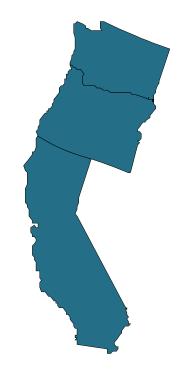
# **Pacific**

- California
- OregonWashington



# **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 Fishery Management Plans**

- 1. Pacific Coast Groundfish
- 2. Pacific Coast Salmon
- 3. Coastal Pelagic Species
- 4. West Coast Highly Migratory Species

Of the stocks covered in these fishery management plans, bocaccio, darkblotched rockfish, cowcod, and yelloweye rockfish are currently characterized as overfished. These stocks are subject to unprecedented harvest, season, and depth-based area restrictions to address rebuilding requirements for these overfished species. Eastern Pacific yellowfin tuna and Pacific bigeye tuna stocks<sup>2</sup> – which are internationally managed – are currently characterized as subject to overfishing.

Several species of Pacific salmon are listed as threatened or endangered under the Endangered Species Act (ESA). Endangered or threatened salmon are sometimes caught in the sardine fisheries off of Oregon and Washington and their incidental harvest is an example of bycatch.

Interesting management techniques are employed in two of the Pacific Region's fisheries. The Pacific salmon fishery is 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 those listed under the Endangered Species Act. 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, 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 Sacramento River in 2008 and 2009 resulted in unprecedented closures of ocean and inriver 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.

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). 4 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.

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. Two LAPPs are currently operating in the region. Put into place in 1997, the Pacific whiting cooperative was implemented by the PFMC. In 2001, the Pacific sablefish permit stacking program was implemented whereby vessels are allowed to stack permits in order to obtain additional trip limits. These fisheries had an ex-vessel value of \$21.8 million and \$6.4 million, respectively, in 2007.

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 idea is that as the general public becomes more aware of issues related to the harvest of marine resources, consumers will be willing to pay higher prices for seafood carrying an ecolabel that indicates that the product was sustainably-caught.

<sup>&</sup>lt;sup>1</sup>These stocks are part of the Pacific Coast groundfish fishery, a multispecies fishery involving multiple commercial gear groups (trawl, line, and pot vessels) and recreational for-hire (party/charter) and private boat anglers.

<sup>&</sup>lt;sup>2</sup>These stocks are part of the West Coast highly migratory species (HMS) fishery that includes tunas, sharks, marlin, swordfish, and dorado. Longline and drift gillnet activity has been severely restricted due to potential interactions with marine mammals, turtles, and seabirds.

<sup>&</sup>lt;sup>3</sup>In contrast to NOAA Fisheries' recent stock assessments, the scientific committee of the International Seafood Sustainability Foundation, a tuna fishing industry organization, recently suggested that the Eastern Pacific yellowfin tuna stock is not overfished nor subject to overfishing.

<sup>&</sup>lt;sup>4</sup>Waters off the coasts of California, Oregon, Washington, and Alaska comprise the U.S. EEZ subject to management by the IPHC.

<sup>&</sup>lt;sup>5</sup>More information about the Marine Stewardship Council and its certification process is available at: http://www.msc.org/track-a-fishery/certified.

<sup>&</sup>lt;sup>6</sup>It is yet unclear whether ecolabels are enough to entice consumers to purchase ecolabeled products over non-ecolabeled products. Other factors that may influence a consumer's purchasing decision include how much more an ecolabeled product costs and whether the fish species that is

The Oregon pink shrimp fishery and the American Albacore Fishing Association albacore tuna fishery have received certifications from the MSC. Additional Pacific fisheries that are being considered for certification include the California and Oregon Dungeness crab, California Chinook, and Pacific whiting (hake) midwater trawl fisheries.

## Commercial Fisheries

In 2007, commercial fishermen in the Pacific Region landed roughly 1.1 billion pounds of finfish and shellfish, generating \$446 million in ex-vessel revenue. Landings revenue was dominated by crab (\$121.2 million) and other shellfish (\$107 million). These high value species groups commanded an average annual price of \$2.33 and \$3.62 per pound, respectively, and comprised 51% of landings revenue but only 8% of total landings. Hake landings were the highest at 455 million pounds in 2007. However, with an average annual price of \$0.07 per pound, hake contributed only 7% to total landings revenue.

Washington contributed most to landings revenue in the region with over \$209 million in 2007, followed by California (\$120 million), and Oregon (\$97 million). In terms of pounds landed, California contributed the most (384 million pounds), followed by Oregon (254 million pounds), and Washington (193 million pounds).

## **Key Pacific Commercial Species**

- Crab
- Flatfish
- Hake (whiting)
- Other shellfish
- Rockfish
- Sablefish
- SalmonShrimp
- Snrimp
   Carried
- Squid
- Albacore tuna

## Economic Impacts

In 2007, the Pacific Region's seafood industry generated \$8.5 billion in sales impacts in California, \$3.7 billion in Washington, and \$9.4 million in Oregon. California also generated the largest income and employment impacts (\$4.4 billion; 156,000 full- and part-time jobs), followed by Washington (\$2.0 billion; 73,000 jobs) and Oregon (\$506 million; 19,000 jobs).

# Landings Revenue

In 2007, ex-vessel revenue for finfish and shellfish totaled \$446 million, a 60% increase (33% in real terms) from landings revenue in 1998 (\$279 million). However, this was an 6% decrease from \$472 million in 2006. Shellfish revenue accounted for most of the 2007 revenue generated: \$270 million or 61% of the total. This was a 108% increase (74% in real terms) in shellfish revenue from 1998 (\$130 million). Finfish revenue totaled \$176 million, an 18% increase (-1.6% in real terms) from 1998 (\$149 million).

ecolabeled is itself a desirable seafood product relative to other available options. That is, an ecolabeled tilapia fillet may not be as desirable as a non-ecolabeled salmon fillet.

Washington contributed the most to shellfish revenue, generating \$150 million in 2007. This was a 105% increase from 1998 (\$73 million). Landings revenue in California (76%) and Oregon (194%) also increased significantly during this period. In contrast, finfish revenue increased modestly across the region despite a drop in finfish revenue in California (-29% from 1998-2007). Finfish landings revenue in Oregon (42%) and Washington (63%) increased.

Crab and other shellfish had the highest landings revenue in the Pacific Region in 2007, with \$121 million and \$107 million, respectively. Together, they accounted for 51% of the total landings revenue generated in 2007. Between 1998 and 2007, the exvessel revenue from these species groups increased 105% for crab and 73% for other shellfish.

Other species or groups with large changes in landings revenue between 1998 and 2007 include squid (1617% increase), hake (149% increase), sablefish (75% increase), and rockfish (66% decrease).

#### **Commercial Fish Facts**

## Landings revenue

- On average, the key species or species groups accounted for 89% of total revenue (\$327 million) generated in the Pacific Region.
- <u>Crab</u> contributed more than any other species or group, <u>averaging \$97 million in landings revenue</u> from 1998-2007. In 2007, Washington contributed the most to crab revenue in the region, followed by Oregon and California.
- <u>Squid</u> had the largest annual increase during the 10 year time period, <u>increasing 1,866%</u> from \$1.7 million in 1998 to \$33 million in 1999. <u>Shrimp</u> had the largest annual decrease in landings revenue, <u>dropping 44%</u> from 2002-2003.

## Landings

- Key species and species groups in the Pacific Region contributed an average of 62% annually to total landings.
- <u>Hake</u>, also known as whiting, contributed the most to landings in the region, <u>averaging 445 million pounds</u> from 1998-2007. In 2007, commercial fishermen in Washington harvested the majority of this species.
- Landings of <u>squid</u> increased dramatically from 1998-1999, <u>increasing 2,961%</u>, the largest annual increase in the region. Most of this was harvested in California which had a 2,967% increase in squid landings. In contrast, <u>shrimp landings dropped 44%</u> from 2002-2003, the largest annual decrease.

## Prices

- Other shellfish had the highest average annual exvessel price per pound (\$3.11) over the time period, followed by <a href="crab">crab</a> (\$1.85) and <a href="sablefish">sablefish</a> (\$1.46).
- Hake (\$0.05), squid (\$0.20), and flatfish (\$0.41) had the lowest average annual ex-vessel price per pound.
- The largest annual increase in annual ex-vessel price was for <u>squid</u>, a <u>136% increase</u> from 2002-2003. The largest annual decrease in price was for <u>salmon</u>, <u>dropping 42%</u> from 2000-2001.

## Landings

Fishermen in the Pacific Region landed 1.1 billion pounds of finfish and shellfish in 2007. This was a 14% increase from the 970 million pounds landed in 1998, but a 5% decrease from the 1.2 billion landed in 2006. Finfish landings contributed 79% of total landings in the Pacific (902 million pounds) in 2007, with no change (0%) from 1998. From 2006-2007, finfish landings decreased 4%. Shellfish landings increased substantially during this period, from 65 million pounds in 1998 to 206 million pounds in 2007, a 217% increase. However, shellfish landings decreased 12% between 2006 and

With the exception of California where there was a 19% decrease in finfish landings between 1998 and 2007, these landings increased in Oregon (42%) and Washington (98%). Landings of shellfish increased in all three states: 194% in Oregon, 71% in Washington, and 76% in California. Washington contributed the most to both finfish (150 million pounds) and shellfish (44 million pounds) landings in 2007.

Of the Pacific Region's key species and groups, hake and squid contributed the most to total landings, with 445 million and 109 million pounds, respectively. Together, these species made up 51% of total landings in 2007. Washington and Oregon fishermen were major contributors to hake landings, while squid landings were mostly harvested by California fishermen.

Key species or groups with the largest increases in annual landings totals from 1998-2007 were squid (1,550% increase), shrimp (92%), and crab (59%). Total landings of rockfish (84% decrease), albacore tuna (-16%), and flatfish (-3.4%) dropped during this period, the only key species or groups to show a decline in landings. The decrease in rockfish landings is partly attributable to the establishment of rockfish conservation areas<sup>7</sup> that were put into place in response to declining populations of this long-lived, slow-growing species group.

## Prices

Overall, 2007 ex-vessel price for each of the Pacific Region's key species and groups was higher than their 10 year average annual price per pound. Ex-vessel prices for hake and rockfish experienced the biggest increases between 1998 and 2007, increasing 133% (95% in real terms) and 106% (72% in real terms), respectively. Hake prices increased 167% (123% in real terms) in both Oregon and Washington during this time period (\$0.03 to \$0.08 per pound). Rockfish prices in increased 171% (126% in real terms) in California (\$0.58 to \$1.57 per pound) and 57% (31% in real terms) in Oregon (\$0.44 to \$0.69 per pound).

Relative to ex-vessel prices in 2006, the Pacific Region's crab (38%), hake (17%), and salmon (21%) prices

increased in 2007. Albacore tuna prices remained stable from 2006-2007, and flatfish (-9%), other shellfish (-4%), and rockfish (-2%) prices decreased.

Key species or groups with declining ex-vessel prices in both current and/or real terms include shrimp (-40%, -50% in real terms) and squid (3.8%, -13% in real terms). Annual price per pound for flatfish was up 19% in 2007 but in real terms, there was no change in flatfish prices from 1998-2007.

At the state level, key species or groups with large changes in ex-vessel price between 1998 and 2007 include: squid (213% increase) and sea urchin (36% decrease) landings in California; oysters (276% increase) and salmon (158% increase) in Oregon; and halibut (131% increase) landings in Washington.

# Recreational Fishing<sup>8</sup>

In 2006, there were over 1.8 million resident recreational anglers in the Pacific Region, Resident and non-resident anglers took 5.9 million fishing trips in the Pacific Region. Most of these anglers (70%) were residents of a regional coastal county. Of the total fishing trips taken, 65% of them were shore-based. Mackerels were the most caught key species or species group with over 5.1 million fish caught in 2006, 28% of total fish caught in the region. Rockfishes (3.7 million fish) and surfperches (3.5 million fish) were also species groups caught in large numbers.

# **Key Pacific Recreational Species**

- · Barracuda, bass, and bonito
- Croakers
- Flatfishes
- Greenlings
- Mackerels
- · Rockfishes and scorpionfishes
- Salmon
- Sculpins
- Surfperches
- Albacore and other tuna

## Economic Impacts and Expenditures8

Recreational fishing activities in California supported more jobs than in any other state in the region with approximately 23,000 full- and part-time jobs supported in 2006. Washington (11,000 jobs) and Oregon (2,500 jobs) followed in terms of employment impacts from recreational fishing activities. The majority of these jobs in each of these states were related to durable equipment expenditures (versus trip-related expenditures): 95% of jobs in Washington, 82% of jobs in California, and 61% of jobs in Oregon.

In terms of employment impacts related to fishing trips taken by anglers, industries that provided services for for-hire fishing trips supported most of the trip-related full-and part-time jobs in California

<sup>&</sup>lt;sup>7</sup>More information about these rockfish conservation areas is available at: http://www.nwr.noaa.gov/Groundfish-Halibut/Groundfish-Fishery-Management/Groundfish-Closed-Areas/.

<sup>&</sup>lt;sup>8</sup>Data related to 2007 recreational fishing activities was not available for this report therefore 2006 information is reported in this section.

(1,600 jobs). In Oregon, trip-related employment impacts were related to the private boat industry (544 jobs), while in Washington, shore-based fishing trips supported most of the trip-related jobs (293 jobs).

The contribution of recreational fishing activities in the Pacific are also reported in terms of state level sales and value-added impacts, and direct expenditures on fishing trips and durable equipment. In 2006, in-state sales and value-added impacts were highest in California (\$3.7 billion in sales impacts; \$1.9 billion in value-added impacts). Washington (\$1.1 billion; \$606 million) and Oregon (\$284 million; \$155 million) followed in terms of sales and value-added impacts. Across the region, these economic impacts were largely generated from durable equipment expenditures made by anglers (versus trip-related impacts).

Total fishing trip and durable equipment expenditures generated \$4.6 billion across the Pacific Region in 2006. Approximately 90% of these expenditures were related to durable equipment purchases. Boat-related (\$1.4 billion) and fishing tackle expenses (\$1.1 billion) accounted for the majority of durable equipment expenditures. Expenditures by Pacific Region residents related to fishing trips totaled \$332 million. Most of these purchases were related to fishing trips taken from shore (40% of trip-related expenditures by residents). The region's non-resident anglers generated \$111 million in trip-related expenditures with most of these expenses related to for-hire fishing trips (37% of trip-related expenditures by non-residents).

# Participation8,9

In 2006, there were 1.8 million recreational fishermen from either a coastal or non-coastal county in the Pacific Region. This was a 10% increase from 2004 (1.7 million anglers) and a 23% increase from 2005 (1.5 million anglers). Over 70% of total anglers in 2006 were coastal county residents. When looking at where most recreational anglers fished, over 77% of Pacific Region coastal and non-coastal county resident anglers fished in California.

In 2006, the majority of recreational fishermen who fished in California and Washington were residents of coastal counties within their respective states. In California, 71% of total anglers were coastal county residents and in Washington, 68% of total anglers were from coastal counties. In contrast, most of Oregon's anglers were residents of non-coastal counties within the state. Approximately 58% of anglers in Oregon in 2006 were from non-coastal counties. In all three

states, out-of-state resident anglers were the minority accounting for 6.4%, 8.1%, and 6.0% of total anglers in California, Oregon, and Washington, respectively.

#### Recreational Fishing Facts

#### Participation

- Approximately <u>1.7 million resident anglers</u> fished in the Pacific Region annually from 2004-2006. Most of these anglers fished in California.
- Coastal county residents accounted for 70% of total anglers in 2006. On average, these recreational fishermen accounted for 69% of anglers annually between 2004 and 2006.
- Non-coastal county resident anglers increased 47% from 2000-2001, the largest annual increase in participation. <u>Coastal county resident anglers</u> <u>decreased 30%</u> from 2003-2004, the largest annual decrease.

#### Fishing trips

- In the Pacific Region, an average of <u>5.5 million fishing trips</u> were taken annually between 2004 and 2006.
   Most of these trips were taken in California.
- <u>Shore-based</u> fishing trips were the most popular fishing trip mode with <u>over 3.8 million</u> of these trips taken in 2006. Shore-based trips accounted for <u>65%</u> of trips taken in the region.
- From 1999-2000, <u>shore-based</u> fishing trips <u>increased</u> 40%, the largest annual increase in trips taken by anglers. <u>Private or rental boat</u> trips <u>decreased 66%</u> from 2003-2004, the largest annual decrease.

### Harvest and release

- On average, <u>3.4 million mackerels</u> were caught annually from 2004-2006. Of these, <u>72% were</u> <u>released</u> rather than harvested.
- Seven of the Pacific's ten key species or groups were released by anglers rather than harvested. <u>Sculpins</u> (76% released), <u>mackerels</u> (69%), and <u>barracuda</u>, <u>bass</u>, <u>and bonito</u> (65%) are examples.
- Tuna, albacore, and other tunas (77% harvested), rockfishes and scorpionfishes (77%), and surfperches (53%) were key species or groups that were more often harvested than released by recreational fishermen in the Pacific
- Mackerels had the largest annual increase in catch, increasing 108% from 1998-1999. The largest annual decrease in catch was for greenlings, dropping 61% from 2003-2004.

# Fishing Trips<sup>8,9</sup>

In the Pacific Region, resident and non-resident anglers took 5.9 million fishing trips in 2006. This was a 7.5% increase from 2004 (5.5 million trips) and a 12% increase from 2005 (5.2 million trips). In the Pacific Region overall, fishing trips taken from each fishing trip mode increased relative to 2005. In 2006, most fishing trips were taken from shore (3.8 million trips). Shore-based fishing trips accounted for 65% of total fishing trips taken in the Pacific Region. Fishing trips from a private or rental boat (1.4 million trips) and a for-hire boat (630,000 trips) followed. The majority of fishing trips were taken in California: 4.5 million fishing trips or 77% of total trips in the region.

<sup>&</sup>lt;sup>9</sup>Due to changes in data collection methods, the Pacific Region's participation, effort, and catch estimates for 1997-2003 are not comparable to 2004-2006 estimates.

<sup>10</sup>At the state level, out-of-state anglers are estimated. However

<sup>&</sup>lt;sup>10</sup>At the state level, out-of-state anglers are estimated. However at the region level, out-of-region anglers are not estimated thus only Pacific Region resident anglers are discussed here. In Fisheries Economics of the U.S., 2006 (FEUS 2006), angler participation totals from 1997-2006 incorrectly included out-of-state anglers at the region level. In this report, the 1998-2007 angler participation totals excludes these anglers therefore the annual region totals reported here are smaller than those reported in FEUS 2006.

Shore-based fishing trips were the most popular fishing trip mode in California and Washington. In 2006, these trips comprised 67% of total trips taken in California and 78% of total trips taken in Washington. However, compared to 2005, California's shore-based fishing trips increased 21% while Washington's shore-based fishing trips remained flat (no change). Anglers who fished in Oregon in 2006 favored fishing trips taken from a private or rental boat. This fishing mode made up 57% of total trips in 2006 despite dropping 2.6% relative to 2005.

# Harvest and Release8,9

Of the Pacific Region's key species and species groups, mackerels, rockfishes and scorpionfishes, and surfperches were the most often caught by anglers. In 2006, 5.1 million mackerels, 3.7 million rockfishes and scorpionfishes, and 3.5 million surfperches were caught by anglers fishing in the region. Sculpins (80% released), mackerels (72%), and barracuda, bass, and bonito (71%) were most often released than harvested. Most of these key species or species groups were caught in California. Anglers most often harvested rockfishes and scorpionfishes (74% harvested) and albacore and other tunas (73%). Most of the rockfishes and scorpionfishes in the Pacific region were caught in California while most of the albacore and other tunas were caught in Washington.

Between 2004 and 2006, seven of the Pacific Region's key species or species groups showed increases in catch totals. Key species or groups with the largest increases include surfperches (150% increase), mackerels (132%), and croakers (84%). Catch totals for salmon (-303%), flatfishes (-67%), and greenlings (-11%) decreased from 2004-2006.

Mackerels and rockfishes were the most caught key species or species group in California and Oregon, respectively. In 2006, approximately 5.1 million mackerels were caught in California, a 78% increase relative to 2005 totals. Of these fish caught in 2006, 72% were released by anglers. In Oregon, 373,000 rockfishes were caught in 2006 with 89% of these harvested. Relative to 2005, this catch total was a 19% decrease. Washington's most caught key species or group was herring and smelt with 2.6 million fish caught in 2006. Over 95% of these fish were harvested. Catch totals for herring and smelt remained constant between 2005 and 2006.

Relative to 2005, catch totals for five of the Pacific's key species or species groups increased: mackerels (78% increase), albacore tuna (50%), sculpins (28%), surfperches (24%), and rockfishes and scorpionfishes (13%). Catch totals for all other key species or groups declined from 2005-2006 with the largest decreases seen for flatfishes (28% drop) and barracuda, bass, and bonito (-24%).

# Marine Economy<sup>11</sup>

Across the Pacific Region, gross domestic product by state was \$2.2 trillion in 2006. Employee compensation totaled \$1.2 trillion and annual payroll totaled \$792 billion. These economic measures increased 58%, 27%, and 53%, respectively, between 1998 and 2006, and 7.6%, 6.2%, and 7.9% between 2005 and 2006. Approximately 1.2 million establishments employed 18 million full- and part-time employees across the region in 2006. This was a 13% increase in establishment numbers and a 15% increase in employee numbers from 1998-2006. A small increase in these numbers was observed from 2005-2006 (2.1% and 3.6%, respectively).

In 2006, California had the highest establishment and employee numbers, annual payroll, employee compensation, and gross state product levels in the Pacific. California's approximately 878,000 establishments employed approximately 14 million employees in 2006. Gross state product in California was \$1.7 trillion, followed by Washington (\$291 billion) and Oregon (\$151 billion).

When considering commercial fishing-related industries in 2006, the commercial fishing location quotient (CFLQ) for Washington was highest in the region at 13.9. This was an 11% increase from 2001 and a 1.0% decrease from 2005. Washington's CFLQ suggests that the level of employment in commercial fishing-related industries in this state is approximately 14 times higher than the level of employment in these industries nationwide. The 2006 CFLQ in Oregon was 2.96 (a 12% decrease from 2001; a 3.1% increase from 2005), while the 2006 CFLQ in California was 0.7 (a 27% decrease from 2001; no change from 2005).

## Seafood Sales and Processing

In 2006, there were 151 nonemployer firms engaged in seafood product preparation and packaging across the Pacific Region. This was a 36% increase from 1998 levels, despite a 30% decrease in firm numbers in Oregon over this time period. In 2006, 60% of these firms were located in California. Regionwide, annual receipts totaled \$13 million in 2006 and decreased 7% from 1998-2006. Annual receipt totals experienced large decreases in Oregon (-77%) and Washington (-24%).

In contrast to an increase in nonemployer firms regionwide, the number of employer establishments engaged in seafood product preparation and packaging decreased 24% from 217 in 1998 to 164 in 2006. Approximately 59% of these establishments were located in Washington. Employee numbers also decreased across the region, decreasing 29% to approximately 9,200 full- and part-time workers in

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 $<sup>^{11}\</sup>mbox{Data}$  for 2007 was unavailable for this report, therefore, 2006 information is reported in this section.

<sup>&</sup>lt;sup>12</sup>The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

2006, despite annual payroll increasing 21% to \$360 million.

There were 383 seafood wholesale establishments in 2006 that employed approximately 5,100 full- and part-time workers. However, from 1998-2006, the number of seafood wholesale establishments and employees declined 27% and 8%, respectively across the Pacific Region. In 2006, 66% of establishments and 80% of employees were located in California. At the state level, Washington saw the largest decreases in establishments (39% decline) and employees (-35%). Across the region, annual payroll totaled \$188 million in 2006. This was a 12% from 1998-2006. California's total annual payroll increased 40% during this time period but Washington's total decreased 20%. Over 77% of annual payroll in the region was generated in California.

Nonemployer firms engaged in seafood retail in the Pacific Region totaled 203 in 2006, a 26% decrease relative to 1998. Over 80% of these firms were located in California. At the state level, these firms showed double digit declines in all three states between 1998 and 2006. Annual receipts in the region totaled \$23 million in 2006, a 9% decrease from 1998 (-20% in real terms) but a 14% increase from 2005 (remained flat in real terms). Despite this regionwide decline in annual receipts, Oregon's total increased 49% and Washington's total increased 17% from 1998-2006.

Compared to nonemployer firms, employer establishments engaged in seafood retail increased 21% from 1998-2006, totaling 255 in 2006. These establishments employed 1,600 workers. Over 72% of these establishments and 63% of these employees were located in California. Regionwide employee numbers increased 44% between 1998 and 2006 with the largest increase seen in Oregon (256% increase). Annual payroll also increased across the Pacific, a 74% increase regionwide, to \$32 million in 2006. The largest increases were seen in Oregon (131% increase) and Washington (102%).

# Transport, Support, and Marine Operations

Marine cargo handling industries employed more people than any other industry in this sector, employing approximately 25,000 people in 2006. This industry also had the highest annual payroll in the Region, totaling \$1.8 billion. Marina industries had the highest number of establishments in 2006 with 408 establishments. California contributed most to these totals.

In California, industries with large changes in establishment numbers, employees, or annual payroll from 1998-2006 were: marine cargo handling (123% increase in employees, 79% increase in annual payroll); navigational services to shipping (90% increase in annual payroll); deep sea passenger transportation (78% increase in establishment numbers, 47% decrease in employees); deep sea freight transportation (55% decrease in employees); and marina operations (53% increase in payroll).

In Oregon, large changes were seen for coastal and Great Lakes freight transportation (80% increase in

establishments). Modest changes were seen in the ship and boat building industries (35% decrease in employees; 41% decrease in annual payroll). In Washington, large changes were seen in the navigational services to shipping industry (294% increase in employees; 384% increase in annual payroll), deep sea freight transportation (80% decrease in employees; 74% decrease in annual payroll), and marine cargo handling (68% increase in annual payroll).

2007 Economic Impacts of Pacific Region Seafood Industry (thousands of dollars)

	Total Landings Revenue	Total Sales Impacts	Total Income Impacts	Total Job Impacts
California	120,193	8,503,228	4,419,327	156,387
Oregon	97,314	943,563	506,448	18,821
Washington	209,372	3,688,407	2,037,406	73,379

Total Landings Dovonus and	l Landinas Dovonus of	Key Species/Species Groups	(thousands of dollars)
TOTAL LAUGITIUS REVEITUE AUG	i Laiiuiiius Keveilue oi	KEY SDECIES/ SDECIES GLUUDS	(LI IUUSAI IUS UI UUIIAI SI

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Revenue	278,937	353,151	372,663	329,572	333,379	407,651	422,240	414,584	471,788	445,674
Finfish & Other	149,109	156,955	177,856	153,777	141,259	156,596	178,693	166,922	176,425	175,712
Shellfish	129,828	196,196	194,807	175,794	192,120	251,054	243,547	247,662	295,363	269,962
Crab	58,955	80,864	77,271	67,677	73,073	130,952	115,365	97,127	143,758	121,148
Flatfish	12,330	13,322	14,267	12,982	12,004	13,441	12,741	13,816	12,974	14,462
Hake (Whiting)	13,091	18,294	20,851	13,881	13,576	17,150	21,819	29,139	34,425	32,603
Other Shellfish	61,863	73,854	83,524	84,867	88,164	89,222	102,423	107,438	116,161	106,851
Rockfish	22,247	17,437	16,744	12,685	11,365	7,803	6,832	6,559	6,848	7,541
Sablefish	11,982	17,813	21,104	18,175	12,323	18,817	17,230	20,366	22,991	20,984
Salmon	14,897	14,155	23,838	20,667	26,170	30,773	47,676	37,188	34,306	33,473
Shrimp	15,030	21,288	21,869	17,879	22,443	12,582	12,351	15,706	12,433	17,297
Squid	1,699	33,403	27,246	16,948	18,260	25,340	19,748	31,516	26,998	29,169
Tuna, Albacore	18,713	17,720	17,140	20,623	14,219	24,366	27,242	20,574	23,767	21,612

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

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Landings	970,223	1,286,588	1,293,735	1,135,653	1,069,227	987,988	1,131,749	1,301,649	1,169,906	1,108,133
Finfish & Other	905,184	996,689	942,839	853,058	789,574	756,538	932,610	1,070,529	935,523	901,837
Shellfish	65,039	289,900	350,895	282,595	279,652	231,449	199,139	231,120	234,383	206,296
Crab	32,711	40,949	36,645	33,619	42,441	81,892	69,247	61,849	85,301	51,887
Flatfish	34,700	41,126	36,837	31,584	29,365	31,849	29,895	31,495	27,689	33,502
Hake (Whiting)	490,601	478,154	452,752	379,165	285,547	309,300	474,460	569,273	558,078	454,533
Other Shellfish	22,129	27,103	31,051	30,459	31,813	27,884	31,275	30,907	30,611	29,504
Rockfish	45,071	31,199	25,738	18,114	13,346	9,275	8,057	7,406	6,633	7,447
Sablefish	10,079	15,019	14,212	12,761	8,677	12,204	12,905	13,742	13,718	11,630
Salmon	17,447	12,828	20,697	30,838	38,077	39,234	40,609	27,249	29,172	23,550
Shrimp	13,830	32,760	36,934	42,001	58,758	33,000	22,408	26,069	20,290	26,497
Squid	6,634	203,060	262,146	190,282	160,669	99,115	88,215	123,090	108,561	109,464
Tuna, Albacore	30,375	21,470	19,916	24,589	21,996	36,577	31,764	19,649	28,117	25,483

**Average Annual Price for Key Species / Species Groups** 

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Crab	1.80	1.97	2.11	2.01	1.72	1.60	1.67	1.57	1.69	2.33
Flatfish	0.36	0.32	0.39	0.41	0.41	0.42	0.43	0.44	0.47	0.43
Hake (Whiting)	0.03	0.04	0.05	0.04	0.05	0.06	0.05	0.05	0.06	0.07
Other Shellfish	2.80	2.72	2.69	2.79	2.77	3.20	3.27	3.48	3.79	3.62
Rockfish	0.49	0.56	0.65	0.70	0.85	0.84	0.85	0.89	1.03	1.01
Sablefish	1.19	1.19	1.49	1.42	1.42	1.54	1.34	1.48	1.68	1.80
Salmon	0.85	1.10	1.15	0.67	0.69	0.78	1.17	1.36	1.18	1.42
Shrimp	1.09	0.65	0.59	0.43	0.38	0.38	0.55	0.60	0.61	0.65
Squid	0.26	0.16	0.10	0.09	0.11	0.26	0.22	0.26	0.25	0.27
Tuna, Albacore	0.62	0.83	0.86	0.84	0.65	0.67	0.86	1.05	0.85	0.85

Note: The Pacific Region includes landings by Pacific at-sea processors. However, revenue from these landings are not included in the California, Oregon, and Washington information presented in the "2007 Economic Impacts of Commercial Fishing Industry" table above.

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)1

	Trips	Jobs	Total Sales	Value Added
California	4,540,000	23,454	3,699,176	1,918,317
Oregon	667,733	2,527	283,578	154,957
Washington	653,000	11,025	1,126,920	606,474

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)1

(g										
Fishing Mode	Trip Expen	ditures	Durable Equipment Expenditures	Expenditures						
	Non-Residents	Residents	Fishing Tackle	1,128,949						
Private Boat	37,025	107,063	Other Equipment	499,916						
Shore	33,020	131,807	Boat Expenses	1,445,827						
For-Hire	40,676	92,780	Vehicle Expenses	786,717						
Total Trip Expenditures	110,721	331,650	Second Home Expenses	333,540						
			Total Durable Equipment Expenditures	4,194,949						
Total State Trip and Di	urable Equipmen	t Expenditur	es	4,637,320						

Recreational Anglers by Residential Area (thousands of anglers)2

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal	1,196	1,048	1,419	1,558	1,591	1,632	1,139	1,004	1,287	$NA^3$
Non-Coastal	474	428	552	813	665	720	526	491	549	$NA^3$
Out-of-State	$NA^4$	NA⁴	$NA^4$	$NA^{3,4}$						
Total Anglers	1,669	1,476	1,971	2,370	2,256	2,351	1,665	1,494	1,836	$NA^3$

Recreational Fishing Effort by Mode (thousands of trips)2

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
For-Hire	958	891	1,212	927	714	869	638	623	630	$NA^3$
Private or Rental	2,724	2,611	3,535	4,205	3,600	3,752	1,277	1,328	1,426	$NA^3$
Shore	2,514	1,914	2,675	3,265	3,507	3,443	3,539	3,274	3,804	$NA^3$
Total Trips	6,196	5,416	7,422	8,397	7,821	8,065	5,455	5,226	5,861	$NA^3$

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)<sup>2</sup>

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Species/Groups		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Barracuda, Bass, &	Н	1,462	1,262	2,493	1,720	1,965	1,888	2,126	780	670	$NA^3$
Bonito <sup>5</sup>	R	2,545	2,087	4,210	3,502	4,427	3,727	2,597	2,288	1,651	$NA^3$
Croakers	Н	641	524	541	631	1,513	758	619	688	597	$NA^3$
Cluakers	R	392	600	751	737	1,016	871	660	826	771	$NA^3$
Flatfishes	Н	491	485	947	691	1,209	681	499	530	295	$NA^3$
riatiisiies	R	387	740	1,139	1,115	2,063	948	342	725	614	$NA^3$
Greenlings	Н	247	250	296	288	455	512	210	256	259	$NA^3$
Greenings	R	172	160	372	446	957	858	329	265	225	$NA^3$
Mackerels	Н	1,055	479	587	1,356	800	918	945	919	1,446	$NA^3$
Mackereis	R	2,025	812	1,319	2,600	1,730	2,011	1,715	1,976	3,701	$NA^3$
Rockfishes &	Н	3,689	4,569	3,569	3,241	2,737	3,624	2,413	2,459	2,811	$NA^3$
Scorpionfishes	R	596	741	681	787	931	1,665	751	798	862	$NA^3$
Salmon	Н	364	321	552	1,110	669	920	824	556	374	$NA^3$
Saillioli	R	281	265	358	754	500	616	705	339	435	$NA^3$
Sculpins	Н	123	94	85	114	116	107	77	72	73	$NA^3$
Sculpins	R	242	209	389	349	404	291	239	216	295	$NA^3$
Surfperches	Н	1,411	679	731	915	829	1,144	1,302	1,331	1,588	$NA^3$
Sumperches	R	529	382	508	579	729	1,174	1,556	1,463	1,889	$NA^3$
Tuna, Albacore, &	Н	169	186	73	145	140	161	85	37	53	$NA^3$
Other	R	48	17	24	38	15	87	14	9	16	$NA^3$

<sup>&</sup>lt;sup>1</sup>2007 data was not available for this report; 2006 economic impact and expenditure information are reported here.

<sup>&</sup>lt;sup>2</sup>Due to changes in data collection methods, the Pacific Region's participation (number of anglers), effort (number of trips), and catch (number of fish harvested or released) estimates for 1997-2003 are not comparable to 2004-2006 estimates. <sup>3</sup>2007 data was not available for this report; NA = data is not available.

Out-of-state resident information is collected for individual states but whether an angler is a resident of a region is not specified; NA = data is not available.

<sup>&</sup>lt;sup>5</sup>Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

2007 Economic Impacts of the California Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	8,503,228	4,419,327	156,387
Commercial Harvesters	135,285	60,056	1,705
Seafood Processors & Dealers	732,016	231,050	4,980
Seafood Wholesalers & Distributors	1,960,568	932,755	16,877
Retail Sector	5,675,359	3,195,466	132,825

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

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Revenue	110,419	149,796	142,451	107,890	111,923	136,152	140,615	116,084	129,907	120,193
Finfish & Other	70,832	80,621	82,530	65,335	59,888	56,402	58,798	46,640	43,164	50,344
Shellfish	39,587	69,175	59,920	42,554	52,035	79,750	81,816	69,444	86,743	69,850
Crab	21,523	18,258	15,264	10,635	15,074	37,455	43,381	19,653	46,483	28,626
Lobster, Spiny	4,705	3,648	4,711	4,475	4,784	5,278	6,160	6,039	8,111	6,916
Rockfish	11,259	7,596	7,152	5,798	6,560	4,761	4,447	4,145	4,630	4,924
Sablefish	3,389	4,310	5,263	4,175	3,508	4,721	3,724	4,295	4,892	4,873
Salmon	3,058	7,427	10,319	4,761	7,611	12,153	17,770	12,804	5,261	7,835
Sardine, Pacific	3,621	5,101	5,468	6,281	5,848	2,874	3,957	3,150	5,100	8,218
Sea Urchins	7,929	13,469	15,083	11,704	10,411	7,906	7,300	6,156	5,145	5,400
Shrimp	8,548	8,615	7,409	5,950	5,901	3,520	3,783	4,338	4,213	4,064
Squid	1,696	33,403	27,243	16,948	18,259	25,333	19,740	31,467	26,959	29,131
Swordfish	5,723	8,389	11,791	8,696	6,401	7,850	4,834	1,896	2,695	3,127

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

Total Landings and Landings of Key Species 7 Species Groups (thousands of pounds)										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Landings	343,174	652,889	650,596	524,833	499,676	382,146	379,591	442,353	341,661	383,586
Finfish &	317,741	429,579	372,270	321,527	321,539	252,764	257,944	301,993	203,107	258,616
Shellfish	25,432	223,310	278,326	203,306	178,138	129,381	121,647	140,360	138,554	124,970
Crab	12,100	9,605	7,671	4,841	8,609	23,922	27,016	12,028	27,391	12,393
Lobster, Spiny	739	493	707	697	702	736	860	761	886	663
Rockfish	19,438	9,660	7,194	5,291	5,991	4,399	3,843	3,181	3,252	3,136
Sablefish	3,204	4,357	4,176	3,434	2,893	3,636	3,158	3,645	3,617	3,240
Salmon	2,124	4,422	5,912	2,761	5,661	7,328	7,113	4,962	1,184	1,743
Sardine, Pacific	95,484	131,614	118,193	114,235	128,584	76,528	97,509	76,324	102,683	178,480
Sea Urchins	10,443	14,218	15,210	13,128	14,176	11,107	12,219	11,304	10,664	11,131
Shrimp	4,402	8,063	5,793	5,598	5,867	3,498	3,520	2,944	1,197	2,015
Squid	6,620	203,059	262,134	190,278	160,665	99,088	88,167	122,887	108,410	109,150
Swordfish	2,991	4,455	5,856	4,837	3,803	4,706	2,613	653	1,187	1,210

Average Annual Price for Key Species / Species Groups (price per pound)

Average Annual Frice for key Species 7 Species Groups (price per pound)										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Crab	1.78	1.90	1.99	2.20	1.75	1.57	1.61	1.63	1.70	2.31
Lobster, Spiny	6.37	7.39	6.67	6.42	6.81	7.18	7.16	7.93	9.15	10.44
Rockfish	0.58	0.79	0.99	1.10	1.10	1.08	1.16	1.30	1.42	1.57
Sablefish	1.06	0.99	1.26	1.22	1.21	1.30	1.18	1.18	1.35	1.50
Salmon	1.44	1.68	1.75	1.72	1.34	1.66	2.50	2.58	4.44	4.50
Sardine, Pacific	0.04	0.04	0.05	0.05	0.05	0.04	0.04	0.04	0.05	0.05
Sea Urchins	0.76	0.95	0.99	0.89	0.73	0.71	0.60	0.54	0.48	0.49
Shrimp	1.94	1.07	1.28	1.06	1.01	1.01	1.07	1.47	3.52	2.02
Squid	0.26	0.16	0.10	0.09	0.11	0.26	0.22	0.26	0.25	0.27
Swordfish	1.91	1.88	2.01	1.80	1.68	1.67	1.85	2.90	2.27	2.58

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)<sup>1</sup>

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat	1,013	135,694	72,385
Shore	1,494	172,638	94,175
For-Hire	1,631	176,944	100,982
Total Durable Equipment Impacts	19,316	3,213,900	1,650,775
Total State Trip and Durable Equipment Economic Impacts	23,454	3,699,176	1,918,317

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)1

<u> </u>			,						
Fishing Mode	Trip Expend	ditures	Durable Equipment Expenditures	Expenditures					
	Non-Residents	Residents	Fishing Tackle	995,275					
Private Boat	22,856	74,359	Other Equipment	400,039					
Shore	24,321	101,869	Boat Expenses	371,485					
For-Hire	35,543	74,668	Vehicle Expenses	649,882					
Total Trip Expenditures	82,720	250,896	Second Home Expenses	275,934					
Total Durable Equipment Expenditures									
Total State Trip and Durable Equipment Expenditures									

Recreational Anglers by Residential Area (thousands of anglers)2

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal	988	866	1,164	1,141	1,261	1,379	898	776	1,069	$NA^3$
Non-Coastal	304	240	324	401	444	493	310	285	346	$NA^3$
Out-of-State	104	102	146	134	114	141	92	74	97	$NA^3$
Total Anglers	1,396	1,208	1,635	1,676	1,818	2,014	1,300	1,135	1,512	$NA^3$

Recreational Fishing Effort by Mode (thousands of trips)<sup>2</sup>

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
For-Hire	840	775	1,091	815	588	733	510	503	517	$NA^3$
Private or Rental	2,241	2,113	2,812	2,861	2,905	3,117	708	826	963	$NA^3$
Shore	1,884	1,447	2,006	2,238	2,,501	2,699	2,795	2,530	3,060	$NA^3$
Total Trips	4,965	4,335	5,909	5,914	5994	6,549	4,013	3,859	4,540	$NA^3$

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

That vest (11) and Release (R) of Rey Species 7 Species Groups (Hamber of Hist III thousands)											
Species/Groups		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Barracuda, Bass, &	Н	1,462	1,262	2,493	1,720	1,965	1,888	2,126	780	670	$NA^3$
Bonito <sup>4</sup>	R	2,545	2,087	4,210	3,502	4,427	3,727	2,597	2,288	1,651	$NA^3$
Croakers	Н	641	524	541	631	1,513	758	619	688	597	$NA^3$
Croakers	R	392	600	751	737	1,016	871	660	826	771	$NA^3$
Flatfishes	Н	239	336	780	556	962	603	410	449	211	$NA^3$
riatiisiies	R	282	644	1,034	1,043	1,844	850	295	677	565	$NA^3$
Greenlings	Н	103	122	102	109	215	357	72	111	128	$NA^3$
Greenings	R	104	101	249	297	641	717	239	162	131	$NA^3$
Mackerels	Н	1,055	479	587	1,356	800	918	945	919	1,446	$NA^3$
Mackereis	R	2,025	812	1,319	2,600	1,730	2,011	1,715	1,976	3,701	$NA^3$
Rockfishes &	Н	2,485	3,737	2,753	2,585	2,116	3,035	1,778	1,751	2,196	$NA^3$
Scorpionfishes	R	567	721	582	720	844	1,621	701	708	799	$NA^3$
Salmon	Н	140	104	207	116	201	109	261	170	121	$NA^3$
Saimon	R	42	47	48	45	40	38	97	58	70	$NA^3$
Coulning	Н	74	60	46	82	60	70	41	35	38	$NA^3$
Sculpins	R	83	126	132	206	184	140	98	72	153	$NA^3$
Surfperches	Н	1,113	498	404	630	586	878	1,046	1,075	1,333	$NA^3$
Surrperches	R	427	213	264	432	563	1,016	1,402	1,309	1,734	$NA^3$
Tuna, Albacore, &	Н	136	174	57	125	103	134	44	5	8	$NA^3$
Other	R	39	14	21	32	5	81	8	2	8	$NA^3$

<sup>1</sup>2007 data was not available for this report; 2006 economic impact and expenditure information are reported here.

<sup>&</sup>lt;sup>2</sup>Due to changes in data collection methods, California's participation (number of anglers), effort (number of trips), and catch (number of fish harvested or released) estimates for 1997-2003 are not comparable to 2004-2006 estimates.  $^{3}2007$  data was not available for this report; NA = data is not available.

<sup>&</sup>lt;sup>4</sup>Species included in this group 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 (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Location Quotient <sup>1</sup>
1998	773,925 (11.2%)	12,026,989 (11.1%)	406,481 (12.3%)	769,101 (13.0%) <sup>2</sup>	1,085,884 (12.5%)	1.0
2006	878,128 (11.6%)	13,834,264 (11.6%)	633,802 (13.2%)	974,320 (13.1%)	1,742,172 (13.3%)	0.73
% change	13.5%	15.0%	55.9%	26.7%	60.4%	-27.0%

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

		1998	1999	2000	2001	2002	2003	2004	2005	2006
Seafood product	Firms	65	61	72	71	70	77	98	88	91
preparation & packaging	Receipts	7,777	10,592	11,405	12,983	9,123	9,858	14,312	10,207	8,298
Seafood sales,	Firms	223	180	166	157	165	192	193	166	163
retail	Receipts	22,725	19,315	19,270	18,138	18,225	19,771	19,092	16,892	19,875

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

		1998	1999	2000	2001	2002	2003	2004	2005	2006
Seafood product	Establishments	74	70	78	73	63	60	55	48	47
preparation &	Employees	3,205	2,777	3,289	2,962	3,357	2,896	2,931	2,963	2,592
packaging	Payroll	58,934	60,251	75,858	66,387	82,116	74,637	72,178	92,642	78,065
Cartandania	Establishments	317	337	360	361	334	269	263	258	252
Seafood sales, wholesale	Employees	3,618	3,793	4,174	4,507	4,539	3,536	3,744	3,925	4,063
Wilolesale	Payroll	103,705	115,021	128,092	142,656	151,789	115,669	124,657	134,576	144,758
Conford color	Establishments	170	170	172	165	186	175	169	180	184
Seafood sales, retail	Employees	883	902	828	917	988	968	945	999	1,031
	Payroll	12,654	12,906	13,815	15,172	16,775	19,919	16,686	18,832	19,900

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

Coastal & Great Lakes freight Lakes freight transportation	Transport, Supp	ort, a marine o	perations	Linpidy	Ci Establi	31111101110	citts (triousarius or donars)				
Employees   1,477   ND3   1,394   1,648   1,776   1,341   ND   1,346			1998	1999	2000	2001	2002	2003	2004	2005	2006
Deep sea freight transportation	Coastal & Great	Establishments	26	22	24	31	31	22	20	26	22
Establishments		Employees	1,477	$ND^3$	1,394	1,648	1,776	1,341	ND	1,346	ND
Employees   2,141   ND   1,323   1,117   ND   902   901   ND	transportation	Payroll	92,976	ND	99,106	119,808	132,432	117,982	ND	129,262	ND
transportation	Daan aan fusinkt	Establishments	47	50	44	43	44	51	50	54	54
Payroll   117,289   ND   51,131   63,891   ND   62,417   69,815   ND   84		Employees	2,141	ND	1,323	1,117	ND	902	901	ND	957
Employees   2,927   ND   ND   ND   ND   ND   ND   ND   N	ti dii Sportation	Payroll	117,289	ND	51,131	63,891	ND	62,417	69,815	ND	84,199
Transportation	Deep sea	Establishments	9	10	8	9	11	14	15	15	16
Establishments   265   265   266   249   248   263   271   263   265   265   266   249   248   263   271   263   265   265   266   249   248   263   271   263   265   265   265   266   249   248   263   271   263   265   265   265   266   249   248   263   271   263   265   265   265   266   249   248   263   271   263   265   265   266   249   248   263   271   263   265   265   266   249   248   263   271   263   265   265   266   249   248   263   271   263   265   265   266   249   248   263   271   263   265   265   266   249   248   263   271   263   265   265   266   249   248   263   271   263   275		Employees	2,927	ND	ND	ND	ND	ND	ND	ND	1,552
Marinas         Employees         2,020         1,925         2,000         1,862         1,851         2,485         2,476         2,426         2,266         3           Payroll         48,856         44,511         50,106         52,602         57,393         70,640         73,338         71,318         74           Marine cargo handling         Establishments         53         53         66         70         64         56         54         54           Employees         9,397         9,288         15,330         15,076         15,274         15,557         20,456         19,303         20           Payroll         810,330         836,880         880,397         944,374         1,000,809         1,040,515         1,179,221         1,273,698         1,446           Navigational services to         Establishments         47         49         42         37         30         35         38         37           Employees         747         806         702         647         476         850         ND         ND         ND           Port & harbor operations         Establishments         24         24         23         21         23         19         20	transportation	Payroll	68,500	ND	ND	ND	ND	ND	ND	ND	72,119
Payroll		Establishments	265	265	266	249	248	263	271	263	268
Establishments   53   53   66   70   64   56   54   54	Marinas	Employees	2,020	1,925	2,000	1,862	1,851	2,485	2,476	2,426	2,457
Marine cargo handling         Employees         9,397         9,288         15,330         15,076         15,274         15,557         20,456         19,303         20           Payroll         810,330         836,880         880,397         944,374         1,000,809         1,040,515         1,179,221         1,273,698         1,446           Navigational services to shipping         Establishments         47         49         42         37         30         35         38         37           Employees         747         806         702         647         476         850         ND         ND         ND           Port & harbor operations         Payroll         33,590         33,164         35,480         33,764         28,197         53,162         ND         ND         ND         65           Establishments         24         24         23         21         23         19         20         20           Employees         806         649         650         163         139         417         ND         ND         ND           Ship & boat         Establishments         148         144         143         155         145         141         143 <t< td=""><td></td><td>Payroll</td><td>48,856</td><td>44,511</td><td>50,106</td><td>52,602</td><td>57,393</td><td>70,640</td><td>73,338</td><td>71,318</td><td>74,778</td></t<>		Payroll	48,856	44,511	50,106	52,602	57,393	70,640	73,338	71,318	74,778
handling         Employees         9,397         9,288         15,330         15,076         15,274         15,557         20,456         19,303         20           Payroll         810,330         836,880         880,397         944,374         1,000,809         1,040,515         1,179,221         1,273,698         1,448           Navigational services to shipping         Establishments         47         49         42         37         30         35         38         37           Payroll         33,590         33,164         35,480         33,764         28,197         53,162         ND         ND         ND         60           Port & harbor operations         Establishments         24         24         23         21         23         19         20         20           Employees         806         649         650         163         139         417         ND         ND           Payroll         29,102         19,023         19,056         9,990         7,668         23,110         ND         ND </td <td>Marina cargo</td> <td>Establishments</td> <td>53</td> <td>53</td> <td>66</td> <td>70</td> <td>64</td> <td>56</td> <td>54</td> <td>54</td> <td>52</td>	Marina cargo	Establishments	53	53	66	70	64	56	54	54	52
Payroll   810,330   836,880   880,397   944,374   1,000,809   1,040,515   1,179,221   1,273,698   1,448     Navigational services to   Establishments   47   49   42   37   30   35   38   37     Services to   Employees   747   806   702   647   476   850   ND   ND     Payroll   33,590   33,164   35,480   33,764   28,197   53,162   ND   ND   60     Port & harbor operations   Establishments   24   24   23   21   23   19   20   20     Employees   806   649   650   163   139   417   ND   ND     Payroll   29,102   19,023   19,056   9,990   7,668   23,110   ND   ND   30     Ship & boat   Establishments   148   144   143   155   145   141   143   141     Employees   9,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   Employees   9,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   Employees   9,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   Employees   9,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   Employees   9,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   Employees   9,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   Employees   7,783   8,574   8,865   10,133   10     Services to   Employees   7,783   8,574   8,865   10,133   10     Services to   Employees   7,783   8,574   8,865   10,133   10     Services to   Services to   5,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   5,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   5,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   5,864   9,166   9,204   8,580   7,783   8,574   8,865   10,133   10     Services to   5,864   9,166   9,204   8,580   10,133   10     Services to   5,864   9,166   9,204   8,580   10,133   10     Services to   5,864   9,166   9,204   8,580   10,133   10     Services to   5,864   9,166   9,104   10     Services to   5,864   9,166		Employees	9,397	9,288	15,330	15,076	15,274	15,557	20,456	19,303	20,975
Services to   Employees   747   806   702   647   476   850   ND   ND   ND	nananng	Payroll	810,330	836,880	880,397	944,374	1,000,809	1,040,515	1,179,221	1,273,698	1,448,623
Shipping   Payroll   33,590   33,164   35,480   33,764   28,197   53,162   ND   ND   65	Navigational	Establishments	47	49	42	37	30	35	38	37	36
Establishments   24   24   23   21   23   19   20   20		Employees	747	806	702	647	476	850	ND	ND	817
Port & harbor operations	shipping	Payroll	33,590	33,164	35,480	33,764	28,197	53,162	ND	ND	63,893
Operations         Employees         806         649         650         163         139         417         ND         ND           Payroll         29,102         19,023         19,056         9,990         7,668         23,110         ND         ND         ND         32           Ship & boat         Establishments         148         144         143         155         145         141         143         141           Ship & boat         Employees         9,864         9,166         9,204         8,580         7,782         8,574         8,865         10,132         6	Dawk O bawkan	Establishments	24	24	23	21	23	19	20	20	20
Payroll   29,102   19,023   19,056   9,990   7,668   23,110   ND   ND   32   33   34   34   34   34   34   34		Employees	806	649	650	163	139	417	ND	ND	582
Ship & boat Employees 9.864 9.166 9.204 9.589 7.782 9.574 9.865 10.132 (	operations	Payroll	29,102	19,023	19,056	9,990	7,668	23,110	ND	ND	32,523
	Chin O hast	Establishments	148	144	143	155	145	141	143	141	132
	building	Employees	9,864	9,166	9,204	8,589	7,782	8,574	8,865	10,132	9,801
Payroll 334,276 329,705 335,172 322,296 315,090 314,706 354,404 410,446 453	ouilding	Payroll	334,276	329,705	335,172	322,296	315,090	314,706	354,404	410,446	453,255

<sup>&</sup>lt;sup>1</sup>The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared. <sup>2</sup>Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

 $<sup>{}^{3}</sup>ND$  = Data are suppressed due to confidentiality restrictions.

2007 Economic Impacts of the Oregon Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	943,563	506,448	18,821
Commercial Harvesters	105,332	55,251	1,382
Seafood Processors & Dealers	110,842	41,543	1,262
Seafood Wholesalers & Distributors	133,229	65,575	1,276
Retail Sectors	594,160	344,079	14,901

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

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Revenue	50,500	71,298	83,276	72,651	68,292	86,779	101,022	88,196	107,523	97,314
Finfish & Other	33,571	35,494	45,060	41,451	32,073	40,889	49,634	53,192	47,687	47,604
Shellfish	16,929	35,804	38,216	31,200	36,218	45,890	51,388	35,005	59,837	49,710
Crab	12,521	23,108	23,745	19,361	20,767	37,122	42,960	26,603	53,856	38,208
Flatfish	5,407	5,902	6,643	6,103	5,156	6,632	6,460	7,281	7,757	7,930
Hake (Whiting)	3,756	5,917	6,081	4,132	3,219	3,642	4,641	7,107	8,781	6,501
Oysters	495	2,857	3,540	3,536	3,143	3,292	3,292	1,232	1,163	1,847
Rockfish	8,762	7,724	7,595	5,287	3,511	2,327	1,633	1,387	1,625	2,002
Sablefish	4,648	7,764	9,266	7,986	4,405	7,381	6,935	8,657	9,790	9,494
Salmon	2,590	2,042	4,030	5,846	6,933	8,869	12,995	10,437	4,955	4,661
Sardine, Pacific	$ND^1$	86	1,149	1,619	2,819	2,941	4,870	6,199	3,944	4,551
Shrimp	3,189	9,571	10,192	7,560	11,353	5,051	4,740	6,901	4,518	9,365
Tuna, Albacore	6,540	3,784	7,489	7,559	2,952	6,169	9,145	8,815	8,069	9,468

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

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Landings	208,653	234,054	264,105	234,474	210,750	226,317	294,866	312,636	300,701	253,551
Finfish & Other	194,705	200,475	226,357	195,121	155,609	180,788	254,330	278,646	254,756	216,142
Shellfish	13,948	33,579	37,747	39,352	55,140	45,529	40,536	33,990	45,945	37,410
Crab	7,406	12,340	11,223	9,754	12,452	23,934	27,276	17,734	33,319	17,007
Flatfish	15,042	17,860	16,470	14,488	11,489	14,372	14,846	16,910	16,907	19,696
Hake (Whiting)	139,011	147,873	151,461	117,673	71,220	80,648	130,238	135,503	135,186	81,481
Oysters	198	674	834	884	786	823	823	308	255	197
Rockfish	19,949	16,274	14,231	9,400	4,653	3,434	2,574	2,007	2,062	2,905
Sablefish	3,880	6,582	6,256	5,697	3,185	4,798	5,627	5,834	5,841	5,349
Salmon	1,978	1,552	3,133	5,261	6,117	6,720	5,914	4,666	1,813	1,378
Sardine, Pacific	$ND^1$	1,709	21,005	28,176	50,069	55,683	79,610	99,450	78,634	90,037
Shrimp	6,090	20,436	25,462	28,482	41,584	20,546	12,207	15,784	12,195	19,990
Tuna, Albacore	10,587	4,553	8,757	8,959	4,362	9,165	10,754	8,087	8,536	10,468

Average Annual Price for Key Species / Species Groups (price per pound)

Average Amilan	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Crab	1.69	1.87	2.12	1.98	1.67	1.55	1.58	1.50	1.62	2.25
Flatfish	0.36	0.33	0.40	0.42	0.45	0.46	0.44	0.43	0.46	0.40
Hake (Whiting)	0.03	0.04	0.04	0.04	0.05	0.05	0.04	0.05	0.06	0.08
Oysters	2.50	4.24	4.24	4.00	4.00	4.00	4.00	4.00	4.56	9.40
Rockfish	0.44	0.47	0.53	0.56	0.75	0.68	0.63	0.69	0.79	0.69
Sablefish	1.20	1.18	1.48	1.40	1.38	1.54	1.23	1.48	1.68	1.78
Salmon	1.31	1.32	1.29	1.11	1.13	1.32	2.20	2.24	2.73	3.38
Sardine, Pacific	$ND^1$	0.05	0.05	0.06	0.06	0.05	0.06	0.06	0.05	0.05
Shrimp	0.52	0.47	0.40	0.27	0.27	0.25	0.39	0.44	0.37	0.47
Tuna, Albacore	0.62	0.83	0.86	0.84	0.68	0.67	0.85	1.09	0.95	0.90

 $<sup>^{1}</sup>$ ND = data is confidential thus not disclosable.

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2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)1

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat	544	47,397	27,328
Shore	205	17,448	9,941
For-Hire	228	17,523	9,879
Total Durable Equipment Impacts	1,550	201,211	107,809
Total State Trip and Durable Equipment Economic Impacts	2,527	283,578	154,957

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)1

<u> </u>			,	
Fishing Mode	Trip Expend	ditures	Durable Equipment Expenditures	Expenditures
	Non-Residents	Residents	Fishing Tackle	35,296
Private Boat	12,907	25,879	Other Equipment	30,992
Shore	3,753	10,718	Boat Expenses	22,255
For-Hire	4,036	7,280	Vehicle Expenses	71,596
Total Trip Expenditures	20,696	43,877	Second Home Expenses	28,377
			Total Durable Equipment Expenditures	188,516
Total State Trip and Du	rable Equipment	es	253,089	

Recreational Anglers by Residential Area (thousands of anglers)

•	<u> </u>									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal	79	65	76	119	113	102	106	97	93	$NA^2$
Non-Coastal	127	124	163	200	179	169	164	156	156	$NA^2$
Out-of-State	20	20	19	29	27	24	25	22	22	$NA^2$
Total Anglers	226	210	258	348	320	294	294	274	271	$NA^2$

Recreational Fishing Effort by Mode (thousands of trips)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
For-Hire	73	67	69	79	67	67	64	58	56	$NA^2$
Private or Rental	301	257	355	520	448	426	434	389	379	$NA^2$
Shore	148	141	214	357	295	232	232	232	232	$NA^2$
Total Trips	522	465	638	956	810	726	731	680	668	$NA^2$

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)3

Than Toot (II) and It											
Species/Groups		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Baitfishes	Н	227	12	54	500	774	318	318	318	318	$NA^2$
Daitrisiles	R	4	8	(1)	88	21	24	24	24	24	$NA^2$
Flatfishes	Н	12	8	9	16	31	16	27	20	21	$NA^2$
riatiisiies	R	9	3	3	6	10	6	6	7	7	$NA^2$
Greenlings	Н	44	64	95	106	155	96	99	106	99	$NA^2$
Greenings	R	43	49	86	116	175	77	65	78	72	$NA^2$
Rockfishes	Н	673	528	548	457	384	406	379	401	333	$NA^2$
ROCKIISHES	R	6	11	91	53	37	24	25	57	40	$NA^2$
Salmon	Н	41	41	92	259	148	241	215	95	79	NA <sup>2</sup>
Salliloli	R	51	27	33	167	98	187	193	65	59	$NA^2$
Coulping	Н	19	12	15	22	21	21	19	19	18	$NA^2$
Sculpins	R	40	18	55	58	78	51	51	54	52	$NA^2$
Churacona	Н	14	4	13	18	12	12	12	12	12	$NA^2$
Sturgeons	R	33	7	24	30	27	25	25	25	25	$NA^2$
Curfnorchos	Н	96	73	129	196	139	122	122	122	122	$NA^2$
Surfperches	R	18	17	17	46	61	34	34	34	34	$NA^2$
Tuna Albacoro	Н	12	3	4	9	4	11	18	6	12	$NA^2$
Tuna, Albacore	R	4	1	2	3	2	(1)	(1)	(1)	(1)	$NA^2$

 $<sup>^{1}</sup>$ 2007 data was not available for this report; 2006 economic impact and expenditure information are reported here.  $^{2}$ 2007 data was not available for this report; NA = data is not available.

 $<sup>^{3}</sup>$ In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

Oregon's State Economy (% of national total)

	Establishments	Employees	Annual Payroll (\$ millions)	Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Location Quotient <sup>1</sup>
1998	99,183 (1.4%)	1,310,750 (1.2%)	37,723 (1.1%)	67,370 (1.1%) <sup>2</sup>	100,951 (1.2%)	3.38
2006	110,684 (1.5%)	1,461,664 (1.2%)	53,563 (1.1%)	84,069 (1.1%)	150,984 (1.2%)	2.96
% change	11.6%	11.5%	42.0%	24.8%	49.6%	-12.4%

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

		1998	1999	2000	2001	2002	2003	2004	2005	2006
Seafood product preparation & packaging	Firms	10	11	8	11	$NA^3$	NA	NA	9	7
	Receipts	233	369	461	424	$ND^4$	ND	ND	309	54
Seafood sales,	Firms	17	13	16	14	13	10	11	7	11
retail	Receipts	613	858	628	851	644	428	507	985	914

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

		1998	1999	2000	2001	2002	2003	2004	2005	2006
Seafood product preparation &	Establishments	27	28	27	27	19	19	18	20	21
	Employees	1,095	980	1,036	875	707	720	738	762	896
packaging	Payroll	19,603	20,753	22,718	23,616	20,867	21,980	20,593	19,022	25,881
Carfa ad and a	Establishments	22	21	25	29	33	26	21	23	16
Seafood sales, wholesale	Employees	360	310	ND	295	ND	ND	126	ND	ND
Wilolesale	Payroll	9,364	8,174	ND	8,698	ND	ND	4,446	ND	ND
Carfeed advantage	Establishments	13	16	18	16	28	21	24	24	22
Seafood sales, retail	Employees	86	99	113	116	129	ND	171	204	306
retaii	Payroll	1,423	1,794	1,844	1,945	2,311	ND	3,259	3,464	3,294

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

	ort, a marine o	1998	1999	2000	2001	2002	2003	2004	2005	2006
	Catablialos anta	5	6	8	2001	10	8	8	9	9
Coastal & Great	Establishments				/					,
Lakes freight transportation	Employees	ND								
transportation	Payroll	ND								
Deep sea freight	Establishments	8	7	5	4	7	6	6	6	6
transportation	Employees	ND								
transportation	Payroll	ND								
Deep sea	Establishments	NA	NA	1	NA	NA	NA	NA	NA	NA
passenger	Employees	NA	NA	ND	NA	NA	NA	NA	NA	NA
transportation	Payroll	NA	NA	ND	NA	NA	NA	NA	NA	NA
	Establishments	44	43	38	33	41	42	41	40	37
Marinas	Employees	113	ND	93	ND	ND	122	133	113	ND
	Payroll	2,513	ND	1,830	ND	ND	2,742	2,988	3,550	ND
	Establishments	10	9	9	9	7	8	8	8	9
Marine cargo handling	Employees	ND								
nanaiing	Payroll	ND								
Navigational	Establishments	24	25	23	21	18	21	21	21	20
services to	Employees	ND								
shipping	Payroll	ND								
	Establishments	1	1	1	1	1	1	NA	NA	NA
Port & harbor operations	Employees	ND	ND	ND	ND	ND	ND	NA	NA	NA
operations	Payroll	ND	ND	ND	ND	ND	ND	NA	NA	NA
Chin O book	Establishments	54	51	48	51	44	43	50	43	41
Ship & boat building	Employees	1,883	2,095	2,506	1,969	1,323	1,284	1,285	1,298	1,230
ballaling	Payroll	73,822	79,567	87,018	69,200	47,303	42,270	43,357	45,183	43,416

 $<sup>^{1}</sup>$ The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.

<sup>&</sup>lt;sup>2</sup>Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

 $<sup>{}^{3}</sup>NA = Data$  are not available.

<sup>&</sup>lt;sup>4</sup>ND = Data are suppressed due to confidentiality restrictions.

2007 Economic Impacts of Washington Seafood Industry (thousands of dollars)

	Sales Impacts	Income Impacts	Job Impacts
Total Impacts	3,688,407	2,037,406	73,379
Commercial Harvesters	232,279	115,601	3,135
Seafood Processors & Dealers	460,967	229,325	5,085
Seafood Wholesalers & Distributors	636,082	312,663	5,841
Retail Sector	2,359,079	1,379,817	59,318

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

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	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
Total Revenue	109,446	119,869	133,499	140,382	143,720	172,829	166,247	193,317	217,030	209,372		
Finfish & Other	36,133	28,652	36,828	38,342	39,854	47,415	55,906	50,145	68,201	58,980		
Shellfish	73,313	91,217	96,671	102,040	103,867	125,414	110,342	143,172	148,829	150,392		
Clams	25,398	26,730	27,920	32,677	34,339	36,060	42,297	48,503	55,786	52,080		
Crab	24,912	39,498	38,262	37,681	37,232	56,374	29,024	50,872	43,464	54,315		
Hake (Whiting)	618	748	1,022	1,299	1,022	1,601	2,341	4,937	7,296	7,121		
Halibut	6,955	7,903	6,729	5,759	6,777	5,991	7,264	6,512	8,303	8,842		
Mussels	2,445	3,720	3,564	2,426	1,613	2,513	3,096	3,729	6,564	3,820		
Oysters	17,308	17,798	22,473	24,642	25,578	26,142	31,257	33,697	38,302	35,433		
Sablefish	3,931	5,738	6,545	5,984	4,354	6,675	6,517	7,395	8,307	6,608		
Salmon	9,494	4,863	9,709	10,332	11,780	9,941	17,316	14,319	24,586	21,620		
Shrimp	2,633	2,882	3,611	3,697	4,473	3,723	3,648	4,335	3,602	3,745		
Tuna, Albacore	8,785	3,600	5,821	7,917	7,375	15,621	15,657	10,643	15,176	10,439		

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

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Landings	101,710	89,156	112,181	154,701	172,277	189,479	192,181	213,502	241,606	194,582
Finfish & Other	76,052	56,145	77,359	114,764	125,903	132,940	155,224	156,902	191,717	150,704
Shellfish	25,658	33,011	34,822	39,937	46,374	56,539	36,957	56,600	49,889	43,878
Clams	1,962	2,224	2,109	2,632	3,087	3,127	3,319	3,621	4,617	3,908
Crab	13,205	19,004	17,752	19,024	21,380	34,037	14,955	32,086	24,619	22,487
Hake (Whiting)	23,177	18,698	24,399	35,593	22,564	35,124	69,117	93,654	120,058	91,272
Halibut	4,244	3,060	2,289	2,490	2,487	1,868	2,254	1,948	2,451	2,428
Mussels	296	332	374	332	214	337	427	504	774	475
Oysters	6,518	6,769	8,458	9,497	9,935	9,649	11,058	12,190	12,306	11,836
Sablefish	2,958	4,078	3,755	3,589	2,559	3,736	4,064	4,240	4,259	3,035
Salmon	13,733	7,112	11,971	23,291	26,626	25,493	27,918	17,926	26,570	20,880
Shrimp	3,137	4,175	5,520	7,764	11,149	8,867	6,599	7,279	6,926	4,455
Tuna, Albacore	14,361	4,519	7,003	9,110	11,708	23,672	18,044	10,505	19,133	13,129

**Average Annual Price for Key Species / Species Groups** 

Average Armual Frice for Key Species 7 Species Groups										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Clams	12.95	12.02	13.24	12.42	11.12	11.53	12.74	13.40	12.08	13.33
Crab	1.89	2.08	2.16	1.98	1.74	1.66	1.94	1.59	1.77	2.42
Hake (Whiting)	0.03	0.04	0.04	0.04	0.05	0.05	0.03	0.05	0.06	0.08
Halibut	1.64	2.58	2.94	2.31	2.73	3.21	3.22	3.34	3.39	3.64
Mussels	8.26	11.21	9.52	7.30	7.53	7.46	7.26	7.40	8.48	8.05
Oysters	2.66	2.63	2.66	2.59	2.57	2.71	2.83	2.76	3.11	2.99
Sablefish	1.33	1.41	1.74	1.67	1.70	1.79	1.60	1.74	1.95	2.18
Salmon	0.69	0.68	0.81	0.44	0.44	0.39	0.62	0.80	0.93	1.04
Shrimp	0.84	0.69	0.65	0.48	0.40	0.42	0.55	0.60	0.52	0.84
Tuna, Albacore	0.61	0.80	0.83	0.87	0.63	0.66	0.87	1.01	0.79	0.80

2006 Economic Impacts of Recreational Fishing Expenditures (thousands of dollars)<sup>1</sup>

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat	96	10,990	5,743
Shore Mode	293	30,471	16,346
For-Hire	197	18,313	10,225
Total Durable Equipment Impacts	10,440	1,067,145	574,160
Total State Trip and Durable Equipment Economic Impacts	11,025	1,126,920	606,474

2006 Angler Trip & Durable Equipment Expenditures (thousands of dollars)1

Fishing Mode	Trip Expend	ditures	Durable Equipment Expenditures	Expenditures				
	Non-Residents	Residents	Fishing Tackle	98,378				
Private Boat	1,262	6,825	Other Equipment	68,885				
Shore	4,946	19,220	Boat Expenses	1,052,087				
For-Hire	1,097	10,832	Vehicle Expenses	65,239				
Total Trip Expenditures	7,305	36,877	Second Home Expenses	29,229				
			Total Durable Equipment Expenditures	1,313,819				
Total State Trip and Durable Equipment Expenditures								

Recreational Anglers by Residential Area (thousands of anglers)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Coastal	128	117	179	297	217	150	136	131	125	$NA^2$
Non-Coastal	42	64	65	212	41	58	52	50	47	$NA^2$
Out-of-State	13	10	10	14	25	14	12	12	11	$NA^2$
Total Anglers	183	191	254	524	284	222	200	193	183	$NA^2$

Recreational Fishing Effort by Mode (thousands of trips)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
For-Hire	45	49	52	33	59	69	64	62	57	$NA^2$
Private or Rental	182	241	368	824	247	209	135	113	84	$NA^2$
Shore	482	326	455	670	711	512	512	512	512	$NA^2$
Total Trips	709	616	875	1,527	1,017	790	711	687	653	$NA^2$

Harvest (H) and Release (R) of Key Species / Species Groups (number of fish in thousands)3

Species/Groups		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Cod, Pacific	Н	1	(1)	(1)	1	2	3	6	5	1	$NA^2$
Cou, Facilic	R	2	(1)	1	(1)	(1)	(1)	1	(1)	(1)	$NA^2$
Flatfishes	Н	240	141	158	119	216	62	62	61	63	$NA^2$
i latilisties	R	96	93	102	66	209	92	41	41	42	$NA^2$
Greenlings	Н	100	65	100	73	85	59	39	39	33	$NA^2$
Greenings	R	25	9	36	33	141	64	25	25	22	$NA^2$
Herring & Smelt <sup>4</sup>	Н	3,511	1,545	2,065	3,649	3,254	2,487	2,486	2,486	2,486	$NA^2$
Herring & Smelt	R	204	174	60	161	196	136	126	126	126	$NA^2$
Rockfishes	Н	531	304	268	199	237	184	256	307	282	$NA^2$
NUCKIISHES	R	23	9	8	14	50	20	25	33	23	$NA^2$
Salmon	Н	183	176	253	735	320	570	348	291	174	$NA^2$
Saimon	R	188	191	277	542	362	391	415	216	306	$NA^2$
Sculpins	Н	30	23	24	10	35	17	17	17	16	$NA^2$
Sculpins	R	119	64	202	85	142	101	91	91	91	$NA^2$
Sturgeon	Н	9	9	8	7	8	6	5	5	5	$NA^2$
Sturgeon	R	39	34	28	21	27	18	25	30	21	$NA^2$
Curfnorchoo	Н	202	108	198	89	104	143	133	133	133	$NA^2$
Surfperches	R	84	152	227	101	105	125	120	120	120	$NA^2$
Tuna Albacoro	Н	21	4	7	4	6	11	14	12	24	$NA^2$
Tuna, Albacore	R	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	1	NA <sup>2</sup>

 $<sup>^12007</sup>$  data was not available for this report; 2006 economic impact and expenditure information are reported here.

<sup>3</sup>In this table, "1" = 1000-1499 fish were harvested or released and "(1)" = 0-999 fish were harvested or released.

 $<sup>^{2}</sup>$ 2007 data was not available for this report; NA = data is not available.

<sup>&</sup>lt;sup>4</sup>Species included in this group may not be equivalent to species with similar names listed in the commercial tables.

Washington's State Economy (% of national total)

	Establishments	Employees		Employee Compensation (\$ millions)	Gross State Product (\$ millions)	Commercial Location Quotient <sup>1</sup>
1998	161,473 (2.3%)	2,134,598 (2.0%)	73,268 (2.2%)	133,974 (2.3%) <sup>2</sup>	195,794 (2.3%)	12.46
2006	179,908 (2.4%)	2,421,269 (2.0%)	104,191 (2.2%)	169,797 (2.3%)	291,298 (2.2%)	13.86
% change	11.4%	13.4%	42.2%	26.7%	48.8%	11.2%

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

		1998	1999	2000	2001	2002	2003	2004	2005	2006
Seafood product preparation &	Firms	36	32	37	41	48	59	53	54	53
packaging	Receipts	5,455	1,965	3,052	3,432	2,763	5,680	4,446	5,568	4,149
Seafood sales,	Firms	33	28	28	29	30	32	30	31	29
retail	Receipts	1,477	1,887	2,139	2,465	2,681	1,623	2,202	1,836	1,727

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

		1998	1999	2000	2001	2002	2003	2004	2005	2006
Seafood product	Establishments	116	116	119	112	106	110	101	98	96
preparation &	Employees	8,587	7,276	6,784	6,498	6,728	5,968	5,851	5,743	5,705
packaging	Payroll	219,324	207,487	218,517	216,660	221,978	231,153	247,316	239,962	255,129
Caafaadaalaa	Establishments	189	184	176	176	175	121	116	126	115
Seafood sales, wholesale	Employees	1,550	1,617	1,654	1,444	1,185	1,112	883	1,094	1,015
Wilolesale	Payroll	53,777	61,101	64,074	56,122	51,959	39,206	37,292	42,852	42,934
Castandania	Establishments	28	31	28	32	44	37	40	47	49
Seafood sales, retail	Employees	160	179	182	198	235	284	222	291	292
	Payroll	4,465	4,296	4,122	4,503	6,379	6,363	6,578	9,322	8,998

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

		1998	1999	2000	2001	2002	2003	2004	2005	2006
Coastal & Great Lakes freight transportation	Establishments	34	28	32	30	33	36	38	41	43
	Employees	2,543	2,484	2,356	2,330	2,173	1,607	2,039	1,672	2,353
	Payroll	122,338	128,253	128,747	129,997	130,456	112,319	128,786	122,000	145,144
Deep sea freight transportation	Establishments	25	27	21	22	23	27	23	24	23
	Employees	1,005	877	736	584	$ND^3$	276	311	378	197
	Payroll	55,802	53,319	41,689	29,209	ND	16,147	20,559	22,655	14,390
Deep sea passenger transportation	Establishments	5	6	7	8	7	3	2	3	3
	Employees	412	419	435	494	ND	ND	ND	ND	ND
	Payroll	11,949	15,633	18,145	20,543	ND	ND	ND	ND	ND
Marinas	Establishments	127	123	116	119	111	102	96	96	103
	Employees	515	574	575	573	406	430	449	442	466
	Payroll	12,951	14,211	15,714	14,516	11,283	12,400	12,763	13,556	14,269
Marine cargo handling	Establishments	32	33	36	36	33	23	30	30	29
	Employees	2,861	2,361	3,322	2,847	2,538	ND	ND	4,459	3,764
	Payroll	180,789	186,461	238,138	213,946	194,398	ND	ND	318,873	303,375
Navigational services to shipping	Establishments	62	57	56	57	55	52	53	53	56
	Employees	239	ND	ND	239	218	834	ND	841	942
	Payroll	14,899	ND	ND	20,235	20,962	51,092	ND	60,034	72,120
Port & harbor operations	Establishments	5	7	6	5	4	3	4	6	5
	Employees	ND	ND	ND	ND	37	ND	ND	ND	53
	Payroll	ND	ND	ND	ND	1,565	ND	ND	ND	3,436
Ship & boat building	Establishments	155	141	132	134	135	138	141	154	164
	Employees	6,063	6,036	6,442	5,532	4,974	6,056	6,474	7,154	7,669
	Payroll	210,994	219,467	225,433	194,050	219,980	244,124	272,336	307,735	313,230

<sup>&</sup>lt;sup>1</sup>The U.S. Commercial Fishing Location Quotient (CFLQ) of 1.0 represents the national baseline from which state CFLQs can be compared.

compared. <sup>2</sup>Employee Compensation data for 1998 were not available. Data from 2001 are reported here.

 $<sup>{}^{3}</sup>ND$  = Data are suppressed due to confidentiality restrictions.