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Economic Status of the Groundfish Fisheries off Alaska, 2019

Usually presented by:

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

Nov. 16, 2020





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Economic Status of the Groundfish Fisheries off Alaska, 2019

Today presented by:

Steve Kasperski
AFSC Economics and Social
Sciences Research Program (ESSRP)

Nov. 20, 2020



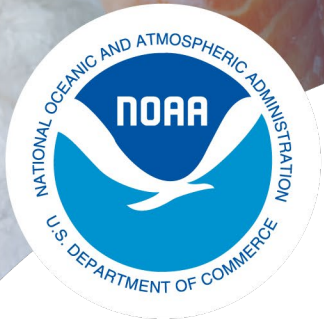
Structure of the Economic SAFE

Economic Status Report, 2019: Core Content of the Nov. Draft

- Executive Summary: 2019 highlights
 - Report Card Metrics
 - Plan Team Reports (forthcoming)
- 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.

Economic Status Report, 2019: Draft Content (Nov.)



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- Economic Performance Indices
- **2020 In-season harvest and revenue estimates**
- Wholesale and ex-vessel price projections
- Market Profiles
- Amendment 80 Economic Data Report (forthcoming)
- Gulf Trawl Economic Data Report (forthcoming)
- Amendment 91 Economic Data Report (forthcoming)

The sections covering Catch Share Performance Metrics and Community Participation have been moved outside this report.

New, revised or planned content in **RED**

Where to find Groundfish Economic data

\\nmfs\akc-public\Dropbox\Fisse\EconomicSAFEData2020 (AFSC only)

Open Tablenames_econGroundfishSafe.csv
To get an excel sheet matching table names to file names.

File Name	Description
fisheries, 2002-2016 (1,000 metric tons)	
Groundfish retained oatch off Alaska by area, vessel type, gear and	gfretcatch_ak.csv
species, 2012-2016 (1,000 metric tons, round weight)	
discards ak.csv	

The data will be publicly available through the AKFIN Apex reporting
<https://reports.psmfc.org/akfin>

Alaska Fisheries Information Network

Reports Dashboard
Locate and execute reports from the available list.

Pacific States E-Journal of Scientific Visualizations 1986

The data also will be publicly available through the Pac States E-journal of Sci Visualization (PSESV) <https://psesv.psmfc.org/PSESV-2/>

Articles

About this e-journal

Economic Status of the Groundfish Fisheries off Alaska Data Visualizations

Economic Performance Report (EPR) and Ecosystem and Socioeconomic Profiles

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

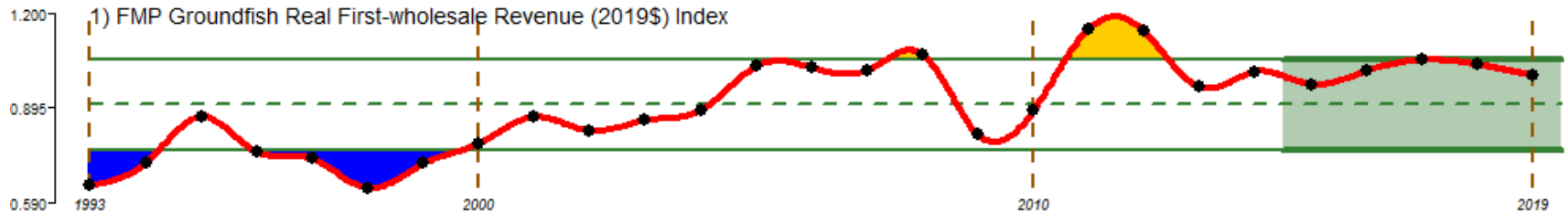
- **BSAI**: pollock, *Pacific cod (ESP)*, flatfish complex (yellowfin sole, rock sole, flathead, arrowtooth) , rockfish (Pac. ocean perch, northern rockfish), Atka mackerel.
- **GOA**: *pollock (ESP)*, *Pacific cod (ESP)*, flatfish (arrowtooth), rockfish (Pac. ocean perch, northern rockfish).
- Combined: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

- ESPs build in more community information.
- The economic portion of future ESPs will be revised to provide more TAC relevant information.

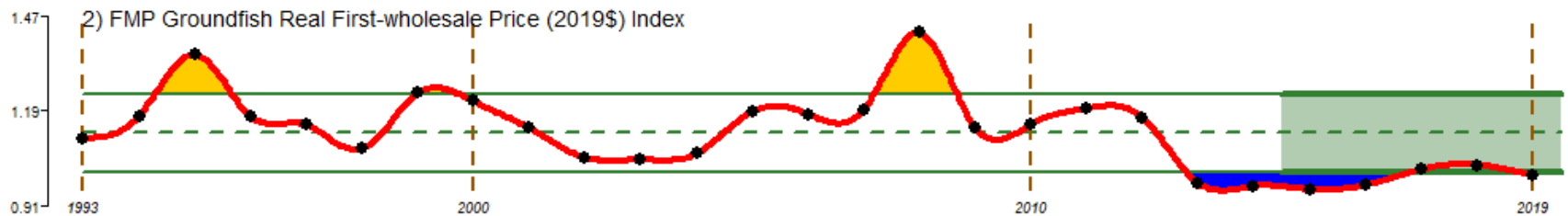
Status and Trends

Report Card Indices

FMP Groundfish real first-wholesale revenue (2019\$) index

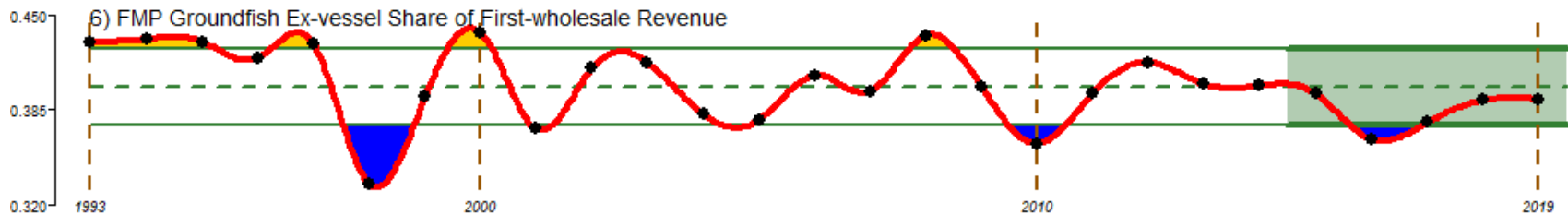


FMP Groundfish real first-wholesale price (2019\$) index

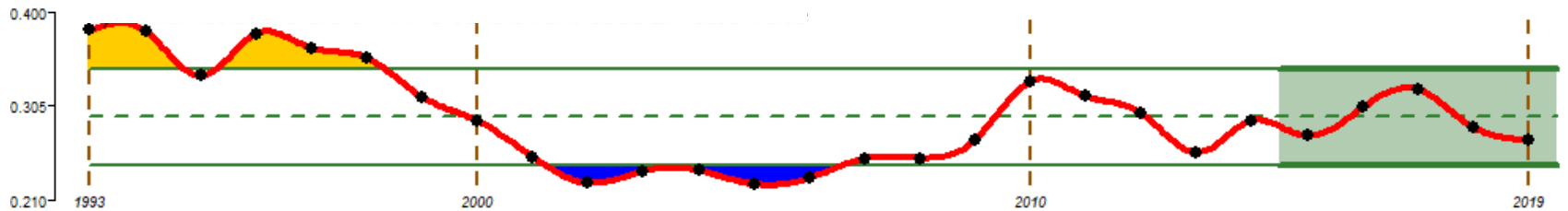


Report Card Indices

FMP groundfish ex-vessel share of first-wholesale revenue

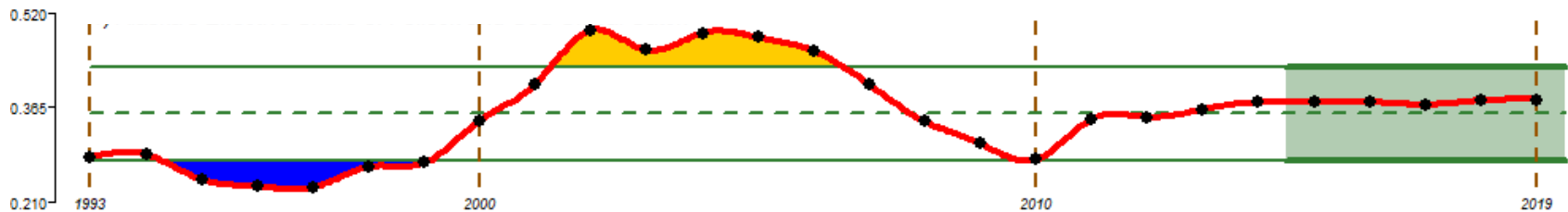


Alaska resident share of FMP groundfish shoreside ex-vessel value

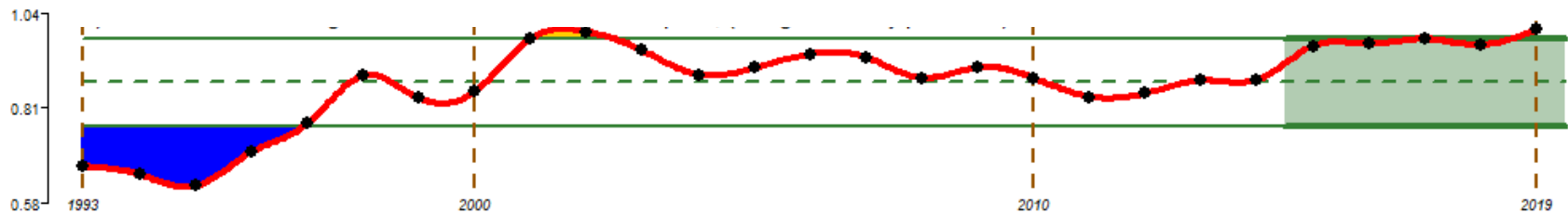


Report Card Indices

Alaska's effective share of pollock and cod global catch



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



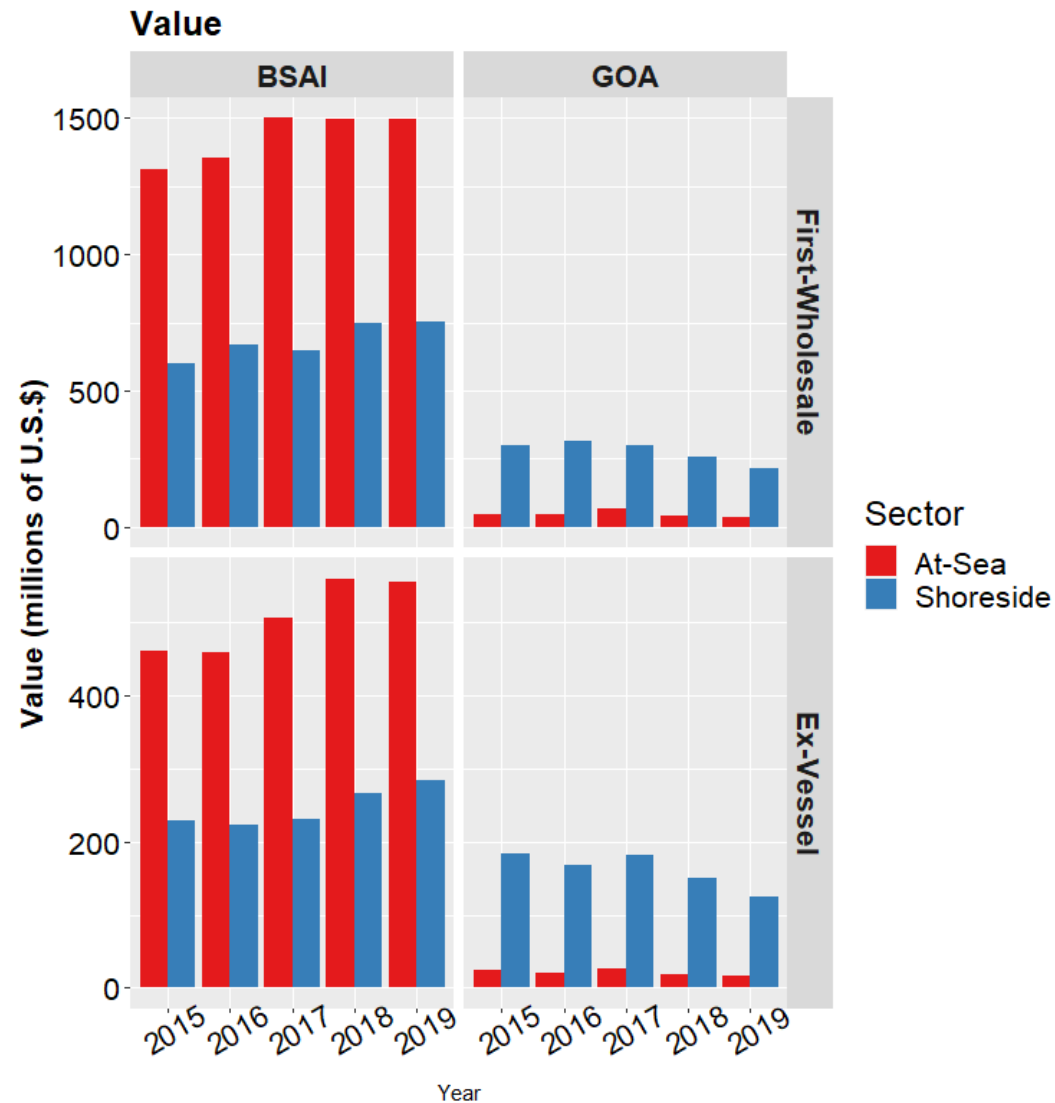
Alaska's Groundfish Fisheries in 2019

Total catch: 2.18 million t
(decreased 2%)

Aggregate ex-vessel value
stable/increasing in BSAI
decreased in GOA.

Wholesale value:
\$2.50 billion (down 3%)

Ex-vessel value:
\$980.8 million (down 3%)

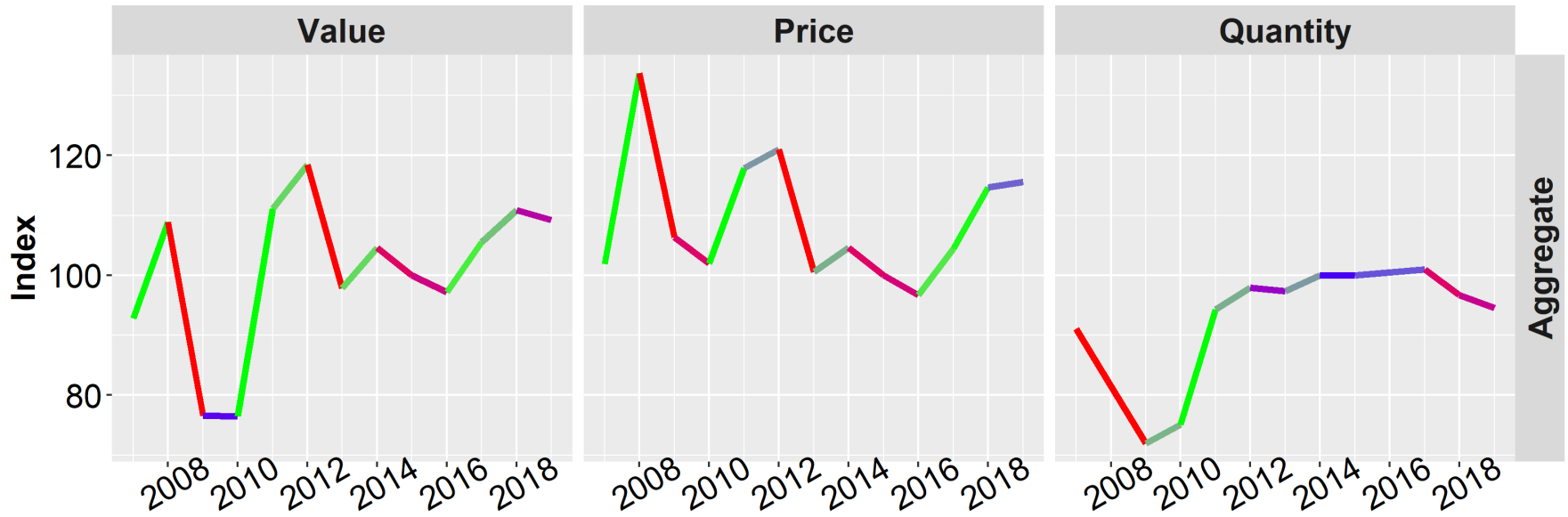


Percent change adjusted for inflation.

Values in figure nominal (not adjusted for inflation)

Alaska's Groundfish Fisheries in 2019

Alaska Ex-vessel Economic Indices



In the aggregate:

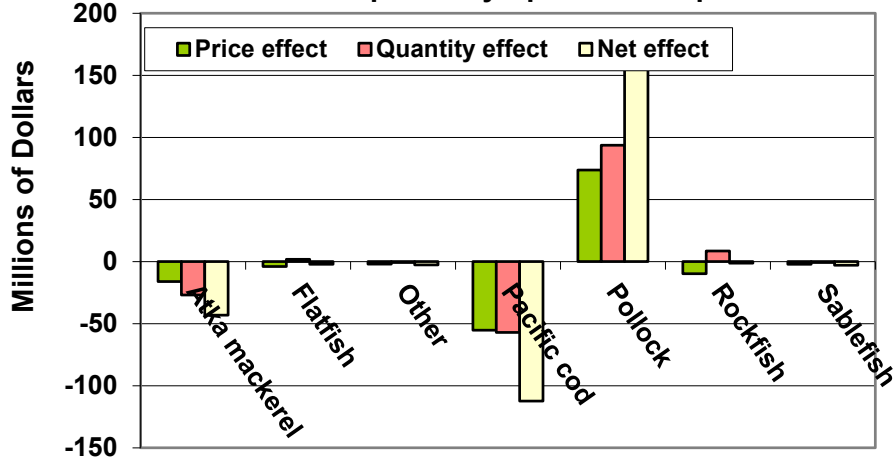
Value decreased and volume (catch) decreases were the dominant factor while prices were more stable

Revenue Decompositions 2018-2019

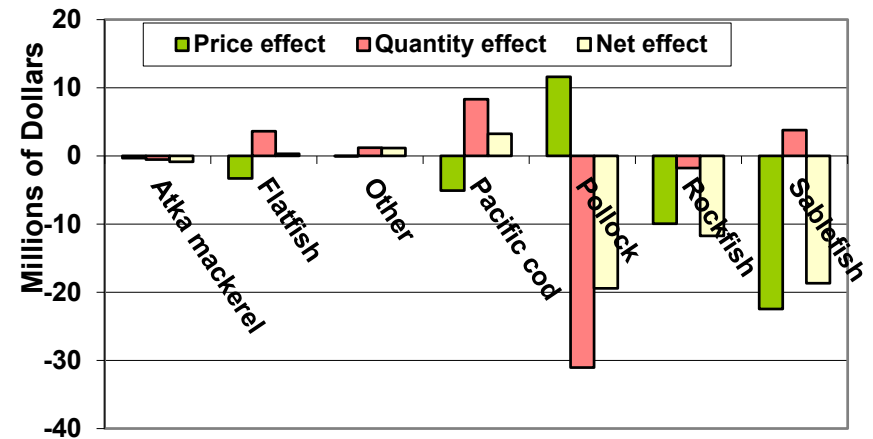
Bering Sea & Aleutian Islands

Gulf of Alaska

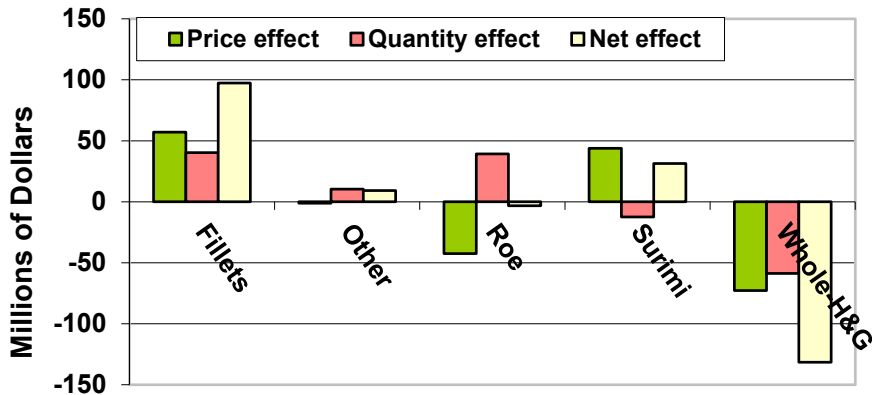
**BSAI First-Wholesale Revenue Change in 2018-19
Decomposed by Species Group**



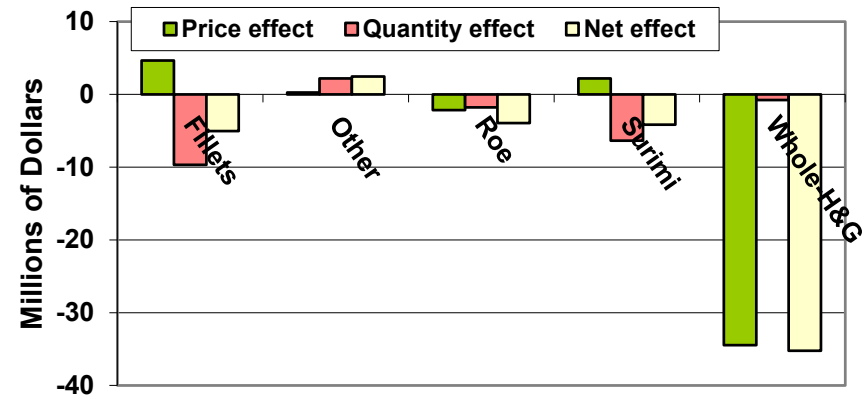
**GOA First-Wholesale Revenue Change in 2018-19
Decomposed by Species Group**



**BSAI First-Wholesale Revenue Change in 2018-19
Decomposed by Product Group**



**GOA First-Wholesale Revenue Change in 2018-19
Decomposed by Product Group**

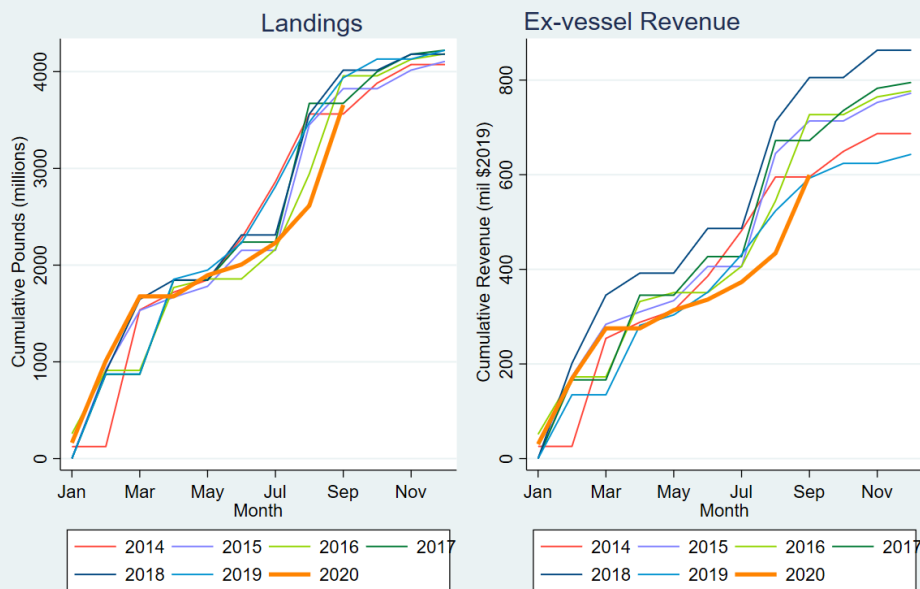


In-season Ex-Vessel Harvest and Revenue

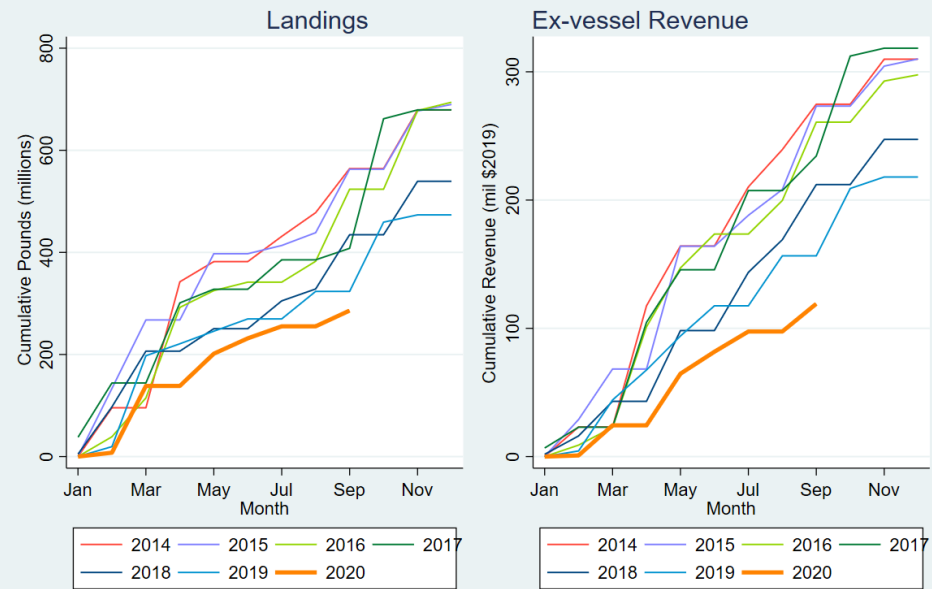
Estimates for 2020

- Estimates “nowcasts” of 2020 monthly ex-vessel revenues and landings for Alaska groundfish and halibut fisheries through Sept.
- BSAI YoY harvest volumes through Sept. fell by approximately 11% in 2020 compared with 2019 and ex-vessel revenues are expected to be down 4% from 2019.
- GOA YoY harvest volumes through Sept. fell 27% in 2020 and ex-vessel revenues are expected to be down 32% from last year.

BSAI Cumulative Landings and Revenue by Year

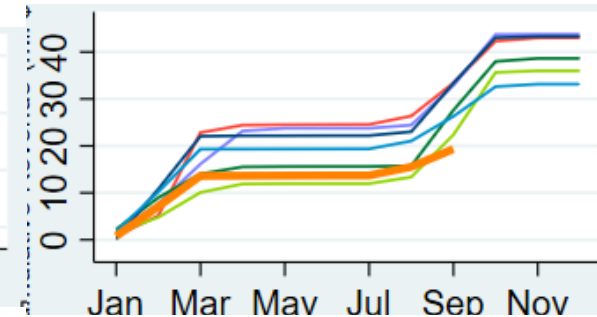
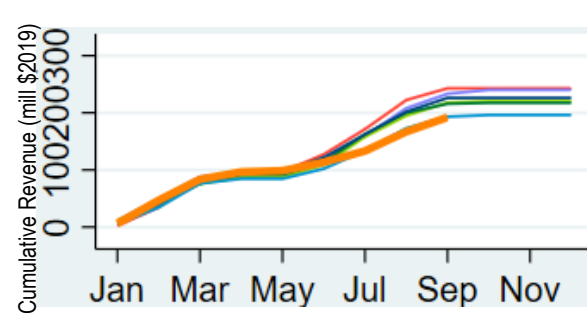
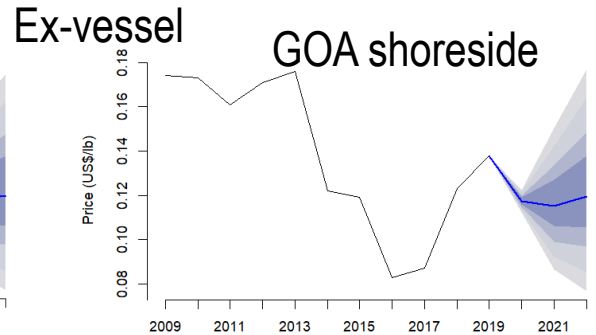
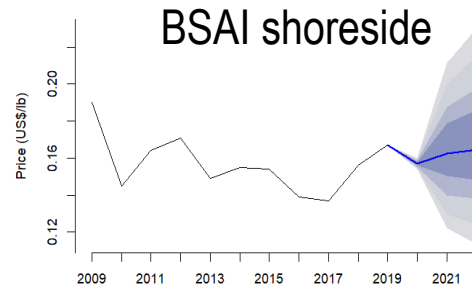


GOA Cumulative Landings and Revenue by Year

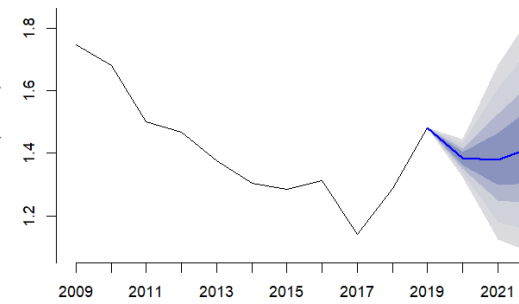


Pollock

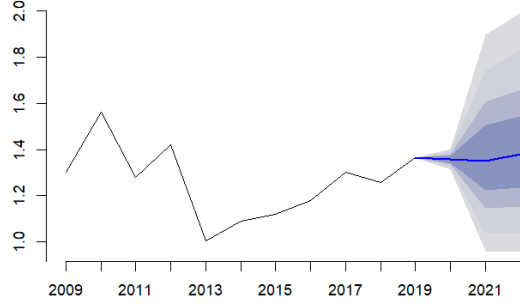
- Increases in 2019 ex-vessel prices result in highest prices since 2012/2013.
- 2020 ex-vessel projected to decrease to approximately 2018 levels.
- With lower prices and stable to decreasing expected catch levels revenues can be expected to decrease in 2020.



Fillet First-Wholesale



Surimi First-Wholesale

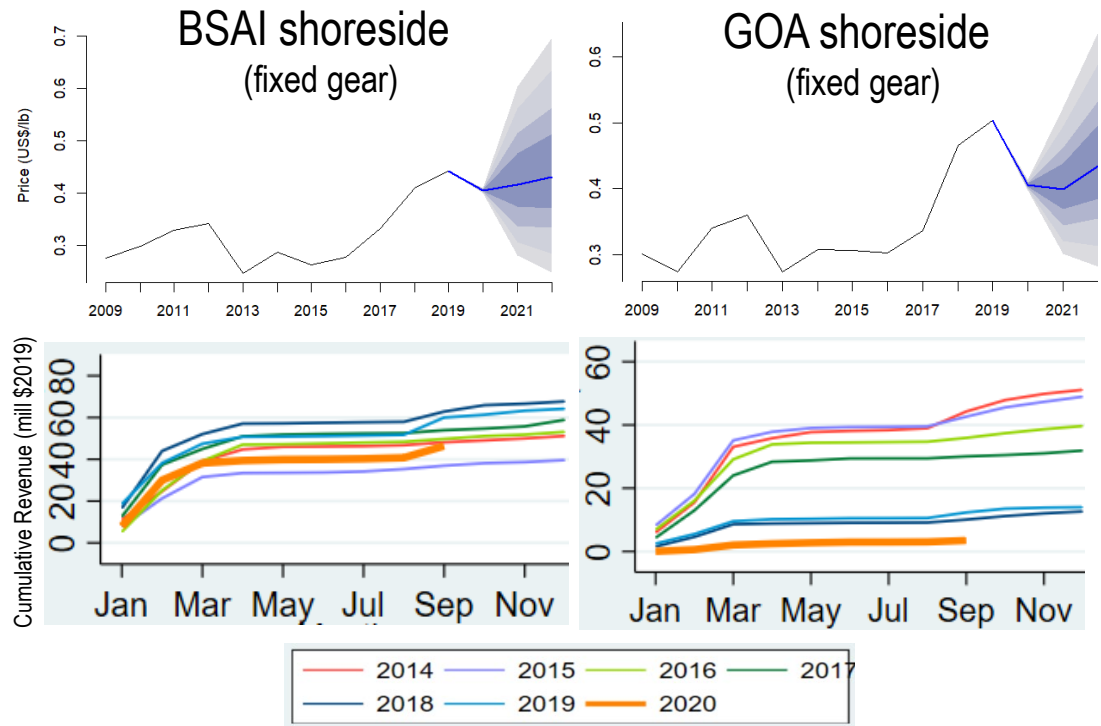


- Increases in wholesale prices of fillet and H&G prices in 2019.
- First-wholesale prices for 2020 show price decreases for fillets and H&G, stable prices for surimi and decreasing price for roe.

Pacific cod

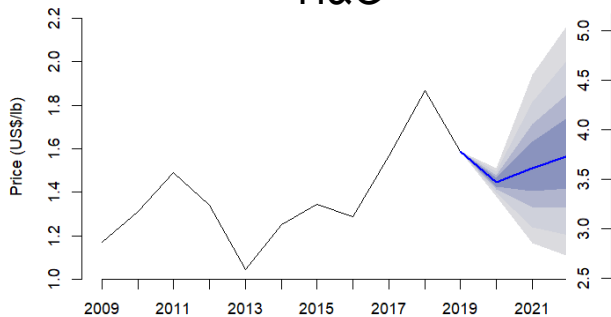
- Ex-vessel prices increased in 2019 and expected to decrease in 2020.
- Decrease in ex-vessel price consistent with declines in first-wholesale prices.
- Reduced volumes and prices resulting in low revenues.

Ex-vessel

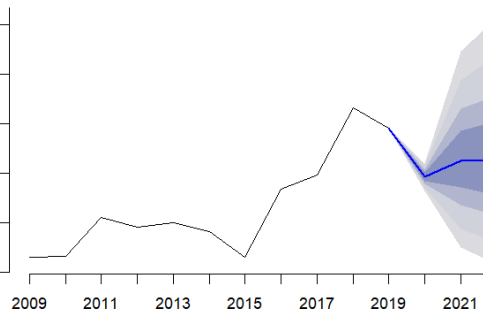


First-Wholesale

H&G



Fillet

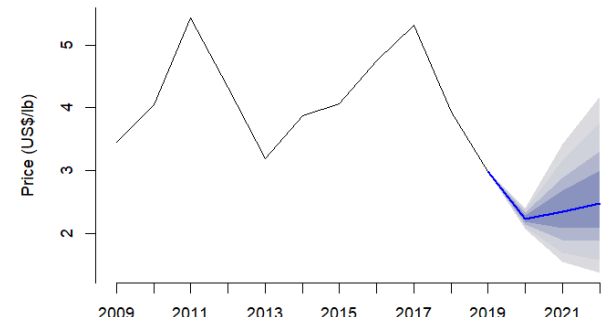


- First-whole prices for fillets and H&G decreased in 2019 and expected to decline further in 2020.
- 2020 prices to be at approximately 2016/2017 levels and remain strong relative to historical levels.

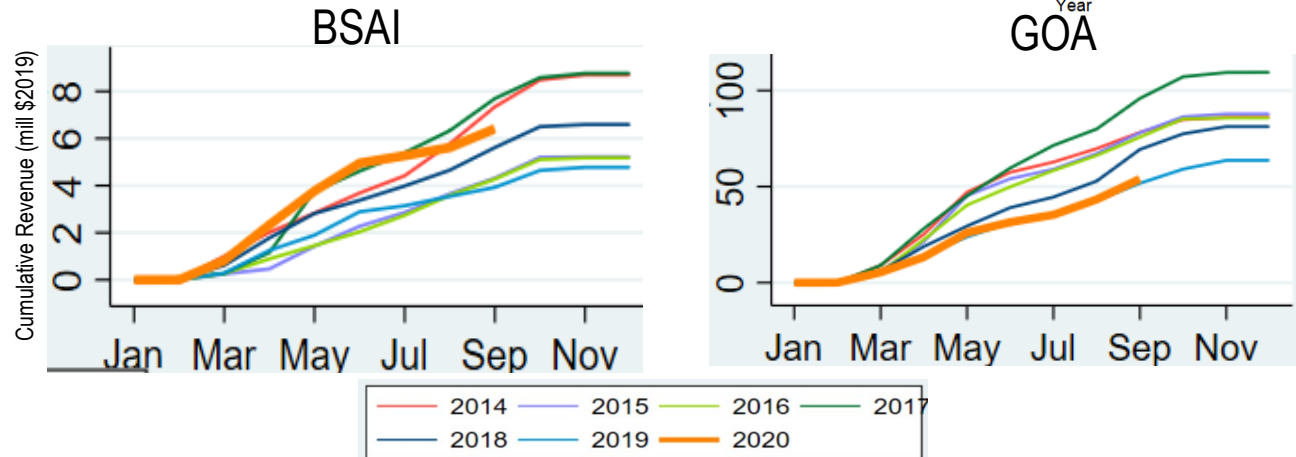
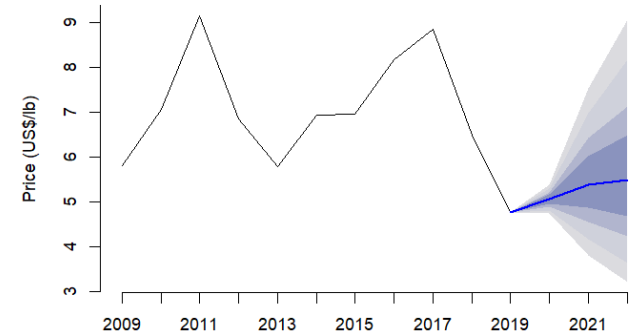
Sablefish

- Revenues down in 2019 with substantial decrease in the average price of sablefish.
- Decrease driven by decreases in size of average fish and price margin between fish sizes.
- Ex-vessel prices expected to decrease further in 2020.
- First-wholesale H&G prices are projected to stabilize in 2020

Sablefish GOA fixed price projection

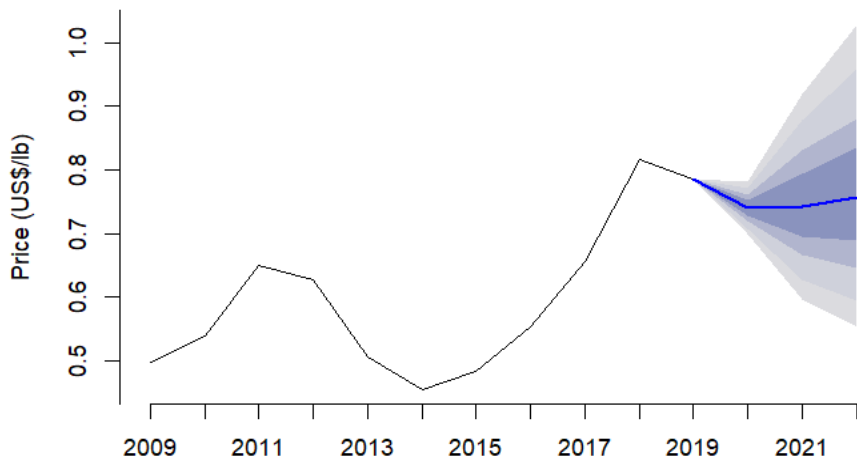


Sablefish head and gut price projection



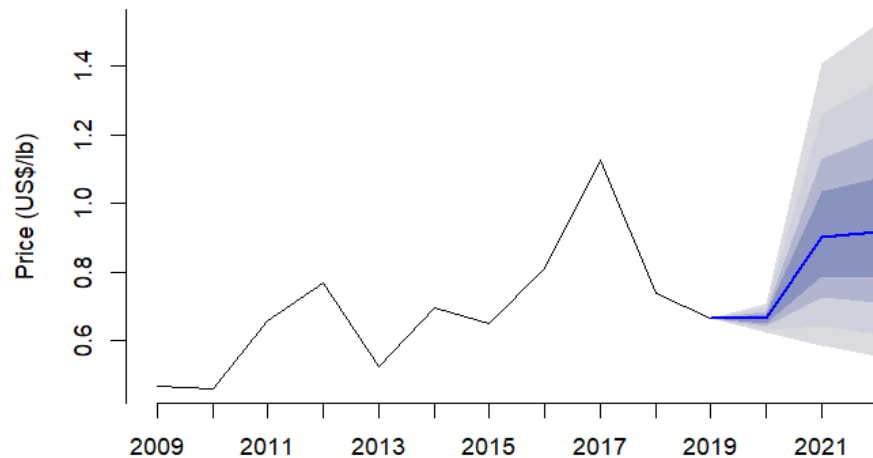
Flatfish

Yellowfin (BSAI) head and gut price projection

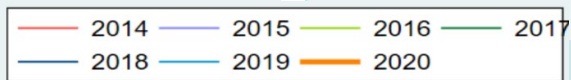
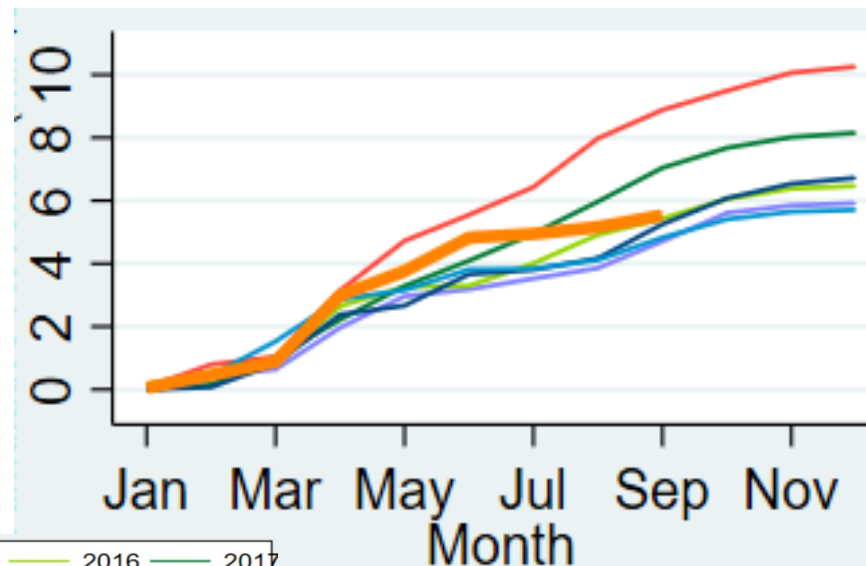
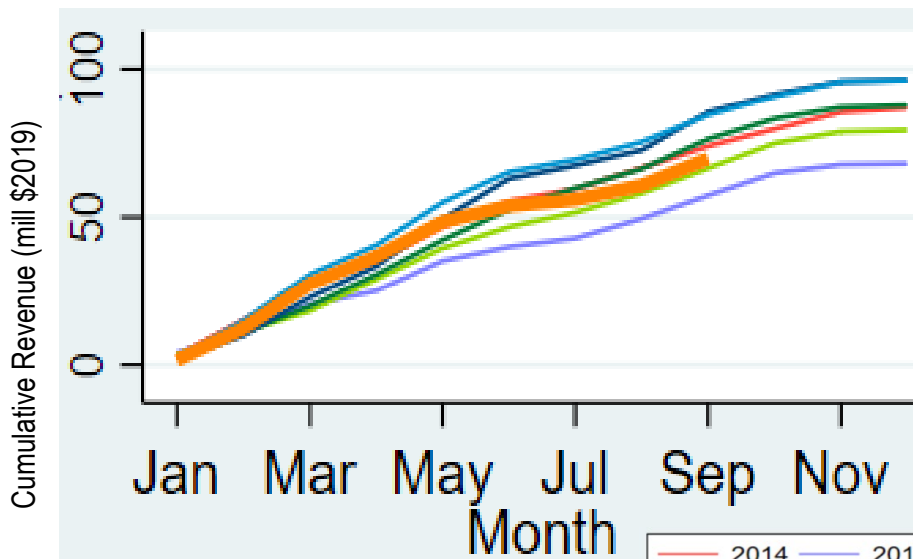


BSAI

Arrowtooth head and gut price projection

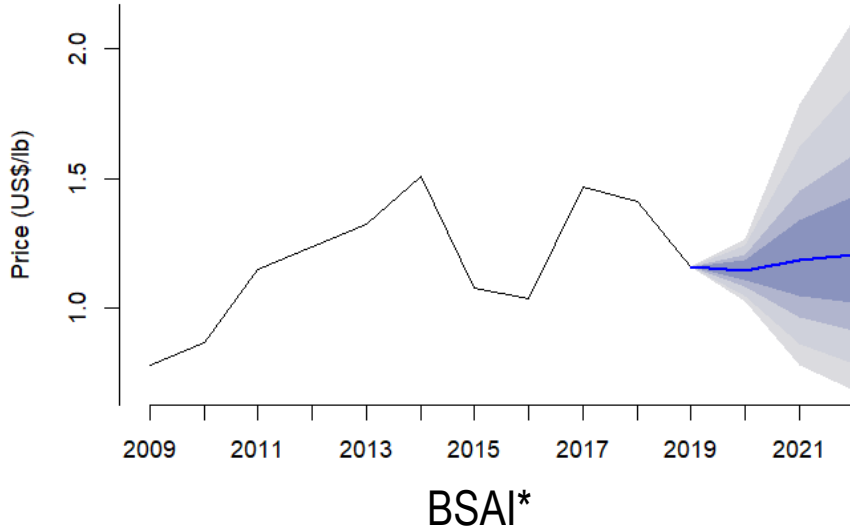


GOA



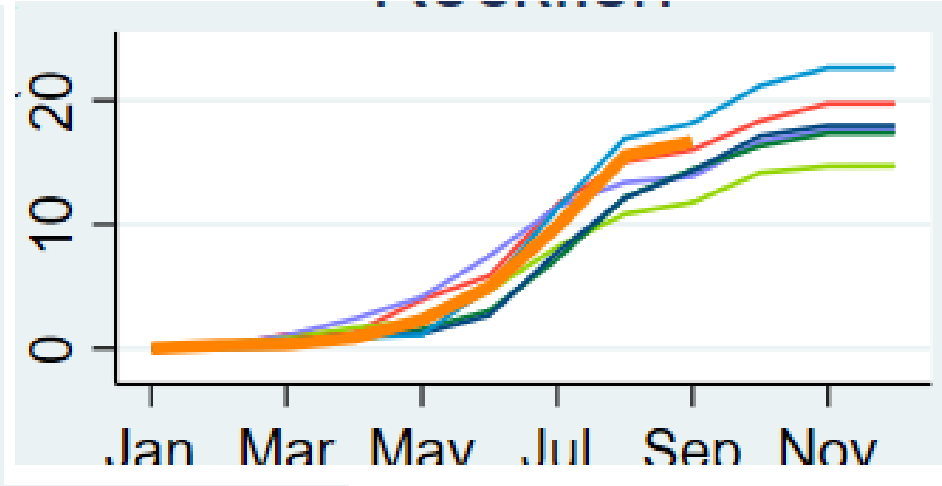
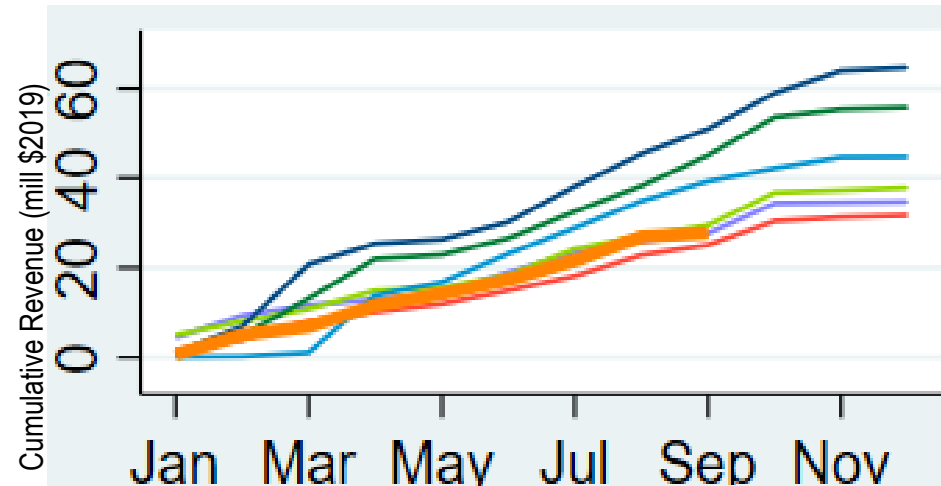
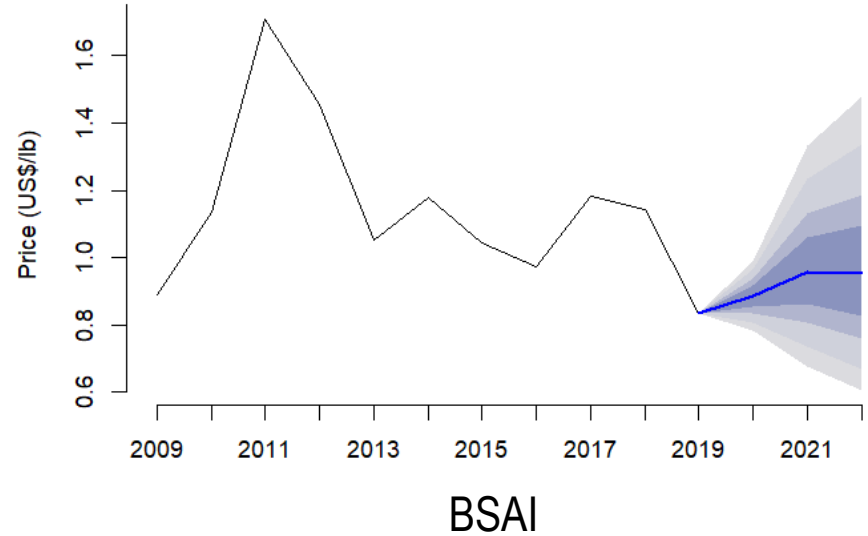
Atka

Atka mackerel head and gut price projection



Rockfish

Rockfish head and gut price projection



*Includes small amounts of "other" species



Responding to COVID-19

- ESSRP is providing S&T and leadership information on the progress of catch and production as well as other COVID related impacts to markets.
- The Economic Groundfish SAFE has a new section that provides in-season harvest and revenue estimates relative to a 2019 and 2014-2019 baselines.
- National working group is analyzing trade impacts since COVID and reporting to NMFS S&T.
- Ocean Strategies, LLC is conducting a COVID-19 impact survey on West Coast and Alaska fishers, which **closes Nov 25th**, see: <https://www.oceanstrat.com/updates/2020/11/3/survey-tracks-covid-19-impacts-on-fishermen>



Economic Status Report, 2019



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The Economic Status Report serves many purposes.
Among them is to provide information to the Plan Team.

Please give us your feedback.

- We invite feedback -- Ben.Fissel@noaa.gov

Fishery Performance and Community Information for 2020 Harvest Specifications



Alaska Fisheries
Science Center

Steve Kasperski*
Alaska Fisheries Science Center

November 16, 2020

Joint Groundfish Plan Team Meeting

* All opinions expressed are my own and do not
represent those of the NMFS



Fishery Performance and Community Information for 2020 Harvest Specifications



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Science Center

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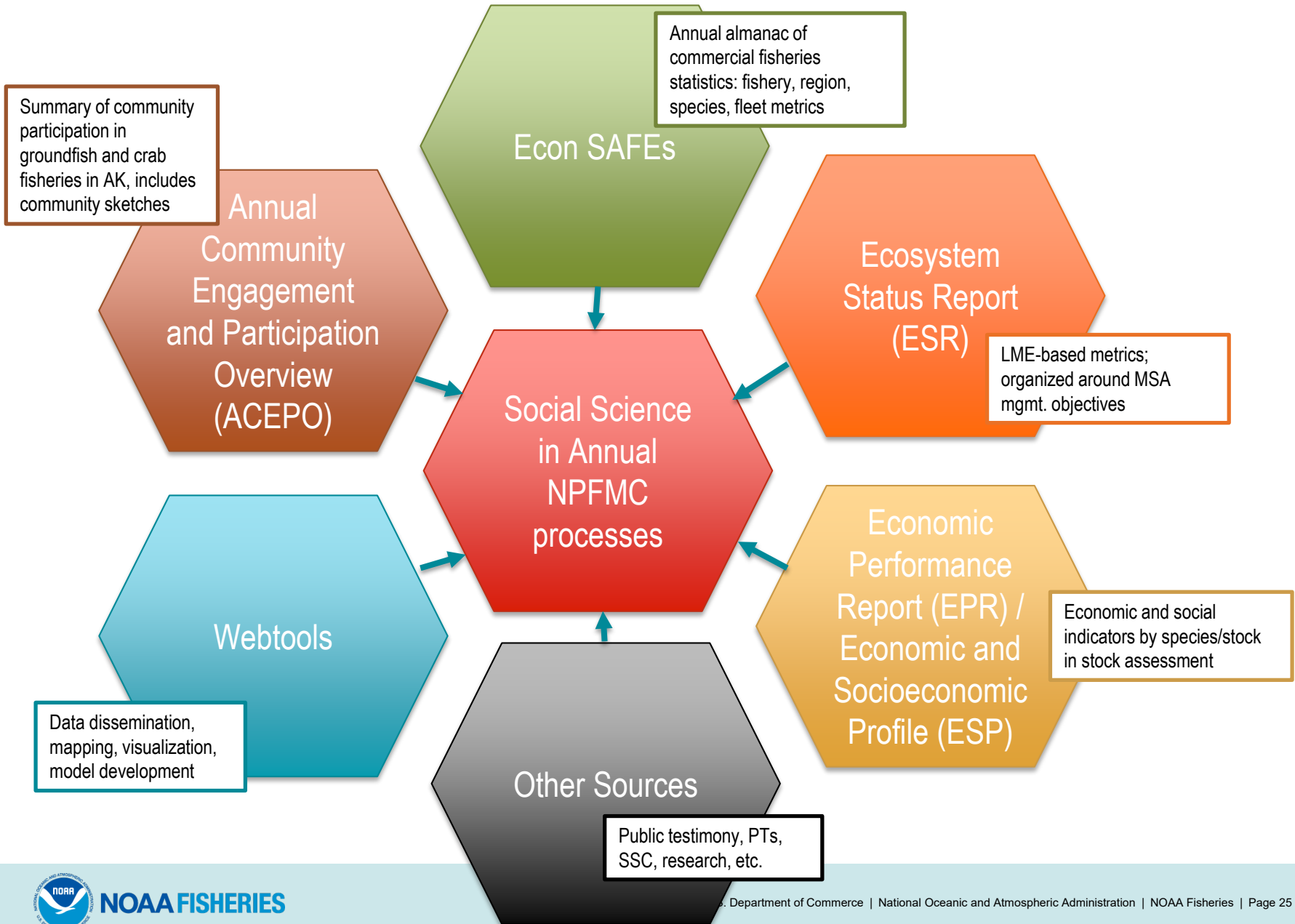
November 20, 2020

Joint Groundfish Plan Team Meeting

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represent those of the NMFS



AFSC providing social science info into Annual NPFMC processes



Program Contacts: Econ SAFEs and ACEPO

Groundfish



Ben Fissel



Brian Garber-Yonts

Crab

Social science and
communities, ACEPO



Sarah Wise

Where to find?:

GF and crab both at this landing page eventually:

<https://www.fisheries.noaa.gov/alaska/ecosystems/economic-status-reports-gulf-alaska-and-bering-sea-aleutian-islands;>

GF Nov. PT version: https://archive.fisheries.noaa.gov/afsc/refm/stocks/plan_team/2020/economic.pdf

ACEPO (GF only): TBD, maybe PT Agenda page?

Program Contacts: Ecosystem Status Report (ESR) contributors



Ben Fissel

Landings volume, value, and unit value

School enrollment, subsistence activities

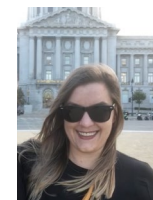


Sarah Wise

Discards



Jean Lee



Melissa Rhodes-Reese (Juneau)

Population trends, unemployment

Where to find?:

Each contribution is LME-specific, and regional reports are eventually housed: <https://access.afsc.noaa.gov/REFM/REEM/ecoweb/index.php>

Nov PT version:

BSAI: https://archive.fisheries.noaa.gov/afsc/refm/stocks/plan_team/2020/EBSecosys.pdf

GOA: https://archive.fisheries.noaa.gov/afsc/refm/stocks/plan_team/2020/GOAecosys.pdf

AI: https://archive.fisheries.noaa.gov/afsc/refm/stocks/plan_team/2020/AIecosys.pdf

Program Contacts: Economic Performance Reports (EPRs)

Sablefish (in ESP),
GOA P.cod (in ESP),
BSAI P.cod (in ESP),
GOA Pollock (in ESP),
Atka mackerel,
BSAI Pollock,
GOA flatfish,
BSAI flatfish,
GOA rockfish, &
BSAI rockfish



Ben Fissel

Where to find?:

Included within the text of the stock assessment or as an appendix for each individual assessment. See Nov. PT page for current drafts:

https://archive.fisheries.noaa.gov/afsc/refm/stocks/plan_team/2020/NovDraftDocs_2020.htm

Program Contacts: ESPs

ESP co-PI,
Sablefish, GOA
pollock, BSAI and
GOA Cod



Ben Fissel



Brian Garber-Yonts

St. Matts
BKC, RKC

Community
contributions



Sarah Wise

Where to find? (2020 versions):

- Most are included as an appendix to the stock assessment, and may not be in the Nov PT version yet.
- Sablefish ESP: https://archive.fisheries.noaa.gov/afsc/refm/stocks/plan_team/2020/sablefish_esp.pdf
- GOA pollock (not included in document yet): https://archive.fisheries.noaa.gov/afsc/refm/stocks/plan_team/2020/GOApollock.pdf
- GOA p.cod (Appendix 2.1, not included in document yet):
https://archive.fisheries.noaa.gov/afsc/refm/stocks/plan_team/2020/GOApcod.pdf
- EBS p.cod (Appendix 2.2, not included in document yet):
https://archive.fisheries.noaa.gov/afsc/refm/stocks/plan_team/2020/EBSpcod.pdf
- St. Matthews Blue King Crab (2019 version): https://meetings.npfmc.org/CommentReview/DownloadFile?p=1a46df48-6b5e-4ef7-aa08-5bf16f3d8d1f.docx&fileName=SMBKC_SAFE_2019_AppE-ESP.docx
- BBRKC (Appendix E, p. 172): <https://meetings.npfmc.org/CommentReview/DownloadFile?p=06e93325-0336-4947-a2b9-cbf7b5db9bc8.pdf&fileName=C1%20%20BBRKC%20SAFE.pdf>

Program Contacts: Web Development



Ben Fissel

Pacific States E-journal of Scientific Visualizations (PSESV) co-editor

MRSAM webtool



Chang Seung

Snapshots, Profiles, web mapping



Sarah Wise

Where to find?:

ESSR main landing page:

<https://www.fisheries.noaa.gov/alaska/socioeconomics/alaska-economic-and-social-sciences-research>

Data and ESSR webmaster, PSESV



Jean Lee

Human Dimensions objectives in MSA



Seafood Provisioning Indicators

- % Utilization (CSPM)
- Aggregate landings (SAFE)
- Catch (SAFE)
- Economic Indicators by eco-region – Landings (ESR)
- FAO global production (SAFE)
- First-wholesale production (SAFE)
- International trade volume and value (SAFE)
- Number of processors (SAFE)
- Quota allocated to Catch Share Program (CSPM)
- Salmon and Halibut Subsistence Trends by eco-region (ESR)
- Vessel characteristics (SAFE)

Commercial Profits Indicators

- Aggregate revenue from Catch Share species (CSPM)
- Average price (SAFE, ESPs)
- Economic Indicators by eco-region – Value and Unit Value (ESR)
- EDR data (SAFE)
- Ex-vessel price (SAFE)
- Ex-vessel value (SAFE)
- First-wholesale price (SAFE)
- First-wholesale value (SAFE)
- Gini Coefficient (CSPM)
- Revenue per active vessel (CSPM)
- Total roe per unit pollock catch (ESP)
- SMBKC % of total revenues (ESP)

Employment Indicators

- Crew weeks (SAFE)
- Fishing weeks (SAFE)
- Vessel counts and permits (SAFE, ESP)

Recreational Opportunities Indicators

- Saltwater Recreational Fishing by eco-region: Sport Fishing Harvest by functional group (no longer in ESR due to data lags)
- Saltwater Recreational Fishing Participation by eco-region: Number of anglers and fishing days (no longer in ESR due to data lags)

Community Resilience Indicators

- K–12 School Enrollment, Graduation and Dropout rates in Coastal Communities by eco-region (ESR)
- Trends in Human Population by eco-region (ESR)
- Trends in unemployment by eco-region (ESR)
- Community participation and engagement indices for groundfish and crab fisheries (formerly SAFE, now ACEPO)
- Community local quotients for Groundfish and crab fisheries (ACEPO)
- % GOA pollock landings in Kodiak (local quotient or LQ, ESP)
- % of SMBKC landings in St. Paul (local quotient or LQ, ESP)
- Number of active processors (ESP)

Fishery Sustainability Indicators

- Active vessels (CSPM)
- Entities holding share (CSPM)
- Season length index (CSPM)
- Discards and PSC (ESR)

Stability Indicators

- Real Effective Exchange rate index (SAFE Report Card)
- Alaska's effective share of global pollock and cod catch (SAFE Report Card)
- Production Volume/Total catch (SAFE Report Card)
- Ex-vessel share of first-wholesale revenue (SAFE Report Card)
- AK resident share of shoreside ex-vessel value (SAFE Report Card)
- Share of shoreside value to top 5 communities (SAFE Report Card)
- Real first-wholesale value/fishing weeks (~RPUE, SAFE Report Card)



Questions?

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Annual Community Engagement and Participation Overview (ACEPO)



Sarah Wise
Social Scientist
ESSR – AFSC
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Annual Community Engagement and Participation Overview (ACEPO)



Steve Kasperski
Economist
ESSR – AFSC
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Annual Community Engagement and Participation Overview (ACEPO)

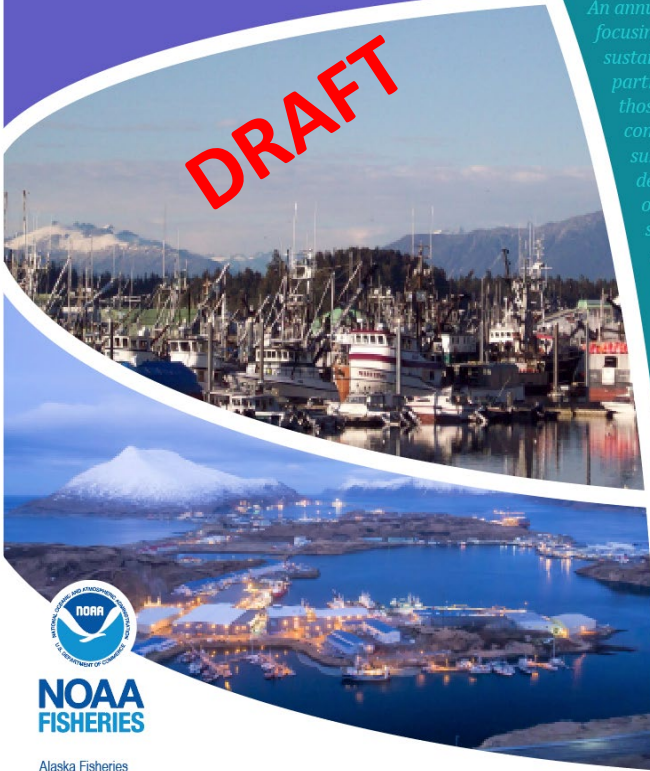


Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2), in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

Magnuson Stevens Act NS 8

Annual Community Engagement and Participation Overview

DRAFT



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Economic and Social
Science Program

An annual report focusing on sustained participation of those fishing communities substantially dependent on or substantially engaged in the North Pacific groundfish and crab fisheries.

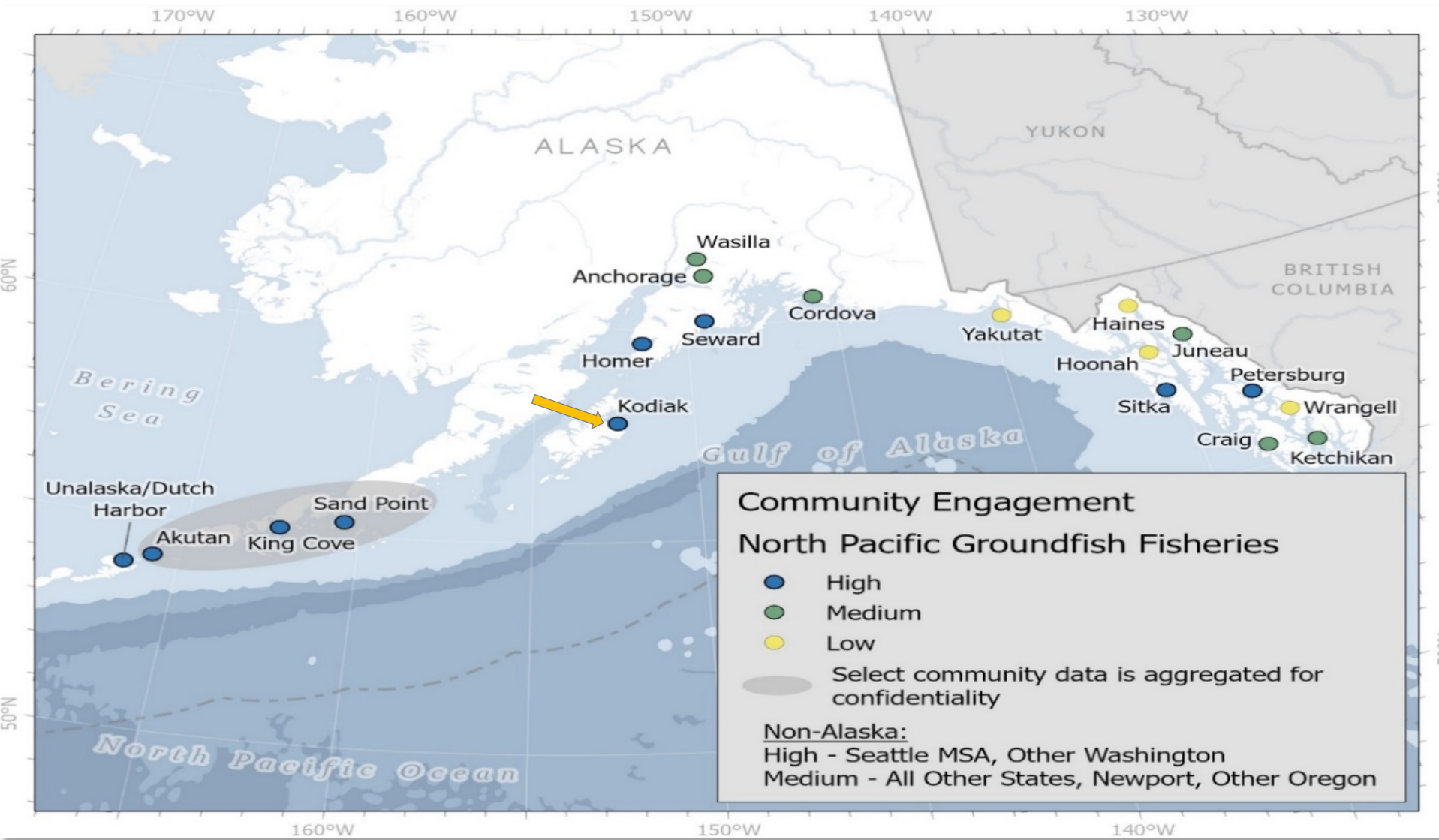
Commercial Harvesting Engagement

Commercial Processing Engagement

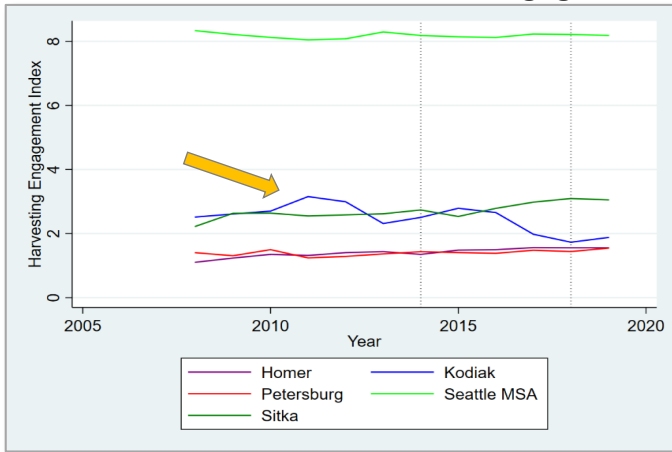
Harvesting Regional Quotient
measures the % measures of all Alaska groundfish harvest attributable to vessels owned

Processing Regional Quotient
measures the percentage of all Alaska commercial landings within the specific

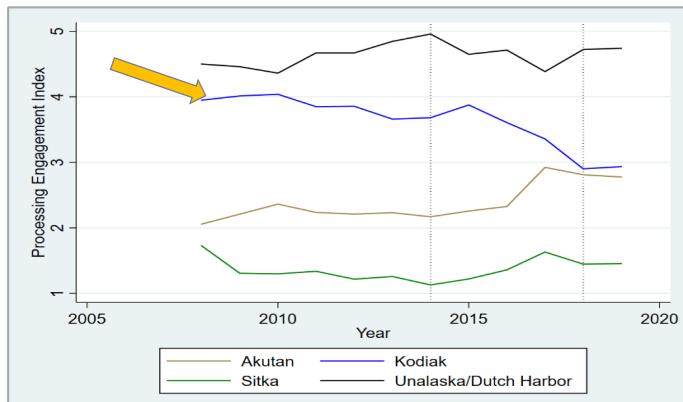
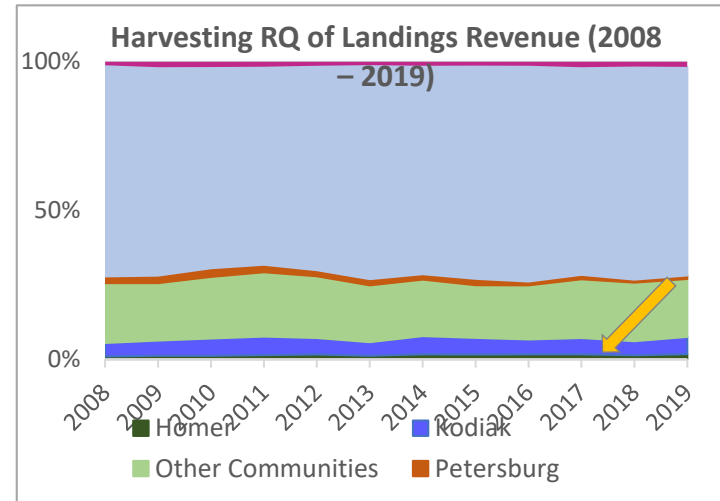
Community Sketches
Deep dive into Highly Engaged communities and their participation in FMP groundfish



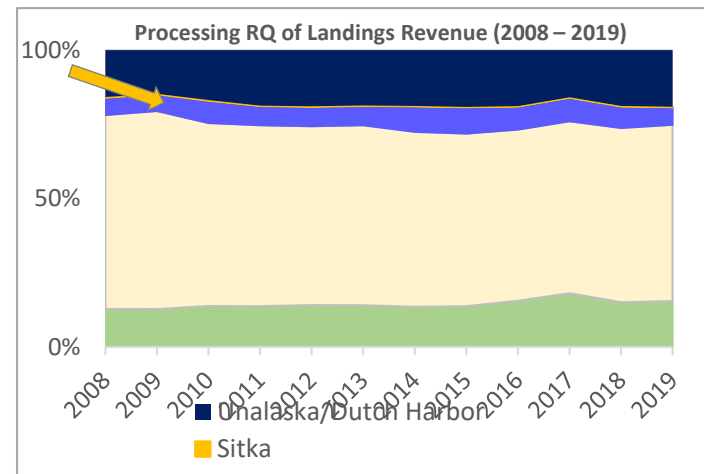
Engagement Indices and Regional Quotient




Index scores of communities highly engaged in commercial **harvest** for all years from 2008-2019.



Index scores of communities highly engaged in commercial **processing** for all years from 2008-2019.



Community Sketches



NOAA FISHERIES
Alaska Fisheries Science Center
Economic and Social Sciences Research Program

Stock Assessment and Fishery Evaluation Report

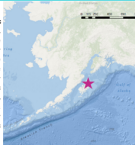
Community Sketch

KODIAK ISLAND

	Akiak	Chitka CDP	Kodiak	Larsen Bay	Old Harbor	Ouzinkie	Port Lions
Population	71	47	37	6,130	87	218	161
AK Native	50.7%	8.5%	94.6%	13.8%	75.9%	89.0%	87.0%
Housing Units	32	27	25	2,173	76	119	109
Med. Income	\$17,500	N/A	\$18,000	\$69,868	\$36,290	\$19,063	\$59,375
Poverty	20.8%	N/A	27.5%	10.9%	35.7%	22.8%	14.6%
Med. age	36	N/A	19	36	47	29	35
High School Ed. or higher	100%	N/A	70.6%	85.3%	81.8%	77.1%	70.6%

Area Description

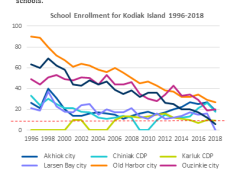
The largest island in the Gulf of Alaska, Kodiak Island (KI) is approximately 25 miles across the Shelikof Strait from the Kalmak Coast and 92 miles southwest of the Kenai Peninsula. All of Kodiak Island communities are highly dependent on some form of fisheries. The majority of commercial vessels and seafood processing plants are in Kodiak City; however other communities rely heavily on commercial, recreational, and subsistence fishing. There are two main harbors in Kodiak City: St. Paul Harbor and St. Herman Harbor which is the larger of the two. According to the US census, the population estimate is 13,448 with over half living in Kodiak City. The other seven island communities reported populations between 37 and 218. Native Alaskans represent the majority of residents of KI communities, except Kodiak City which has a more diverse population as the island's urban center. In 2016, the average household size for KI was estimated to be 3.06 (this increased to 3.52 for Kodiak City), up slightly from 2.94 (2010). Between 2008 and 2017, the number of residents eligible for the PFD decreased by -3.35% indicating a reduction in stable residency.*



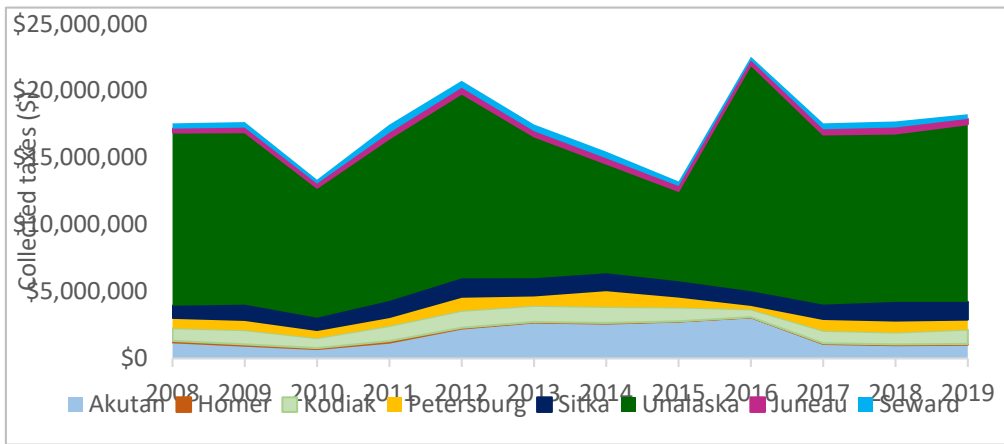
Infrastructure & Transportation

Kodiak Island is accessible by air and sea, however accessibility varies drastically among communities. Kodiak City has two small airports, which are served with several daily flights. Air taxi services provide flights to five remote villages; however weather conditions often restrict travel. City-owned seaplane bases at Trident Basin and Lilly Lake accommodate floatplane traffic. The state ferry operates three to four times a week between Kodiak and Homer, and in the summer months, includes other ports as far west as Unalaska. The Port of Kodiak has two boat harbors with 600 boat slips. Three deep-draft piers accommodate ferries, cruise ships, container ships, military vessels, and a variety of large commercial fishing vessels. Boat launch ramps, a shipyard, and 150-ton vessel lift are available. Island communities have limited access to medical services and residents must travel to Kodiak City or Anchorage for treatment. Maintaining adequate school enrollment is a grave concern for Kodiak communities which have struggled to keep schools open with declining enrollment. K-12 school enrollment has decreased by 13% since 1996. Other schools saw enrollment declines from 7% (Akiak) to 63% (Old Harbor), and Kodiak City was not included in the analysis due to difference in size of schools.

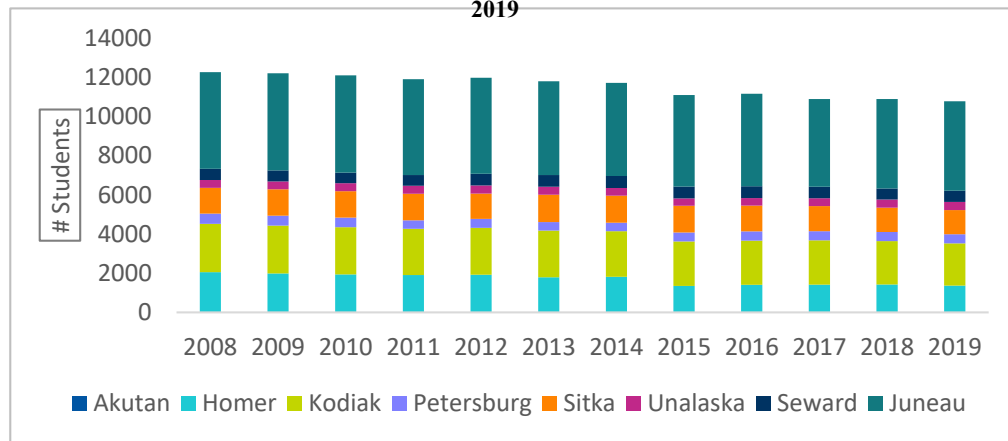
School Enrollment for Kodiak Island 1996-2018




Fishery Tax Revenue for Communities Highly Engaged in FMP Groundfish Fisheries 2008 -



School Enrollment for Communities Highly Engaged in FMP Groundfish Fisheries 2008 - 2019



Community Sketches



Alaska Fisheries Science Center
Economic and Social Sciences Research Program

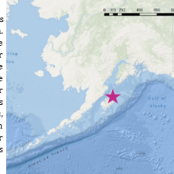
Stock Assessment and Fishery Evaluation Report

Community Sketch KODIAK ISLAND

Demographics (self-identified, 2010 census) - All Communities										
	Akiak	Chiniak CDP	Karluk	Kodiak City	Larsen Bay	Old Harbor	Ouzinkie	Port Lions		
Population	71	47	37	6,130	87	218	161	194		
AK Native	50.7%	8.5%	94.6%	13.8%	75.9%	89.0%	87.0%	61.3%		
Housing Units	32	27	25	2,173	76	119	109	143		
Med. Income	\$27,500	N/A	\$18,000	\$69,868	\$36,250	\$29,068	\$39,375	\$32,917		
Poverty	20.8%	N/A	27.5%	10.9%	35.7%	22.8%	14.6%	23.4%		
Med. age	36	N/A	19	36	47	29	35	49		
High School Ed. or higher	100%	N/A	70.6%	85.3%	81.8%	77.1%	70.6%	86.7%		

Area Description

The largest island in the Gulf of Alaska, Kodiak Island (KI) is approximately 25 miles across the Shelikof Strait from the Kamai Coast and 90 miles southwest of the Kenai Peninsula. All of Kodiak Island communities are highly dependent on some form of fisheries. The majority of commercial vessels and seafood processing plants are in Kodiak City; however other communities rely heavily on commercial, recreational, and subsistence fishing. There are two main harbors in Kodiak City: St. Paul Harbor and St. Herman Harbor which is the larger of the two. According to the US census, the population estimate is 13,448 with over half living in Kodiak City. The other seven island communities reported populations between 37 and 218. Native Alaskans represent the majority of residents of KI communities, except Kodiak City which has a more diverse population as the island's urban center. In 2016, the average household size for KI was estimated to be 3.06 (this increased to 3.52 for Kodiak City), up slightly from 2.94 (2010). Between 2008 and 2017, the number of residents eligible for the PFD decreased by -3.33% indicating a reduction in stable residency.*

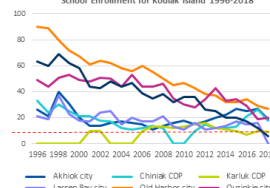


Infrastructure & Transportation

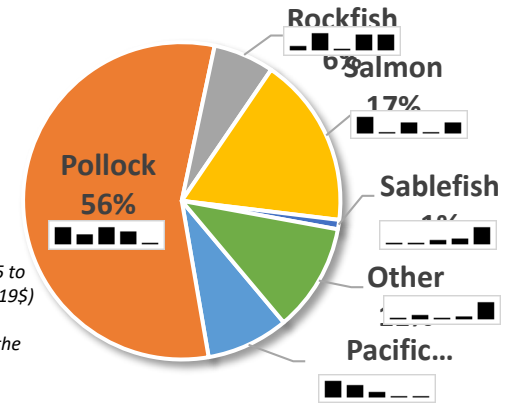
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(Akiak) to 63% (Old Harbor). Larsen Bay School closed in 2018, and Karluk school is pending closure. Kodiak City was not included in the analysis due to difference in size of schools.

School Enrollment for Kodiak Island 1996-2018



Share of landed revenue by species for resident owned vessels Kodiak 2019



Bar charts represent 2015 to 2019 ex-vessel values (2019\$) by species landed in the community. The scale of the y-axis is specific to the species.

Groundfish Landings & Ex-vessel Value for Kodiak 2008 - 2019

