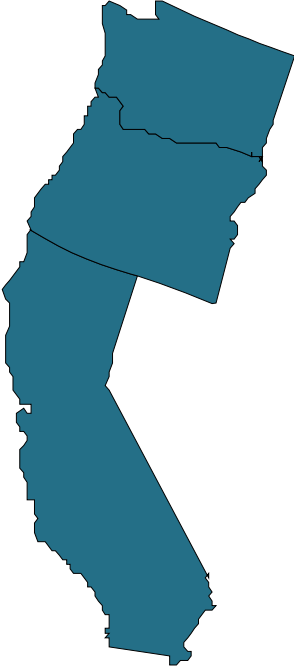


Pacific

- California
- Oregon
- Washington



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.¹ Eastern Pacific yellowfin tuna and Pacific bigeye tuna stocks² – which are internationally managed – are currently characterized as subject to overfishing.³

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

¹These 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.

²These 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.

³In 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.

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).⁵ 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.⁶

⁴Waters off the coasts of California, Oregon, Washington, and Alaska comprise the U.S. EEZ subject to management by the IPHC.

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

⁶It 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
- Salmon
- Shrimp
- 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 a 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).

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 ex-vessel 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.
- Crab contributed more than any other species or group, averaging \$97 million in landings revenue from 1998-2007. In 2007, Washington contributed the most to crab revenue in the region, followed by Oregon and California.
- Squid had the largest annual increase during the 10 year time period, increasing 1,866% from \$1.7 million in 1998 to \$33 million in 1999. Shrimp had the largest annual decrease in landings revenue, dropping 44% from 2002-2003.

Landings

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

Prices

- Other shellfish had the highest average annual ex-vessel price per pound (\$3.11) over the time period, followed by crab (\$1.85) and sablefish (\$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 squid, a 136% increase from 2002-2003. The largest annual decrease in price was for salmon, dropping 42% from 2000-2001.

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.

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 2007.

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 areas⁷ 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 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

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

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 Fishing⁸

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

⁸Data 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).

Participation^{8,9}

In 2006, there were 1.8 million recreational fishermen from either a coastal or non-coastal county in the Pacific Region.¹⁰ 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 1.7 million resident anglers 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. Coastal county resident anglers decreased 30% from 2003-2004, the largest annual decrease.

Fishing trips

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

Harvest and release

- On average, 3.4 million mackerels were caught annually from 2004-2006. Of these, 72% were released rather than harvested.
- Seven of the Pacific's ten key species or groups were released by anglers rather than harvested. Sculpins (76% released), mackerels (69%), and barracuda, bass, and bonito (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^{8,9}

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.

⁹Due 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.

¹⁰At 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 Release^{8,9}

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 Economy¹¹

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.¹² 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

¹¹Data for 2007 was unavailable for this report, therefore, 2006 information is reported in this section.

¹²The 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).