

MANAGEMENT CONTEXT

The Pacific Region includes California, Oregon, and Washington. Federal fisheries in this region are managed by the Pacific Fishery Management Council (PFMC) and NOAA Fisheries (NMFS) under four fishery management plans (FMPs).

Pacific Region FMPs

- 1. Pacific coast groundfish
- 2. Pacific coast salmon
- 3. Coastal pelagic species
- 4. West coast highly migratory species

Three of the stocks or stock complexes covered in these fishery management plans were listed as overfished in 2013: canary rockfish, Pacific ocean perch, yelloweye rockfish, and Pacific bluefin tuna. Cowcod and Sacramento River fall Chinook salmon stock were removed from the overfished list in 2013; the latter is now considered rebuilt. Pacific bluefin was added to the overfished list in 2013. Two stock complexes were subject to overfishing in 2013: bigeye tuna and Pacific bluefin tuna.

Interesting management techniques are employed in the Pacific Region's fisheries. For example, the Pacific groundfish and salmon fisheries are subject to 'weak stock management', where access to the harvestable surplus of healthier stocks is often restricted to protect weaker stocks with which they co-mingle in the ocean. These weaker stocks include seven rebuilding groundfish stocks, salmon listed under the Endangered Species Act, and other non-listed stocks that also constrain the fishery.

Salmon management is further complicated by the need to ensure equitable allocation of harvest among diverse user groups and to coordinate with other entities that have jurisdiction over other aspects of salmon management. Decades of habitat modification, hatchery practices, harvest, and growing competition for water have affected the viability of salmon stocks and made them more vulnerable to adverse environmental conditions including the prolonged drought and adverse ocean conditions experienced in recent years. Low returns of salmon to the Klamath River in 2006 and to the Sacra-

mento River in 2008 and 2009 resulted in unprecedented closures of ocean and in-river fisheries and federal disaster relief to affected entities.

Coastal pelagic species (CPS) are highly variable, environmentally sensitive stocks that provide forage for marine mammals, birds, and fish. These species include Pacific sardine, northern anchovy, Pacific and jack mackerel, and market squid. Of these, Pacific sardine is the most commonly targeted CPS finfish and is managed via an innovative harvest control rule whereby allowable harvest varies with sea surface temperature. Because the geographic range of sardine tends to expand with abundance, harvest allocation between California and Pacific Northwest fisheries is an ongoing and dynamic issue. The annual sardine harvest guideline is allocated coast-wide on a seasonal basis. Recent decreases in harvest guideline limits have contributed to the development of an intense derby fishery.

Catch limits for Pacific halibut, a transboundary fish stock, are set in January by the International Pacific Halibut Commission (IPHC). This bilateral commission between the U.S. and Canada determines total allowable catch levels (TACs) for Pacific halibut that will be caught in the U.S. and Canadian Exclusive Economic Zones (EEZs). Once catch levels are determined, the PFMC develops a catch-sharing plan for tribal and non-tribal (commercial and recreational) fisheries conducted in the federal waters of California, Oregon, and Washington.

The Fishery Management Plan for Highly Migratory Species (HMS) includes tunas, billfish and pelagic sharks as managed species. The albacore surface hook-and-line fishery is by far the most economically important commercial HMS fishery, followed by the drift gillnet fishery for swordfish and thresher shark. HMS are also a very important component of the catch for the Pacific Regions recreational commercial passenger fishing vessel fleet, and the private recreational boat fleet.

Market-based management tools are used by fishery managers to reduce overcapitalization, increase the economic viability of fisheries, and promote individual accountability for harvest and harvesting practices. Limited access privilege programs (LAPPs) and other

catch share programs comprise a category of such tools. For example, in 2001 the PFMC implemented the Pacific sablefish permit stacking program. This program allowed vessels to stack multiple vessel permits on a single vessel in order to improve economic efficiency through rationalization of the fixed gear fleet, increase benefits for fishing communities, promote equity, mitigate reallocation effects of previous harvest regulations, promote safety, and improve product quality and value. Results for this program show that in 2012 the number of active vessels and landings decreased relative to the Baseline period (average of 3-year period prior to start date). Inflation-adjusted revenue and revenue per active vessel increased during this period.

More recently (January 2011), the PFMC implemented the Pacific Trawl Rationalization Program that involves individual fishing quotas (IFQs) for non-whiting groundfish and whiting trawlers, and cooperatives for whiting mothership and catcher processor sectors. The objectives of this Program are to provide a mechanism for total catch accounting; provide for a viable, profitable and efficient groundfish fishery; promote practices that reduce bycatch and discard mortality and minimize ecological impacts; increase operational flexibility; minimize adverse effects from the IFQ Program on fishing communities and other fisheries; promote measurable economic and employment benefits through the seafood catching, processing, distribution elements and support sectors of the industry; provide quality product for the consumer; and increase safety in the fishery.

Results from the whiting component of this program show that in 2012 the number of active vessels declined relative to the Baseline while landings and inflation-adjusted catch share species revenue and revenue per active vessel increased. In the non-whiting component of this program, 2012 landings, the number of active vessels, and inflation-adjusted catch share species revenue declined relative to the Baseline while inflation-adjusted revenue per active vessel increased.

Ecolabels are another market-based management tool that is intended to encourage fishermen to adopt harvest practices that are considered sustainable by an organization such as the Marine Stewardship Council (MSC). The Pacific hake midwater trawl, Oregon pink shrimp, Oregon Dungeness crab, the American Albacore Fishing Association albacore tuna, and the west coast limited entry trawl groundfish fisheries have all received certifications from the MSC.

COMMERCIAL FISHERIES

In 2013, commercial fishermen in the Pacific Region landed 1.3 billion pounds of finfish and shellfish, earning \$830 million in landings revenue. Crab (\$249 million) and other shellfish (\$193 million) dominated landings revenue (53%) but comprised only 10% of Pacific Region landings. These species groups commanded ex-vessel prices of \$2.86 and \$4.85 per pound, respectively.

Key Pacific Region Commercial Species

- Albacore tuna
- Crab
- Flatfish
- Hake
- Other shellfish
- Rockfish
- Sablefish
- Salmon
- Shrimp
- Squid

Washington had the highest landings revenue in the region (\$361 million) in 2013, followed by California (\$255 million), and Oregon (\$179 million). California had the highest landings (364 million pounds), followed by Oregon (340 million pounds), and Washington (273 million pounds).

Economic Impacts¹

In 2013, the Pacific Region's seafood industry impacts were largest in California followed by Washington and Oregon. The seafood industry generated the following sales impacts: \$221 billion in California, \$7.3 billion in Washington and \$1.4 billion in Oregon. Income impacts were: \$4.6 billion in California, \$2 billion in Washington, and \$0.5 billion in Oregon. Value added impacts were: \$7.6 billion in California, \$3.1 billion in Washington, and \$0.7 billion in Oregon. Employment impacts were 132,000 jobs in California, 65,000 jobs in Washington, and 21,000 jobs in Oregon.

The sector that generated the greatest employment impacts in California was the importers sector (56,000 jobs) followed by the retail sector with 54,000 jobs. In

¹ The NMFS Commercial Fishing Industry Input/Output Model was used to generate the impact estimates (see NMFS Commercial Fishing & Seafood Industry Input/Output Model, available at: www.st.nmfs.noaa.gov/documents/commercial_seafood_impacts_2007-2009.pdf).

Washington the retail sector (24,000 jobs) generated the largest employment impacts, followed by the seafood processors & dealers sector (15,000 jobs). In Oregon the retail sector (11,000 jobs) generated the largest employment impacts, followed by the commercial harvesters sector (6,000 jobs). The importers sector contributed more to the total value added impacts than any other single sector in both California and Washington.

Landings Revenue

Landings revenue in the Pacific Region totaled \$830 million in 2013. This was an 88% increase (a 38% increase in real terms) from 2004 levels and a 23% increase relative to 2012. Totaling \$552 million in 2013, shellfish revenue experienced a 111% increase (a 55% increase in real terms) from 2004 to 2013 and experienced a 29% increase from 2012 to 2013.

Crab (\$249 million) and other shellfish (\$193 million) had the highest landings revenue in the Pacific Region in 2013. Together they accounted for 53% of total landings revenue but only 10% of total landings in the Pacific Region. Between 2004 and 2013, the landings revenue for crab increased 116% (59% in real terms) and increased 88% (38% in real terms) for other shellfish.

From 2004 to 2013, squid experienced the largest increase in landings revenue (273% nominal, 174% real) due to favorable ocean conditions and high demand in foreign markets. Landings revenue for hake also increased substantially (181% nominal, 107% real) largely due to higher prices that have emerged since the implementation of the catch share program. Crab also experienced a sizable increase in landings revenue (116%, 59% real) during this period. Sablefish (-17%) and flatfish (-10%) experienced declines in landings revenue in real terms from 2004 to 2013.

Species or species groups with large increases in landings revenue between 2012 and 2013 included salmon (62%), crab (41%), flatfish (33%), hake (30%), and other shellfish (28%). Sablefish (-31%) and albacore tuna (-8%) experienced decreases in landings revenue from 2012 to 2013.

Washington had the highest finfish landings revenue (\$98 million) followed by Oregon (\$81 million), and

California (\$65 million). Shellfish landings revenue was also dominated by Washington (\$263 million), followed by California (\$190 million), and Oregon (\$98 million).

Commercial Fisheries Facts

Landings revenue

- On average between 2004 and 2013, the key species or species groups accounted for 92% of total revenue, generating \$517 million in the Pacific Region.
- On average, landings revenue in the Pacific region was split 63% shellfish and 37% finfish.
- Crab had the highest annual average landings revenue in the region from 2004 to 2013: \$145 million

Landings

- Key species or species groups contributed an average of 78% annually to total landings between 2004 and 2013, or 876 million pounds.
- On average, landings volume in the Pacific region was split 28% shellfish and 72% finfish.
- Hake (whiting), contributed the most to landings in the region, averaging 455 million pounds from 2004 to 2013.

Prices

- Other shellfish had the highest average annual ex-vessel price per pound (\$4.54) between 2004 to 2013, followed by crab (\$2.28), and sablefish (\$2.07).
- Hake (whiting) had the lowest average annual ex-vessel price per pound (\$0.08) over the time period, followed by squid (\$0.27), and flatfish (\$0.42).

Landings

Fishermen in the Pacific Region landed 1.3 billion pounds of finfish and shellfish in 2013. This was an 11% increase from 2004 and an 18% year-over-year increase from 2012. Finfish landings contributed 67% of total landings in the Pacific Region (848 million pounds) in 2013. Finfish landed volume decreased 9% over the 10-year period from 2004 to 2013 and increased 18% from 2012 to 2013. Shellfish landings doubled from 2004 to 2013 and increased by 19% from 2012 to 2013, to over 415 million pounds.

Hake (Pacific whiting), at 506 million pounds, and squid, at 230 million pounds, were the species or species groups with the largest landings volume in the Pacific region in 2013. Squid (160%) and shrimp (142%)

showed the greatest increase in landings and more than doubled from 2004 to 2013. Sablefish (-29%), albacore tuna (-10%), and flatfish (-4%) declined in terms of landings volume over the same period. Salmon landings more than doubled between 2012 and 2013 (up 133%) largely due to higher quotas that reflected projected increases in abundance. Crab (65%), hake (46%), and other shellfish (46%) also showed large year-over-year percentage increases in landings. Landings of sablefish (-21%) and albacore tuna (-7%) declined from 2012 to 2013.

Prices

The ex-vessel prices for the Pacific Region's key species and species groups in 2013 were higher than their 10 year average for four of the key species (in real terms, prices only increased for five species). Ex-vessel prices for hake (140%, 71% in real terms) followed by crab and albacore tuna (both 70%, 26% in real terms) experienced the biggest increases between 2004 and 2013. Relative to the ex-vessel prices in 2012, prices for the Pacific Region's flatfish (up 13%) and squid (up 7%) increased from 2012 to 2013. Region-level average prices for all other species or species groups declined from the previous year.

RECREATIONAL FISHERIES

In 2013, more than 1.7 million recreational anglers took 7.5 million fishing trips in the Pacific Region. Over 69% of these anglers were residents of a regional coastal county. Of the total saltwater fishing trips in the Pacific Region 65% were shore-based and 26% were taken from a private or rental boat.

Key Pacific Region Recreational Species

- Albacore and other tunas
- Barracuda, bass and bonito
- Croakers
- Flatfishes
- Greenlings
- Mackerel
- Rockfishes and scorpionfishes
- Salmon
- Sculpins
- Surfperches

Economic Impacts and Expenditures²

The contribution of recreational fishing activities in the Pacific Region are reported in terms of economic im-

pacts at the state level (employment, sales, income, and value added impacts) and expenditures on fishing trips and durable equipment at the regional level. Employment impacts in California were the highest in the region with 14,000 full- and part-time jobs generated by recreational fishing activities in the state. Washington (3,800) and Oregon (3,500 jobs) followed in terms of employment impacts generated by recreational fishing activities.

In addition to employment impacts, the contribution of recreational fishing activities to the Pacific Region's economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value added impacts). In 2013, sales impacts were also the highest in California (\$1.7 billion), followed by Washington (\$477 million), and Oregon (\$328 million). California also had the highest value added impacts (\$1 billion), followed by Washington (\$300 million), and Oregon (\$203 million).

The total saltwater fishing trip and durable equipment expenditures were \$1.9 billion across the Pacific Region in 2013. Approximately 63% of these expenditures were related to durable equipment purchases. The greatest expenditures were for boat purchases (\$529 million) and fishing tackle (\$346 million). Fishing trip related expenditures by the Pacific Region's non-residents totaled over \$49 million of which the greatest portion can be attributed to for-hire-based fishing trips (\$33 million). Residents of the Pacific Region spent \$644 million on trip-related expenses with the majority of these expenses related to shore trips (\$291 million).

Participation

There were 1.7 million recreational anglers who fished in the Pacific Region in 2013. This represents a 4% increase from 2004 and a less than 1% increase from 2012. Total participation was made up of 69% residents of coastal counties in Pacific region states.

Fishing Trips

Recreational fishermen took 7.5 million fishing trips in the Pacific Region in 2013. This was a 13% increase from 2004 (6.7 million trips) and was 70,000 more trips

² Expenditure estimates were generated from the 2011 National Marine Recreational Fishing Expenditure Survey. Economic impacts from recreational fishing activities were generated using the NMFS Recreational Economic Impact Model (see The Economic Contribution of Marine Angler Expenditures in the United States, 2011, available at: https://www.st.nmfs.noaa.gov/economics/publications/marine-angler-expenditures/marine-angler-2011).

than were taken in 2012. Of the total trips taken in the Pacific Region in 2013, approximately 67% of the trips were shore based (5 million trips). The other most popular mode of fishing was private or rental boat based with 1.9 million trips in 2013.

Recreational Fishing Facts

Participation

- An average of 1.6 million anglers fished in the Pacific Region annually from 2004 to 2013.
- Residents of coastal counties within the Pacific region accounted for an average of 72% of total anglers annually over the 10 year time period.

Fishing trips

- In the Pacific Region, an average of 6.5 million fishing trips were taken annually from 2004 to 2013.
- Private or rental boat and shore-based fishing trips accounted for an annual average of 1.7 million and 4.2 million fishing trips, respectively, from 2004 to 2013.

Harvest and release

- Rockfish and scorpionfishes was the most commonly caught key species or species group, averaging 3.4 million fish over the 10 year time period.
- Of the ten commonly caught key species or species groups, six were harvested more often than released over this time period.

Harvest and Release

The Pacific region's species and species groups caught most frequently in 2013 were rockfishes and scorpionfishes (4.9 million fish), surfperches (2.0 million fish), and barracuda, bass and bonito (1.3 million fish). Between 2004 and 2013, albacore and other tunas had the largest percentage increase in the number of fish caught (64%) followed by rockfish and scorpionfishes (56%). Barracuda, bass and bonito had the largest percentage decrease in the number of fish caught (-72%) followed by mackerel and croakers (both -66%) from 2004 to 2013.

Relative to 2012, the number of flatfish (37%) and sculpins (24%) caught had the largest percentage increases in 2013. From 2012 to 2013 mackerel (-27%) and albacore and other tunas (-21%), in contrast, had the largest annual percentage decrease in the number caught.

MARINE ECONOMY³

Across all sectors of the economy in California, Oregon, and Washington nearly 17 million full- and part-time employees were employed by more than 1.1 million establishments in 2012. Annual payroll totaled \$881 billion. Total employee compensation in the Pacific region totaled \$1.4 trillion and the combined gross state product of all states totaled about \$2.7 trillion.4

The Commercial Fishing Location Quotient (CFLQ) provides a measure of the proportional size of this sector in a state's economy relative to the size of the commercial fishing sector in the national economy.5 The CFLQ is calculated as the ratio of the percentage of regional employment in the commercial fishing sector relative to the percentage of national employment in the commercial fishing sector. The US CFLQ is 1; a state CFLQ less than (greater than) 1 implies that there is less (more) commercial fishing in this state than the national average.

In 2012, the commercial fishing location quotient (CFLQ) for Washington was the highest in the region at 12.51. Washington's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is approximately 12.51 times higher than the level of employment in these industries nationwide. The 2012 CFLQ in California was lowest in the region at 0.56.

For this report, the marine economy, a subset of the regional economy, is comprised of two industry sectors: 1) seafood sales and processing, which includes both employer establishments and nonemployer firms (businesses that have no paid employees and are subject to federal income tax); and 2) transport, support, and marine operations (employer establishments only). These sectors are comprised of several different marine-related industries. The following sections discuss the contribution of these industries to the national marine economy in terms of the number of establishments or firms, employees, and total annual payroll or receipts.

Seafood Sales and Processing

In 2012, there were 207 nonemployer firms engaged in seafood product preparation and packaging across the

³ Unless otherwise stated, data is from the U.S. Census Bureau, http://censtats.census.gov/ (accessed September 15, 2014).

⁴ U.S. Bureau of Economic Analysis, "Table 1.1.5 Gross Domestic Product" and "Table SA6N Compensation of Employees by NAICS Industry," http://www.bea.gov/iTable/index_nipa.cfm (accessed September 15, 2014).

⁵ U.S. Bureau of Labor Statistics, "Location Quotient Calculator," http://data.bls.gov/location_quotient/ (accessed September 15, 2014).

Pacific region, with California (151 firms) accounting for the vast majority of these firms. In addition, receipts from these firms totaled \$14 million in 2012, a decrease of less than 1% from 2011. The number of employer establishments in this sector decreased 14% from 2004 to 2012, to 149, with 90 businesses located in Washington. Employment and payroll decreased by 8% and 21%, respectively, from 2004 to 2012.

There were 397 seafood wholesale establishments in the Pacific region in 2012, a decrease of less than 1% from 2004. Most of these firms (275) were in the located in California. There were 4,700 employees in the seafood wholesale sector across the region in 2012 with annual payroll of \$233 million.

Nonemployer firms engaged in seafood retail sales in the Pacific region totaled 289 in 2012, a 24% increase from 2004 levels. California had the vast majority of firms (236) in this sector. These firms had receipts totaling \$21.7 million in 2012. Region-wide, there were 207 employer establishments in the seafood retail sales sector in 2012, a decrease of 11% from 2004. Most of these firms were in California (149). The number of employees in the seafood retail sector regionally increased 7% from 2004 to 2012, to 1,400 employees. Payroll in this sector was \$35.2 million in 2012.

Transport, Support, and Marine Operations

The size of the Transport, Support, and Marine Operations sectors in the Pacific region is difficult to assess because much of the state-level data is suppressed for confidentiality purposes. It is clear, however, that these sectors play an important role in the regional economy. For example, there were 383 establishments classified as marinas, employing 2,835 workers and spending \$93 million on payroll in 2012. The marine cargo handling sector accounted for employment of 18,759 workers and more than \$1.3 billion in payroll in California alone. The Ship and Boat Building Sector consisted of 294 establishments employing 19,479 workers and contributing \$913 million in payroll across all three states in the region.

Tables | Pacific Region



2013 Economic Impacts of the Pacific Seafood Industry (thousands of dollars)

			With In	nports			Imports		
	Landings Revenue	Jobs	Sales	Income	Value Added	lohe	Sales	Income	Value Added
California	255,320	132,035	21,019,365	4,576,714	7,557,456	19,474	1,434,400	530,862	733,754
Oregon	179,193	21,063	1,359,682	478,202	669,841	18,503	949,571	394,104	527,995
Washington	361,391	64,599	7,270,644	2,030,011	3,050,112	29,998	1,918,271	794,754	1,075,654

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Revenue	440,474	414,584	471,788	459,772	500,447	501,938	566,579	729,785	674,258	829,584
Finfish & Other	178,693	166,922	176,425	176,104	215,784	168,495	202,527	260,625	245,531	278,068
Shellfish	261,781	247,662	295,363	283,668	284,663	333,442	364,052	469,160	428,728	551,516
Key Species										
Albacore tuna	27,242	20,574	23,767	21,612	28,845	27,541	28,780	43,347	45,736	41,871
Crab	115,365	97,127	143,758	121,136	107,107	123,865	132,843	182,085	176,821	249,132
Flatfish	12,741	13,816	12,974	14,462	15,738	14,155	10,511	11,225	11,637	15,459
Hake (whiting)	21,819	29,139	34,425	32,603	58,492	14,104	27,316	52,869	47,054	61,321
Other shellfish	102,423	107,438	116,161	120,569	129,947	142,348	142,227	181,122	150,183	192,926
Rockfish	6,832	6,559	6,848	7,541	9,257	8,974	9,226	9,446	9,420	9,869
Sablefish	17,230	20,366	22,991	20,984	27,279	34,481	35,977	44,873	28,106	19,503
Salmon	47,676	37,188	34,306	33,865	26,992	24,986	48,986	53,456	47,516	76,961
Shrimp	30,586	15,706	12,433	17,298	25,132	16,594	21,941	40,638	40,327	42,536
Squid	19,748	31,516	26,998	29,169	26,585	56,928	71,173	66,557	63,894	73,720

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

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	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Landings	1,138,763	1,301,649	1,169,906	1,109,222	1,091,673	899,043	1,065,499	1,176,780	1,069,860	1,263,401
Finfish & Other	932,610	1,070,529	935,523	902,887	906,773	582,120	650,822	756,733	719,345	847,953
Shellfish	206,153	231,120	234,383	206,335	184,900	316,923	414,677	420,047	350,515	415,449
Key Species										
Albacore tuna	31,764	19,649	28,117	25,483	24,507	27,055	25,477	24,284	30,585	28,467
Crab	69,247	61,849	85,301	51,888	45,075	59,158	61,668	66,518	52,834	87,016
Flatfish	29,895	31,495	27,689	33,502	37,409	40,599	33,281	25,557	24,439	28,764
Hake (whiting)	474,460	569,273	558,078	454,533	531,277	253,053	355,216	496,363	347,171	505,614
Other shellfish	31,275	30,907	30,611	29,543	28,557	30,733	28,166	29,318	27,235	39,764
Rockfish	8,057	7,406	6,633	7,447	9,469	10,458	11,038	9,910	10,405	10,791
Sablefish	12,905	13,742	13,718	11,630	12,978	15,822	15,055	14,139	11,580	9,124
Salmon	40,609	27,249	29,172	24,600	19,040	33,742	30,693	41,799	24,305	56,521
Shrimp	29,422	26,069	20,290	26,497	35,799	33,456	46,191	66,686	66,319	71,337
Squid	88,215	123,090	108,561	109,464	85,200	205,643	288,678	267,983	214,988	230,365

Average Annual Price of Key Species/Species Groups (dollars per pound)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Albacore tuna	0.86	1.05	0.85	0.85	1.18	1.02	1.13	1.78	1.50	1.47
Crab	1.67	1.57	1.69	2.33	2.38	2.09	2.15	2.74	3.35	2.86
Flatfish	0.43	0.44	0.47	0.43	0.42	0.35	0.32	0.44	0.48	0.54
Hake (whiting)	0.05	0.05	0.06	0.07	0.11	0.06	0.08	0.11	0.14	0.12
Other shellfish	3.27	3.48	3.79	4.08	4.55	4.63	5.05	6.18	5.51	4.85
Rockfish	0.85	0.89	1.03	1.01	0.98	0.86	0.84	0.95	0.91	0.91
Sablefish	1.34	1.48	1.68	1.80	2.10	2.18	2.39	3.17	2.43	2.14
Salmon	1.17	1.36	1.18	1.38	1.42	0.74	1.60	1.28	1.95	1.36
Shrimp	1.04	0.60	0.61	0.65	0.70	0.50	0.48	0.61	0.61	0.60
Squid	0.22	0.26	0.25	0.27	0.31	0.28	0.25	0.25	0.30	0.32

2013 Economic Impacts of the Pacific Recreational Fishing Expenditures (thousands of dollars)

	Trips	Jobs	Sales	Income	Value Added
California	5,519	13,954	1,679,367	679,690	1,069,468
Oregon	711	3,458	327,804	138,005	202,915
Washington	1,266	3,847	477,220	177,274	299,822

2013 Angler Trip & Durable Expenditures (thousands of dollars)

Fishing Mode		Trip Expenditures	Equipment	Durable Goods Expenditures
	Non-residents	Residents	Fishing Tackle	346,107
For-Hire	32,967	136,988	Other Equipment	151,336
Private Boat	10,518	215,894	Boat Expenses	528,698
Shore	5,215	291,446	Vehicle Expenses	168,180
Total	48,699	644,327	Second Home Expenses	6,622
			Total Durable Expenditures	1,200,943
Total State Trip and	Durable Equipment	t Expenditures		1,893,969

Recreational Anglers by Residential Area (thousands of anglers)¹

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Coastal	1,168	1,028	1,257	1,184	1,065	1,136	1,047	1,069	1,181	1,151
Non-Coastal	429	409	481	379	385	638	384	390	468	511
Out-of-State	NA									
Total Anglers	1,597	1,437	1,738	1,563	1,450	1,774	1,431	1,459	1,649	1,662

Recreational Fishing Effort by Mode (thousands of angler-trips)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
For-Hire	649	624	635	605	514	492	455	654	647	725
Private	1,752	1,849	1,761	1,828	1,421	1,471	1,432	1,659	1,806	1,912
Shore	4,255	3,962	4,548	3,818	3,846	4,345	3,739	3,792	4,973	4,859
Total Trips	6,656	6,435	6,944	6,251	5,781	6,308	5,626	6,105	7,426	7,496

Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)2

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		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Albacore &	Н	80	23	45	106	51	80	90	53	153	96
other tunas	R	10	2	2	7	(1)	13	(1)	4	34	52
Barracuda,	Н	2,126	1,015	668	537	434	412	373	435	371	215
bass & bonito	R	2,597	2,011	1,660	1,407	1,093	1,211	991	738	775	1,112
Charltona	Н	619	572	456	427	321	427	173	128	256	173
Croakers	R	660	618	553	631	272	362	340	98	231	257
Flatfishes	Н	499	560	325	260	344	329	417	641	561	713
Flatfishes	R	343	513	520	338	361	297	277	222	296	459
Croonlings	Н	208	268	234	192	169	188	158	227	272	316
Greenlings	R	344	283	209	153	141	194	197	292	306	283
Madrard	Н	945	1,023	1,158	823	940	753	479	590	438	246
Mackerel	R	1,715	1,872	3,287	1,209	1,765	1,267	1,272	1,050	806	656
Rockfishes &	Н	2,415	3,432	2,504	2,255	1,841	1,991	2,194	2,873	3,359	3,874
scorpionfishes	R	757	1,149	731	513	465	689	584	558	911	1,068
Salmon ³	Н	607	432	223	450	104	808	162	384	467	549
Sairion	R	NA									
Caulaina	Н	72	72	55	49	60	59	53	91	68	70
Sculpins	R	246	238	222	208	228	200	198	238	229	298
Curfnorchos	Н	1,297	945	1,164	861	832	752	638	1,017	1,144	1,034
Surfperches	R	1,561	1,242	1,675	861	817	706	452	931	1,279	1,006

¹ NA = data are not available because out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified. 2 In this table, $^\prime$ (1) $^\prime$ = 0-999 fish. 3 Salmon harvest estimates exclude release mortality.

Tables | California



2013 Economic Impacts of the California Seafood Industry (thousands of dollars)

		With I	mports		Without Imports				
	Jobs	Sales	Income	Value Added	Jobs	Sales	Income	Value Added	
Total Impacts	132,035	21,019,365	4,576,714	7,557,456	19,474	1,434,400	530,862	733,754	
Commercial Harvesters	5,252	511,565	166,933	249,144	5,252	511,565	166,933	249,144	
Seafood Processors & Dealers	5,185	528,448	195,953	260,010	2,245	227,807	84,473	112,087	
Importers	56,274	15,479,845	2,480,941	4,718,935	0	0	0	0	
Seafood Wholesalers & Distributors	11,550	1,615,600	524,020	732,092	778	108,772	35,280	49,289	
Retail	53,775	2,883,907	1,208,867	1,597,274	11,199	586,256	244,176	323,233	

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)1

										,
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Revenue	140,615	116,084	129,907	127,580	120,861	159,253	187,263	222,160	243,948	255,320
Finfish & Other	58,798	46,640	43,164	50,363	46,968	46,682	44,291	55,805	55,230	65,068
Shellfish	81,816	69,444	86,743	77,217	73,893	112,571	142,971	166,355	188,718	190,251
Key Species										
Crab	43,381	19,653	46,483	28,626	24,227	32,508	43,016	53,762	88,207	91,818
Pacific sardine	3,957	3,150	5,100	8,218	7,575	5,544	4,366	4,398	4,249	1,510
Rockfish	4,447	4,145	4,630	4,924	5,781	5,330	5,453	5,644	5,170	5,748
Sablefish	3,724	4,295	4,892	4,873	6,224	9,765	11,491	15,121	8,988	7,047
Salmon	17,770	12,804	5,261	7,835	6	NA	1,215	5,096	12,850	22,956
Sea urchins	7,300	6,156	5,145	5,400	6,550	7,806	7,413	8,102	8,320	9,830
Shrimp	3,783	4,338	4,213	4,064	5,696	5,462	4,951	8,598	8,492	9,435
Spiny lobster	6,160	6,039	8,111	6,916	8,008	7,934	11,386	12,972	13,749	13,842
Squid	19,740	31,467	26,959	29,131	26,477	56,877	71,165	66,546	63,886	73,701
Swordfish	4,834	1,896	2,695	3,127	2,365	1,932	2,203	3,350	2,089	2,699

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)¹

			• •	•			•	•		
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Landings	379,591	442,353	341,661	384,826	323,884	376,053	439,440	409,837	353,869	363,598
Finfish & Other	257,944	301,993	203,107	258,625	223,912	147,934	120,103	108,131	101,783	89,743
Shellfish	121,647	140,360	138,554	126,200	99,972	228,120	319,336	301,706	252,086	273,855
Key Species										
Crab	27,016	12,028	27,391	12,393	9,845	16,660	23,352	22,206	27,589	33,082
Pacific sardine	97,509	76,324	102,683	178,480	126,945	82,842	73,814	60,993	50,660	15,636
Rockfish	3,843	3,181	3,252	3,136	3,933	3,984	3,949	3,450	3,457	3,862
Sablefish	3,158	3,645	3,617	3,240	3,507	5,089	5,501	5,646	3,916	3,291
Salmon	7,113	4,962	1,184	1,743	1	NA	255	1,133	2,862	4,337
Sea urchins	12,219	11,304	10,664	11,131	10,283	12,205	11,230	11,465	11,443	12,945
Shrimp	3,520	2,944	1,197	2,015	3,011	3,596	4,522	8,217	7,255	9,525
Spiny lobster	860	761	886	663	741	706	716	751	876	764
Squid	88,167	122,887	108,410	109,150	84,071	205,278	288,497	267,890	214,867	230,061
Swordfish	2,613	653	1,187	1,210	1,168	898	815	1,365	886	1,174

Average Annual Price of Key Species/Species Groups (dollars per pound)¹

-										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Crab	1.61	1.63	1.70	2.31	2.46	1.95	1.84	2.42	3.20	2.78
Pacific sardine	0.04	0.04	0.05	0.05	0.06	0.07	0.06	0.07	0.08	0.10
Rockfish	1.16	1.30	1.42	1.57	1.47	1.34	1.38	1.64	1.50	1.49
Sablefish	1.18	1.18	1.35	1.50	1.77	1.92	2.09	2.68	2.29	2.14
Salmon	2.50	2.58	4.44	4.50	4.16	NA	4.76	4.50	4.49	5.29
Sea urchins	0.60	0.54	0.48	0.49	0.64	0.64	0.66	0.71	0.73	0.76
Shrimp	1.07	1.47	3.52	2.02	1.89	1.52	1.09	1.05	1.17	0.99
Spiny lobster	7.16	7.93	9.15	10.44	10.80	11.24	15.91	17.27	15.69	18.11
Squid	0.22	0.26	0.25	0.27	0.31	0.28	0.25	0.25	0.30	0.32
Swordfish	1.85	2.90	2.27	2.58	2.03	2.15	2.70	2.46	2.36	2.30

¹ NA = these data are confidential thus not disclosable.

2013 Economic Impacts of California Recreational Fishing Expenditures (thousands of dollars)

		Jobs	Sales	Income	Value Added
Trip Impacts -	For-Hire	2,057	260,114	115,096	161,580
' '	Private Boat	877	137,893	48,084	82,292
by Fishing Mode	Shore	2,664	373,555	131,641	218,962
Total Durable Expenditures	5	8,356	907,805	384,869	606,634
Total State Economic Impa	acts	13,954	1,679,367	679,690	1,069,468

2013 Angler Trip & Durable Expenditures (thousands of dollars)

Fishing Mode		Trip Expenditures	Equipment	Durable Goods Expenditures
	Non-residents	Residents	Fishing Tackle	245,704
For-Hire	29,119	110,054	Other Equipment	104,165
Private Boat	5,195	91,166	Boat Expenses	241,197
Shore	3,374	260,436	Vehicle Expenses	119,858
Total	37,688	461,656	Second Home Expenses	4,446
			Total Durable Expenditures	715,370
Total State Trip and	Durable Equipment	Expenditures		1,214,714

Recreational Anglers by Residential Area (thousands of anglers)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Coastal	865	740	991	878	819	888	803	714	921	873
Non-Coastal	280	263	335	226	246	490	241	238	316	352
Out-of-State	98	79	109	65	83	71	69	93	86	95
Total Anglers	1,243	1,082	1,435	1,169	1,148	1,449	1,113	1,045	1,323	1,320

Recreational Fishing Effort by Mode (thousands of angler-trips)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
For-Hire	521	504	522	489	424	385	357	560	544	609
Private	708	902	896	768	640	676	655	682	799	797
Shore	3,509	3,216	3,802	3,072	3,100	3,599	2,993	3,046	4,227	4,113
Total Trips	4,738	4,622	5,220	4,329	4,164	4,660	4,005	4,288	5,570	5,519

Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)1

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Flatfishes	Н	410	478	241	187	276	258	353	575	492	642
riatrisries	R	295	465	471	292	313	241	231	176	249	411
Rockfishes &	Н	1,778	2,725	1,891	1,674	1,318	1,383	1,613	2,348	2,780	3,197
scorpionfishes	R	701	1,058	668	456	402	605	494	483	839	977
Croonlings	Н	72	125	104	69	48	64	38	88	118	144
Greenlings	R	239	179	113	67	53	83	96	178	200	180
Calman?	Н	223	144	98	48	(1)	1	15	50	123	114
Salmon ²	R	NA									
Coulning	Н	41	39	25	19	29	27	21	58	37	40
Sculpins	R	98	87	74	58	78	50	46	86	77	144
Surfperches	Н	1,046	694	913	610	581	501	387	766	892	782
Surrperches	R	1,402	1,083	1,516	702	658	546	292	771	1,119	846
Albacore &	Н	49	6	9	22	5	13	20	8	39	19
other tunas	R	10	2	3	7	(1)	13	2	6	36	36
Barracuda,	Н	2,126	1,015	668	537	434	412	373	435	371	215
bass & bonito ³	R	2,597	2,011	1,660	1,407	1,093	1,211	991	738	775	1,112
Madraval	Н	945	1,023	1,158	823	940	753	479	590	438	246
Mackerel	R	1,715	1,872	3,287	1,209	1,765	1,267	1,272	1,050	806	656
Crookers	Н	619	572	456	427	321	427	173	128	256	173
Croakers	R	660	618	553	631	272	362	340	98	231	257

¹ In this table, '(1)' = 0-999 fish.

If this table, (1) = 0-999 init.
 Salmon harvest estimates exclude release mortality.
 This species may not be equivalent to species with similar names listed in the commercial tables.

California's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ billions)	Employee Compensation (\$ billions)	Gross State Product (\$ billions)	Fishing
2004	841,774 (11.4%)	13,264,918 (11.5%)	554.74 (13.1%)	885.42 (13.2%)	1,642.98 (13.5%)	0.82
2012	864,913 (11.6%)	12,952,818 (11.2%)	700.10 (12.9%)	1,120.26 (13%)	2,125.72 (13.2%)	0.56
% change	2.7	-2.4	20.8	21	22.7	-46.4

Seafood Sales & Processing - Nonemployer Firms (thousands of dollars)

		2004	2005	2006	2007	2008	2009	2010	2011	2012
Seafood product	Firms	98	88	91	121	139	159	184	187	151
prep. & packaging	Receipts	14,312	10,207	8,298	10,842	11,460	10,852	9,695	9,788	9,283
Seafood sales,	Firms	193	166	163	222	210	202	203	209	236
retail	Receipts	19,092	16,892	19,875	19,703	19,892	17,095	19,021	18,006	18,238

Seafood Sales & Processing - Employer Establishments (thousands of dollars)

		2004	2005	2006	2007	2008	2009	2010	2011	2012
Seafood product	Establishments	55	48	47	49	45	47	48	48	41
prep. & packaging	Employees	2,931	2,963	2,592	2,229	2,024	2,167	1,820	1,842	1,668
prep. & packaging	Payroll	72,178	92,642	78,065	75,886	65,215	69,529	62,480	60,411	52,977
Seafood sales,	Establishments	263	258	252	300	278	289	314	404	275
wholesale	Employees	3,744	3,925	4,063	4,429	3,321	3,183	3,223	3,505	3,441
Williesale	Payroll	124,657	134,576	144,758	159,672	132,139	128,813	137,810	149,302	173,959
Seafood calos	Establishments	169	180	184	182	161	153	158	157	149
Seafood sales, retail	Employees	945	999	1,031	1,004	932	976	985	1,088	1,043
	Payroll	16,686	18,832	19,900	21,224	20,585	21,785	22,718	25,168	24,221

Transport, Support, & Marine Operations - Employer Establishments (thousands of dollars)2

				- /		(
		2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal & Great	Establishments	20	26	22	29	28	30	25	21	22
Lakes freight	Employees	ds	1,346	ds	ds	ds	ds	554	395	ds
transportation	Payroll	ds	129,262	ds	ds	ds	ds	30,431	24,708	ds
Doon oon froight	Establishments	50	54	54	51	43	41	54	51	45
Deep sea freight transportation	Employees	901	ds	957	1,643	ds	ds	2,562	2,464	2,431
ti ai ispoi tation	Payroll	69,815	ds	84,199	116,628	ds	ds	236,235	256,962	236,423
Deep sea	Establishments	15	15	16	13	5	5	3	2	2
passenger	Employees	ds	ds	1,552	ds	ds	ds	ds	ds	ds
transportation	Payroll	ds	ds	72,119	ds	ds	ds	ds	ds	ds
	Establishments	271	263	268	276	277	276	270	269	251
Marinas	Employees	2,476	2,426	2,457	2,680	2,652	2,514	2,390	2,401	2,237
	Payroll	73,338	71,318	74,778	80,216	85,315	78,890	80,631	82,958	71,777
Marine cargo	Establishments	54	54	52	56	61	62	63	71	38
handling	Employees	20,456	19,303	20,975	22,395	22,086	17,428	18,449	18,812	18,759
riariuliriy	Payroll	1,179,221	1,273,698	1,448,623	1,484,308	1,453,281	1,211,572	1,273,268	1,333,805	1,351,874
Navigational	Establishments	38	37	36	39	40	39	41	45	35
services to	Employees	ds	ds	817	858	815	804	765	760	800
shipping	Payroll	ds	ds	63,893	63,610	65,225	61,720	58,899	62,065	61,166
Port & harbor	Establishments	20	20	20	18	17	19	21	19	59
operations	Employees	ds	ds	582	443	256	345	435	508	ds
operations	Payroll	ds	ds	32,523	30,001	23,316	26,889	37,560	41,688	ds
Ship & boat	Establishments	143	141	132	136	136	123	117	108	120
building	Employees	8,865	10,132	9,801	9,250	11,630	10,483	9,720	9,165	12,681
Dulluling	Payroll	354,404	410,446	453,255	433,846	477,300	460,239	448,338	434,449	544,819

 $^{^{1}}$ The US Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ less than (greater than) 1 implies that there is less (more) commercial fishing in this state than the national average. 2 ds = these data are suppressed.

Tables | Oregon



2013 Economic Impacts of the Oregon Seafood Industry (thousands of dollars)

		With In	ports		Without Imports					
	Jobs	Sales	Income	Value Added	Jobs	Sales	Income	Value Added		
Total Impacts	21,063	1,359,682	478,202	669,841	18,503	949,571	394,104	527,995		
Commercial Harvesters	6,351	336,220	140,299	196,687	6,351	336,220	140,299	196,687		
Seafood Processors & Dealers	1,978	166,308	63,873	83,454	1,865	156,774	60,211	78,669		
Importers	1,212	333,266	53,412	101,594	0	0	0	0		
Seafood Wholesalers & Distributors	752	89,036	30,204	40,511	536	63,464	21,529	28,876		
Retail	10,770	434,851	190,414	247,596	9,750	393,113	172,065	223,763		

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

rotar Lananigo itt	Total Editarings Revenue and Editarings Revenue of Rey Species, Species Groups (thousands of donars)										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Total Revenue	101,022	88,196	106,093	97,298	103,042	106,959	106,378	148,354	128,030	179,193	
Finfish & Other	49,634	53,192	46,326	47,589	56,912	52,749	58,730	76,718	72,205	81,422	
Shellfish	51,388	35,005	59,767	49,709	46,130	54,210	47,648	71,636	55,825	97,770	
Key Species											
Albacore tuna	9,145	8,815	8,067	9,468	10,666	10,191	12,425	18,766	15,077	16,079	
Crab	42,960	26,603	53,810	38,208	29,168	42,413	32,757	44,696	29,130	71,208	
Flatfish	6,460	7,281	7,547	7,930	9,163	8,468	6,861	6,780	7,316	9,854	
Hake (whiting)	4,641	7,107	7,974	6,501	6,830	3,783	5,414	16,518	14,611	20,405	
Oysters	3,292	1,232	1,163	1,847	2,748	4,506	3,317	1,869	1,661	1,798	
Pacific sardine	4,870	6,199	3,743	4,551	5,665	5,291	5,252	3,192	8,977	6,299	
Rockfish	1,633	1,387	1,564	2,002	2,610	2,500	2,520	2,473	2,660	3,023	
Sablefish	6,935	8,657	9,787	9,494	13,737	15,919	15,069	17,351	11,529	7,594	
Salmon	12,995	10,437	4,940	4,647	4,166	3,546	7,698	6,737	6,924	12,418	
Shrimp	4,740	6,901	4,494	9,365	13,937	6,813	11,006	24,607	24,685	24,153	

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Landings	294,866	312,636	282,846	253,543	195,688	199,458	201,974	274,533	295,892	339,614
Finfish & Other	254,330	278,646	236,998	216,134	155,837	154,147	153,588	208,445	237,655	265,439
Shellfish	40,536	33,990	45,848	37,410	39,851	45,311	48,386	66,088	58,237	74,175
Key Species										
Albacore tuna	10,754	8,087	8,534	10,468	8,876	10,082	10,703	9,682	9,886	10,205
Crab	27,276	17,734	33,291	17,007	13,875	21,848	15,817	17,240	8,656	26,055
Flatfish	14,846	16,910	16,385	19,697	23,842	26,047	22,226	15,958	15,322	18,965
Hake (whiting)	130,238	135,503	122,804	81,481	55,511	53,466	57,017	142,092	102,651	160,098
Oysters	823	308	255	197	162	1,127	829	467	415	449
Pacific sardine	79,610	99,450	74,669	90,037	49,298	45,902	44,743	23,479	91,354	57,022
Rockfish	2,574	2,007	1,967	2,905	3,820	4,207	4,533	3,819	3,918	4,745
Sablefish	5,627	5,834	5,838	5,349	6,514	7,219	6,269	5,074	4,738	3,840
Salmon	5,914	4,666	1,810	1,370	1,860	2,311	2,765	2,386	1,916	3,505
Shrimp	12,207	15,784	12,128	19,990	25,400	22,019	31,429	48,198	49,009	47,472

Average Annual Price of Key Species/Species Groups (dollars per pound)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Albacore tuna	0.85	1.09	0.95	0.90	1.20	1.01	1.16	1.94	1.53	1.58
Crab	1.58	1.50	1.62	2.25	2.10	1.94	2.07	2.59	3.37	2.73
Flatfish	0.44	0.43	0.46	0.40	0.38	0.33	0.31	0.42	0.48	0.52
Hake (whiting)	0.04	0.05	0.06	0.08	0.12	0.07	0.09	0.12	0.14	0.13
Oysters	4.00	4.00	4.56	9.40	16.96	4.00	4.00	4.00	4.00	4.00
Pacific sardine	0.06	0.06	0.05	0.05	0.11	0.12	0.12	0.14	0.10	0.11
Rockfish	0.63	0.69	0.80	0.69	0.68	0.59	0.56	0.65	0.68	0.64
Sablefish	1.23	1.48	1.68	1.78	2.11	2.21	2.40	3.42	2.43	1.98
Salmon	2.20	2.24	2.73	3.39	2.24	1.53	2.78	2.82	3.61	3.54
Shrimp	0.39	0.44	0.37	0.47	0.55	0.31	0.35	0.51	0.50	0.51

2013 Economic Impacts of Oregon Recreational Fishing Expenditures (thousands of dollars)

		Jobs	Sales	Income	Value Added
Trip Impacts by	For-Hire	242	22,707	9,347	12,727
Fishing Mode	Private Boat	442	42,753	17,390	26,199
ristility Mode	Shore	139	13,196	5,238	7,902
Total Durable Expenditures		2,635	249,148	106,030	156,087
Total State Economic Impacts		3,458	327,804	138,005	202,915

2013 Angler Trip & Durable Expenditures (thousands of dollars)

Fishing Mode		Trip Expenditures	Equipment	Durable Goods Expenditures
	Non-residents	Residents	Fishing Tackle	48,431
For-Hire	718	12,750	Other Equipment	23,891
Private Boat	2,704	35,265	Boat Expenses	127,099
Shore	1,130	10,110	Vehicle Expenses	26,780
Total	4,552	58,124	Second Home Expenses	1,331
			Total Durable Expenditures	227,532
Total State Trip and	Durable Equipment	Expenditures		290,208

Recreational Anglers by Residential Area (thousands of anglers)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Coastal	90	87	82	86	79	85	82	81	84	89
Non-Coastal	125	123	125	130	120	128	124	122	128	133
Out-of-State	16	14	15	15	14	15	14	14	15	16
Total Anglers	231	224	222	231	213	228	220	217	227	238

Recreational Fishing Effort by Mode (thousands of angler-trips)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
For-Hire	64	58	56	61	48	56	51	52	57	64
Private	426	382	373	399	353	396	378	370	389	414
Shore	233	233	233	233	233	233	233	233	233	233
Total Trips	723	673	662	693	634	685	662	655	679	711

Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)1

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Daitfichas	Н	221	220	220	220	220	220	223	221	220	220
Baitfishes	R	124	124	124	124	124	124	125	125	125	125
Flatfishes	Н	27	21	21	22	21	17	14	15	17	18
Flatfishes	R	7	7	7	6	8	9	5	5	6	6
Croonlings	Н	97	104	97	95	92	90	90	97	111	132
Greenlings	R	80	79	74	67	69	72	79	85	83	87
Daalefahaa	Н	381	400	331	321	307	363	373	290	320	402
Rockfishes	R	31	58	40	38	47	51	64	53	50	66
Calmana?	Н	128	42	16	68	14	91	23	24	35	45
Salmon ²	R	NA									
Caulaina	Н	14	16	14	15	16	16	16	16	15	14
Sculpins	R	57	60	57	59	59	59	61	61	61	63
Churana	Н	12	12	12	12	12	12	12	12	12	12
Sturgeon	R	24	24	24	24	24	24	25	25	25	25
Curfnorshoo	Н	118	118	118	118	118	118	118	118	118	118
Surfperches	R	39	39	39	39	39	39	39	39	39	39
Albacore	Н	17	5	12	59	24	43	38	29	63	22
tuna	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Wrasses	Н	16	36	201	353	167	86	116	26	194	107
(tautog)	R	77	149	108	745	250	112	257	36	599	455

In this table, '(1)' = 0-999 fish. Salmon estimates exclude release mortality.

Oregon's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ billions)	Employee Compensation (\$ billions)	Gross State Product (\$ billions)	Commercial Fishing Location Quotient ¹
2004	105,449 (1.4%)	1,355,542 (1.2%)	46.35 (1.1%)	76.86 (1.1%)	142.71 (1.2%)	2.77
2012	107,549 (1.4%)	1,363,523 (1.2%)	58.48 (1.1%)	97.75 (1.1%)	210.24 (1.3%)	3.69
% change	2	0.6	20.7	21.4	32.1	24.9

Seafood Sales & Processing - Nonemployer Firms (thousands of dollars)2

		2004	2005	2006	2007	2008	2009	2010	2011	2012
Seafood product	Firms	ds	9	7	ds	19	15	15	16	14
prep. & packaging	Receipts	ds	309	54	ds	957	466	510	467	346
Seafood sales,	Firms	11	7	11	11	16	12	15	16	11
retail	Receipts	507	985	914	1,210	2,101	1,140	1,907	1,896	1,600

Seafood Sales & Processing - Employer Establishments (thousands of dollars)2

		2004	2005	2006	2007	2008	2009	2010	2011	2012
Soafood product	Establishments	18	20	21	22	23	20	21	22	18
Seafood product prep. & packaging	Employees	738	762	896	819	850	812	806	805	934
prep. & packaging	Payroll	20,593	19,022	25,881	27,394	27,616	26,202	27,007	32,438	31,970
Confood color	Establishments	21	23	16	18	18	19	22	27	21
Seafood sales, wholesale	Employees	126	ds	180						
Williesale	Payroll	4,446	ds	7,602						
Confood calos	Establishments	24	24	22	23	21	23	21	20	18
Seafood sales,	Employees	171	204	306	171	178	151	162	163	126
retail	Payroll	3,259	3,464	3,294	3,185	3,370	3,515	3,651	3,613	2,851

Transport, Support, & Marine Operations - Employer Establishments (thousands of dollars)^{2,3}

		2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal & Great	Establishments	8	9	9	13	8	9	8	8	8
Lakes freight	Employees	ds	ds	ds	476	ds	ds	ds	ds	ds
transportation	Payroll	ds	ds	ds	25,206	ds	ds	ds	ds	ds
Deep sea freight	Establishments	6	6	6	5	4	3	3	3	3
transportation	Employees	ds								
ti ai ispoi tation	Payroll	ds								
Deep sea	Establishments	0	0	0	2	0	0	0	0	0
passenger	Employees	NA	NA	NA	ds	NA	NA	NA	NA	NA
transportation	Payroll	NA	NA	NA	ds	NA	NA	NA	NA	NA
	Establishments	41	40	37	38	37	33	30	33	32
Marinas	Employees	133	113	ds	138	106	109	102	102	119
	Payroll	2,988	3,550	ds	3,754	2,178	2,602	2,290	2,382	3,034
Marine cargo	Establishments	8	8	9	9	13	13	12	13	5
handling	Employees	ds								
Tidifidilitig	Payroll	ds								
Navigational	Establishments	21	21	20	17	20	17	18	18	20
services to	Employees	ds	ds	ds	183	200	189	144	152	176
shipping	Payroll	ds	ds	ds	11,331	11,808	10,154	9,577	9,592	12,219
Port & harbor	Establishments	0	0	0	2	1	1	3	3	10
operations	Employees	NA	NA	NA	ds	ds	ds	ds	ds	90
орегаціонз	Payroll	NA	NA	NA	ds	ds	ds	ds	ds	6,512
Ship & boat	Establishments	50	43	41	40	41	35	34	34	33
building	Employees	1,285	1,298	1,230	1,441	1,692	1,886	980	1,179	1,504
Dananig	Payroll	43,357	45,183	43,416	47,950	74,583	90,446	42,004	55,068	77,718

¹ The US Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ less than (greater than) 1 implies that there is less (more) commercial fishing in this state than the national average.

2 ds = these data are suppressed.

3 NA = not applicable.

Tables | Washington



2013 Economic Impacts of the Washington Seafood Industry (thousands of dollars)

		With I	mports		Without Imports					
	Jobs	Sales	Income	Value Added	Jobs	Sales	Income	Value Added		
Total Impacts	64,599	7,270,644	2,030,011	3,050,112	29,998	1,918,271	794,754	1,075,654		
Commercial Harvesters	8,816	713,402	305,888	430,056	8,816	713,402	305,888	430,056		
Seafood Processors & Dealers	15,480	1,464,680	550,112	727,989	3,267	307,207	115,382	152,691		
Importers	13,271	3,650,516	585,065	1,112,837	0	0	0	0		
Seafood Wholesalers & Distributors	2,678	340,397	114,047	155,598	1,088	138,300	46,336	63,218		
Retail	24,354	1,101,649	474,899	623,631	16,827	759,361	327,147	429,689		

Total Landings Revenue and Landings Revenue of Key Species/Species Groups (thousands of dollars)

	com											
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		
Total Revenue	166,247	193,317	217,030	216,119	232,841	227,773	255,332	329,785	275,585	361,391		
Finfish & Other	55,906	50,145	68,201	59,386	68,213	61,115	81,902	98,627	91,409	97,913		
Shellfish	110,342	143,172	148,829	156,733	164,628	166,658	173,430	231,159	184,177	263,477		
Key Species												
Clams	42,297	48,503	55,786	56,428	64,141	72,646	73,625	88,739	69,412	81,305		
Crab	29,024	50,872	43,464	54,302	53,712	48,944	57,070	83,627	59,485	86,106		
Hake (Whiting)	2,341	4,937	7,296	7,121	7,249	2,334	4,105	7,183	5,882	7,452		
Halibut	7,264	6,512	8,303	8,842	7,525	4,879	5,764	6,740	6,122	4,936		
Mussels	3,096	3,729	6,564	3,820	5,293	4,851	4,318	4,740	6,065	9,230		
Oysters	31,257	33,697	38,302	37,437	34,794	34,993	30,370	43,021	37,576	75,646		
Sablefish	6,517	7,395	8,307	6,608	7,312	8,796	9,402	12,378	7,578	4,833		
Salmon	17,316	14,319	24,586	22,026	23,376	22,003	40,622	42,434	28,398	42,347		
Shrimp	3,648	4,335	3,602	3,746	5,380	4,139	5,677	7,140	6,986	8,670		
Tuna, albacore	15,657	10,643	15,176	10,439	17,225	16,390	14,575	22,253	28,440	24,692		

Total Landings and Landings of Key Species/Species Groups (thousands of pounds)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Landings	192,181	213,502	241,606	194,449	173,176	163,937	189,486	210,282	213,578	272,613
Finfish & Other	155,224	156,902	191,717	151,762	128,208	120,452	142,608	158,113	173,506	205,489
Shellfish	36,957	56,600	49,889	42,687	44,968	43,485	46,878	52,169	40,072	67,124
Key Species										
Clams	3,319	3,621	4,617	3,363	4,070	4,266	3,876	4,023	3,664	3,971
Crab	14,955	32,086	24,619	22,487	21,355	20,651	22,500	27,072	16,590	27,879
Hake (Whiting)	69,117	93,654	120,058	91,272	67,159	36,378	58,900	73,494	38,524	58,696
Halibut	2,254	1,948	2,451	2,428	2,055	1,731	1,371	1,301	1,295	1,073
Mussels	427	504	774	475	593	568	589	547	559	731
Oysters	11,058	12,190	12,306	11,189	10,258	9,386	8,650	9,389	8,143	19,577
Sablefish	4,064	4,240	4,259	3,035	2,954	3,514	3,277	3,410	2,916	1,971
Salmon	27,918	17,926	26,570	21,938	17,641	31,821	28,086	38,706	19,839	49,018
Shrimp	6,599	7,279	6,926	4,455	7,355	7,775	10,153	10,193	10,009	14,277
Tuna, albacore	18,044	10,505	19,133	13,129	14,801	16,112	13,148	13,209	19,275	17,552

Average Annual Price of Key Species/Species Groups (dollars per pound)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Clams	12.74	13.40	12.08	16.78	15.76	17.03	19.00	22.06	18.95	20.47
Crab	1.94	1.59	1.77	2.41	2.52	2.37	2.54	3.09	3.59	3.09
Hake (Whiting)	0.03	0.05	0.06	0.08	0.11	0.06	0.07	0.10	0.15	0.13
Halibut	3.22	3.34	3.39	3.64	3.66	2.82	4.20	5.18	4.73	4.60
Mussels	7.26	7.40	8.48	8.05	8.93	8.54	7.33	8.66	10.85	12.62
Oysters	2.83	2.76	3.11	3.35	3.39	3.73	3.51	4.58	4.61	3.86
Sablefish	1.60	1.74	1.95	2.18	2.48	2.50	2.87	3.63	2.60	2.45
Salmon	0.62	0.80	0.93	1.00	1.33	0.69	1.45	1.10	1.43	0.86
Shrimp	0.55	0.60	0.52	0.84	0.73	0.53	0.56	0.70	0.70	0.61
Tuna, albacore	0.87	1.01	0.79	0.80	1.16	1.02	1.11	1.68	1.48	1.41

2013 Economic Impacts of Washington Recreational Fishing Expenditures (thousands of dollars)

		Jobs	Sales	Income	Value Added
Trip Impacts by Fishing Mode	For-Hire	224	29,122	12,882	18,630
	Private Boat	785	115,931	37,477	69,154
by Fishing Mode	Shore	203	26,646	8,990	15,927
Total Durable Expenditures		2,635	305,521	117,925	196,111
Total State Economic Impacts		3,847	477,220	177,274	299,822

2013 Angler Trip & Durable Expenditures (thousands of dollars)

Fishing Mode		Trip Expenditures	Equipment	Durable Goods Expenditures
	Non-residents	Residents	Fishing Tackle	51,972
For-Hire	3,130	14,184	Other Equipment	23,280
Private Boat	2,619	89,463	Boat Expenses	160,402
Shore	711	20,900	Vehicle Expenses	21,542
Total	6,459	124,547	Second Home Expenses	845
			Total Durable Expenditures	258,041
Total State Trip and	Durable Equipment	t Expenditures		389,047

Recreational Anglers by Residential Area (thousands of anglers)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Coastal	213	201	184	220	167	163	162	274	176	189
Non-Coastal	24	23	21	23	19	20	19	30	24	26
Out-of-State	19	18	17	19	15	16	15	17	19	20
Total Anglers	256	242	222	262	201	199	196	321	219	235

Recreational Fishing Effort by Mode (thousands of angler-trips)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
For-Hire	64	62	57	55	42	51	47	42	46	52
Private	618	565	492	661	428	399	399	607	618	701
Shore	513	513	513	513	513	513	513	513	513	513
Total Trips	1,195	1,140	1,062	1,229	983	963	959	1,162	1,177	1,266

Harvest (H) and Release (R) of Key Species Species Groups (thousands of fish)1

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Flatfishes	Н	62	61	63	51	47	54	50	51	52	53
	R	41	41	42	40	40	47	41	41	41	42
Rockfishes ²	Н	256	307	282	260	216	245	208	235	259	275
	R	25	33	23	19	16	33	26	22	22	25
Greenlings	Н	39	39	33	28	29	34	30	42	43	40
	R	25	25	22	19	19	39	22	29	23	16
Sculpins	Н	17	17	16	15	15	16	16	17	16	16
	R	91	91	91	91	91	91	91	91	91	91
Sturgeon ³	Н	8	8	7	8	8	9	NA	NA	NA	NA
	R	25	30	21	18	12	17	NA	NA	NA	NA
Surfperches	Н	133	133	133	133	133	133	133	133	134	134
	R	120	120	120	120	120	121	121	121	121	121
Albacore tuna	Н	14	12	24	25	22	24	32	16	51	55
	R	0	0	(1)	0	0	0	(1)	(1)	(1)	17
Smelt & herring	Н	2,486	2,486	2,486	2,486	2,486	2,486	2,486	2,486	2,486	2,486
	R	126	126	126	126	126	126	126	126	126	126
Sharks & Skates	Н	1	1	1	0	1	1	(1)	(1)	(1)	(1)
	R	14	12	14	9	12	10	3	1	3	2
Salmon ³	Н	256	246	109	334	90	716	124	310	309	390
	R	NA									

 $^{^1}$ In this table, '(1)' = 0-999 thousand fish and '1' = 1,000-1,499 thousand fish. 2 This species may not be equivalent to species with similar names listed in the commercial tables 3 Data on sturgeon harvest not available for 2010-2013; Salmon harvest estimates exclude release mortality.

Washington's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ billions)	Employee Compensation (\$ billions)	Gross State Product (\$ billions)	Commercial Fishing Location Quotient ¹
2004	171,529 (2.3%)	2,268,913 (2%)	90.15 (2.1%)	147.79 (2.2%)	270.84 (2.2%)	13.75
2012	175,553 (2.4%)	2,361,697 (2%)	122.69 (2.3%)	204.32 (2.4%)	390.92 (2.4%)	12.51
% change	2.3	3.9	26.5	27.7	30.7	-9.9

Seafood Sales & Processing - Nonemployer Firms (thousands of dollars)

		2004	2005	2006	2007	2008	2009	2010	2011	2012
Seafood product	Firms	53	54	53	63	44	47	39	37	42
prep. & packaging	Receipts	4,446	5,568	4,149	4,698	5,167	5,022	4,228	3,859	4,377
Seafood sales,	Firms	30	31	29	32	33	42	30	34	42
retail	Receipts	2,202	1,836	1,727	1,458	1,807	2,462	1,273	2,370	1,871

Seafood Sales & Processing - Employer Establishments (thousands of dollars)

		2004	2005	2006	2007	2008	2009	2010	2011	2012
Seafood product prep. & packaging	Establishments	101	98	96	98	96	86	93	90	90
	Employees	5,851	5,743	5,705	5,249	5,893	4,860	5,296	5,387	6,118
	Payroll	247,316	239,962	255,129	275,662	306,213	232,543	254,592	293,112	326,827
Seafood sales, wholesale	Establishments	116	126	115	127	107	108	105	107	101
	Employees	883	1,094	1,015	1,086	996	1,103	970	911	1,085
	Payroll	37,292	42,852	42,934	46,085	48,251	48,044	45,871	45,543	51,508
Seafood sales, retail	Establishments	40	47	49	50	44	43	47	44	40
	Employees	222	291	292	244	247	239	282	253	256
	Payroll	6,578	9,322	8,998	8,001	7,947	8,324	9,098	7,786	8,210

Transport, Support, & Marine Operations - Employer Establishments (thousands of dollars)²

		2004	2005	2006	2007	2008	2009	2010	2011	2012
Coastal & Great Lakes freight transportation	Establishments	38	41	43	37	24	24	30	28	28
	Employees	2,039	1,672	2,353	1,903	2,222	2,245	1,731	1,684	1,557
	Payroll	128,786	122,000	145,144	136,543	168,832	168,783	130,398	132,068	126,401
Deep sea freight transportation	Establishments	23	24	23	30	21	25	20	14	12
	Employees	311	378	197	227	263	305	209	ds	ds
	Payroll	20,559	22,655	14,390	19,692	24,843	28,897	24,711	ds	14,014
Deep sea passenger transportation	Establishments	2	3	3	3	4	5	4	2	2
	Employees	ds								
	Payroll	ds								
Marinas	Establishments	96	96	103	114	116	110	117	114	100
	Employees	449	442	466	485	573	570	560	517	479
	Payroll	12,763	13,556	14,269	15,623	18,931	18,811	18,783	18,364	18,038
Marine cargo handling	Establishments	30	30	29	28	25	27	26	32	13
	Employees	ds	4,459	3,764	4,913	4,821	2,953	ds	3,910	ds
	Payroll	ds	318,873	303,375	334,601	334,193	239,490	ds	323,286	ds
Navigational services to shipping	Establishments	53	53	56	61	76	69	79	78	72
	Employees	ds	841	942	950	1,213	1,168	1,225	1,207	ds
	Payroll	ds	60,034	72,120	72,912	100,542	102,934	102,766	94,781	ds
Port & harbor operations	Establishments	4	6	5	6	11	11	9	9	48
	Employees	ds	ds	53	129	111	118	74	75	1,509
	Payroll	ds	ds	3,436	4,631	6,359	6,437	4,662	4,937	85,042
Ship & boat building	Establishments	141	154	164	167	169	162	152	135	141
	Employees	6,474	7,154	7,669	7,742	8,067	6,710	5,406	5,232	5,294
	Payroll	272,336	307,735	313,230	354,084	402,253	312,240	284,759	276,402	290,400

 $^{^{1}}$ The US Commercial Fishing Location Quotient (CFLQ) is 1. A CFLQ less than (greater than) 1 implies that there is less (more) commercial fishing in this state than the national average. 2 ds = these data are suppressed.