The Economic Value of Alaska's Seafood Industry






Prepared for:

Alaska Seafood

Alaska Seafood Marketing Institute

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Prepared by:

McDowell Group

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.

Alaska Seafood Marketing Institute

ASMI's mission is to increase the economic value of the Alaska seafood resource. 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 several contractors to fulfill its mission.

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Introduction

This report updates a prior study published in July 2013. 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 and lowers the cost of living in Alaska.

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.

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. ASMI contracted with McDowell Group to update the economic impact of Alaska's commercial seafood industry.

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.

Estimates of employment and labor income supported by basic private sector industries in Alaska come from various McDowell Group reports. Foreign trade data come from ASMI's Export Database, compiled by McDowell Group. Tax revenue data was obtained from various state and federal agencies.

All photos are courtesy of ASMI, except where noted.

Glossary

Direct Impacts: The impacts occuring in the seafood industry itself, including commercial fishing and seafood processing.

Indirect Impacts: The impacts resulting from seafood industry participants' spending in support of these fishing and processing operations.

Induced Impacts: The impacts resulting from household spending of income earned in commercial fishing and seafood processing.

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 section 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 Value: The dollor 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.

Wholesale 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

60,000 workers in Alaska's seafood industry earn $1.6 billion in annual labor income, based on 2013 and 2014 averages. Including multiplier effects, the seafood industry accounts for $2.1 billion in total labor income and $5.9 billion in total economic activity in Alaska.

A total of 31,580 fishermen earned income in Alaska's commercial fisheries, including skippers and crew. Those fishermen operated a fleet of 8,600 vessels. 17,600 Alaska resident commercial fishermen had total gross (ex-vessel) income of $735 million in 2014.

Alaska's 2014 seafood harvest of 5.7 billion pounds had a total ex-vessel value of $1.9 billion. Processors generated 2.8 billion pounds of Alaska seafood products in 2014 with a first wholesale value of $4.2 billion.

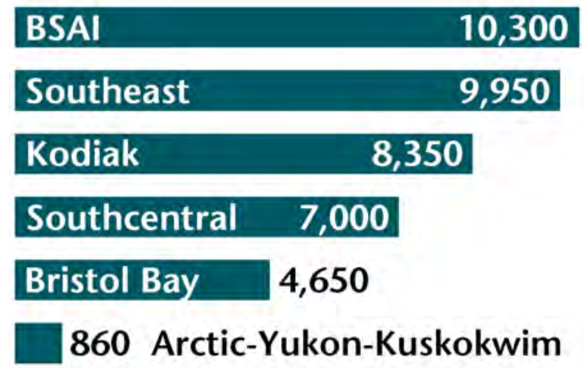
Alaska seafood processing employment, including on-shore and off-shore, included an estimated 25,055 workers in 2014. Shore-based processing employment in Alaska peaked at just under 20,800 jobs in 2014, with annual average employment of about 9,200. Shoreside and floating processors paid a total of $400 million in wages in 2014.

Seafood Industry Impact on Alaska's Economy, 2013/14 Averages

Direct Impacts	Number of Workers	Labor Income ($Millions)
Commercial Fishing	31,580	$920
Processing	25,055	$460
Management/ Hatcheries/Other	2,904	$204
Total	**59,539**	**$1,584**

Total Impacts	
FTE (Full-Time Equivalent) Jobs	**41,200**
Labor Income	**$2.1 Billion**
Economic Output	**$5.9 Billion**

Total FTE Jobs by Region

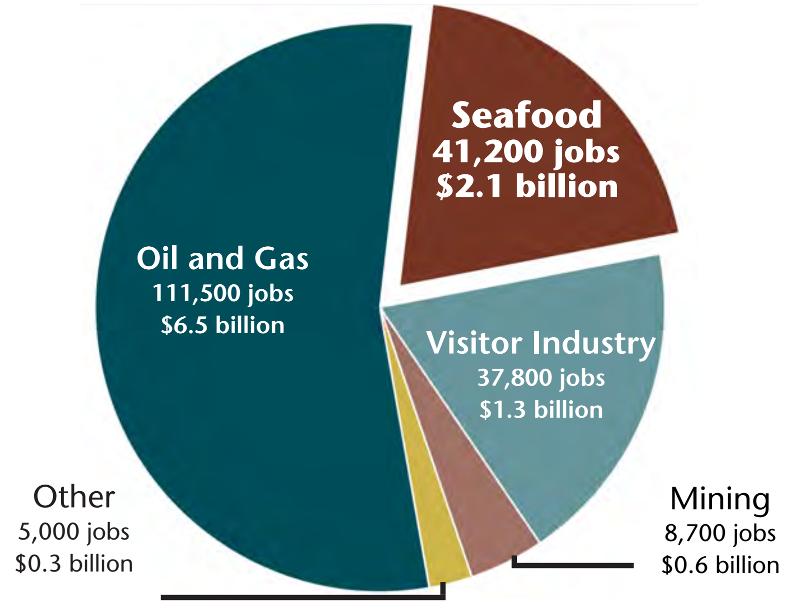


The Significant National Economic Impact of Alaska's Seafood Industry

- Nationally, the Alaska seafood industry creates an estimated 111,800 FTE jobs, $5.8 billion in annual labor income, $14.6 billion in economic output.
- The national economic impacts of Alaska's seafood industry includes $6.2 billion in direct output associated with fishing, processing, distribution, and retail. It also includes $8.4 billion in multiplier effects generated as industry income circulates throughout the U.S. economy.
- The Alaska seafood industry employed a total of 34,100 residents from other U.S. states who came north to work in Alaska during 2014.
- Seafood is Alaska's largest foreign export, and the state generally ranks sixth in seafood export value compared to all other seafood producing nations.

Role of the Industry in Alaska's Economy

- The seafood industry is one of Alaska's foundational basic industries. In terms of income and full-time equivalent employment, seafood accounts for about 20 percent of Alaska's basic private sector economy (based on 2013-2014 data).
- The seafood industry, more than other industries, provides employment and income opportunities for urban and rural residents alike.
- The seafood industry and Alaska's other key private sector industries, along with the military and other federal government activity, provide a foundation for the Alaska economy that now includes 465,000 jobs and $24 billion in annual wages, salaries, and proprietors' income.
- The businesses and individuals in Alaska's seafood industry contribute roughly $138.6 million in taxes, fees, and self-assessments, which help fund state, local, and federal government.



Total Employment and Labor Income Supported by Key Private Sector Basic Industries in Alaska

Seafood Industry Overview

Commercial Fishing Sector

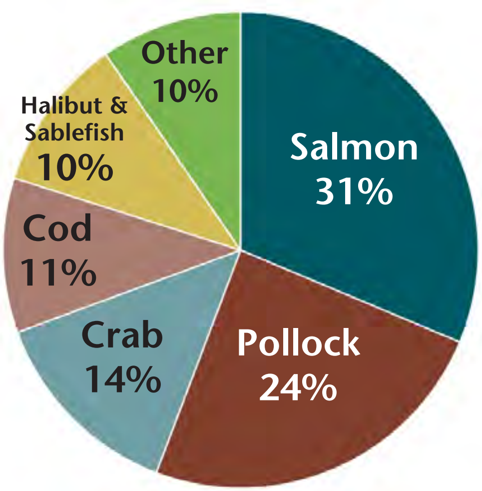
Alaska has the most prolific commercial fishing industry in the United States, producing more harvest volume than all other states combined. Commercial fishing in Alaska creates substantial benefits for Alaska's economy and provides consumers around the world with a wild, sustainable product.

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 small 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	2014
Skippers & Crew	31,819
Skippers	9,836
Crew	21,983
Alaska Residents	17,634
Number of Fishing Vessels	8,618
Harvest Value ($Millions)	$1,940
Percent from AK Residents	40%
Harvest Volume (Millions lbs.)	5,696



Portion of Total Ex-Vessel Value, by Species, 2014

Seafood Processing Sector

Nearly all of Alaska's seafood products go through the hands of seafood processors, which add value by turning raw fish into a myriad of products that can be shipped cost-effectively and without spoilage.

Alaska's processors sell directly to consumers, as well as to grocers, chefs, food service buyers, and subsequent processors that create finished products for global markets that value the high quality of Alaska seafood.

Over half of the wholesale value of Alaska's seafood products is added by the 176 shore-based plants, 73 catcher-processors, and more than a dozen floating processors that make up Alaska's seafood processing sector.

The seasonality of many of Alaska's fisheries, especially salmon, result in a reliance on nonresident workers to fully staff production jobs at remote sites across the state. The industry also creates thousands of year-round positions for residents of Alaska and other Pacific Northwest states, including high paying jobs in management, marketing, and maintenance of the specialized manufacturing equipment used by the industry.

Processing Value Added	2014
Ex-Vessel Value	$1,940 Million
First Wholesale Value	$4,239 Million
Value Added by Processors	$2,300 Million

Workforce	2014
Peak Monthly Employment	20,800
Total Workforce Estimate	26,200
Alaska Residents	6,300
Total Workforce Earnings	$460 Million
Alaska Resident Estimate	$138 Million

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 help 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 seperation 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 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

Economic Impacts By Species

Estimated Contributions to the National Economy

(2013-2014 Averages)

Salmon	
Direct Total	
FTE Jobs	18,400
Labor Income $M	$845
Value Added $M	$2,151
Secondary Total	
FTE Jobs	19,700
Labor Income $M	$1,119
Value Added $M	$2,917
Total Contribution	
FTE Jobs	38,100
Labor Income $M	$1,964
Value Added $M	$5,068

Halibut / Sablefish	
Direct Total	
FTE Jobs	3,800
Labor Income $M	$155
Value Added $M	$386
Secondary Total	
FTE Jobs	3,700
Labor Income $M	$235
Value Added $M	$543
Total Contribution	
FTE Jobs	7,500
Labor Income $M	$389
Value Added $M	$929

Crab	
Direct Total	
FTE Jobs	7,300
Labor Income $M	$288
Value Added $M	$715
Secondary Total	
FTE Jobs	6,900
Labor Income $M	$451
Value Added $M	$1,014
Total Contribution	
FTE Jobs	14,200
Labor Income $M	$738
Value Added $M	$1,729

Alaska Pollock	
Direct Total	
FTE Jobs	13,900
Labor Income $M	$665
Value Added $M	$1,704
Secondary Total	
FTE Jobs	15,400
Labor Income $M	$840
Value Added $M	$2,285
Total Contribution	
FTE Jobs	29,300
Labor Income $M	$1,506
Value Added $M	$3,990

Pacific Cod	
Direct Total	
FTE Jobs	6,700
Labor Income $M	$281
Value Added $M	$705
Secondary Total	
FTE Jobs	6,700
Labor Income $M	$411
Value Added $M	$981
Total Contribution	
FTE Jobs	13,400
Labor Income $M	$692
Value Added $M	$1,686

Other Groundfish	
Direct Total	
FTE Jobs	3,100
Labor Income $M	$162
Value Added $M	$418
Secondary Total	
FTE Jobs	3,700
Labor Income $M	$188
Value Added $M	$550
Total Contribution	
FTE Jobs	6,800
Labor Income $M	$350
Value Added $M	$968

- 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 includes approximately 38,400 FTE jobs and just under $2 billion in annual labor income.
- 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 29,300 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 total Alaska seafood volume, these three species account for 18-20 percent of the labor income and economic output produced by the Alaska seafood industry.

Alaska Statewide Impacts

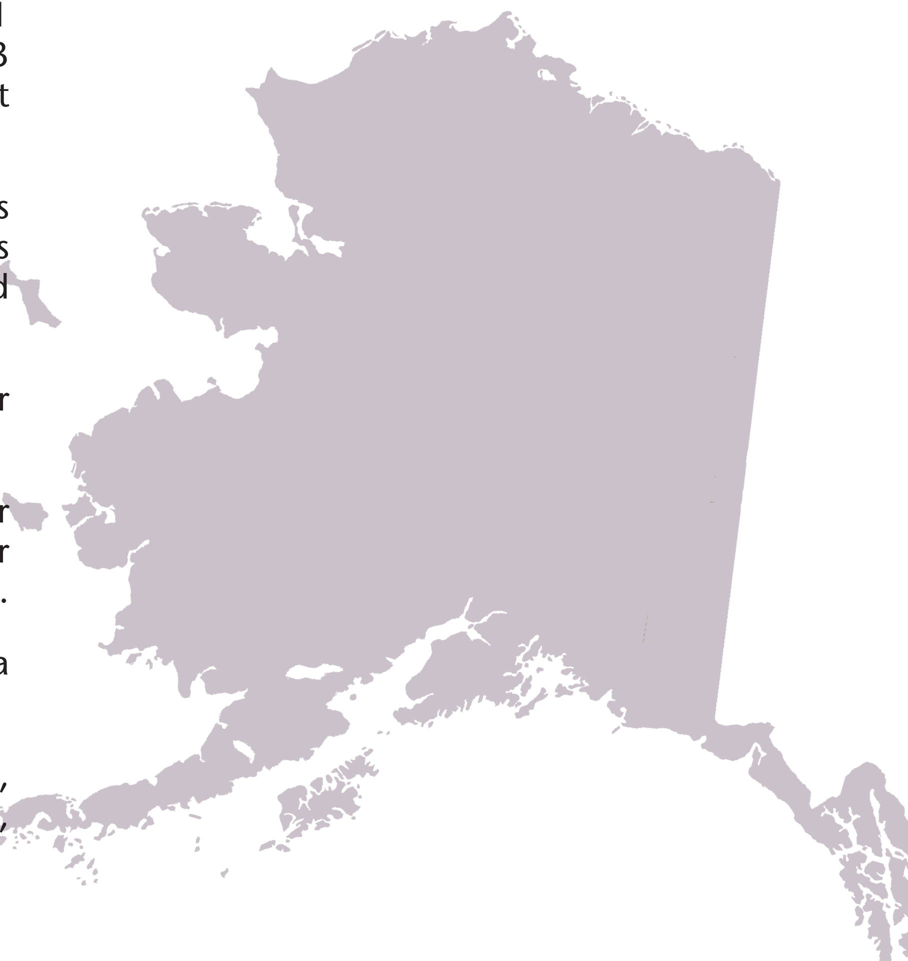
Seafood Industry Impact on Alaska's Economy, 2013/2014 Avg.

	Number of Workers	FTE Jobs	Labor Income ($Millions)	Output ($Millions)
Commercial Fishing	31,580	15,900	$920	$1,983
Processing	25,055	11,500	$460	$2,396
Mgmt./Other	2,904	2,100	$204	$302
Direct Total	**59,539**	**29,500**	**$1,584**	**$4,681**
Secondary Total	**-**	**11,700**	**$546**	**$1,237**
Total Impacts	**-**	**41,200**	**$2,130**	**$5,918**

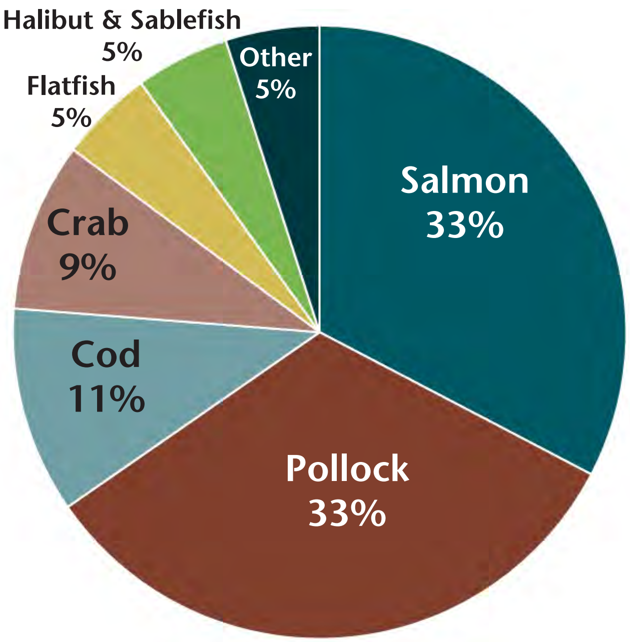
- In total, seafood contributed an estimated 41,100 FTE jobs and $2.1 billion of labor income annually to the state's economy between 2013 and 2014. Seafood FTE jobs are estimated to account for 8.8 percent of statewide employment during this period.
- The seafood industry directly employs approximately 60,000 workers in Alaska each year. Through business and household spending, it is estimated the industry created an additional 11,700 jobs in 2013 and 2014.
- Seafood contributed an estimated $5.9 billion in economic output per year in 2013 and 2014.
- The seafood industry directly employs more workers than any other private sector industry, and is the second largest basic sector job creator in Alaska after the oil-and-gas industry (including secondary impacts).
- The seafood industry directly employed an estimated 26,700 Alaska residents in 2013 and 2014.
- The overall Alaska seafood industry has grown from 2010-2014, including by the number of resident fishermen, processing employment, total earnings, and both harvest and wholesale value.

Top Ports: by First Wholesale Value

1) Dutch Harbor	$450 Million
2) Kodiak	$284 Million
3) Naknek	$254 Million
4) Cordova	$174 Million
5) Sitka	$129 Million



Share of Wholesale Value by Species, 2014



Harvesting

6,609 Resident-owned Fishing Vessels

17,634 Resident Fishermen

$1,940 Million Harvest Value

5,696 Million Pounds of Seafood Harvested

60% of U.S. Total

Processing

176 Shore-based Processing Facilities

20,800 Processing Workers (at peak)

$4,239 Million Wholesale Value

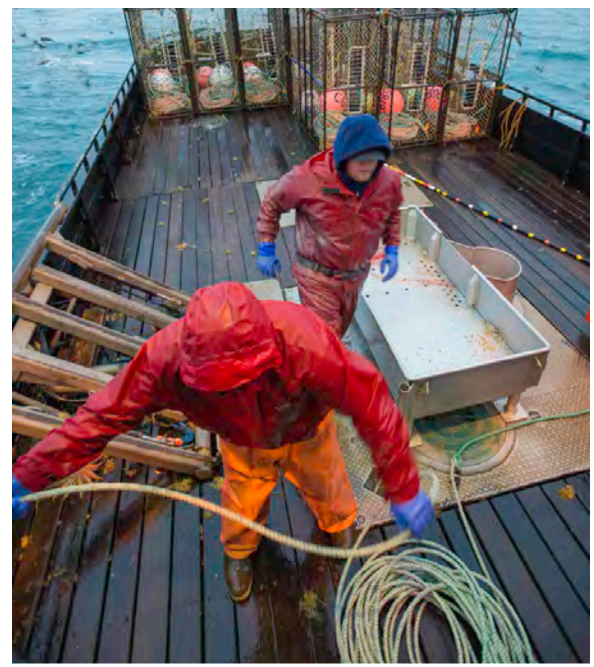
2,776 Million Pounds of Seafood Produced

42% of U.S. Total

Historical Trends

	2010	2011	2012	2013	2014	10-14
Resident Commercial Fishermen	17,147	17,682	17,742	17,585	17,634	+3%
Gross Earnings ($Millions)	$719	$876	$799	$817	$735	+2%
Average Processing Employment*	9,162	10,130	10,198	10,477	10,596	+16%
Peak Processing Employment*	18,871	20,328	19,472	20,367	20,788	+10%
Wages/Salaries ($Millions)*	$316	$349	$364	$392	$399	+26%
Harvest Value ($Millions)	$1,737	$2,157	$2,115	$2,026	$1,940	+12%
First Wholesale Value ($Millions)	$3,786	$4,548	$4,492	$4,519	$4,239	+12%

*Figures do not include processing activity from catcher/processor vessels.



Southeast Alaska

Seafood Industry Impact on Regional Economy, 2013/2014 Avg.

	Number of Workers	FTE Jobs	Labor Income ($Millions)	Output ($Millions)
Commercial Fishing	6,468	4,000	$159	$296
Processing	4,742	1,800	$67	$289
Mgmt./Hatcheries	868	800	$71	$110
Direct Total	**12,078**	**6,600**	**$298**	**$696**
Secondary Total	-	**3,350**	**$134**	**$292**
Total Impacts	-	**9,950**	**$432**	**$988**

- The seafood industry creates nearly 10,000 FTE jobs in Southeast Alaska, including multipliers effects, and almost $1 billion of economic output.
- Seafood is the largest private sector industry in Southeast Alaska, in terms of workforce size and labor income. Seafood accounted for 20 percent of the region's average monthly employment during 2013 and 2014, including multiplier impacts.
- Southeast residents own more commercial fishing boats and the area contains more shoreside processing facilities than any other region.
- Salmon accounts for the majority of the region's seafood value, followed by halibut and black cod. The cumulative value of commercial salmon fishing permits owned by Southeast residents in 2014 was $138 million.
- While harvest values in Southeast Alaska changed little between 2010 and 2014, processors have increased the value they add by 12 percent.
- Average processing employment in the region increased by 28 percent from 2010 to 2014; total wages from processing increased even more during the same time period (39 percent).

Top Ports: by First Wholesale Value

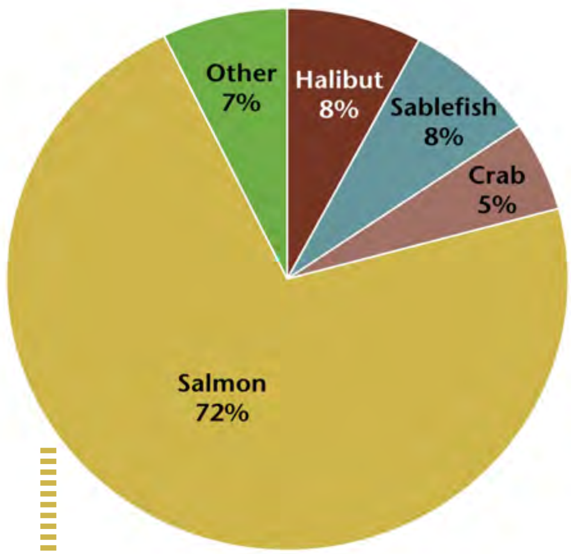
Sitka $128M   Petersburg $100M
Ketchikan $91M   Juneau $48M

Other Key Ports:

Haines/XIP $26M   Yakutat $17M
Wrangell   Craig   Hoonah   Kake

Trollers raft up in Cross Sound waiting for a king salmon opener to start.

Share of Wholesale Value by Species, 2014



Harvesting		Processing	
2,606 *Resident-owned Fishing Vessels*	**4,685** *Resident Fishermen*	**54** *Shore-based Processing Facilities*	**4,775** *Processing Workers (at peak)*
$260 *Million Harvest Value*	**291** *Million Pounds of Seafood Harvested*	**$520** *Million Wholesale Value*	**235** *Million Pounds of Seafood Produced*
13% of Alaska Total		12% of Alaska Total	

Southeast Salmon Fisheries

Gear Type	**Seine**	**Troll**	**Driftnet**
Harvest Value	$60 Million	$47 Million	$30 Million
Permits Fished	261	1,103	432

Historical Trends

	2010	2011	2012	2013	2014	10-14
Resident Commercial Fishermen	4,641	4,586	4,665	4,667	4,685	+1%
Gross Earnings ($Millions)	$226	$281	$252	$258	$232	+3%
Average Processing Employment	1,443	1,610	1,595	1,747	1,840	+28%
Peak Processing Employment	3,972	4,324	3,974	4,551	4,775	+20%
Wages/Salaries ($Millions)	$49	$57	$54	$66	$68	+39%
Regional Harvest Value ($Millions)	$252	$330	$274	$333	$260	-3%
First Wholesale Value ($Millions)	$484	$641	$535	$651	$520	+7%

Southcentral Alaska

Seafood Industry Impact on Regional Economy, 2013/2014 Avg.

	Number of Workers	FTE Jobs	Labor Income ($Millions)	Output ($Millions)
Commercial Fishing	5,450	2,100	$106	$214
Processing	4,420	1,400	$52	$367
Mgmt./Hatcheries	520	300	$25	$30
Direct Total	**10,390**	**3,800**	**$183**	**$611**
Secondary Total	-	**3,200**	**$164**	**$380**
Total Impacts	-	**7,000**	**$347**	**$991**

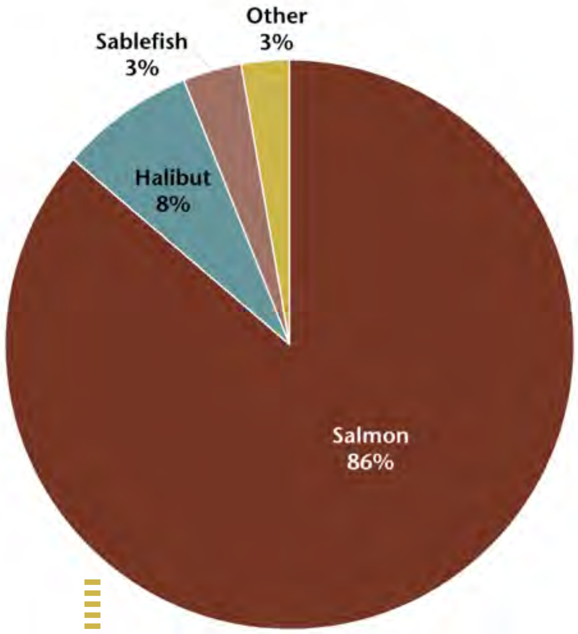
Top Ports: by First Wholesale Value

1) Cordova	$173 Million
2) Anchorage	$99 Million
3) Seward	$62 Million
4) Kenai	$55 Million
5) Valdez	$36 Million
6) Homer	$15 Million
Whittier and Kasilof	confidential

- The seafood industry directly employs more than 10,000 workers and creates approximately 7,000 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).
- Processing employment and wages in the region has grown substantially in recent years.
- A third of Alaska's resident commercial fishermen live in Southcentral, more than any other region.
- Southcentral featured 20 communities with gross resident fishing earnings greater than $1 million in 2013, and 6 communities with more than $10 million.
- As of 2013, Southcentral residents owned an estimated $702 million of commercial fishing assets.

The Sturman Family takes a break from setnetting on a Southcentral beach.

Share of Wholesale Value by Species, 2014



Harvesting

2,027
Resident-owned Fishing Vessels

5,925
Resident Fishermen

$177 *Million*
Harvest Value

224
Million Pounds of Seafood Harvested

9% of Alaska Total

Processing

53
Shore-based Processing Facilities

3,300
Processing Workers (at peak)

$477 *Million*
Wholesale Value

156
Million Pounds of Seafood Produced

11% of Alaska Total

Southcentral Salmon Fisheries

Gear Type	**Driftnet**	**Seine**	**Setnet**
Harvest Value	$76 Million	$41 Million	$14 Million
Permits Fished	1,020	242	542

Historical Trends

	2010	2011	2012	2013	2014	10-14
Resident Commercial Fishermen	5,592	5,890	5,854	5,729	5,925	6%
Gross Earnings ($Millions)	$260	$299	$286	$308	$269	+3%
Average Processing Employment	959	1,268	1,320	1,341	1,415	+48%
Peak Processing Employment	2,873	3,632	3,258	3,167	3,300	+15%
Wages/Salaries ($Millions)	$33	$32	$46	$54	$51	+53%
Regional Harvest Value ($Millions)	$241	$210	$209	$251	$177	-27%
First Wholesale Value ($Millions)	$516	$430	$475	$685	$477	-7%

Kodiak Region

Seafood Industry Impact on Regional Economy, 2013/2014 Avg.

	Number of Workers	FTE Jobs	Labor Income ($Millions)	Output ($Millions)
Commercial Fishing	2,610	2,600	$111	$229
Processing	2,416	1,700	$71	$195
Direct Support	996	850	$88	$115
Direct Total	**6,022**	**5,150**	**$269**	**$539**
Secondary Total	-	**3,200**	**$164**	**$393**
Total Impacts	-	**8,350**	**$433**	**$932**

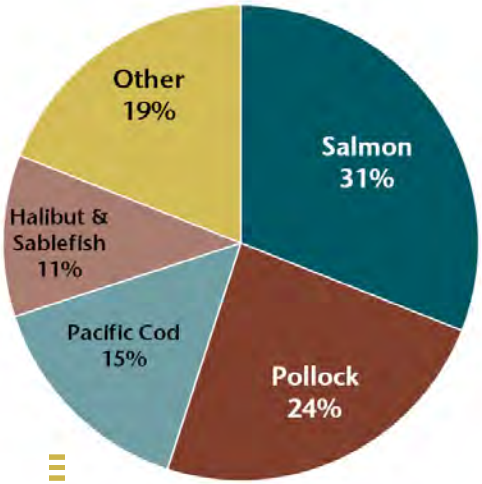
The Holland Family aboard their boat, the F/V Point Omega.

Top Port: Kodiak $284M

Other Key Ports: Larsen Bay Alitak Bay Old Harbor Chignik

- Kodiak is the third largest commercial fishing port in the U.S., by both volume of seafood landed and ex-vessel value. As a result, the industry drives the regional economy and is responsible for most of the region's economic activity and population base.
- The community of Kodiak hosts 10 seafood processors. Larsen Bay and Alitak Bay also have large plants.
- Rather than relying on one or two fisheries, Kodiak is fortunate to be a major processing center for salmon, halibut, black cod, Pacific cod, pollock, and rockfish.
- The processing sector in the Kodiak region is less seasonal compared to other regions in Alaska. Peak processing employment in Kodiak is only 1.3 times average monthly processing employment (statewide, peak employment is double the average).
- 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 Wholesale Value by Species, 2014



Harvesting

449
Resident-owned Fishing Vessels

1,383
Resident Fishermen

$211 *Million Harvest Value*

609
Million Pounds of Seafood Harvested

11% of Alaska Total

Processing

17
Shore-based Processing Facilities

2,088
Processing Workers (at peak)

$383 *Million Wholesale Value*

281
Million Pounds of Seafood Produced

8% of Alaska Total

Kodiak Salmon Spotlight

Total
$57 Million Harvest Value

Total
76 Million pounds

Seine
312 permits fished

Setnet
58 permits fished

Historical Trends

	2010	2011	2012	2013	2014	10-14
Resident Commercial Fishermen	1,408	1,529	1,505	1,470	1,383	-2%
Gross Earnings ($Millions)	$134	$170	$159	$143	$131	-2%
Average Processing Employment*	1,724	1,816	1,821	1,799	1,598	-7%
Peak Processing Employment*	2,094	2,339	2,254	2,480	2,088	0%
Wages/Salaries ($Millions)*	$70	$74	$77	$73	$68	-3%
Regional Harvest Value ($Millions)	$214	$273	$254	$246	$211	-1%
First Wholesale Value ($Millions)	$367	$452	$492	$464	$383	+4%

*Figures do not include processing activity from catcher/processor vessels.

Bering Sea & Aleutian Islands Region

Seafood Industry Impact on Regional Economy, 2013/2014 Avg.

	Number of Workers	FTE Jobs	Labor Income ($Millions)	Output ($Millions)
Commercial Fishing	4,700	4,700	$438	$1,045
Processing	8,660	4,800	$206	$1,346
Mgmt./Other	240	100	$14	$18
Direct Total	**13,600**	**9,600**	**$658**	**$2,408**
Secondary Total	**-**	**700**	**$37**	**$76**
Total Impacts	**-**	**10,300**	**$696**	**$2,484**

Top Port: Dutch Harbor $450M

Other Key Ports: Akutan

King Cove | St. Paul Island $86M

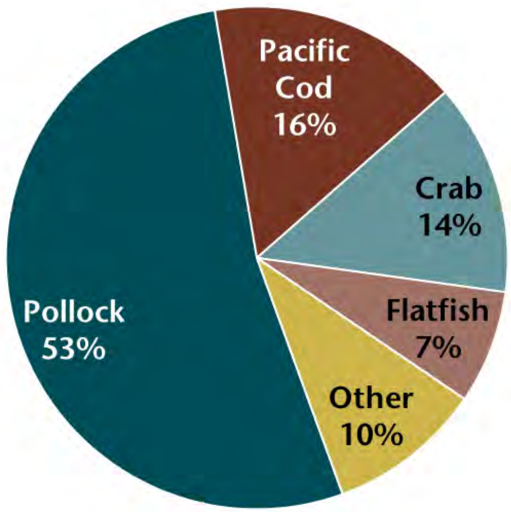
Sand Point | Port Moller

False Pass | Adak

- Commercial fishing in the BSAI region directly generates about $438 million in annual labor income for fishermen.
- Seafood processing in the BSAI region directly accounts for approximately $206 million in annual labor income for 8,660 workers.
- Over 4.3 billion pounds of seafood with an ex-vessel value of $1.06 billion was harvested in the BSAI region in 2014.
- Regional processing activity generates 1.9 billion pounds of product with a first wholesale value of $2.4 billion.
- Dutch Harbor is consistently the nation's top seafood port, by pounds landed, and second-largest by value landed. In 2014, the port took in 762 million pounds of seafood.
- Harvest and wholesale values have risen substantially (27 and 24 percent, respectively) in the last five years in the BSAI region - by far the most of any region in Alaska. Without these increases, statewide values would be roughly flat over the time period.

The catcher-processor Rebecca Irene offloads frozen seafood in Dutch Harbor. Of the seafood processed in the region, 42 percent is processed on shoreside plants, with the remainder processed at sea aboard catcher-processors and floating processors.

Share of Wholesale Value by Species, 2014



Harvesting

250 *Resident-owned Fishing Vessels*

667 *Resident Fishermen*

$1,060 *Million Harvest Value*

4,337 *Million Pounds of Seafood Harvested*

55% of Alaska Total

Processing

19 *Shore-based Processing Facilities*

5,860 *Processing Workers (at peak)*

$2,429 *Million Wholesale Value*

1,947 *Million Pounds of Seafood Produced*

57% of Alaska Total

Groundfish Species	**Pollock**	**Pacific Cod**	**Flatfish, Rockfish & Other**
BSAI Harvest (millions of lbs.)	2,864	610	745
% of Total AK Harvest	91%	85%	83%

Historical Trends

	2010	2011	2012	2013	2014	10-14
Resident Commercial Fishermen	738	729	720	700	667	-10%
Gross Earnings ($Millions)	$38	$56	$44	$45	$39	+3%
Average Processing Employment*	3,360	3,698	3,606	3,712	3,834	+14%
Peak Processing Employment*	5,121	5,535	5,576	5,557	5,860	+14%
Wages/Salaries ($Millions)*	$113	$128	$130	$137	$146	+29%
Regional Harvest Value ($Millions)	$836	$1,173	$1,221	$1,030	$1,060	+27%
First Wholesale Value ($Millions)	$1,959	$2,621	$2,644	$2,352	$2,429	+24%

*Figures do not include processing activity from catcher/processor vessels.

BRISTOL BAY REGION

Seafood Industry Impact on Regional Economy, 2013/2014 Avg.

	Number of Workers	FTE Jobs	Labor Income ($Millions)	Output ($Millions)
Commercial Fishing	4,700	2,300	$95	$189
Processing	3,485	1,500	$52	$193
Mgmt./Other	210	50	$4	$6
Direct Total	**8,395**	**3,850**	**$152**	**$391**
Secondary Total	-	**800**	**$33**	**$68**
Total Impacts	-	**4,650**	**$185**	**$455**

Bristol Bay gillnetters fishing the line.

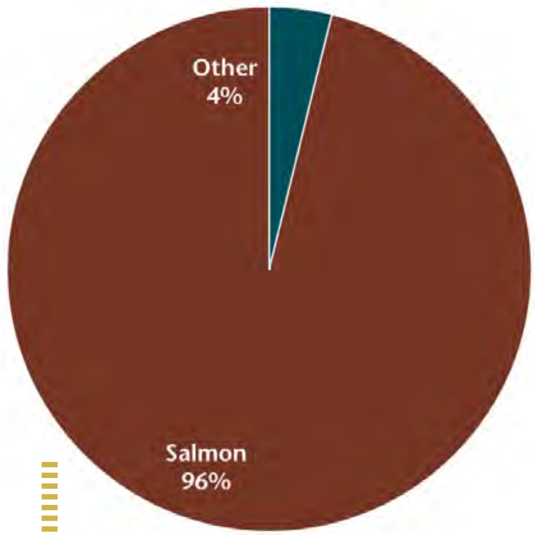
Top Port: Naknek $254M

Other Key Ports:

Dillingham Egegik $44M Togiak

- Bristol Bay Region commercial fisheries generate an annual average of $95 million in labor income for fishermen and another $52 million for processing workers.
- The Bristol Bay Region's processing sector includes 24 shore-based facilities and total peak employment of 5,374 workers. Among those workers, 3,475 earned most of their annual income while working in Bristol Bay's seafood processing industry.
- In 2014, fish with a total ex-vessel value of $221 million was harvested in the Bristol Bay region - an increase of 20 percent over 2010 levels.
- The region's 2014 harvest had a total first wholesale value of $417 million. This represents a decline of 6 percent from 2010, a result of lower prices and large harvests.
- Naknek is the top processing port in the region, with total production valued at $254 million in 2014.
- Bristol Bay accounted for 45 percent of the world's commercial sockeye harvest over the past ten years (2006-2015).

Share of Wholesale Value by Species, 2014



Harvesting

502
Resident-owned Fishing Vessels

1,619
Resident Fishermen

$221 *Million*
Harvest Value

222
Million Pounds of Seafood Harvested

11% of Alaska Total

Processing

24
Shore-based Processing Facilities

5,374
Processing Workers (at peak)

$417 *Million*
Wholesale Value

153
Million Pounds of Seafood Produced

10% of Alaska Total

Bristol Bay Salmon Fisheries

Gear Type	**Setnet**	**Driftnet**
Harvest Value	$39 Million	$182 Million
Permits Fished	875	1,541

Historical Trends

	2010	2011	2012	2013	2014	10-14
Resident Commercial Fishermen	1,506	1,598	1,611	1,567	1,619	+8%
Gross Earnings ($Millions)	$38	$45	$33	$42	$41	+8%
Average Processing Employment	1,401	1,535	1,514	1,514	1,542	+10%
Peak Processing Employment	5,257	5,460	5,037	5,312	5,374	+2%
Wages/Salaries ($Millions)	$46	$53	$47	$51	$54	+17%
Regional Harvest Value ($Millions)	$185	$159	$146	$156	$221	+20%
First Wholesale Value ($Millions)	$437	$384	$326	$346	$417	-6%

ARCTIC-YUKON-KUSKOKWIM REGION

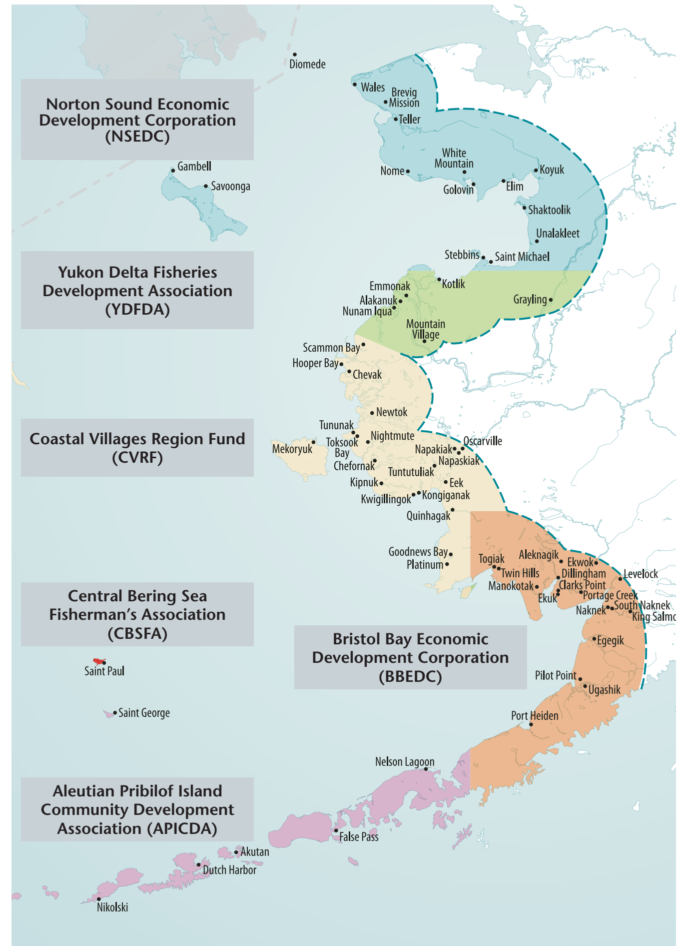
Seafood Industry Impact on Regional Economy, 2013/2014 Avg.

	Number of Workers	FTE Jobs	Labor Income ($Millions)	Output ($Millions)
Commercial Fishing	3,600	170	$8	$10
Processing	903	350	$12	$12
Mgmt./Other	70	40	$2	$3
Direct Total	**4,573**	**560**	**$22**	**$26**
Secondary Total	**-**	**300**	**$14**	**$28**
Total Impacts	**-**	**860**	**$36**	**$54**

- Though total seafood industry-related income in the Arctic-Yukon-Kuskokwim (AYK) region is low relative to other regions of Alaska, that income is distributed broadly to more than 4,500 workers.
- 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 $54 million.
- In 2014, the AYK region harvest had a total ex-vessel value of $10 million. The first wholesale value of seafood processed in the region totaled $13 million.
- The region is home to 2,666 fishermen who fish a fleet of 725 vessels. Salmon is the most valuable species, accounting for 77 percent of first wholesale value.
- The Community Quota Development (CDQ) program was established in 1992 to give residents of Western Alaska communities access to the fisheries off their coasts. Entities formed under the CDQ program (see map at right), including three in the AYK region, have been highly successful and own substantial investments in vessels, processing plants, and quota - all of which provide needed job opportunities in 65 Western Alaska communities.

Key Ports:

Emmonak Unalakleet Nome



Map courtesy of the Western Alaska Community Development Association (wacda.org)

Harvesting

725
Resident-owned Fishing Vessels

2,666
Resident Fishermen

$10 Million
Harvest Value

12.5
Million Pounds of Seafood Harvested

0.5% of Alaska Total

Processing

7
Shore-based Processing Facilities

1,132
Processing Workers (at peak)

$13 Million
Wholesale Value

5.3
Million Pounds of Seafood Produced

0.3% of Alaska Total

AYK Region CDQ Group	**NSEDC**	**YDFDA**	**CVRF**
Communities (Residents)	15 (8,700)	6 (3,221)	20 (9,400)
Net Assets (2014)	$208 million	$81 million	$259 million

Historical Trends

	2010	2011	2012	2013	2014	05-14
Resident Commercial Fishermen	3,032	3,168	3,157	3,236	2,666	-12%
Gross Earnings ($Millions)	$15	$17	$18	$16	$16	+7%
Average Processing Employment	265	191	341	351	354	+34%
Peak Processing Employment	898	684	1,089	1,203	1,132	+26%
Wages/Salaries ($Millions)	$5.6	$4.6	$10	$11	$12	+114%
Regional Harvest Value ($Millions)	$8	$10	$10	$11	$10	23%
First Wholesale Value ($Millions)	$22	$20	$19	$21	$13	-42%

National Impact of Alaska Seafood

National Impacts of Alaska Seafood Industry, 2013/2014 Avg.

	Number of Workers	FTE Jobs	Labor Income ($Millions)	Output ($Millions)
Commercial Fishing	31,600	15,900	$920	$1,983
Processing	29,600	15,700	$663	$2,396
Mgmt./Other	3,900	2,700	$262	$385
Distributors	900	900	$71	$148
Grocers	5,000	5,000	$148	$268
Restaurants	14,400	14,400	$389	$1,011
Direct Total	**85,400**	**54,600**	**$2,453**	**$6,191**
Secondary Total	**-**	**57,200**	**$3,312**	**$8,449**
Total Impacts	**-**	**111,800**	**$5,765**	**$14,639**

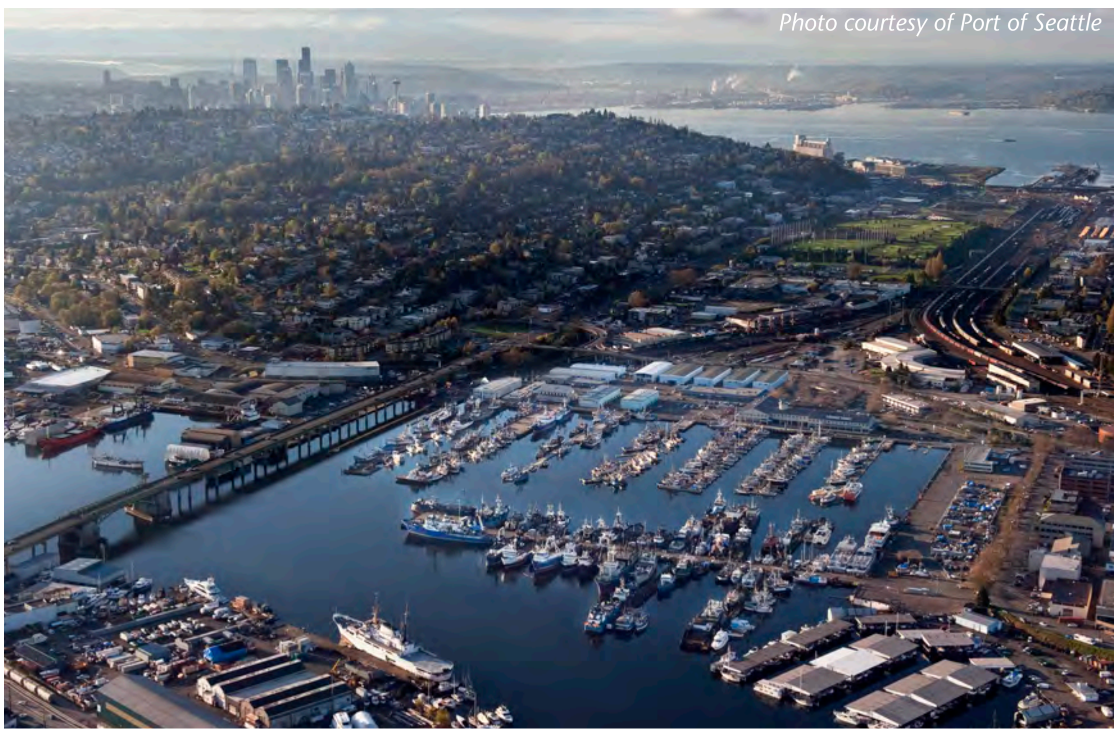


Photo courtesy of Port of Seattle

- Alaska's seafood industry accounts for 111,800 jobs in the U.S., including jobs throughout the entire production, distribution, and retail chain. Workers in these jobs earned an estimated $5.8 billion in total annual labor income.

- The national economic impact of Alaska's seafood industry includes an estimated 54,600 jobs in fishing, processing, fisheries management, transportation and distribution, and in stores and restaurants. It also includes 57,200 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 $920 million, or 38 percent of all direct labor income generated by Alaska's seafood industry.

- U.S. economic output related to Alaska's seafood industry totals $14.6 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

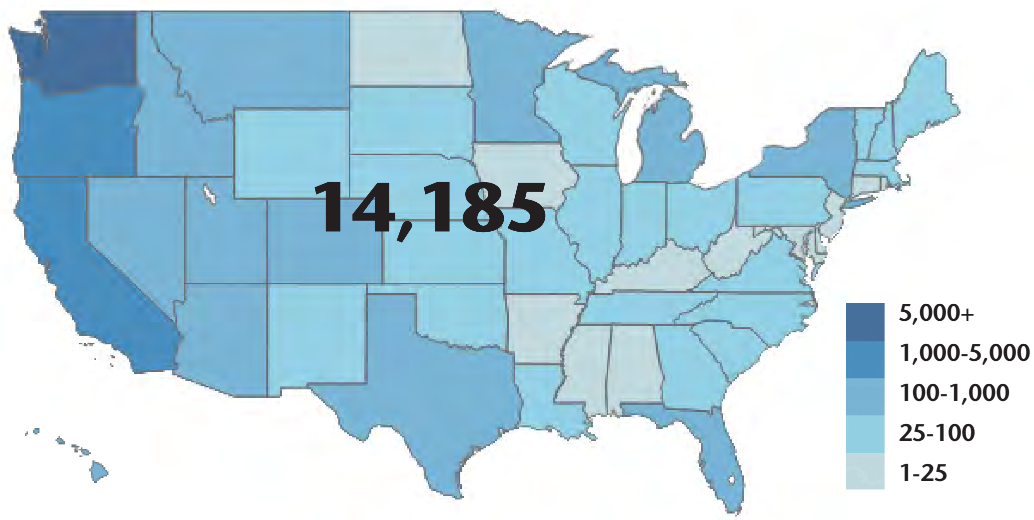
People from every U.S. state participate in Alaska's commercial fisheries. The maps on this page indicate the concentration of Alaska skippers, permit owners, and crew by state of residence.

In 2014, 55 percent of Alaska skippers and crew were residents of the state, totaling 17,634 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.

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

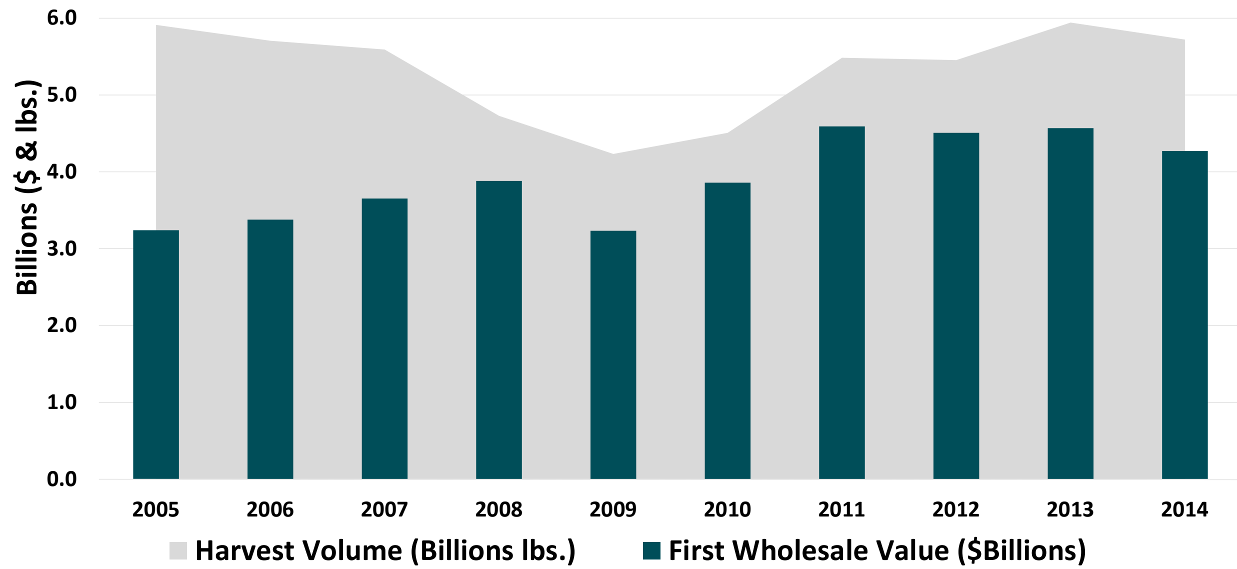


Alaska Skippers and Crew, by state of residence, 2014

Photo courtesy of Garrett Evridge

Value of Alaska Seafood

Seafood is Alaska's most valuable renewable resource, worth $4.2 billion in first wholesale value in 2014. Of this total, fishermen earned $1.9 billion in ex-vessel value while processors, both shoreside and at-sea, added $2.3 billion in value.



The industry typically harvests between five and six billion pounds of seafood each year. Resource values have remained constant in recent years, but are still up 32 percent over the past decade on similar harvest volumes.

In 2014, head and gut/whole made up 36 percent of the combined wholesale value for all Alaska seafood, followed by fillets (22 percent), surimi (11 percent), roe (8 percent), shellfish sections (8 percent), canned fish (6 percent), and other products.

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

Alaska Seafood Product Types (All Species), by Portion of Total Wholesale Value, 2014

The Alaska seafood industry exports to over 100 countries annually. In 2014, exports of Alaska seafood were valued at $3.2 billion, or an estimated 55 percent of U.S. seafood exports.

The U.S. domestic market is the largest by estimated final sales, but foreign processors play a large role, accounting for an estimated two-thirds of final production value.

Alaska Seafood Markets, by Share of Total Sales, 2014

Estimated Final Sale Markets

1. United States	34%
2. Europe	29%
3. Japan	24%
4. Canada	4%
5. China	3%
6. All Others	6%

Top Foreign Trade Partners

1. China	29%
2. Japan	20%
3. South Korea	11%
4. Germany	10%
5. Canada	9%
6. All Others	20%

Factors Impacting Seafood Value

Production *Currencies* *Competition* *Marketing*

Many factors impact the value of Alaska seafood including consumer preferences, harvest levels, currency rates, and geopolitics, such as Russia's embargo of U.S. goods.

Despite an international reputation for exceptional quality, Alaska's seafood faces competitive pressures from cheaper products from around the world. These include farmed salmon from Chile and Norway, pollock from Russia, and Atlantic cod from the European Union, among other farmed and wild species.

Currency rates are one of the most important factors impacting the value of Alaska seafood. Countries with weak currencies relative to the U.S. dollar, such as Russia, have the ability to offer their seafood products at lower prices than U.S. exporters.

In recent years, the total value of Alaska seafood has also been negatively affected by smaller harvests of high-value species such as halibut and black cod, as well as lower prices for salmon and groundfish products - the largest fisheries by volume in Alaska. Marketing and product innovation have been used to mitigate external factors reducing value or demand.

Industry Tax Revenues

Commercial fishing and processing businesses pay substantial taxes and fees to operate in Alaska, including more than **$138.6 milion in 2014**. These taxes and fees fall into three main categories:

- Unencumbered **taxes** 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 here due to a lack of data include property taxes and federal income taxes, among many others.
- **Agency fees** and cost recovery collections designed to pay for specific services provided by state and federal governments. In practice, collections exceed expenses for some of these fees, resulting in revenue that is deposited into the state General Fund. A recent report estimates revenue in excess of operations for the CFEC of $3.1 million (average 2010-2014), for example. Federal cost recovery fees are collected for halibut/sablefish, crab, and other fisheries. Data were not available for a number of 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** collected to support industry-supported projects, such as salmon hatcheries, seafood marketing through the Alaska Seafood Marketing Institute, and other projects.

Overall, of the taxes and fees collected on the Alaska seafood industry and for which data are available, 38 percent go to local governments ($52.3 million), 55 percent to the state ($76.1 million, of which an estimated $39.8 million is deposited in the General Fund), and 7 percent to the federal government ($9.3 million).

	2014, $Millions
Taxes	**$88.2**
Fisheries Business Tax	$51.6
Fisheries Resources Landing Tax	$12.6
Marine Motor Fuel Tax	$2.4
Corporate Income Tax	$0.8
Local Raw Fish and Other Taxes	$20.3
Retained Loan Fund Earnings	$0.5
Agency Fees	**$23.9**
CFEC Permit and Vessel Fees	$7.6
Crew License Sales	$3.2
Test Fishery Reciepts	$2.8
Processing/Mariculture/Other Fees	$1.0
Federal Cost Recovery Fees	$8.2
Federal Observer Program	$1.2
Industry Self-Assessments	**$26.5**
Seafood Marketing (ASMI)	$10.2
Salmon Enhancement	$12.8
Seafood Development (RSDAs)	$1.9
Dive Fishery Management	$0.5
Common Property Assessment	$1.1
Total	**$138.6**

Notes: Data are for fiscal year 2014, except federal cost recovery fees, where FY2013 data is the most recent available. Retained loan fund earnings are estimates by Loeffler and Colt (2015).

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 services, which are more expansive due to the seafood industry.

The majority of Alaska's shipping freight is a one-way, northbound haul. Shipping out seafood on southbound routes provides "backhaul" revenue for shippers, allowing for more competitive rates on northbound freight. According to a major marine cargo carrier, seafood backhaul lowers northbound freight rates by as much as 10 percent in coastal Alaska. As a result, consumer prices for Alaskans are lower on everything from milk to televisions.

Several communities in Alaska with a strong seafood presence - such as Valdez, Cordova, and Kodiak - have outbound seafood shipping volumes that exceed total in-bound freight. In these cases, the seafood industry generates freight cost savings much greater than 10 percent.

The project team is especially thankful for the assistance of Mark Vinsel, UFA; Jean Lee, AKFIN (NOAA); Jennifer Shriver, ADF&G; and Caroline Schultz, ADOL&WD.

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