

The Economic Value of Alaska's Seafood Industry



Prepared for:



Alaska Seafood Marketing Institute

Prepared by:



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The Alaska Seafood Marketing Institute (ASMI) is a public-private partnership between the State of Alaska and the Alaska seafood industry established to foster economic development of Alaska’s most valuable renewable natural resource.



ASMI’s mission is to increase the economic value of the Alaska seafood resource, benefitting thousands of Alaskans in communities across the state. ASMI activities include Alaska seafood branding campaigns, collaborative marketing programs, technical support, education, advocacy, and research.

ASMI is funded by an industry-directed 0.5% marketing tax based on the ex-vessel value of Alaska seafood, USDA funding supporting American export industries, and matching funds from the State of Alaska. ASMI employs 19 full-time staff and a number of contractors to fulfill its mission.

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INTRODUCTION

This report updates and builds on prior studies published in 2013 and 2015. ASMI contracted with McDowell Group to update the economic impact of Alaska's commercial seafood industry. The analysis quantifies the regional, statewide, and national economic impacts of Alaska's seafood industry. This report summarizes overall industry participation, value, and exports. It also highlights the significant impact the industry has on tax revenues, investment and charitable giving by the industry, and the value of industry assets.

As the brand manager for Alaska seafood, ASMI recognizes the need to inform the general public and consumers about the important economic benefits of the industry. Alaska's seafood industry covers vast areas of the state but is not always well represented in traditional employment data sources.

Due to biological and environmental factors, harvest of wild seafood is inherently volatile. For example, total odd-year harvests of Alaska pink salmon can be double or triple even-years. In order to reduce this volatility, most figures have been averaged or otherwise combined from the two most recent years (2015-2016) where appropriate.

This report considers only the commercial seafood industry and does not address economic impacts stemming from recreational, charter, or subsistence uses of Alaska's seafood resources.

DATA SOURCES & METHODS

McDowell Group worked with the Alaska Fisheries Information Network (AKFIN), Alaska Department of Fish & Game, and Alaska Department of Labor & Workforce Development to compile customized data sets for this project. The assistance of these agencies was crucial in providing a wide array of primary data sets which McDowell Group used to model direct and secondary impacts. Customized economic models were developed using IMPLAN, industry interviews, and other public data sources. All photos are courtesy of ASMI, except where noted.

GLOSSARY

Direct Impacts: The impacts occurring in the seafood industry itself, including commercial fishing, seafood processing, and direct support sectors.

Direct Support Sectors: Critical support positions are counted as direct impacts in this analysis, such as fishery managers, hatchery workers, and safety personnel.

Secondary Impacts: Additional economic impacts resulting from business and household spending related to the Alaska seafood industry (i.e. multiplier effects).

FTE (full-time equivalent): Many seafood industry workers are employed in seasonal jobs or earn a year's worth of income in less than a year. FTE employment figures in this report represent an annualized estimate of jobs created in each study area, allowing comparison to other industries.

Labor Income: Wages, salaries, bonuses, and benefit payments to seafood industry participants.

Economic Output: The value added to Alaska's seafood in total, and at various stages of the production and supply chain.

Ex-Vessel (EV) Value: The dollar amount received by fishermen for their catch when delivered to a processor. This includes both initial payments and any bonuses or year-end adjustments paid by processors.

First Wholesale (FW) Value: The value of seafood products when sold to buyers outside a processor's affiliate network. This is the value of the raw fish delivered to the processor (ex-vessel value) plus the value added by the first processor.

Worker Counts: The total number of people directly earning income in the industry. Processing worker counts reflect people who earned the majority of their earnings as processing workers, while commercial fishing worker counts include all adult participants.

EXECUTIVE SUMMARY

The Seafood Industry: A Cornerstone of Alaska's Economy



Approximately 56,800 workers are directly employed by Alaska's seafood industry, including 26,500 Alaska residents. Seafood directly created an estimated 26,800 full-time equivalent (FTE) jobs in Alaska during 2015/2016, and a total of 36,800 FTE jobs in Alaska including multipliers, or about 8 percent of total statewide employment.



Alaska fisheries employed an average of 29,200 commercial fishermen in 2015/2016, including 16,500 Alaska residents. Alaska's commercial fleet includes approximately 9,400 vessels, which would span just over 70 miles if lined up from bow to stern. Lower resource value has contributed to a downward trend in fishing employment since 2013.



Alaska's 2016 seafood harvest of 5.6 billion pounds had a total ex-vessel value of \$1.7 billion. Processors produced 2.7 billion pounds of Alaska seafood products in 2016, worth a first wholesale value of \$4.2 billion.



The processing sector employed an average of 24,500 workers in 2015/2016, including an estimated 7,200 Alaska residents. The industry includes 169 shore-based plants, 73 catcher-processors, and more than a dozen floating processors in 2016.

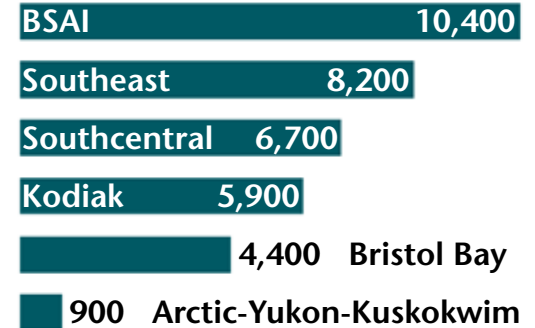
Seafood Industry Impact on Alaska's Economy, 2015/2016 Avg.

Direct Impacts	Number of Workers	Labor Income (\$Millions)
Commercial Fishing	29,200	\$824
Processing	24,500	\$467
Management/Hatcheries/Others	3,200	\$228
Total	56,800	\$1,518

Total Impacts	
FTE (Full-Time Equivalent) Jobs	36,800
Labor Income	\$2.0 Billion
Economic Output	\$5.2 Billion

Note: Figures may not sum due to rounding.

Total FTE Jobs by Region



The Significant National Economic Impact of Alaska's Seafood Industry

- Nationally, the Alaska seafood industry creates an estimated 99,000 FTE jobs, \$5.2 billion in annual labor income, \$12.8 billion in economic output.
- The national economic impacts of Alaska's seafood industry includes \$5.4 billion in direct output associated with fishing, processing, distribution, and retail. It also includes \$7.3 billion in multiplier effects generated as industry income circulates throughout the U.S. economy.
- The Alaska seafood industry employed a total of 29,600 residents from other U.S. states who came north to work in Alaska during 2016.
- Alaska exports more than one million metric tons of seafood each year, bringing over \$3 billion of new money into the U.S. economy.



Feeding the World and Alaska's Economy with Sustainable Fisheries

- Alaska's abundant commercial fisheries have produced over 169 billion pounds since statehood in 1959. The largest harvest ever occurred in 2015 (6.1 billion pounds). A commitment to sustainable management has allowed the state's fisheries to produce large, diversified harvests for many decades.
- The scale of Alaska's commercial fisheries are truly extraordinary. The industry catches and processes enough seafood each year to feed everybody in the world at least one serving of Alaska seafood, or one serving for every American for more than a month (12.9 billion servings in 2015).
- Alaska seafood was sold in 105 countries around the world in 2016. Export markets typically account for approximately two-thirds of sales value, while the U.S. market buys the remaining one-third.
- Seafood directly employs more workers than any other industry in Alaska, and is the third-largest overall job creator in the state next to the oil/gas and visitor industries (including multiplier effects).
- Seafood is the economic foundation of many rural communities. Over 21,200 rural Alaska residents were directly employed by the industry in 2015, accounting for 15% of all rural working age adults.





Seafood Industry Overview

COMMERCIAL FISHING SECTOR

Alaska has the most prolific commercial fishing industry in the United States, producing more harvest volume than all other states combined. Commercial fishing in Alaska creates substantial benefits for Alaska's economy and provides consumers around the world with a wild, sustainable product.

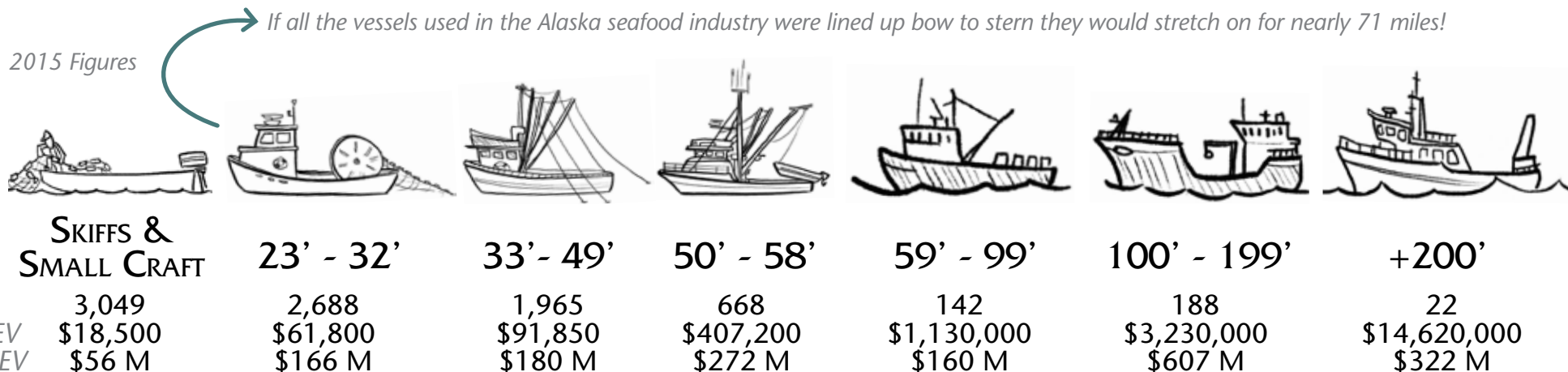
Alaska's commercial fishing industry is very diverse. Crews range from one or two fishermen working from skiffs and small boats to large catcher-processors in excess of 300 feet with 100 workers or more.

Fishermen involvement in the industry also spans a wide spectrum. Many skippers and crew participate in multiple fisheries as a full-time career, while others fish to supplement income from other jobs, earn money during a summer school break, or work as crew members for friends and family to be part of a uniquely Alaskan cultural tradition.

Regardless of vessel size or involvement, each fishing operation represents a business generating new income from a renewable resource. These businesses spend money throughout the economy, and provide the raw materials on which the rest of the seafood economy is based.

Key Figures	2016
Skippers & Crew	27,738
Skippers	9,125
Crew	18,613
Alaska Residents	15,592
Fishing & Related Vessels	9,423
Total Length of All Vessels	70.6 mi.
Ex-Vessel Value (\$Millions)*	\$1,671
Percent to AK Residents*	38%
Harvest Volume (Millions lbs.)*	5,643

*Figures are preliminary.



Note: Vessel figures by size only include those which made landings in 2015, and therefore do not include other support or processing vessels. Skiffs and small craft may be understated in the data above, as set-net boats are not required to be registered with the State and vessel identification numbers are not always recorded on setnet fish tickets.

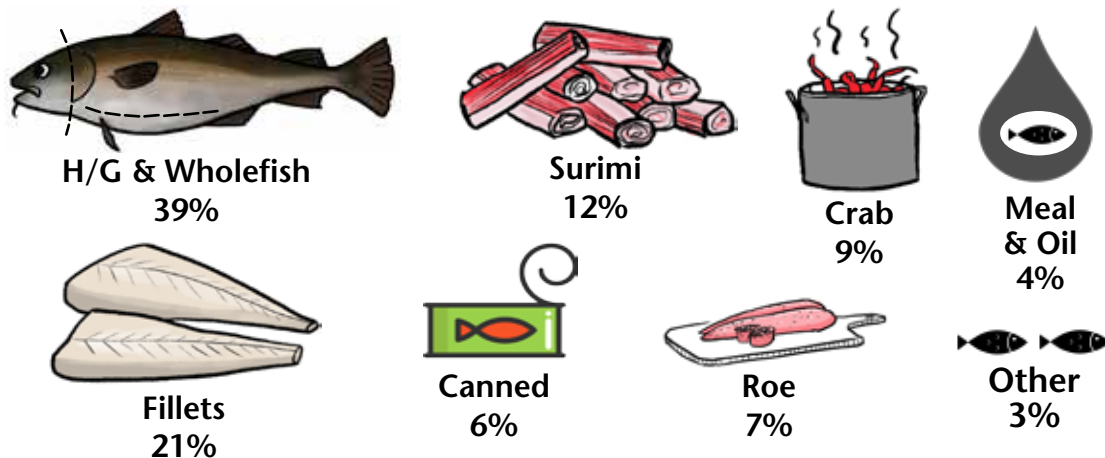
SEAFOOD PROCESSING SECTOR

Seafood processing is the largest manufacturing sector in Alaska, accounting for 72% of the state's manufacturing employment. Nearly all of Alaska's seafood products go through the hands of seafood processors, which add value by turning raw fish and shellfish into a myriad of products for markets around the world.

The seasonality of many Alaska fisheries, especially salmon, result in a reliance on nonresident workers to fully staff production jobs at remote sites across the state. Though nonresidents comprise approximately 70% of the workforce, residents earn a higher share of the sector's income as they are more likely to be employed in management and maintenance positions and work in areas with longer operating seasons. Approximately 1-in-10 resident workers earned over \$50,000 in 2016.

The sector includes 169 shore-based plants, 73 catcher-processors, and more than a dozen floating processors.

First Wholesale Value by Product Type, 2015/2016



First Wholesale Value by Species, 2015/2016



Workforce

2016

Peak Monthly Employment	20,224
Avg. Monthly Employment	9,750
Workers in Alaska (2015)	24,863
Alaska Resident Estimate	7,409
Total Workforce Earnings	\$438 Million
Alaska Resident Estimate	\$154 Million

Value Added

2016

Ex-Vessel Value	\$1,671 Million
First Wholesale Value	\$4,186 Million
Value Added by Processors	\$2,515 Million

FW Value by Type

2016

Shoreside Plants	\$2,577 Million
Catcher-Processors	\$1,289 Million
Floating Processors	\$323 Million

*Includes flatfish (sole/flounder), rockfish, and Atka Mackerel.

COMMERCIAL FISHERIES MANAGEMENT

Alaska's fisheries are known worldwide as a model for sustainable management. The efforts of the region's biologists, managers, and policy makers ensure healthy stocks and productive fisheries for Alaska's harvesters and the businesses that rely on their catches. A key aspect of Alaska's successful model is the separation of entities that set policy (**Alaska Board of Fisheries** and **North Pacific Fishery Management Council**) and those that enforce and study allocations and harvest limits.

Alaska's commercial fisheries are managed by the **Alaska Department of Fish and Game (ADF&G)** and the **National Marine Fisheries Service (NMFS)**, a division of NOAA. With some exceptions, fisheries managed by ADF&G occur within three miles of Alaska's coast while NMFS manages offshore fisheries. Both agencies work in coordination to conserve and develop Alaska's fishery resources.

Some Alaska fisheries have an international component. Pacific halibut fisheries are jointly managed with Canada via the **International Pacific Halibut Commission**. Transboundary salmon harvests in Southeast Alaska and the Yukon River are subject to the **Pacific Salmon Treaty**.

The State of Alaska has several agencies that further support the seafood industry in Alaska:

- The **Commercial Fisheries Entry Commission** implements Alaska's limited entry law by issuing the fishing permits for state fisheries whereas NMFS issues permits for the federal fisheries.
- The **Department of Environmental Conservation** issues discharge permits for seafood processing facilities.
- The **Department of Commerce, Community, and Economic Development** is charged with promoting economic development in Alaska, including the seafood industry.
- The **Alaska Seafood Marketing Institute** is a public-private partnership between the state and the seafood industry with the mission to increase the economic value of Alaska seafood.
- The State also provides training opportunities and extension services through the **University of Alaska** system, **Alaska Sea Grant**, and **Alaska's Institute of Technology (AVTEC)**.





Economic Impacts of Alaska Seafood



Salmon	
Direct Total	
FTE Jobs	16,400
Labor Income \$M	\$735
Value Added \$M	\$1,803
Secondary Total	
FTE Jobs	16,600
Labor Income \$M	\$977
Value Added \$M	\$2,422
Total Contribution	
FTE Jobs	32,900
Labor Income \$M	\$1,712
Value Added \$M	\$4,225

Halibut & Black Cod	
Direct Total	
FTE Jobs	3,800
Labor Income \$M	\$157
Value Added \$M	\$381
Secondary Total	
FTE Jobs	3,500
Labor Income \$M	\$206
Value Added \$M	\$512
Total Contribution	
FTE Jobs	7,300
Labor Income \$M	\$363
Value Added \$M	\$893

Crab	
Direct Total	
FTE Jobs	5,900
Labor Income \$M	\$244
Value Added \$M	\$591
Secondary Total	
FTE Jobs	5,400
Labor Income \$M	\$320
Value Added \$M	\$795
Total Contribution	
FTE Jobs	11,300
Labor Income \$M	\$564
Value Added \$M	\$1,386



Alaska Pollock	
Direct Total	
FTE Jobs	13,800
Labor Income \$M	\$655
Value Added \$M	\$1,616
Secondary Total	
FTE Jobs	14,900
Labor Income \$M	\$875
Value Added \$M	\$2,171
Total Contribution	
FTE Jobs	28,700
Labor Income \$M	\$1,530
Value Added \$M	\$3,787

Pacific Cod	
Direct Total	
FTE Jobs	5,700
Labor Income \$M	\$256
Value Added \$M	\$627
Secondary Total	
FTE Jobs	5,800
Labor Income \$M	\$340
Value Added \$M	\$843
Total Contribution	
FTE Jobs	10,900
Labor Income \$M	\$580
Value Added \$M	\$1,470

Other Groundfish	
Direct Total	
FTE Jobs	2,700
Labor Income \$M	\$136
Value Added \$M	\$339
Secondary Total	
FTE Jobs	3,100
Labor Income \$M	\$184
Value Added \$M	\$456
Total Contribution	
FTE Jobs	5,800
Labor Income \$M	\$320
Value Added \$M	\$796

ECONOMIC IMPACTS BY SPECIES

Estimated Contributions to the
National Economy
(2015-2016 Averages)

- Salmon is still king in Alaska. By all measures, salmon are responsible for the greatest economic impact (jobs, income, and total value) among all species in the Alaska seafood industry. Salmon's total contribution to the national economy included approximately 32,900 FTE jobs and \$1.7 billion in annual labor income in 2015/2016.
- As the largest single species U.S. fishery, by volume, Alaska pollock is a close second. Much of pollock's value is added through processing, which occurs both shoreside and at-sea. Pollock's national economic impact includes an estimated 28,700 FTE jobs and \$1.5 billion in labor income.
- Halibut, black cod, and crab are high-value species. Despite only accounting for 2 percent of harvest volume, these three species account for 19 percent of the labor income and economic output (including multiplier effects) produced by the Alaska seafood industry.

ALASKA STATEWIDE IMPACTS

Seafood Industry Impact on Alaska's Economy, 2015/2016 Avg.

	Number of Workers	FTE Jobs	Labor Income (\$Millions)	Output (\$Millions)
Commercial Fishing	29,200	13,700	\$824	\$1,738
Processing	24,500	10,800	\$467	\$2,446
Mgmt./Other	3,200	2,300	\$228	-
Direct Total	56,900	26,800	\$1,518	\$4,184
Secondary Total	-	10,000	\$441	\$979
Total Impacts	-	36,800	\$1,959	\$5,163

- In total, seafood contributed 31,900 FTE jobs and \$1.8 billion of labor income annually to the state's economy during 2015 and 2016. It is estimated that the commercial seafood industry accounted for 7.2 percent of statewide employment during this period.
- The seafood industry directly employs nearly 60,000 workers in Alaska each year. Through business and household spending, it is estimated the industry created an additional 8,800 jobs and \$385 million of secondary labor income, on average, in 2015 and 2016.
- Seafood contributed an annual average of \$5.0 billion in economic output to the Alaska economy in 2015 and 2016.
- The seafood industry directly employs more workers than any other private sector industry. Including multiplier effects, it is the third-largest basic sector job creator in Alaska after the oil-and-gas and visitor industries.
- The seafood industry directly employed an estimated 26,000 Alaska residents per year in 2015/2016.
- The economic benefits of the seafood industry are broadly distributed across Alaska, from Kotzebue to Ketchikan.

Top Ports: by First Wholesale Value*

- 1) Dutch Harbor \$474 Million
- 2) Naknek \$292 Million
- 3) Kodiak \$262 Million
- 4) Cordova \$134 Million
- 5) Sitka \$121 Million

*2015/2016 Avg.

Total Jobs & Income Created by Basic Sector Industries in Alaska

Oil & Gas



103,900 jobs
\$6.0 Billion

Seafood



36,800 jobs
\$2.0 Billion

Visitor



39,700 jobs
\$1.4 Billion

Mining



8,600 jobs
\$675 Million

Basic sectors bring new income into the economy. The industries above drive Alaska's economy, collectively accounting for approximately 40% of total employment in Alaska.

*Note: Figures shown above include multiplier effects.
Source: McDowell Group economic impact studies (2016-2017).*



Bristol Bay setnetters Ryan Hanley, Neil Gotschall, and Lauren Stanford. Photo credit: Neil Gotschall.

Harvesting



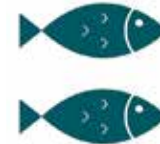
6,548
Resident Owned
Fishing Vessels



15,592
Resident
Fishermen



\$1,671 Million
Harvest
Value



5,643
Million Pounds of
Seafood Harvested

Processing



169
Shore-based
Processing Facilities



24,863
Processing
Workers
(2015)



\$4,186 Million
Wholesale
Value



2,667
Million Pounds
of Seafood
Produced

Economic Trends in Seafood Industry

	2010	2011	2012	2013	2014	2015	2016
Resident Commercial Fishermen	17,147	17,682	17,817	17,809	17,701	17,339	15,486
Gross Earnings (\$Millions)**	\$721	\$876	\$806	\$834	\$741	\$677	\$632
Average Processing Employment*	9,162	10,130	10,198	10,477	10,596	10,147	9,750
Peak Processing Employment*	18,871	20,328	19,472	20,367	20,788	20,534	20,224
Wages/Salaries (\$Millions)*	\$316	\$349	\$364	\$392	\$399	\$439	\$437
Harvest Value (\$Millions)**	\$1,713	\$2,186	\$2,147	\$2,050	\$1,957	\$1,805	\$1,671
First Wholesale Value (\$Millions)**	\$3,856	\$4,609	\$4,508	\$4,559	\$4,304	\$4,277	\$4,186

*Figures may not include processing activity from catcher/processor vessels. **2016 is preliminary.

Value & Volume of Key Species, 2015/2016 Avg.

Pollock



\$448
EV VALUE
\$MILLIONS

\$1.41
FW VALUE
\$BILLIONS

3.31
HARVEST
#BILLIONS

\$0.43
FW VALUE PER
ROUND LB.

Salmon



\$418
EV VALUE
\$MILLIONS

\$1.36
FW VALUE
\$BILLIONS

792
HARVEST
#MILLIONS

\$1.72
FW VALUE PER
ROUND LB.

Crab



\$249
EV VALUE
\$MILLIONS

\$370
FW VALUE
\$MILLIONS

83
HARVEST
#MILLIONS

\$4.46
FW VALUE PER
ROUND LB.

Cod



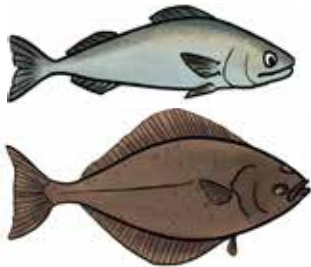
\$178
EV VALUE
\$MILLIONS

\$473
FW VALUE
\$MILLIONS

702
HARVEST
#MILLIONS

\$0.67
FW VALUE PER
ROUND LB.

Halibut & Black Cod



\$204
EV VALUE
\$MILLIONS

\$231
FW VALUE
\$MILLIONS

46
HARVEST
#MILLIONS

\$5.02
FW VALUE PER
ROUND LB.

*A80 Species
(Flatfish, Rockfish, &
Atka Mackerel)*



\$131
EV VALUE
\$MILLIONS

\$328
FW VALUE
\$MILLIONS

780
HARVEST
#MILLIONS

\$0.42
FW VALUE PER
ROUND LB.

Percent of Ex-Vessel Value & Volume, 2015/2016

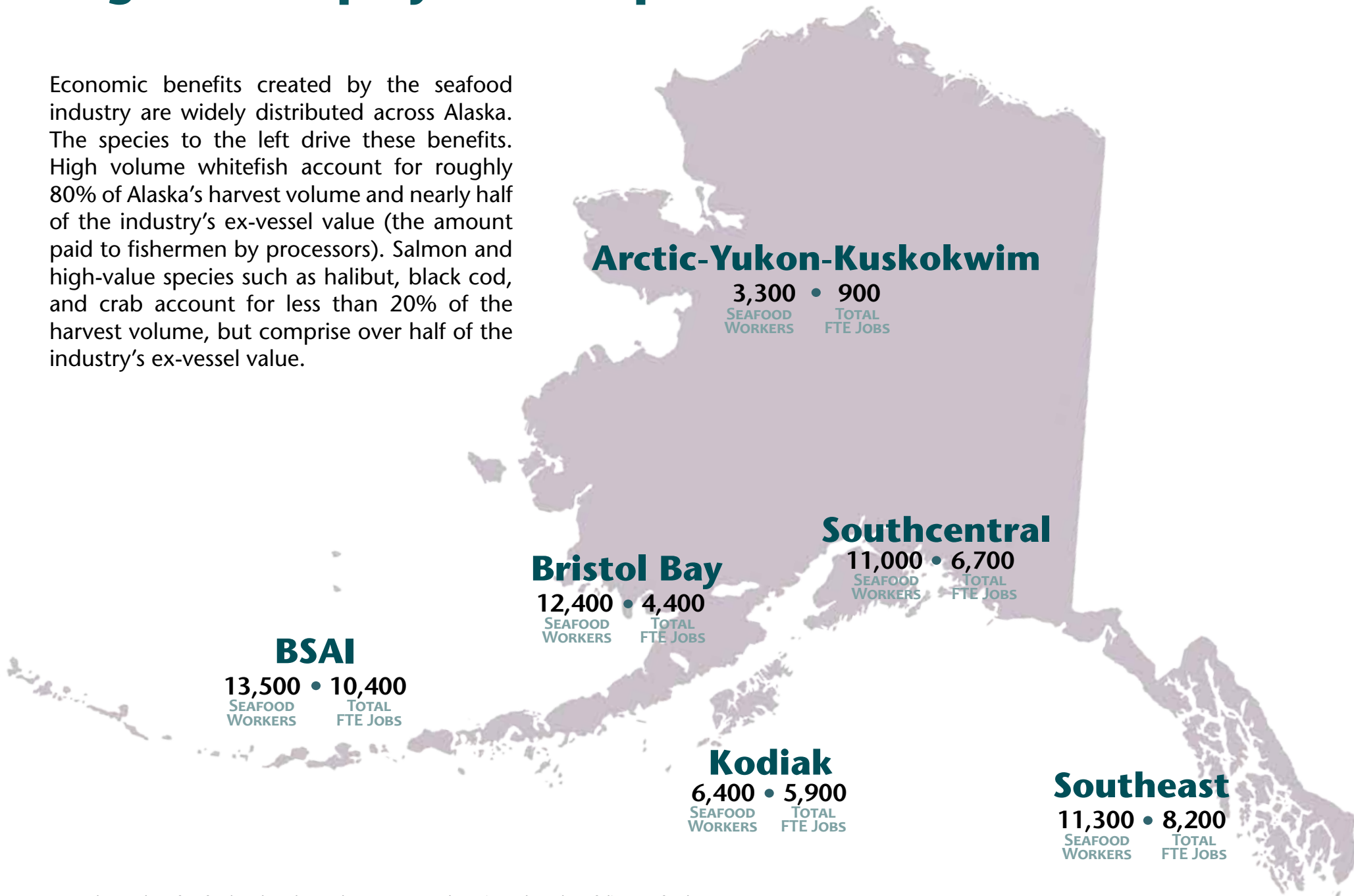
<u>Species</u>	<u>Value</u>	<u>Volume</u>
Pollock	27%	57%
Salmon	25%	14%
Crab	15%	1%
Cod	11%	12%
Halibut & Black Cod	12%	1%
A80 Species	8%	13%
Other Species	2%	2%

Ex-Vessel Value & Volume by Fishery Region, 2015/2016

20% VALUE	17% VALUE	6% VALUE	35% VALUE	17% VALUE	1% VALUE
4% VOLUME	4% VOLUME	9% VOLUME	77% VOLUME	4% VOLUME	<1% VOLUME
<i>Southeast</i>	<i>Southcentral</i>	<i>Kodiak</i>	<i>BSAI</i>	<i>Bristol Bay</i>	<i>AYK</i>

Regional Employment Impacts

Economic benefits created by the seafood industry are widely distributed across Alaska. The species to the left drive these benefits. High volume whitefish account for roughly 80% of Alaska's harvest volume and nearly half of the industry's ex-vessel value (the amount paid to fishermen by processors). Salmon and high-value species such as halibut, black cod, and crab account for less than 20% of the harvest volume, but comprise over half of the industry's ex-vessel value.



Note: The number of seafood workers shown above represents the estimated number of direct seafood workers employed in each region on average during 2015/2016, while the total FTE jobs represents the number of full-time equivalent jobs supported by seafood in each region including multiplier effects.

ARCTIC-YUKON-KUSKOKWIM REGION

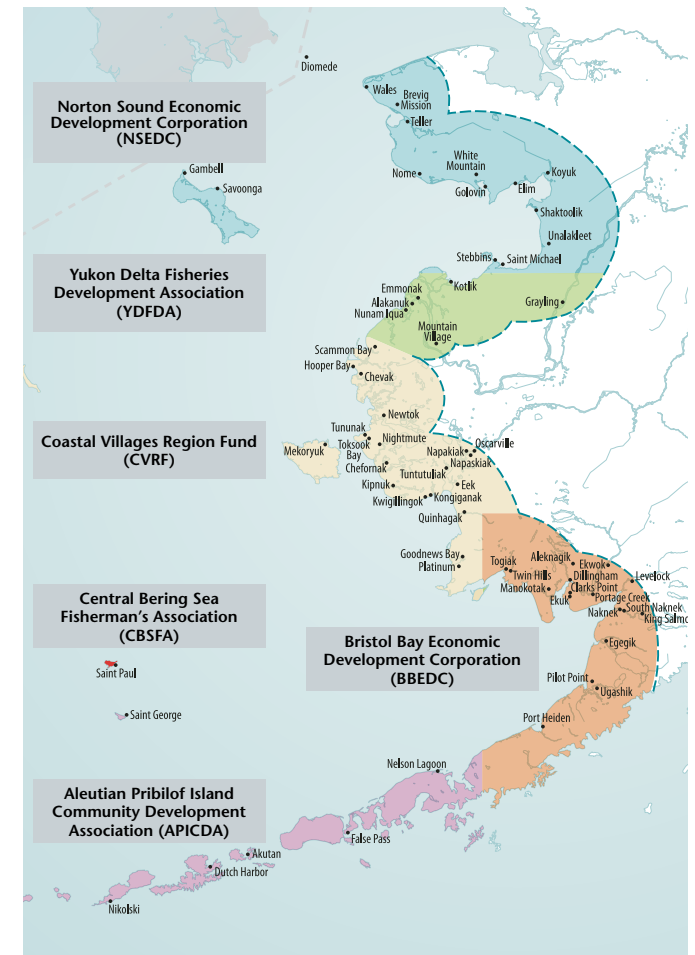
Seafood Industry Impact on Regional Economy, 2015/2016 Avg.

	Number of Workers	FTE Jobs	Labor Income (\$Millions)	Output (\$Millions)
Commercial Fishing	2,300	100	\$7	\$11
Processing	800	400	\$9	\$10
Mgmt./Other	100	100	\$5	-
Direct Total	3,300	600	\$21	\$20
Secondary Total	-	300	\$14	\$29
Total Impacts	-	900	\$36	\$49

- Total annual seafood industry-related labor income in the AYK region is estimated at approximately \$36 million and the total regional economic impact is measured at \$49 million.
- Commercial fisheries are an important source of cash income in remote Western Alaska communities. Seasonal income from seafood supports subsistence lifestyles for many AYK families.
- Lower salmon prices have hit AYK especially hard. Commercial salmon fishing on the Kuskokwim river has been effectively closed for the past two years (2016/2017) due to lack of buyers, putting nearly 400 boats out of business.
- AYK has a unique collection of fisheries that reflect the resourcefulness of its residents. Virtually all salmon are caught with setnets or fishwheels, king crab pots in Norton Sound are hauled up through ice holes, and it is the only region in the state where lamprey are harvested.
- AYK is home to three (of the six) CDQ entities. CDQ groups, which own several processing plants, shares of many vessels, and fund community development/assistance programs, are among the largest private sector employers in the region.

Key Ports:

Emmonak Savoonga
Unalakleet Nome Quinhagak



Map courtesy of the Western Alaska Community Development Association.

Harvesting



623

Resident-owned
Fishing Vessels



2,240

Resident
Fishermen

\$12 Million

Harvest
Value

14.0

Million Pounds
of Seafood
Harvested

0.7% of Alaska Total

Processing



6

Shore-based
Processing Facilities

\$22 Million

Wholesale
Value



1,055

Shoreside
Processing
Workers
(2015)

7.2

Million Pounds
of Seafood
Produced

0.5% of Alaska Total



AYK setnet fishermen display their catch (above). Salmon account for most of the region's ex-vessel value, but there are also fisheries for red king crab, halibut, Bering cisco, and lamprey.

AYK Region CDQ Group
Communities (Residents)
Net Assets (2015)

NSEDC
15 (9,300)
\$207 million

YDFDA
6 (3,400)
\$87 million

CVRF
20 (9,400)
\$257 million

Regional Economic Trends in Seafood Industry

	2010	2011	2012	2013	2014	2015	2016
Resident Commercial Fishermen	3,274	3,351	3,406	3,526	3,364	3,177	2,240
Gross Earnings (\$Millions)*	\$18	\$21	\$19	\$18	\$21	\$16	\$18
Average Processing Employment	265	191	341	351	354	452	391
Peak Processing Employment	898	684	1,089	1,203	1,132	1,138	1,097
Wages/Salaries (\$Millions)	\$5.6	\$4.6	\$10.4	\$10.9	\$11.6	\$21.7	\$22.5
Regional Harvest Value (\$Millions)*	\$10	\$12	\$11	\$12	\$13	\$9	\$12
First Wholesale Value (\$Millions)*	\$18	\$20	\$19	\$21	\$21	\$19	\$22

*2016 data is preliminary.

BRISTOL BAY REGION

Seafood Industry Impact on Regional Economy, 2015/2016 Avg.

	Number of Workers	FTE Jobs	Labor Income (\$Millions)	Output (\$Millions)
Commercial Fishing	8,000	2,300	\$105	\$159
Processing	4,200	1,200	\$52	\$316
Mgmt./Other	200	100	\$5	-
Direct Total	12,400	3,500	\$162	\$475
Secondary Total	-	800	\$35	\$71
Total Impacts	-	4,400	\$197	\$547



Crew of the F/V Maggie, a Bristol Bay gilnetter owned by Lyle Wilder of Port Alsworth, Alaska.

Top Port: Naknek \$292M*

Other Key Ports:

Dillingham Egegik \$35M* Togiak
Port Moller Ekuk

*Avg. 2015/2016 FW Value.

- Commercial fisheries in the Bristol Bay region directly employ 12,400 people and generate \$162 million in labor income.
- Bristol Bay is a unique region when it comes to seafood. While other regions rely on a diverse portfolio of species, virtually all of Bristol Bay's value comes from sockeye and production is generally limited to June-July.
- The region accounted for 44 percent of the world's sockeye harvest over the past 25 years. The 134-year old fishery produced its 2 billionth salmon in 2016.
- Over 1,440 Alaska residents own Bristol Bay commercial salmon fishing permits. Resident permit ownership is split almost evenly between regional residents and other Alaskans.
- Bristol Bay sockeye has successfully reinvented itself over the past couple decades. Historically, most fish was either canned or sold to Japan as a frozen H&G product. Now, the fishery's products and markets are much more diversified.

Share of Regional Ex-Vessel Value, 2015/2016



97%

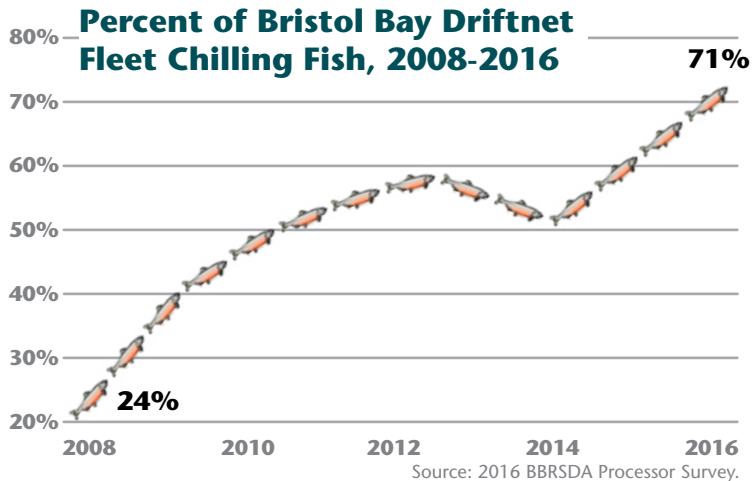
Sockeye Salmon



3%

All Other Species

Bristol Bay fishermen have invested millions of dollars to improve fish quality through on-board chilling systems. These investments create jobs for refrigeration equipment manufacturers, supply companies, installation technicians, and others.



2016 Figures

Harvesting



512

Resident-owned Fishing Vessels



1,576

Resident Fishermen

\$191 Million
Harvest Value

242
Million Pounds of Seafood Harvested

11% of Alaska Total

Processing



26

Shore-based Processing Facilities

\$525 Million
Wholesale Value



4,157

Shoreside Processing Workers (2015)

180
Million Pounds of Seafood Produced

13% of Alaska Total

Bristol Bay Salmon Fisheries

*Gear Type**
Harvest Value Permits Fished

Driftnet
\$115 Million
1,542

Setnet
\$25 Million
872

* 2015/2016 Avg.

Regional Economic Trends in Seafood Industry

	2010	2011	2012	2013	2014	2015	2016
Resident Commercial Fishermen	1,506	1,598	1,654	1,609	1,663	1,607	1,576
Gross Earnings (\$Millions)*	\$18	\$28	\$24	\$26	\$36	\$20	\$33
Average Processing Employment	1,401	1,535	1,514	1,514	1,542	1,095	1,263
Peak Processing Employment	5,257	5,460	5,037	5,312	5,374	4,309	5,116
Wages/Salaries (\$Millions)	\$46	\$53	\$47	\$51	\$54	\$49	\$55
Regional Harvest Value (\$Millions)*	\$171	\$170	\$151	\$157	\$224	\$127	\$191
First Wholesale Value (\$Millions)	\$459	\$404	\$329	\$359	\$449	\$426	\$525

*2016 data is preliminary.

BERING SEA & ALEUTIAN ISLANDS REGION

Seafood Industry Impact on Regional Economy, 2015/2016 Avg.

	Number of Workers	FTE Jobs	Labor Income (\$Millions)	Output (\$Millions)
Commercial Fishing	4,600	4,600	\$441	\$991
Processing	8,600	4,700	\$227	\$1,494
Mgmt./Other	400	200	\$21	-
Direct Total	13,500	9,500	\$689	\$2,485
Secondary Total	-	800	\$36	\$74
Total Impacts	-	10,400	\$725	\$2,559

- The BSAI region accounts for 59 percent of the industry's first wholesale value (2015/2016).
- BSAI commercial fisheries created 10,400 FTE jobs and \$725 million of labor income in 2015/2016.
- The resident population in the BSAI region is approximately 8,500, far too small to catch, cut, and ship the region's vast seafood resources. As a result, most seafood workers come from the lower 48 or elsewhere in Alaska to work in the industry.
- Dutch Harbor is consistently the nation's top seafood port by volume, and second-largest in terms of ex-vessel value. In 2015, the port took in 787 million pounds of seafood - an average of 15.2 million pounds per week.
- Western Alaska residents also benefit from the Community Development Quota (CDQ) program, which allocates approximately 10 percent of groundfish and crab quotas to six regional entities. These groups collectively held nearly a billion dollars in net assets as of 2015.

Top Port: Dutch Harbor \$474M*

Other Key Ports: Akutan

King Cove St. Paul Island \$74M*

Sand Point False Pass

Adak

Atka

*Avg. 2015/2016 FW Value.



The C/P Starbound is one of 17 AFA Catcher Processors vessels operating in the Bering Sea. AFA CPs primarily target pollock and can have crews of 100 or more. The Starbound was lengthened 60' in 2015 to accommodate a fish meal plant and other upgrades.

Share of Regional Ex-Vessel Value, 2015/2016*



42%
Pollock



23%
King, Snow, &
Tanner Crab



16%
Pacific Cod



3%
Halibut & Black Cod



6%
Flatfish
(Sole & Flounder)



3%
Atka Mackerel &
Other Species



4%
All Salmon

*Common property fisheries only.

2016 Figures

Harvesting



240
Resident-owned
Fishing Vessels

\$943 Million
Harvest
Value

56% of Alaska Total



538
Resident
Fishermen

4,523
Million Pounds
of Seafood
Harvested

*Regional Shoreside vs. At-Sea
Round Processed lbs. (Millions)
FW Value (\$Millions)*

Processing



21
Shore-based
Processing Facilities

\$2,538 Million
Wholesale
Value

61% of Alaska Total



6,411
Shoreside
Processing
Workers
(2015)

1,994
Million Pounds
of Seafood
Produced

	Shoreside	At-Sea
Round Processed lbs. (Millions)	658	1,336
FW Value (\$Millions)	\$1,067	\$1,471

Regional Economic Trends in Seafood Industry

	2010	2011	2012	2013	2014	2015	2016
Resident Commercial Fishermen	738	729	727	700	667	677	538
Gross Earnings (\$Millions)**	\$40	\$58	\$45	\$47	\$42	\$50	\$47
Average Processing Employment*	3,360	3,698	3,606	3,712	3,834	3,813	3,949
Peak Processing Employment*	5,121	5,535	5,576	5,557	5,860	5,216	5,842
Wages/Salaries (\$Millions)*	\$113	\$128	\$130	\$137	\$146	\$171	\$213
Regional Harvest Value (\$Millions)**	\$800	\$1,137	\$1,198	\$1,029	\$1,052	\$1,039	\$943
First Wholesale Value (\$Millions)	\$2,020	\$2,667	\$2,712	\$2,371	\$2,435	\$2,432	\$2,538

*Figures may not include processing activity from catcher/processor vessels. **2016 data is preliminary.

KODIAK REGION

Seafood Industry Impact on Regional Economy, 2015/2016 Avg.

	Number of Workers	FTE Jobs	Labor Income (\$Millions)	Output (\$Millions)
Commercial Fishing	2,500	1,600	\$67	\$140
Processing	2,900	1,700	\$65	\$161
Direct Support	1,000	800	\$87	-
Direct Total	6,400	4,100	\$219	\$301
Secondary Total	-	1,900	\$79	\$174
Total Impacts	-	5,900	\$297	\$475



Kodiak jig fisherman Darius Kasprzak of the FV Marona.

Top Port: Kodiak \$262M*

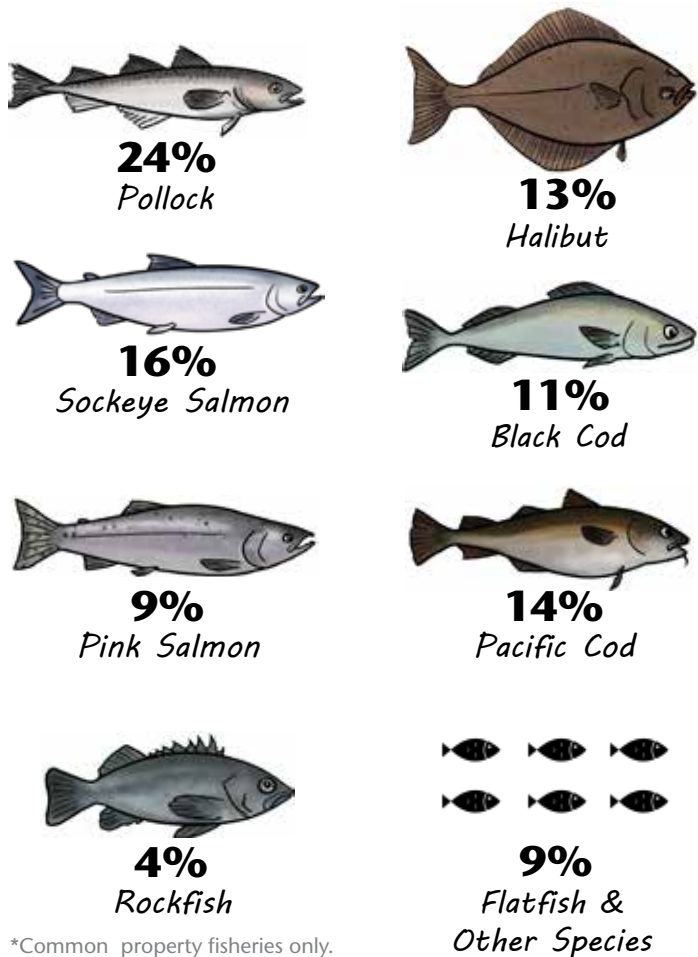
Other Key Ports: Larsen Bay

Alitak Bay Old Harbor Chignik

*Avg. 2015/2016 FW Value.

- Kodiak was the second largest commercial fishing port in the U.S. by volume landed in 2015, and third in terms of ex-vessel value. The industry drives the regional economy and is responsible for much of the region's economic activity and population base.
- Seafood accounts for approximately 40 percent of the region's employment.
- Kodiak's seafood processors employ the highest percentage of local residents of any major production region in Alaska. On average during 2005-2014, 48 percent of processing workers were year-round residents of Kodiak.
- The region tends to have higher rates of resident employment because Kodiak waters produce several commercial species leading to more consistent production throughout the year. As a result, resident processing workers earn a higher share of income and are more likely to work in senior positions.
- The U.S. Coast Guard maintains a large presence in Kodiak, using the community as a staging area for safety and rescue missions in both the Gulf of Alaska and Bering Sea.

Share of Regional Ex-Vessel Value, 2015/2016*



*Common property fisheries only.

2016 Figures

Harvesting



469
Resident-owned
Fishing Vessels

\$128 Million
Harvest
Value

↓
8% of Alaska Total



1,291
Resident
Fishermen

427
Million Pounds
of Seafood
Harvested

Processing



15
Shore-based
Processing Facilities

\$243 Million
Wholesale
Value

↓
6% of Alaska Total



2,586
Shoreside
Processing
Workers
(2015)

208
Million Pounds
of Seafood
Produced

**Regional
Salmon
Fisheries**

Gear Type*
Harvest Value
Permits Fished

Seine
\$30 Million
243

Setnet
\$4.0 Million
146

* 2015/2016 Avg., includes Chignik seine fishery.

Regional Economic Trends in Seafood Industry

	2010	2011	2012	2013	2014	2015	2016
Resident Commercial Fishermen	1,408	1,529	1,463	1,432	1,342	1,424	1,291
--- Gross Earnings (\$Millions)**	\$140	\$185	\$166	\$164	\$154	\$134	\$118
Average Processing Employment*	1,724	1,816	1,821	1,799	1,598	1,803	1,571
--- Peak Processing Employment*	2,094	2,339	2,254	2,480	2,088	2,397	1,980
--- Wages/Salaries (\$Millions)*	\$70	\$74	\$77	\$73	\$68	\$77	\$53
Regional Harvest Value (\$Millions)**	\$140	\$206	\$192	\$194	\$135	\$153	\$128
First Wholesale Value (\$Millions)	\$322	\$383	\$401	\$436	\$331	\$359	\$243

*Figures may not include processing activity from catcher/processor vessels. **2016 is preliminary.

SOUTHCENTRAL ALASKA

Seafood Industry Impact on Regional Economy, 2015/2016 Avg.

	Number of Workers	FTE Jobs	Labor Income (\$Millions)	Output (\$Millions)
Commercial Fishing	6,700	1,900	\$101	\$184
Processing	3,800	1,200	\$51	\$257
Mgmt./Hatcheries	500	300	\$29	-
Direct Total	11,000	3,500	\$180	\$441
Secondary Total	-	3,300	\$161	\$374
Total Impacts	-	6,700	\$342	\$814

- The seafood industry directly employs 11,000 workers and creates approximately 6,700 FTE jobs including multiplier effects (as a result of seafood caught and processed within the region, not including impacts from Southcentral residents bringing home earnings from other Alaska fisheries in other regions).



Three generations of Cook Inlet setnetters.

Regional Ports (2015/16 Avg. FW Value)

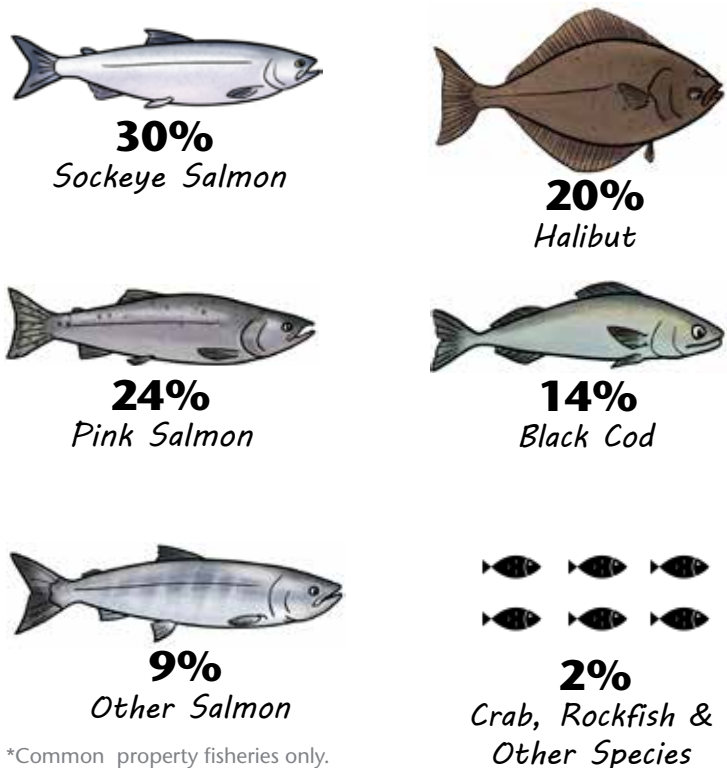
Cordova \$134M	Kenai \$84M
Seward \$83M	Anchorage \$50M
Valdez \$50M	Homer \$15M
Whittier	Kasilof
Nikiski	Anchor Pt.

Resident Seafood Workers by Borough or Census Area

Kenai Peninsula Borough	3,796
Anchorage Municipality	2,232
Valdez-Cordova CA	1,031
Mat-Su Borough	697

- 36 percent of Alaska's resident commercial fishermen live in Southcentral, more than any other region.
- Southcentral featured 17 communities with gross resident fishing earnings greater than \$1 million in 2016, and 6 communities with more than \$5 million.
- Limited entry fishing permits and IFQ shares for halibut and black cod owned by Southcentral residents were worth an estimated \$343 million in 2016.
- Regional fishing employment and gross fishing earnings fell sharply in 2016, due to poor salmon runs.
- Southcentral residents earn nearly half of their gross fishing income from fisheries outside the region. Bristol Bay and Kodiak salmon fisheries include many Southcentral residents.
- Anchorage is a critical hub for fresh seafood shipments, seafood workers, and fishery management meetings; all of which benefit the regional economy.

Share of Regional Ex-Vessel Value, 2015/2016*



*Common property fisheries only.

Regional Salmon Fisheries

Gear Type*
Harvest Value
Permits Fished

Driftnet

\$47 Million
999

Seine

\$42 Million
232

Setnet

\$14 Million
558

Total

\$103 Million
1,789

* 2015/2016 Avg.

Regional Economic Trends in Seafood Industry

	2010	2011	2012	2013	2014	2015	2016
Resident Commercial Fishermen	5,592	5,890	5,882	5,808	5,980	5,909	5,557
Gross Earnings (\$Millions)*	\$264	\$306	\$290	\$321	\$274	\$259	\$218
Average Processing Employment	959	1,268	1,320	1,341	1,415	1,238	1,206
Peak Processing Employment	2,873	3,632	3,258	3,167	3,300	3,241	3,557
Wages/Salaries (\$Millions)	\$33	\$32	\$46	\$54	\$51	\$48	\$41
Regional Harvest Value (\$Millions)*	\$296	\$272	\$246	\$283	\$209	\$218	\$150
First Wholesale Value (\$Millions)*	\$511	\$429	\$470	\$687	\$488	\$507	\$375

*2016 data is preliminary.

2016 Figures

Harvesting



2,021
Resident-owned
Fishing Vessels

\$150 Million
Harvest
Value

9% of Alaska Total



5,557
Resident
Fishermen

136
Million Pounds
of Seafood
Harvested

Processing



51
Shore-based
Processing Facilities

\$375 Million
Wholesale
Value

9% of Alaska Total



4,482
Shoreside
Processing
Workers
(2015)

101
Million Pounds
of Seafood
Produced

SOUTHEAST ALASKA

Seafood Industry Impact on Regional Economy, 2015/2016 Avg.

	Number of Workers	FTE Jobs	Labor Income (\$Millions)	Output (\$Millions)
Commercial Fishing	6,100	2,900	\$121	\$221
Processing	4,100	1,600	\$62	\$228
Direct Support FN	1,100	800	\$80	-
Direct Total	11,300	5,300	\$264	\$449
Secondary Total	-	2,900	\$116	\$257
Total Impacts	-	8,200	\$379	\$706

- Seafood is the largest private sector industry in Southeast Alaska, in terms of workforce size and labor income. Seafood accounted for 15 percent of the regional employment in 2015/2016, including multiplier impacts.
- Southeast residents own more commercial fishing boats and IFQ (individual fishing quota) shares than any other region.
- Seafood is an important part of most local economies in Southeast, but provides an economic foundation for Sitka, Petersburg, Wrangell, Prince of Wales Island, Hoonah, Haines, and Yakutat.



Marsh & Nora Skeele, Sitka Salmon Shares fishermen.

Regional Ports (2015/2016 Avg. FW Value)

Sitka \$121M	Ketchikan \$93M
Petersburg \$83M	Juneau \$53M
Wrangell	Excursion Inlet
Craig \$14M	Yakutat \$13M
Hoonah	Metlakatla
Pelican	Gustavus
	Hyder
	Klawock

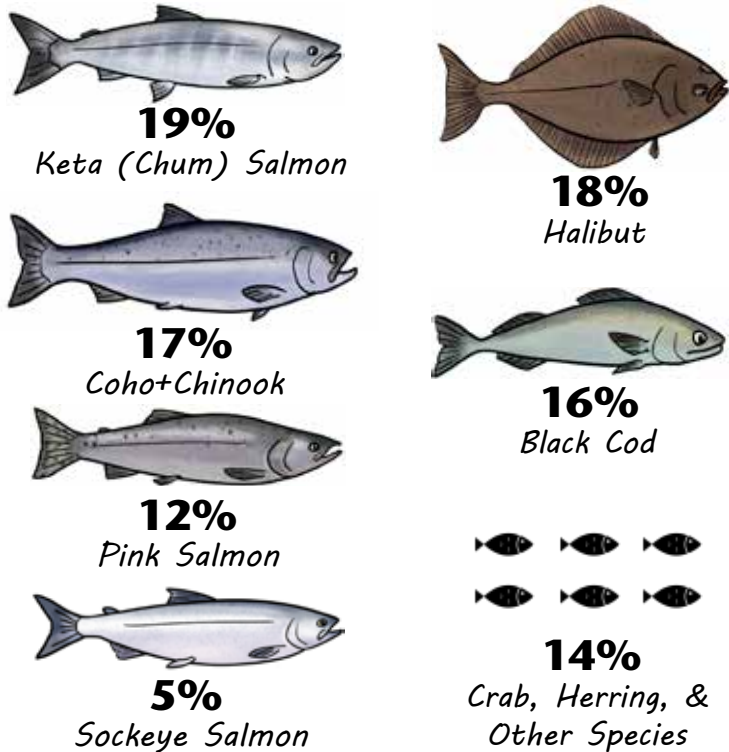
Resident Seafood Workers by Community

Sitka	1,329
Petersburg	960
Ketchikan Borough	905
Juneau	901
Prince of Wales Is.	697
Wrangell	448
Hoonah/Angoon/Skagway	268
Yakutat	232
Haines	196

Resident IFQ Quota & Limited Entry Permit Value by Community (\$Millions)

Petersburg	\$186
Sitka	145
Juneau	81
Ketchikan Borough	49
Wrangell	36
Prince of Wales Is.	36
Hoonah/Angoon/Skagway	28
Haines	18
Yakutat	5
Southeast Total	\$583

Share of Regional Ex-Vessel Value, 2015/2016*



*Common property fisheries only.

2016 Figures

Harvesting



2,683
Resident-owned
Fishing Vessels

\$218 Million
Harvest
Value

↓
13% of Alaska Total



4,283
Resident
Fishermen

221
Million Pounds
of Seafood
Harvested

Processing



50
Shore-based
Processing Facilities

\$432 Million
Wholesale
Value

↓
10% of Alaska Total



4,433
Shoreside
Processing
Workers
(2015)

173
Million Pounds
of Seafood
Produced

Regional Salmon Fisheries

Gear Type*
Harvest Value
Permits Fished

Seine
\$46 Million
268

Troll
\$29 Million
1,036

Driftnet
\$21 Million
423

Total
\$96 Million
1,727

* 2015/2016 Avg.

Regional Economic Trends in Seafood Industry

	2010	2011	2012	2013	2014	2015	2016
Resident Commercial Fishermen	4,641	4,586	4,685	4,733	4,686	4,545	4,283
--- Gross Earnings (\$Millions)*	\$228	\$278	\$262	\$258	\$233	\$198	\$198
Average Processing Employment	1,443	1,610	1,595	1,747	1,840	1,747	1,369
--- Peak Processing Employment	3,972	4,324	3,974	4,551	4,775	4,615	3,256
--- Wages/Salaries (\$Millions)	\$49	\$57	\$54	\$66	\$68	\$72	\$53
Regional Harvest Value (\$Millions)*	\$265	\$346	\$309	\$345	\$266	\$224	\$218
First Wholesale Value (\$Millions)*	\$473	\$628	\$516	\$641	\$511	\$466	\$432

*2016 data is preliminary.

NATIONAL IMPACT OF ALASKA SEAFOOD

National Impacts of Alaska Seafood Industry, 2015/2016 Avg.

	Number of Workers	FTE Jobs	Labor Income (\$Millions)	Output (\$Millions)
Commercial Fishing	29,200	13,700	\$824	\$1,738
Processing	28,700	14,400	\$563	\$2,446
Mgmt./Other	4,100	2,900	\$287	-
Distributors	800	800	\$64	\$131
Grocers	4,400	4,400	\$133	\$237
Restaurants	12,700	12,700	\$349	\$892
Direct Total	79,900	48,900	\$2,218	\$5,444
Secondary Total	-	50,100	\$2,949	\$7,315
Total Impacts	-	99,000	\$5,167	\$12,758



Alaska seafood is sold at thousands of restaurants and grocery stores around the U.S., creating tens of thousands of American jobs.

- Alaska's seafood industry accounts for 99,000 FTE jobs in the U.S., including jobs throughout the entire production, distribution, and retail chain. Workers in these jobs earned an estimated \$5.2 billion in total annual labor income.
- The national economic impact of Alaska's seafood industry includes an estimated 48,900 FTE jobs in fishing, processing, fisheries management, transportation and distribution, and in stores and restaurants. It also includes 50,100 secondary jobs throughout the economy created as a result of spending by businesses in the supply chain and their employees.
- Among all the participants in the national seafood supply chain, fishermen earn the largest share of labor income at \$824 million, or 37 percent of all direct labor income generated by Alaska's seafood industry.
- U.S. economic output related to Alaska's seafood industry totals \$12.8 billion including all direct and multiplier impacts. Total output is defined as the value of Alaska's seafood resource, as it moves from the fishing vessel to the consumer's plate, plus output arising from secondary impacts.

ALASKA'S COMMERCIAL FISHERMEN

Alaska Skippers and Crew,
by State of Residence, 2016



People from every U.S. state participate in Alaska's commercial fisheries. The maps on this page indicate the concentration of Alaska skippers, permit owners, and crew by state of residence.

In 2016, 62 percent of the industry's skippers, active permit owners, and crew were Alaska residents, totaling 15,592 fishermen.

Thousands more come to Alaska each year to work in processing plants or aboard processing vessels. Similar data for processing workers is not available.

Nonresident fishermen and processors play a key role in Alaska's seafood industry. Without their contributions, it is unlikely the state could provide enough workers to capitalize on available fishery resources. Residents of every U.S. state participate in Alaska fisheries.

Regardless of where fishermen live, their earnings contribute to local economies in Alaska and around the country.

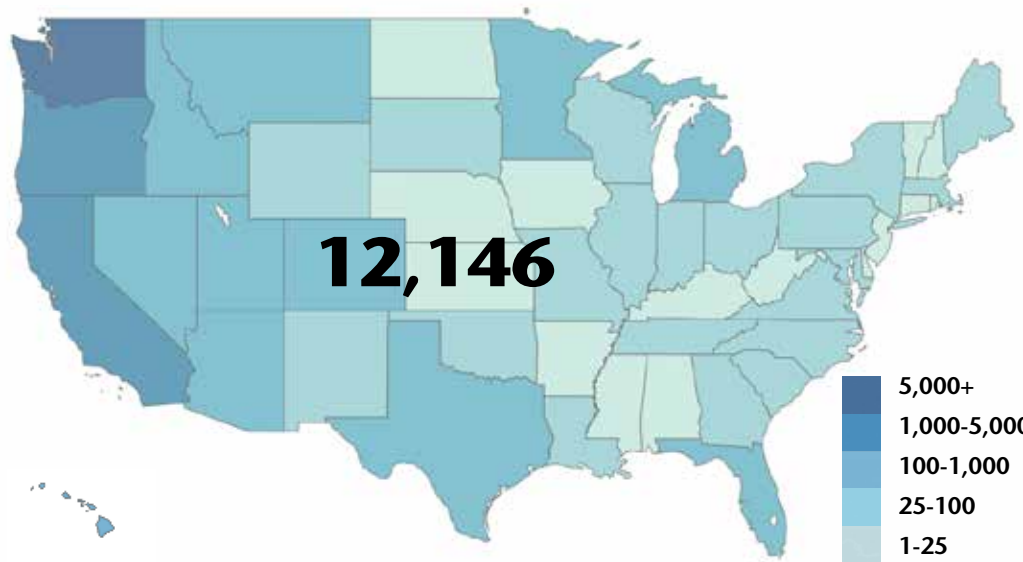
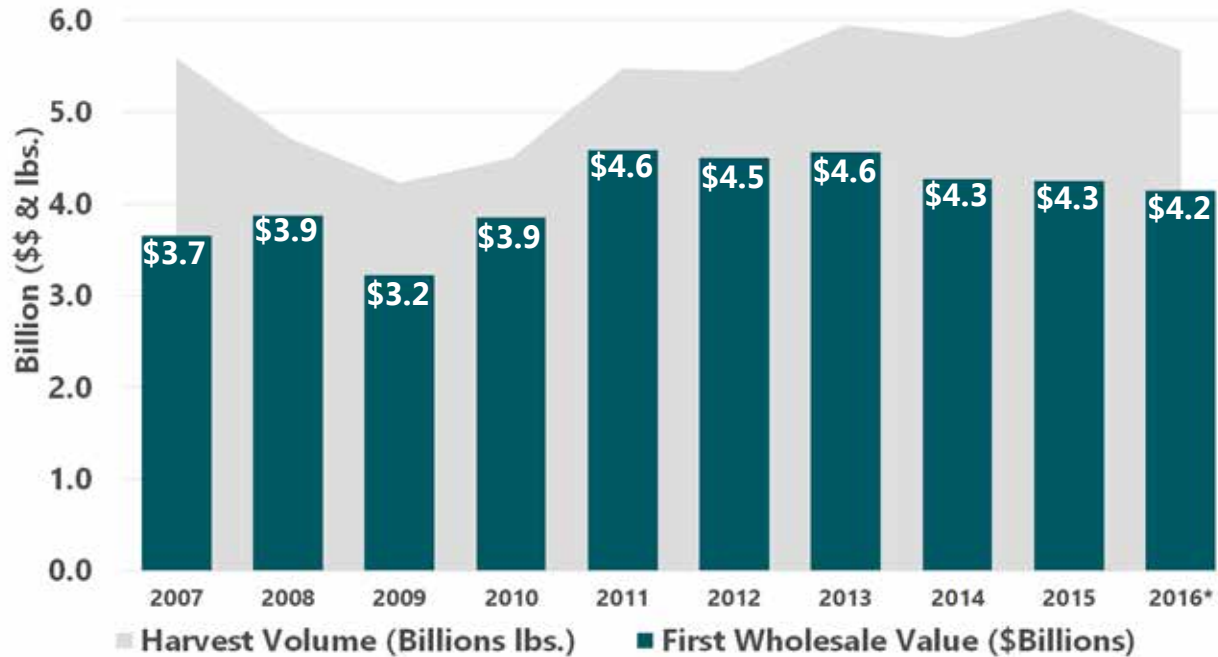


Photo courtesy of Garrett Lyndge

VALUE OF ALASKA SEAFOOD

The first wholesale value of Alaska seafood was \$4.19 billion in 2016. Of this total, fishermen earned \$1.67 billion in ex-vessel value while processors, both shoreside and at-sea, added \$2.52 billion in value. The industry typically harvests between five and six billion pounds of seafood each year.



*Data is preliminary.

The value of Alaska seafood has declined in recent years, primarily due to a stronger U.S. dollar and lower halibut, black cod, crab, and sole harvests. A strong dollar is bad for Alaska's seafood industry because it makes domestic products relatively more expensive than competing foreign products. Since 2011, the U.S. dollar index has strengthened by 27 percent and ex-vessel value has declined by 22 percent.



Alaska Seafood Marketing Institute

"ASMI's mission is to enhance the value of Alaska seafood, a natural resource that supports thousands of Alaskans in communities all across the state."

*-Alexa Tonkovich,
Executive Director, ASMI*



U.S. Dollar Index & Ex-Vessel Value of Alaska Seafood

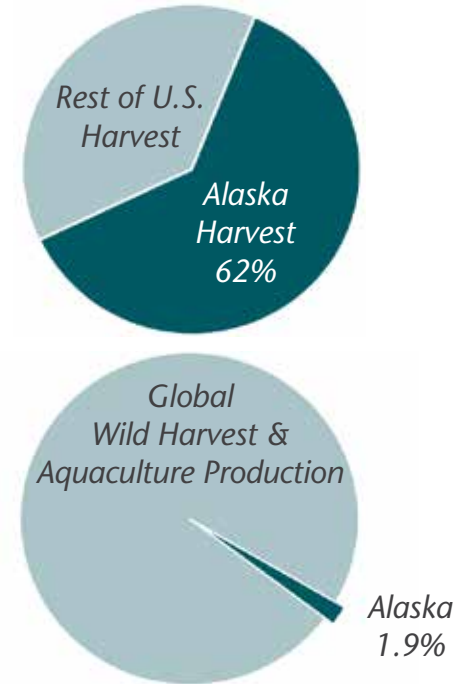
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
U.S. Dollar Index (Low = Good for AK)	80.4	77.1	80.7	81.5	76.3	80.4	81.5	83.1	96.8	97.2
Ex-Vessel Value (\$Billions, nominal)	\$1.65	\$1.89	\$1.44	\$1.69	\$2.13	\$2.11	\$2.01	\$1.92	\$1.77	\$1.67

Sources: OANDA.com and McDowell Group estimates.

Competing in a Global Seafood Market

Alaska is a major seafood producer on a global scale. The state produces more wild seafood than all other U.S. states combined. If it were a country, Alaska would rank #7 among seafood exporting nations (in 2015). However, Alaska seafood is a small part of a global supply chain that encompasses large volumes of competing wild and farmed species. Supply and demand for competing species impacts prices for Alaska seafood products. The species below account for 80% of Alaska's ex-vessel value but each faces significant competition from other global producers.

Although Alaska seafood is essentially a commodity, Alaska is a high-cost environment. It is virtually impossible to compete on price alone. Luckily for Alaska, it is the largest seafood producing state in America with sustainable management practices and pristine marine waters - attributes no foreign or domestic competitor can match. Therefore, maximizing the resource value will require market differentiation, product development, and consumer awareness. Alaska and the seafood industry must continue to invest in these endeavors in order to maximize the economic benefits.



POLLOCK

AK Pct. of Global Supply: 44%
 Pct. of AK Ex-Vessel Value: 27%
 Pct. of AK Harvest: 54%



SALMON

AK Pct. of Global Supply: 14%
 Pct. of AK Ex-Vessel Value: 27%
 Pct. of AK Harvest: 18%



COD

AK Pct. of Global Supply: 16%
 Pct. of AK Ex-Vessel Value: 11%
 Pct. of AK Harvest: 12%



CRAB

AK Pct. of Global Supply: 29%
 Pct. of AK Ex-Vessel Value: 15%
 Pct. of AK Harvest: 1.5%

----- *2015 Figures* -----

Pollock is the most abundant wild whitefish species on the planet. Alaskan pollock competes with Russian pollock, as well as tilapia and pangasius - farmed species whose combined production is nearly twice that of pollock.

Despite a record harvest, Alaska accounted for just 14% of global salmon supply in 2015. Farmed salmon production outnumbers wild harvests 2.5-to-1. Farmed production increased 43% (1.06 MMT) from 2010 to 2015.

Alaska's Pacific cod harvests pale in comparison to the more valuable Atlantic cod species. Global cod harvests increased 31 percent (417,500 MT) from 2010 to 2015.

Alaska is known for world-class king and snow crab harvests, but Canada produces more snow crab while Russia produces more king crab. Pacific Northwest states also produce more Dungeness than Alaska.

SEAFOOD & ALASKA'S ECONOMIC FUTURE



Seafood is Alaska's most valuable renewable natural resource. With a continued commitment to careful resource management, Alaska will continue to produce large volumes of high-value seafood in perpetuity.

Though already a cornerstone of Alaska's economy, seafood holds great potential for additional economic benefit for the state. The resource is highly regarded by consumers around the world, with demand for tasty, sustainable seafood generally increasing faster than production from wild fisheries and aquatic farms. A stronger U.S. dollar has led to lower prices over the past few years, but with continued market development and promotion, the prospects are excellent in the long-term.

While the seafood industry and other industries cannot fill the hole in State General Fund revenues left by declining oil prices, seafood can play an increasingly important role in Alaska's economy by creating employment and income opportunities for Alaskans.

The seafood industry represents a unique opportunity for young Alaskans, in particular. The Alaska Maritime Workforce Development Plan, vocational training programs, revolving loan programs, and other economic development projects/programs will be critical in attracting Alaskans to the industry and developing the industry's next-generation workforce. In general, expanding employment and resource value in the seafood industry will require the following:

- Local or in-state training programs that help fisheries and processing companies replace an aging workforce.
- A stable tax/fee structure that considers fishery management, marketing, administrative, and other management costs, and preserves incentives for fishermen and processors to continue investing in the industry.
- Continued commitment to market development in order to maximize the value of Alaska seafood products.

Mariculture in Alaska

Mariculture, the practice of farming aquatic shellfish and plants, holds significant promise in Alaska. The Alaska Mariculture Task Force was established by Gov. Walker in 2016 to develop a comprehensive plan to expand the mariculture industry in Alaska. Growing oysters, kelp, and other species could play a key role in expanding the value of Alaska seafood.

- Seafood Value since Alaska Statehood -



Photo Credit: Ward Wells Collection, Anchorage Museum.

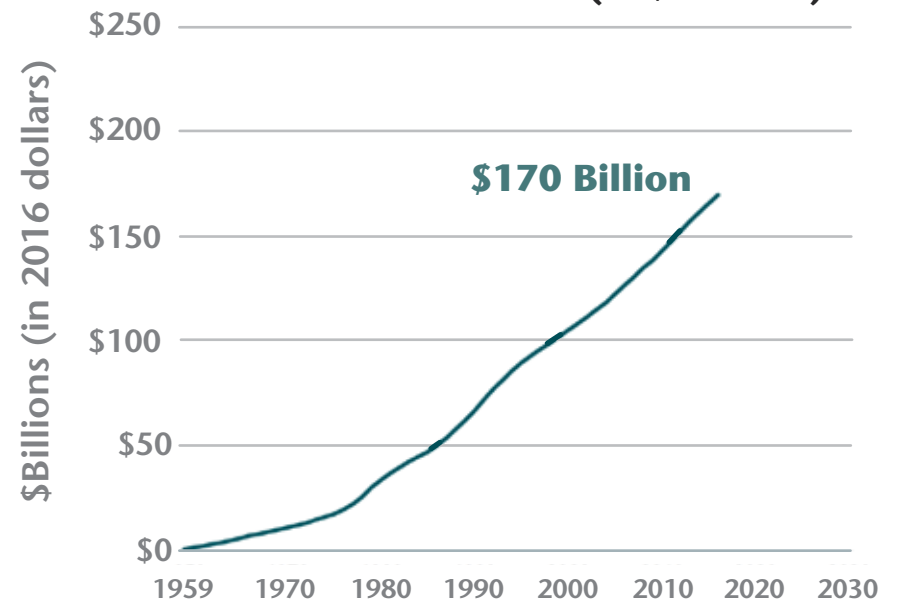
"Double-ender" sailboats were used to haul gillnets in Bristol Bay until the 1950s. Nets are now reeled in using hydraulics, but the fish are still picked by hand in gillnet fisheries.



Seafood has been a commercial enterprise in Alaska since the 1860's, making the industry more than twice as old as the state itself. The abundance of Alaska seafood is truly astounding. Through salmon traps, foreign offshore drift nets, and the crab frenzy, Alaska waters continue to produce billions of pounds of seafood each year.

Since statehood in 1959, Alaska's seafood industry has harvested an estimated cumulative total of 169 billion pounds of fish and shellfish, with a first wholesale value of \$170 billion, in 2016 dollars. Cumulative ex-vessel earnings since statehood total \$84 billion (adjusted for inflation) through 2016. Adjusted for inflation, the highest annual first wholesale value was produced in 1992 (\$5.5 billion). The largest harvest occurred in 2015, when fishermen hauled in 6.1 billion pounds.

Estimated Cumulative First Wholesale Value of Alaska Seafood (in \$Billions)



INDUSTRY TAX REVENUES

Commercial fishing and processing businesses incur substantial costs to operate in Alaska, including taxes, fees, and self-assessments of more than **\$146.2 million in 2016**. These revenue sources include:

- **Unencumbered taxes** are used to fund local, state, and federal government. The Fisheries Business Tax is the largest of these taxes and is especially important as half of the receipts are distributed to local governments, many of which have few other sources of revenue. Taxes not included due to a lack of data include property taxes and federal income taxes, among many others.
- **Agency fees and cost recovery** collections are designed to pay for specific services provided by state/federal government, and non-profit salmon hatchery operators. State fees on permits, leases, and vessels, as well as test fishery receipts, are generally used to pay for administrative costs associated with commercial fishery management. Federal cost recovery fees are collected for halibut, black cod, crab, and other fisheries. Salmon hatcheries, which benefit many user groups, are funded almost entirely through cost recovery harvests and enhancement taxes derived from the commercial fishing industry. Data were not available for a number of other agency fees, including those related to business licensing, port and harbor fees, federal vessel documentation fees, and federal fishery endorsements, among others.
- **Industry self-assessments** are collected to fund industry-supported projects, such as seafood marketing efforts through the Alaska Seafood Marketing Institute and Regional Seafood Development Associations.

Overall, of the taxes and fees collected on the Alaska seafood industry and for which data are available, **40%** goes to state government (\$58.0 million), **31%** goes to local governments (\$45.8 million), **20%** to salmon hatcheries (\$29.8 million), and **9%** to the federal government (\$12.6 million).

	2016, \$Millions
Taxes	\$74.5
Fisheries Business Tax	\$39.9
Fisheries Resources Landing Tax	\$9.8
Marine Motor Fuel Tax	\$3.0
Corporate Income Tax	\$3.2
Local Raw Fish and Other Taxes	\$18.7
Agency Fees & Cost Recovery	\$53.2
CFEC Permit and Vessel Fees	\$8.2
Crew License Sales	\$3.4
Test Fishery Receipts	\$3.0
Processing/Mariculture/Other Fees	\$1.0
Salmon Hatchery Cost Recovery*	\$23.0
Federal Cost Recovery Fees**	\$10.8
Federal Observer Program	\$3.9
Industry Self-Assessments	\$18.4
Seafood Marketing (ASMI)	\$9.7
Salmon Enhancement	\$6.8
Seafood Development (RSDAs)	\$1.4
Dive Fishery Management	\$0.5
Common Property Assessment	<\$0.1
Total	\$146.2

*Note: Data are for FY 2016. Totals may not sum due to rounding.
 *Earnings are retained by salmon hatcheries, and account for the majority of hatchery operating revenues. **Roughly \$2M goes to state government.
 Sources: ADOR, CFEC, DCCED, ADF&G, NMFS, OMB, & McDowell Group estimates.*

LOWERING THE COST OF LIVING IN ALASKA

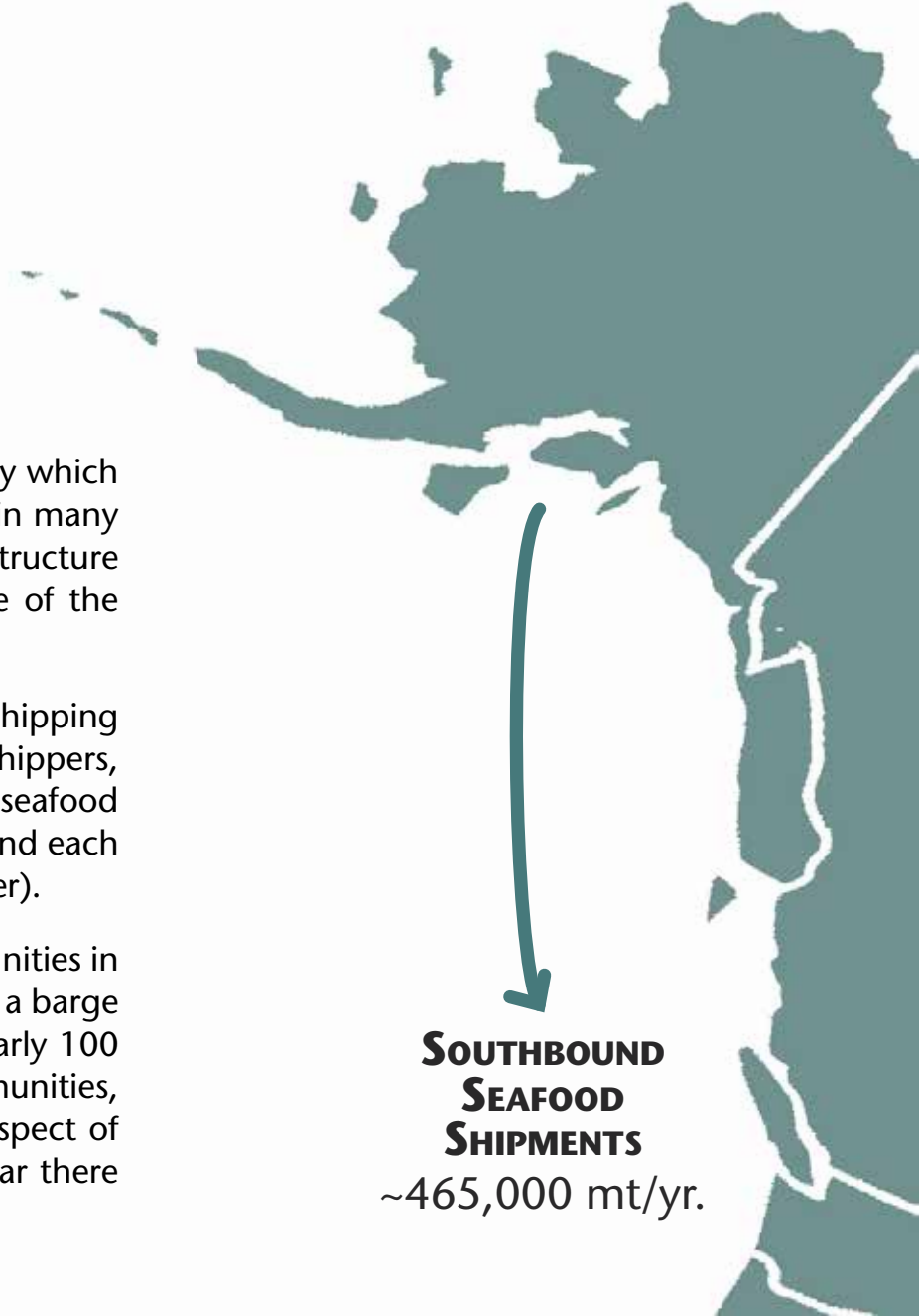


The seafood industry provides economies of scale and economic activity which lowers the cost of utilities, shipping, fuel, and local taxes for residents in many Alaska communities. Fishing communities also benefit from marine infrastructure and support services, which are more expansive due to the presence of the commercial seafood industry.

The majority of Alaska's consumer freight is a one-way, northbound haul. Shipping seafood on southbound routes provides "backhaul" revenue for shippers, allowing for more competitive rates on northbound freight. Alaska's seafood industry ships approximately 1 billion lbs. of finished product southbound each year, or the equivalent of roughly 23,000 containers (at 20 mt/container).

"Everyone benefits from the seafood industry, especially smaller communities in Western Alaska," says Kevin Anderson, president of Alaska Marine Lines, a barge transportation company that provides service between Seattle and nearly 100 ports and villages throughout Alaska. "Our ability to serve smaller communities, like those in Bristol Bay, would be drastically reduced without the prospect of southbound seafood shipments. Instead of six or seven sailings per year there might only be enough freight to support one or two."

Photo credit: Alaska Marine Lines.

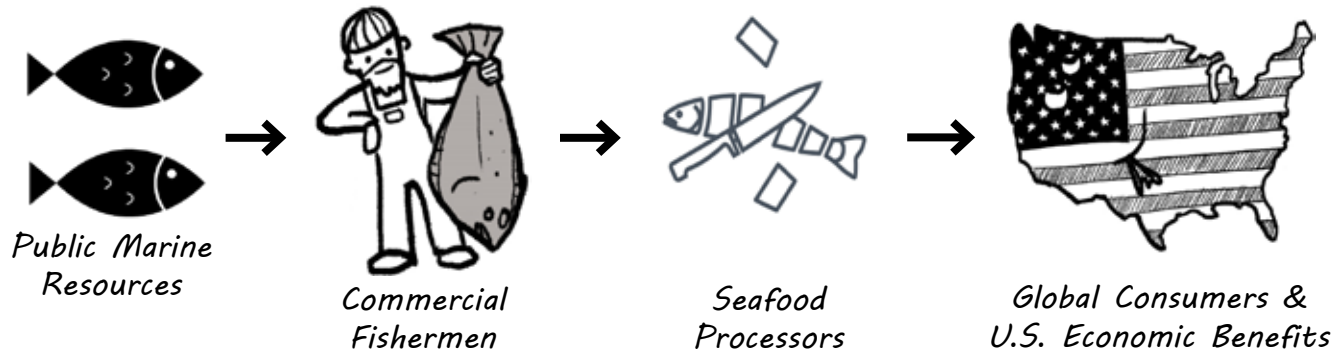


**SOUTHBOUND
SEAFOOD
SHIPMENTS**
~465,000 mt/yr.

FEEDING THE WORLD

Marine resources like fish and shellfish are public goods that belong to all Alaskans and other Americans. Alaska's seafood industry allows all consumers to efficiently access the resource, not just those who live nearby or have the means to access them with private boats. Commercial fishermen and processing companies are the conduit through which hundreds of millions of Americans can enjoy Alaska seafood.

The commercial seafood industry also converts this public marine resource into economic benefits for Americans, such as jobs, tax revenue, and exports (which help offset the U.S. trade deficit).



Alaska's marine resources are so prolific, they could feed the entire world at least one serving of delicious, healthy seafood each year, or to all American consumers every day for more than a month.

THERE'S PLENTY OF FISH IN THE SEA WHEN IT COMES TO ALASKA SEAFOOD

Number of Servings by Product Type in 2015



Fillets & Fish Meat
8.7 Billion



Surimi
2.4 Billion



Roe
1.6 Billion



Crab
296 Million



Other Products
12 Million

TOTAL:
12.9
BILLION
SERVINGS

Fishermen & Processors Invest in Alaska

Fishermen and processors have made significant investments in the future of Alaska seafood. A survey of processors found that seven of the 10 largest shoreside processors invested a total of over **\$100 million** per year in capital expenditures over the past five years (2012-2016). The massive investment by this limited sample of Alaska processors underscores the commitment the processing sector has made to the industry's future - in addition to supporting its present through buying over \$1 billion of fish and shellfish per year.

Processors' investment and multiplier impacts are closely tied to resource value. Expanding value provides processing companies capital to modernize plants, expand production lines, and pay higher fish prices. All of these benefit local communities in Alaska and provide growth elsewhere in the U.S. economy.

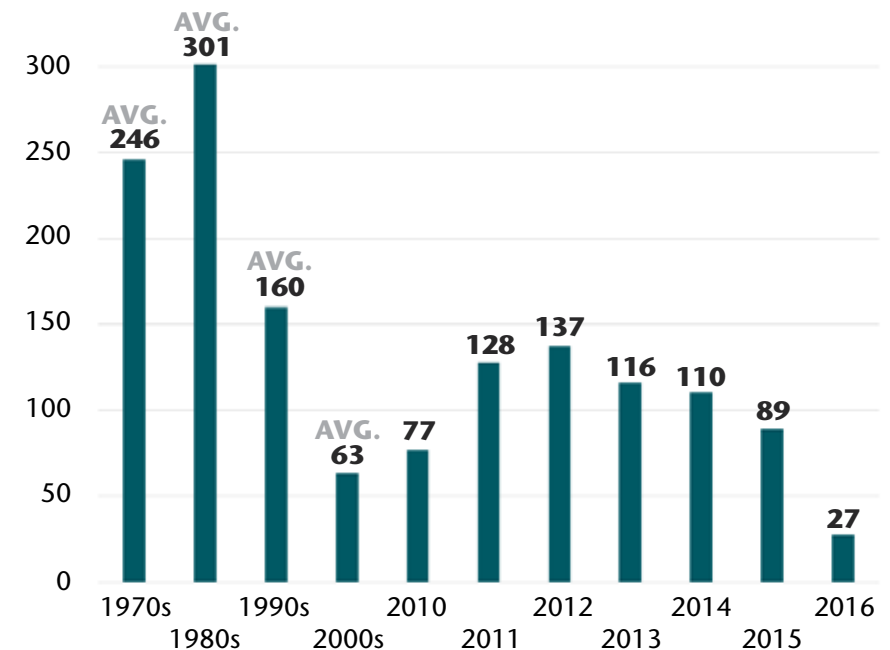
Alaska's commercial fishing fleet has expanded over the past five years. An average of 96 newly-built boats were added to the fleet during 2012-2016, representing an average investment of more than **\$60 million** per year. These new fishing assets will pay dividends to owners and their local economies for decades to come. Some Alaska fishing fleets are aging and must continue to retire/replace old vessels.

Modernizing the fleet is a critical part of sustaining the industry and creates many secondary jobs for American workers. However, investment in new vessels requires a healthy resource value. Today's ex-vessel value becomes tomorrow's capital investment. Unfortunately, investment in new vessels declined significantly in 2016 with lower seafood values. Raising the value of Alaska seafood is an excellent economic driver as it stimulates investment, brings new money into the economy through exports, and creates more jobs both, directly and indirectly, in Alaska and the Lower 48.



Kodiak, shown above, is home to several large fish processing plants. Construction of a new Trident Seafoods plant (large blue building, closest to the harbor) is an example of seafood processors' investment in Alaska.

New Commercial Fishing Boats Added to Alaska Fleet



Note: Only includes vessels active in 2016.
Source: CFEC 2016 Vessel File, compiled by McDowell Group.



Fishermen from Juneau-based direct marketing firm Taku River Reds take a break on the bow of F/V Heather Anne. Pictured from left to right: Bottom row: Winston Warr, Athena Rose, Renee Warr, Heather Hardcastle, Kirk Hardcastle; Top row: Shelia and Len Peterson.

Prepared for:



Prepared by:

