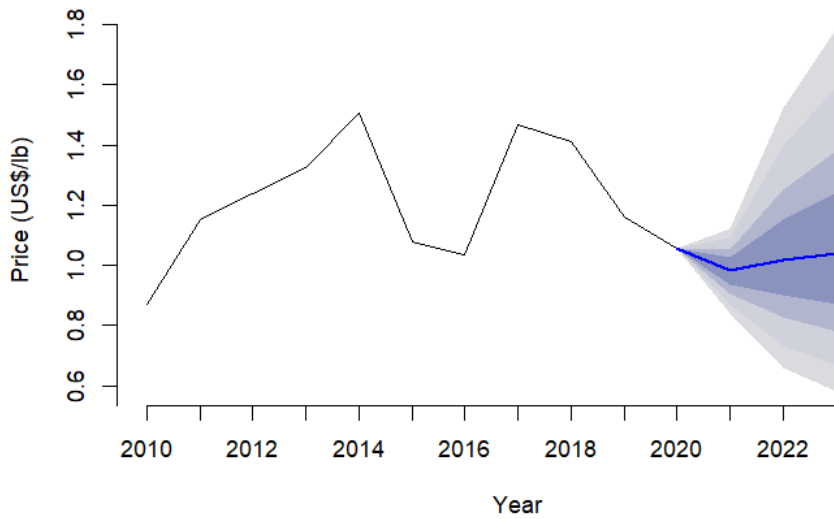


GOA Flatfish Cumulative Estimated Revenue (million 2020\$) 2014-2021



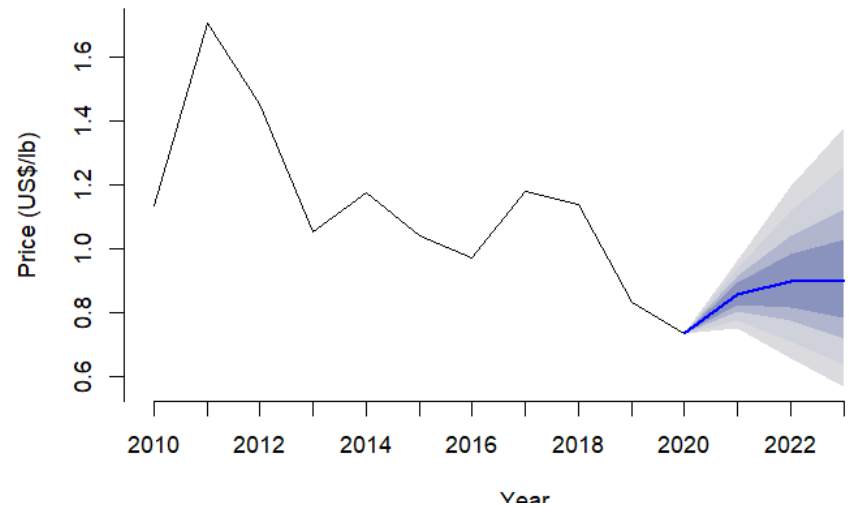
Atka

Atka mackerel head and gut price projection

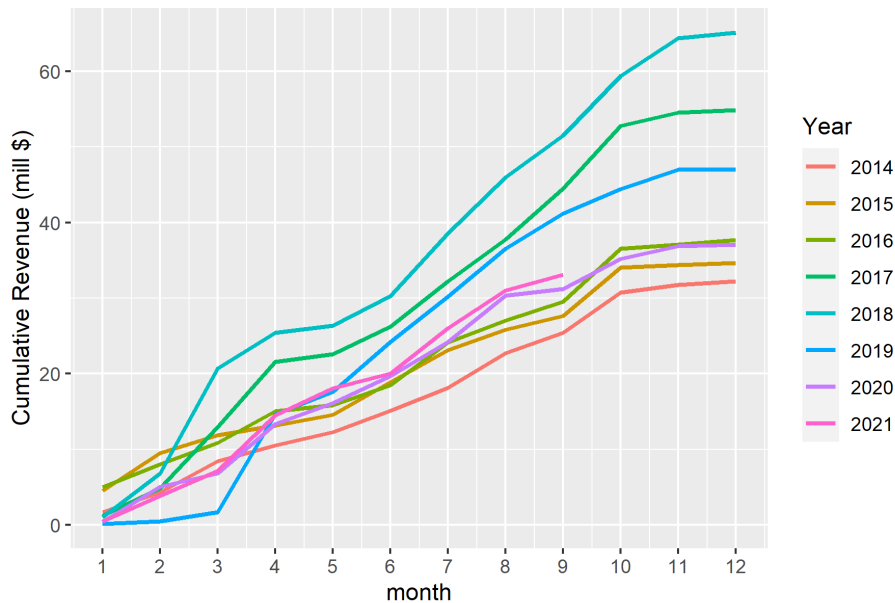


Rockfish

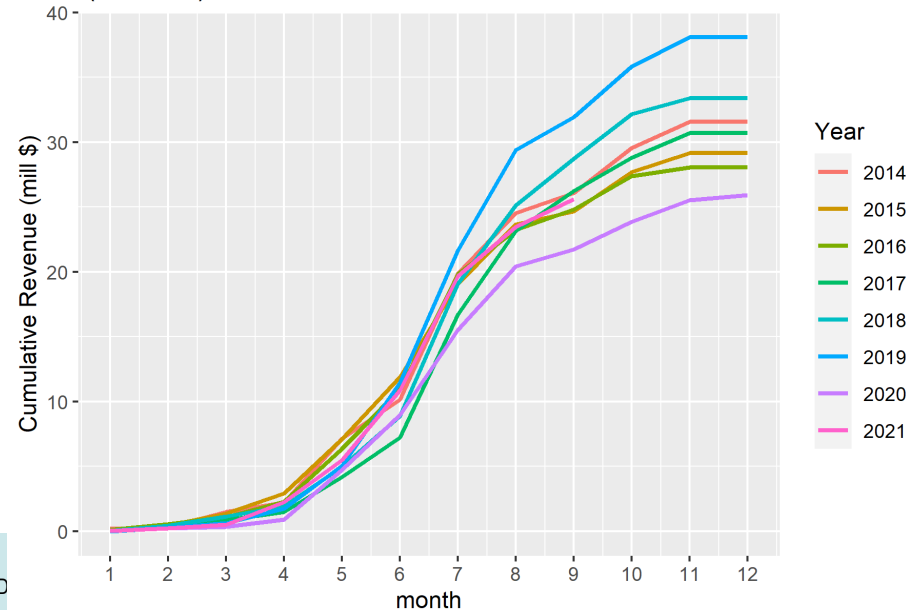
Rockfish head and gut price projection



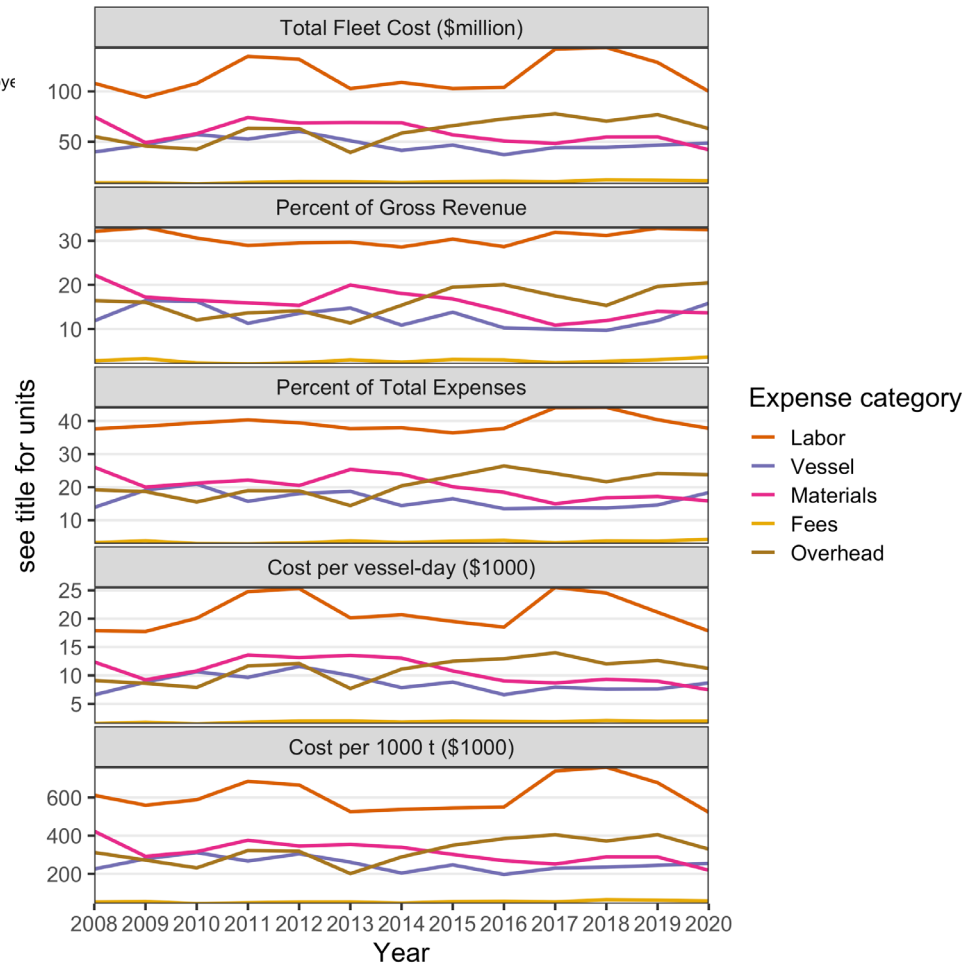
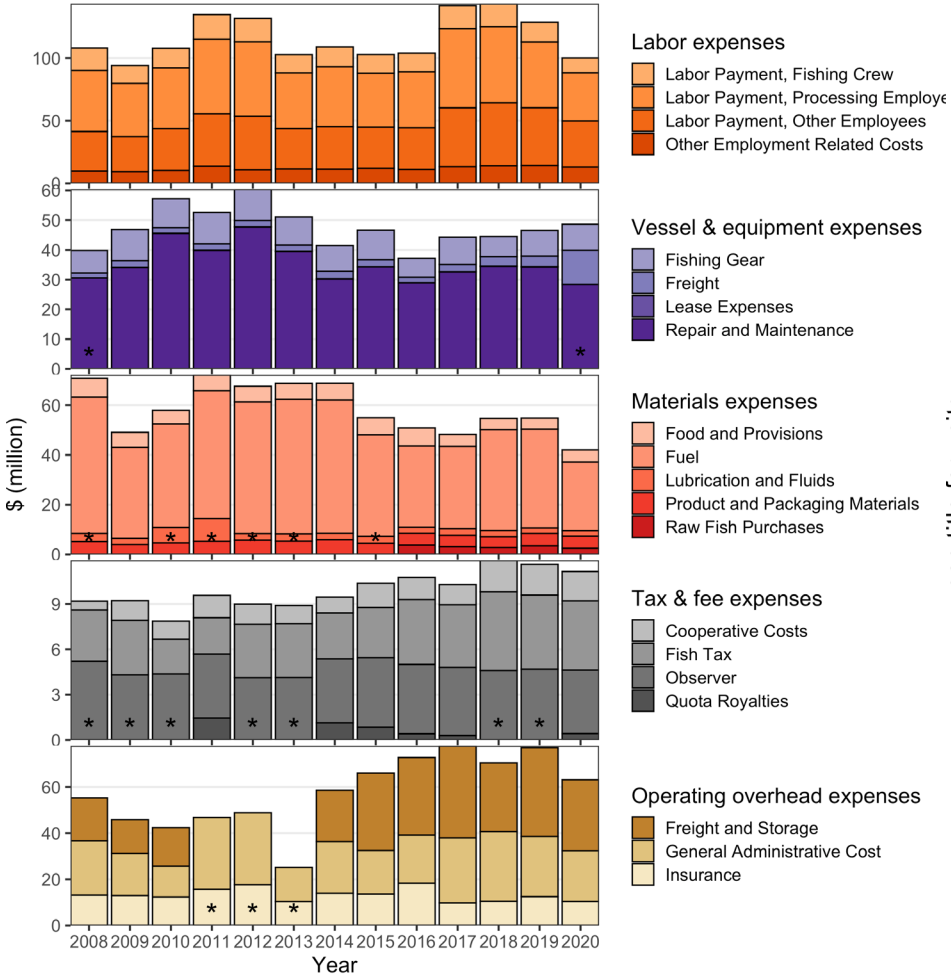
Other Groundfish Cumulative Estimated Revenue (million \$) 2014-2021



Rockfish Cumulative Estimated Revenue (million \$) 2014-2021

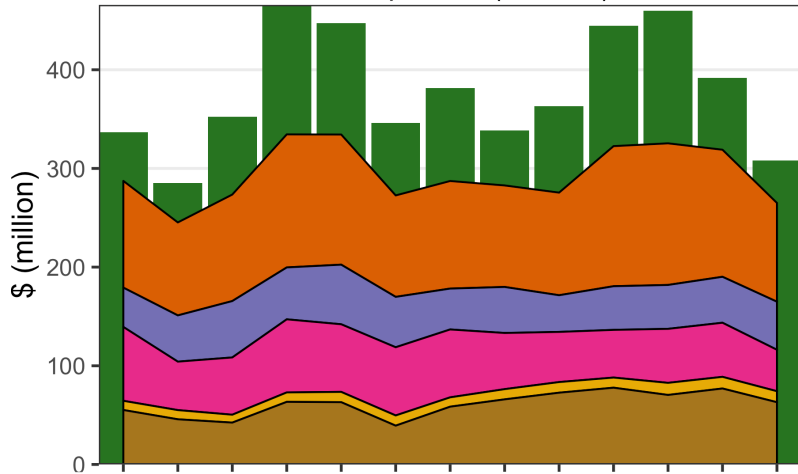


Catcher/Processor Operating Cost Summary & Indices

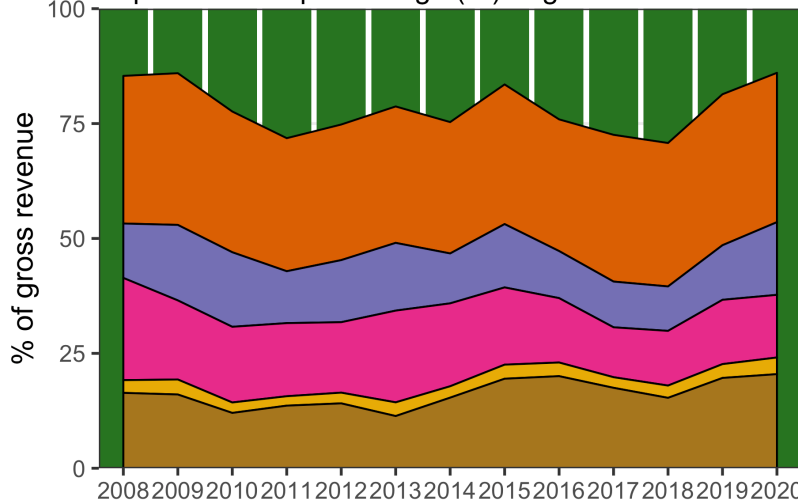


Catcher/processor Net Operating Income Summary

Gross revenue and expenses (\$million)

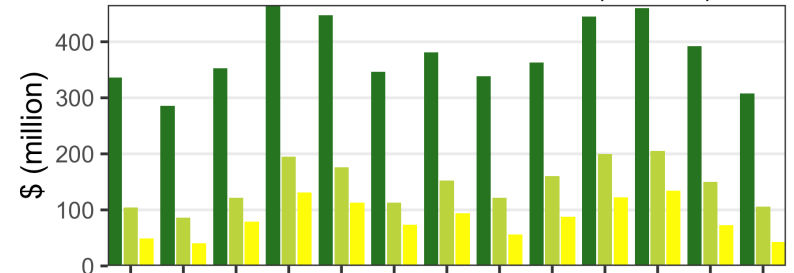


Expenses as a percentage (%) of gross revenue

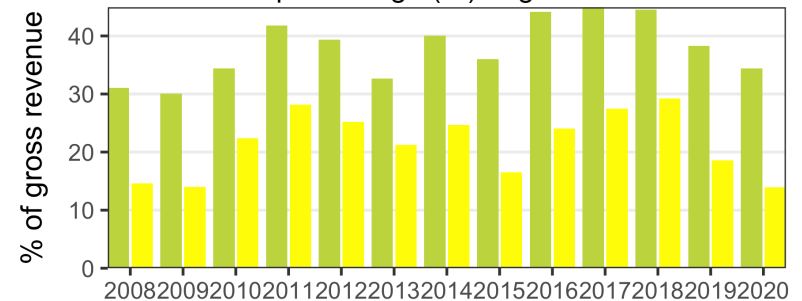


- Gross Revenue
- Labor
- Vessel
- Materials
- Fees
- Overhead

Gross revenue and income residuals (\$million)

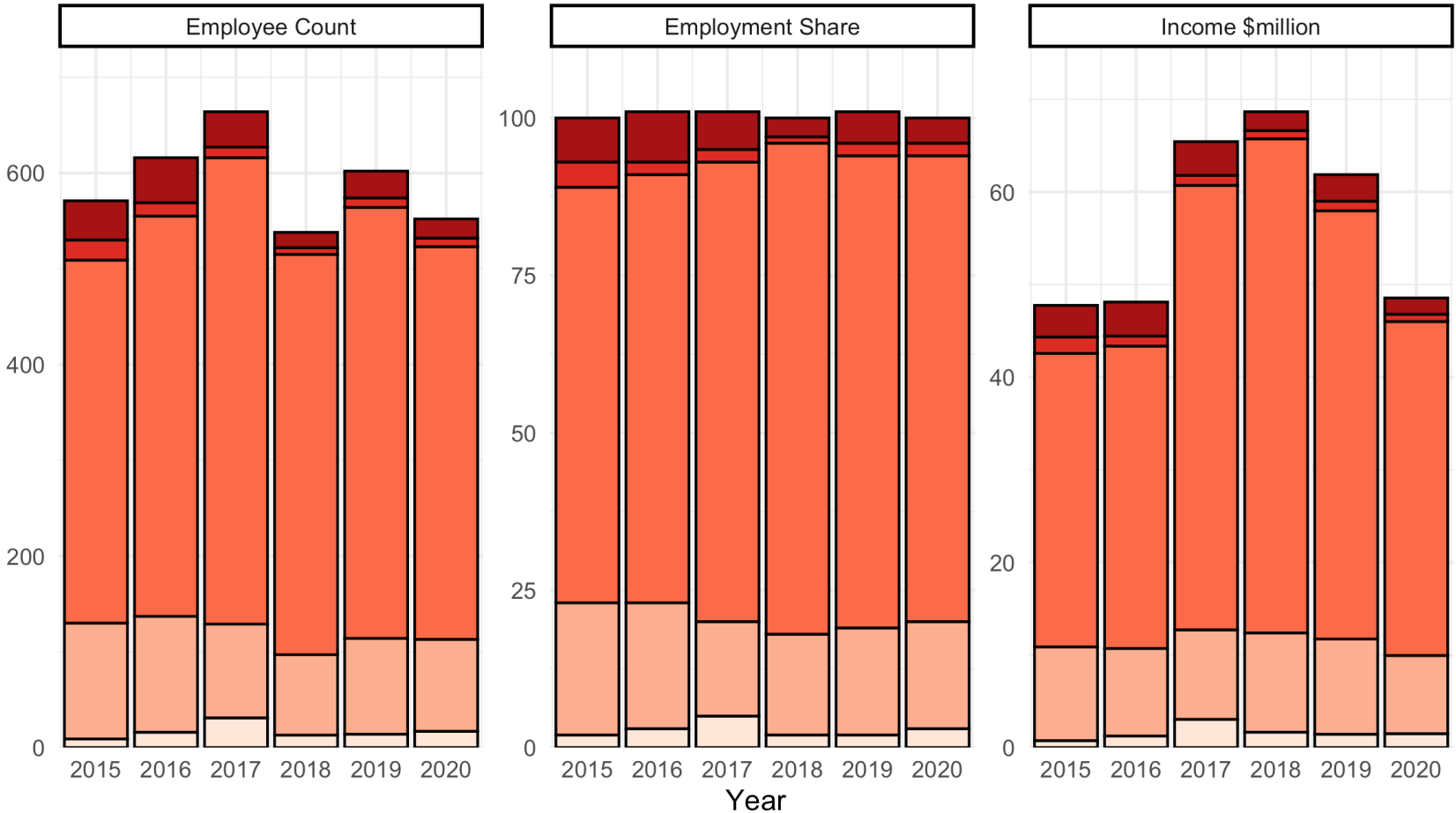


Income as a percentage (%) of gross revenue



- Gross Revenue
- Gross Income
- Operating Income

A80 Crew Income & Employment by State of Residence



State ■ Alaska ■ Oregon ■ Washington ■ Other ■ Unknown



Economic Status Report, 2020



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The Economic Status Report serves many purposes. Among them is to provide information to the SSC and Council.

Please give us your feedback.

- Ben.Fissel@noaa.gov

Thanks

- Economic Groundfish SAFE is a product of the Economics and Social Sciences Research Program (ESSRP)
- Authors: Ben Fissel, Anna Ableman, Michael Dalton, Brian Garber-Yonts, Alan Haynie, Stephen Kasperski, Jean Lee, Dan Lew, Chang Seung, Kim Sparks and Sarah Wise.
- Alaska Fisheries Information Network (AKFIN) provided database programming, data management services and support.

Gulf Trawl CV Crew Income & Employment by Community

