

CHAPTER IV

SOCIOECONOMIC ASSESSMENT OF THE 2008 OCEAN SALMON FISHERIES

SUMMARY: Total 2008 exvessel value of the Council-managed non-Indian commercial salmon fishery was \$1.2 million. There was no commercial fishing permitted in California in 2008 and therefore the West Coast total comprises only Oregon and Washington. In real (inflation-adjusted) dollars, exvessel value was 90 percent below its 2007 level (\$11.9 million), 94 percent below the recent five year (2003-2007) average, and 98 percent below the 1979 through 1990 inflation-adjusted average of \$57.9 million (including pinks). The 2008 average West Coast ocean harvest Chinook price was \$6.96 per pound. This was \$1.58 above the 2007 level (\$5.38 per pound) and \$1.53 above the 2006 level (\$5.43), after adjusting for inflation. The 2008 average Chinook price was the highest recorded in more than 25 years in inflation-adjusted terms. At \$2.54 per pound, in inflation-adjusted terms, average 2008 West Coast coho prices were 39 percent higher than in 2007, 2 percent higher than in 2006, and 49 percent higher than the previous five year average (2003-2007). The preliminary number of vessel-based ocean salmon recreational angler trips taken on the West Coast in 2008 was 67,200, a decrease of 73 percent from 2007, and 89 percent less than the 1979 through 1990 average. The total West Coast income impact associated with recreational and commercial ocean salmon fisheries for all three states combined was estimated at \$6.9 million in 2008. In inflation-adjusted dollars this was 83 percent below the estimated 2007 level (\$39.9 million), 89 percent lower than the inflation-adjusted recent five year (2003-2007) average. Year 2008 has the lowest income impacts on record with 2006 as the next comparable year with \$35.7 million (inflation adjusted).

ALLOCATION OF THE SALMON RESOURCE

Salmon management by the Council involves numerous allocation issues including:

- Determination of the amount of salmon available for ocean harvest after consideration of expected abundances, harvests by inside fisheries, and spawning escapement goals.
- Allocation of harvest among broad management areas and among port areas within the management areas.
- Allocation of harvest between Indian and non-Indian harvesters.
- Allocation of the non-Indian harvest between commercial and recreational harvesters.

The amount of salmon available for harvest in Council management areas depends, in part, on harvest in Canada and Alaska. Allocation of harvest between the West Coast, Canada, and Alaska is determined within the constraints of the PST.

In general, the recreational fishery has tended to have a more stable harvest than the commercial fishery (in both absolute and relative terms) (Figures IV-1 and IV-2). The majority of the annual variation in available ocean harvest is usually taken up in the commercial fishery. However, both fisheries have suffered substantial declines relative to harvest levels of the 1980s, the effects of which are amplified within specific geographic areas.

Decisions on allowable harvests for a particular stock often have implicit allocation effects on the geographic distribution of salmon harvest. Seasons may be more restrictive along a particular area of the coast to protect a depressed stock encountered in that area at a higher rate than other areas. The geographic distribution of harvest opportunity along the coast involves balancing the often conflicting objectives of maximizing ocean harvest and fairly distributing the responsibility for resource conservation. A brief outline of the regulatory objectives which shaped the 2008 season is provided in Chapter I; and an assessment of success in meeting the objectives is provided in Chapters II and III.

COMMERCIAL SALMON FISHERIES

West Coast Non-Indian Commercial Ocean Fishery

Inseason Price Trends

Monthly exvessel price data provide information on seasonal price trends (Table IV-1). Oregon and Washington 2008 Chinook prices were at their highest in May, reaching over \$8.00/pound. Oregon and Washington Chinook prices were at their lowest in September and July, respectively, with consistently high prices for the remainder of the season. Coho price trends were more mixed and peaked at the start of the season in Oregon and at the end of the season in Washington.

Annual Trends (Seasons, Value, Prices, and Pounds)

Available information on Chinook and coho exvessel price and value by species, compiled from state fish receiving tickets and expressed both in nominal terms and inflation-adjusted 2008 dollars, is presented in Tables IV-2, IV-3, and IV-4. Data on pink salmon are provided in Table IV-5. The gross domestic product implicit price deflator, developed by the Bureau of Economic Analysis, was used to adjust nominal values for inflation (Appendix D, Table D-22). Weights of landings by species and port for Chinook and coho are presented in Tables IV-6, IV-7, and IV-8. These tables and the following discussion refer to the non-Indian commercial fishery in Council management areas and associated state territorial ocean area waters.

Total 2008 exvessel value of the Council-area non-Indian commercial salmon fishery was \$1.2 million, which is the lowest on record. In real (inflation-adjusted) dollars, exvessel value was 90 percent below its 2007 level (\$11.9 million) and 98 percent below the 1979 through 1990 inflation-adjusted average of \$57.9 million (including pinks), and 94 percent below the 2003-2007 inflation-adjusted average of \$20.4 million (including pinks). The most comparable exvessel value was \$7.0 million in 1998.

California did not have a commercial salmon fishery in 2008. In 2007 the exvessel value of the California commercial ocean salmon catch was \$8.1 million and the 1979-2007 average was \$18.5 million (inflation adjusted). The 2008 exvessel value for the Oregon commercial catch (\$490 thousand) was down 83 percent from the 2007 value, and 97 percent below the 1979 through 1990 average (\$18.3 million), in inflation-adjusted terms. The 2008 exvessel value for the Washington non-Indian ocean commercial catch (\$710 thousand) was down 27 percent from the 2007 value (\$975 thousand). Over the last seven years (2002-2008) exvessel values of Washington landings have been the highest since 1993 (\$1.1 million, inflation-adjusted), but 2008 values were still 91 percent below the 1979 through 1990 inflation-adjusted average of \$8.2 million.

The 2008 average West Coast ocean harvest Chinook price was \$6.96 per pound, which is the highest on record. Years 2007 and 2006 had high Chinook price per pound with \$5.38 and \$5.43 per pound, respectively (inflation adjusted). Chinook 2006-2008 prices compared to previous years have not been this high since 1979, which had an average inflation-adjusted price of \$6.54 per pound. One of the main reasons 2008 prices were so high was due to the extremely restricted 2008 fishing season (see Chapter I and Appendix C for details). The 2008 price was 78 percent above the recent five year (2003-2007) average (\$3.92), in inflation-adjusted terms and 51 percent above the 1979-1990 average (\$4.60). At \$2.54 per pound, in inflation-adjusted terms average 2008 West Coast coho prices were 39 percent higher than in 2007, 2 percent higher than in 2006, but 14 percent lower than the 1979-1990 average.

In terms of number of fish, the 2008 coastwide, non-Indian commercial Chinook harvest (14,500 fish) decreased by 91 percent compared to 2007 (Figure IV-1). Historically, 2008 harvest of fish was the lowest on record. The number of Chinook harvested was 98 percent below the long-term average, which

includes years 1976 through 2007 (733,000 fish). The coastwide average weight per Chinook (11.4 pounds) decreased by 14 percent compared to 2007 (Appendix D, Tables D-1, D-2, and D-3). Coho catch decreased in 2008 to 2,100 fish, down 91 percent from 2007 (23,000), but comparable to 2006, which had 2,700 fish. The coastwide average weight per coho (8.4 pounds) increased 44 percent from 2007 (5.8 pounds), and is comparable to 2006 (8.5 pounds), which was the highest average weight for 1980 to the present. The coastwide coho exvessel value was \$45 thousand in 2008, which is 82 percent lower than 2007 (\$0.25 million) and 22 percent lower than 2006 (\$57 thousand), in inflation adjusted values (Figure IV-4). In 2008 the majority of the coastwide Chinook harvest (by weight) was taken in Westport (30 percent) and Astoria (23 percent), which was very different from 2007, in which San Francisco (41 percent) and Fort Bragg (16 percent) comprised the highest Chinook take (by weight). In 2008, North of Cape Falcon comprised about 84 percent of coastwide Chinook harvest (by weight) and the KMZ comprised about 5 percent. This was incomparable to previous years, since all other years had Chinook harvest in California. Compared with 2007, Chinook harvest (by weight) in 2008 was down 100 percent in California, down 86 percent in Oregon and down 46 percent in Washington. The 2008 coho harvest (by weight) was down 97 percent in Oregon and down 57 percent in Washington, compared to 2007 (no coho were harvested in California in either year).

Ocean Commercial Salmon Harvesters

Based on Pacific Coast Fisheries Information Network (PacFIN) data, 194 vessels participated in the West Coast commercial salmon fishery in 2008. This is down 81 percent from the 2007 total of 1,007. The coastwide vessel counts from PacFIN are lower than the totals derived from summing Appendix D state-level tables because vessels may be counted in more than one state and because of differences in the degree of data completeness at the time the data were summarized.

In 2008, no California vessels landed salmon. In 2007, the active fleet in California was 601 vessels and in 2006, it was 477 vessels (Table D-4). In Oregon, the active fleet decreased by 298 vessels in 2008 with 138 vessels compared to 2007 which had 436 vessels (Table D-5). The active fleet in Washington increased by seven vessels to 86 vessels landing salmon in 2008 (Table D-6). Coastwide, the number of limited entry salmon permits issued in 2008 decreased by 4 from the previous year, to 2,552. Landings were made on 9 percent of all permits in 2008, down from 44 percent in 2007. This is the lowest on record (1982-2008). From 1982 to 1993 an average of 5,193 of 7,942 total permits (65 percent) were used on an annual basis. Harvest opportunity began declining substantially at that time and some permits were purchased in a buyback program.

Coastwide in 2008, average per vessel inflation-adjusted exvessel value of salmon landings decreased 50 percent compared to 2007, to \$5,300 per vessel. Compared to 2007, 2008 average per vessel exvessel revenue was down 100 percent in California, down 46 percent in Oregon, and down 33 percent in Washington. Some caution needs to be exercised in interpreting the per vessel average. For example, the averages may be influenced as much by the entry or exit of a disproportionate number of small or large harvesters from one year to the next as by a change in the average revenues of those vessels remaining in the fishery.

Additional historical information on landings by vessel size, percentages of the fleet responsible for the majority of harvest, and harvest by residence of those participating in the fishery off each state is provided in Appendix D.

West Coast Treaty Indian Commercial Ocean Fishery

Treaty Indian commercial fisheries off Washington operate under regulations established by the Council. While some of the treaty Indian harvest was for ceremonial and subsistence purposes, the vast majority of the catch was commercial harvest. Commercial treaty Indian fisheries provide food to consumers and

generate income in local and state economies through expenditures on harvesting, processing, and marketing of the catch. From May through September 15th, the treaty Indian ocean troll fishery harvested 22,000 Chinook (165,600 pounds), 14,400 coho (124,000 pounds) in 2008, compared with 26,700 Chinook (238,300 pounds), 41,100 coho (224,200 pounds) in 2007 (Tables A-15 and D-3). For all of 2008 the preliminary exvessel value of Chinook and coho landed was \$900 thousand and the inflation adjusted exvessel value in 2007 was \$1.2 million (values based on PacFIN data).

Columbia River Commercial Fishery

Harvest in the ocean salmon fisheries affect inriver fisheries by affecting the number of fish available for inside treaty Indian and non-Indian harvest. Table IV-9 shows the exvessel value of Columbia River commercial harvest of Chinook, coho and chum salmon. All prices and values in the table and the following discussion are reported in inflation-adjusted dollars. Exvessel prices for inriver catches of Chinook vary considerably with race (spring versus fall Chinook) and stock (tules versus brights). Spring Chinook generally bring the highest prices and tule fall Chinook and chum the lowest.

Total 2008 exvessel value of commercial salmon harvested in the Columbia River was \$7.6 million. This was 96 percent above the inflation-adjusted 2007 (\$3.85 million) level. Total 2008 exvessel value for non-Indian commercial salmon harvested in the Columbia River was \$3.5 million, 69 percent above the 2007 (\$2.1 million) level (Table IV-9).

The total 2008 exvessel value of treaty Indian salmon harvested in the Columbia River and sold on fish tickets was \$4.0 million. This is 128 percent above the 2007 (\$1.8 million) value. Note that these values include only those sales made to licensed fish buyers. Treaty Indian fisher sales to the public are accounted for in harvest monitoring (Table B-20), but estimates of the pounds and value of such sales were not included in Table IV-9.

Other Inside Commercial Fisheries

Puget Sound and Washington Coastal Inside Fisheries

Information on 2008 Puget Sound and Washington coastal inside fisheries is preliminary. Based on PacFIN data, the 2008 exvessel value reported for all salmon species taken in the commercial non-Indian fisheries in Puget Sound and Washington coastal inside fisheries (excluding the Columbia River) was \$4.4 million. Of this, \$1.0 million was for Chinook and coho. In 2007, the total inflation-adjusted exvessel values for the commercial non-Indian salmon fisheries in these areas were \$6.3 million for all salmon species and \$800 thousand for Chinook and coho. The 1981 through 2007 inflation adjusted average exvessel value is \$17.8 million with \$4.5 million for Chinook and coho.

The preliminary 2008 exvessel value reported for all salmon species taken in the commercial treaty Indian fisheries in those areas was \$6.8 million. Of this, \$6.0 million was for Chinook and coho. The values for 2007 were \$10.9 million for all salmon species and \$5.9 million for Chinook and coho. The 1981 through 2007 inflation adjusted exvessel value is \$21.9 million with \$8.0 million for Chinook and coho.

Klamath River Fisheries

Commercial sales in the Yurok and Hoopa Valley Reservation Indian fall gillnet fisheries in the Klamath River occurred in 1987-1989, 1996, 1999-2004, and 2007-2008. Average commercial catch of fall Chinook was 17,600 in those years, most of which occurred in the estuary. Commercial sales also occurred in spring gillnet fisheries in 1989, 1996, 2000-2004, and 2007-2008, with an average of about 1,500 fish sold. The 1989 harvest of 27,700 Chinook was sold for \$852,000 (unadjusted for inflation, \$1.3 million adjusted to 2008 dollars) and had an average per fish weight of 15.4 pounds. For the 1996 harvest of 3,129 spring Chinook and 40,147 fall Chinook, the value at first sale was estimated at \$525,000

(unadjusted for inflation, \$685,000 adjusted to 2008 dollars). The average weight per fish landed in 1996 was 13.5 pounds. Records were not available for the weight and value of harvests after 1996 as each Indian fisher now markets their fish independently. In recent years the fishery has occurred fairly regularly with the exceptions of 2005 and 2006. The commercial fall Chinook harvest was 12,500 Chinook in 2008, compared to 21,100 Chinook in 2007 (Appendix B, Table B-5).

CEREMONIAL AND SUBSISTENCE SALMON FISHERIES

In addition to the commercial Indian fisheries discussed above, fish are taken in Indian fisheries each year for ceremonial and subsistence purposes. Estimates of the amount of salmon used for ceremonial and subsistence purposes are documented in Appendix B. Discussion of the importance of ceremonial and subsistence fish to Indian communities is presented in Appendix B to Amendment 14 of the salmon FMP.

RECREATIONAL SALMON FISHERIES

Ocean

The preliminary number of vessel-based ocean salmon recreational angler trips taken on the West Coast in 2008 was 67,200, a decrease of 73 percent from 2007, and 89 percent less than the 1979 through 1990 average. Compared with 2007, preliminary estimates of the number of trips taken in 2008 decreased by nearly 100 percent in California, decreased by 66 percent in Oregon, and decreased by 50 percent in Washington. Note that Washington effort estimates in Tables IV-10 and IV-13 differ from those in Tables I-4 and Appendix A Table A-17 because the former exclude bank effort from the Columbia River north jetty.

Recreational salmon fishing takes place primarily in two modes, (1) anglers fishing from privately owned pleasure crafts, and (2) anglers employing the services of the charter boat fleet. In general, success rates on charter vessels tend to be higher than success rates on private vessels. Small amounts of shore-based effort directed toward ocean area salmon occur, primarily from jetties and piers. Coastwide, the proportion of angler trips taken on charter vessels in Washington, Oregon and California declined from 31 percent in 2007 to 24 percent in 2008 with a decline in the charter trips proportion in Oregon and increases in those proportions in California and Washington. Figure IV-5 and Tables IV-10, IV-11, IV-12, and IV-13 display details of effort and catch by port area and mode for each state.

California

The California fishery was closed with the exception of an early season opening that occurred in the Fort Bragg area. There were 391 trips during that opening (98% fewer than the season total in Fort Bragg in 2007). There were only six Chinook caught on the 391 angler trips and all six were caught on private vessels. There were 0.015 fish per trip for the opening.

Oregon

Ocean recreational salmon trips in 2008 in Oregon were down 66 percent to 30,400 trips from an estimated 88,300 angler trips in 2007. Total 2008 trips were 71 percent below the most recent five year average (2003 through 2007). All Oregon port areas have a decrease in effort ranging from 57 percent each in Tillamook and Brookings to 74 percent in Newport. The charter industry share of Oregon recreational salmon trips in 2008 was about 6 percent, which was less than half of the previous year as well as the recent five year average (2003 through 2007) (Figure IV-5 and Table IV-12).

From 1984 to 1993, coho comprised 87 percent of the Oregon recreational ocean salmon catch, on average. From 1994 through 1998 the lack of opportunity to retain coho south of Cape Falcon generally resulted in much lower angler success rates. With the opportunity to retain coho in mark-selective fisheries south of Cape Falcon beginning in 1999, salmon retention rates increased 75 percent in 1999 to

0.43 salmon per angler day, from 0.25 in 1998. From 2002 through 2007, retention rates ranged between 0.44 and 1.07 salmon per angler day. The retention rate for 2008 was in this range at 0.45. Coho contributed 88% of the catch.

Washington

In 2008, 36,400 ocean angler trips were taken on vessels on the Washington coast, a decrease of 50 percent from the 72,700 trips taken in 2007, and 60 percent below the recent five year average (2003-2007). Effort has been decreasing each year since 2003, except 2007. The proportion of Washington angler trips taken on charter vessels was 39 percent in 2008, up from 37 percent in 2007, (Figure IV-5 and Table IV-13), which is comparable to recent years, but 29 percent below an early year average (1979 through 1990).

Angler success rates (in terms of retained fish per angler trip) decreased to 0.92 in 2008, down from 1.28 in 2007 and 0.73 in 2006. The retention rate averaged 1.49 salmon per trip between 1979 and 1990 and 1.26 salmon per trip since then. Note that these figures do not include angler effort that occurs from the ocean side of the Columbia River jetty, or angler effort in the state managed Area 4B add-on fishery.

In an effort to increase angler participation in non-salmon recreational fishing (e.g., bottomfish trips) and to extend the length of the salmon season, partial-week closures were used in the recreational fishery north of Cape Falcon beginning in 1985. Sunday through Thursday openings were used beginning in 1996 in the Westport and Columbia River port areas. The Neah Bay and La Push areas were generally open seven days a week, until more recently. In 2008, the fishery was open seven-days-per-week in the Columbia River area (south of Leadbetter Point) during June, with partial week openings in July and August. All open ports north of Leadbetter Point switched from partial week openings to a seven-day-per-week fishery on August 25th. In 2008, north of Cape Falcon there were 43,900 bottomfish trips, a decrease from the 45,200 trips in 2007 (Table IV-14). The decline was distributed across all port areas.

Buoy 10 and Area 4B Add-On Fisheries

For anglers fishing from private and charter boats, angler retention rates in the Buoy 10 fishery rose from 0.34 salmon per angler day in 2007 to 0.52 salmon per angler day in 2008. Private and charter boat effort in 2008 was down 8 percent, compared with 2007, to about 32,500 trips (Table IV-15).

In 2000, about 3,400 trips were made in the late-season Area 4B add-on fishery. Since that time there have been no late season Area 4B add-on fisheries (Table IV-15) until 2008, which had an estimated 782 private trips and no charter trips.

There were numerous other inside recreational salmon fishing opportunities in Puget Sound and coastal streams and estuaries that are not discussed in this chapter of the Review. See Appendix B for estimates of harvest in some of those other fisheries.

SALMON FISHERY INCOME IMPACTS AND COMMUNITY DEPENDENCE

Coastal community income impacts provide information on the effects of fluctuations in salmon harvest on local economies and small businesses. Income impacts are estimated per commercial pound and per recreational fishing day, and were generated using the Fishery Economic Assessment Model (FEAM). Information on FEAM is available from the Council on request.

Estimated state and local community income impacts of commercial and recreational ocean salmon fisheries and selected state-managed fisheries are shown in Tables IV-16 through IV-20. These impacts represent estimates of total personal income associated with harvesting, processing and first level distribution activities in the commercial and recreational salmon fisheries at the local community (county)

and state levels. Income impacts are estimated based on several components: reported landings by area, an inventory of area fleet and processors, estimates of fleet and processor expenditures, surveys of the expenditure patterns of recreational fishers, and local and state level total income coefficients generated by IMPLAN[®] models constructed for each area. Commercial ocean harvest not landed in the coastal areas (e.g., landed in Puget Sound ports) was not included in the estimates of coastal community impacts, but was included in the overall estimate of state impacts.

The impacts presented here are estimates of annual trends and are intended to indicate the possible redirection of activity between nonfishing-dependent and fishing-dependent sectors. As such they represent likely upper bounds on the local community and state income impacts generated by West Coast salmon fisheries. All income impact estimates in this review are reported in inflation-adjusted 2008 dollars.

West Coast Ocean Fishery Income Impacts

The total West Coast income impact associated with recreational and commercial ocean salmon fisheries for all three states combined was a record low of \$6.9 million in 2008. In inflation-adjusted dollars this was 83 percent below the estimated 2007 level (\$39.9 million) and 98 percent lower than the inflation-adjusted value for 1979 (the highest year in the data time series). The 2008 value was 89 percent below the inflation-adjusted average of \$65.8 million for the previous five years 2003-2007 (Tables IV-16 through IV-18). West Coast income impacts associated with the 2008 non-Indian commercial ocean fishery were \$1.4 million, 93 percent below 2007 (\$19.4 million), and 96 percent below the recent five year (2003-2007) average (\$37.6 million), in inflation-adjusted terms;^{1/} the most recent comparable year was 1998 (\$16.7 million). Income impacts related to the 2008 ocean recreational fishery were estimated at \$5.5 million, 73 percent below the 2007 level (\$20.1 million), and 80 percent below the 2003-2007 average in inflation-adjusted terms (\$28.2 million). These coastwide values do not reveal the reductions in particular communities compared with averages during the 1980s. Tables IV-16 through IV-18 provide greater detail on the impacts in individual states and port areas along the West Coast.

Selected Inside Fisheries

Columbia River Commercial Fisheries

For periods in the past, the non-Indian and treaty Indian Columbia River commercial fisheries have generated a substantial amount of income for the Oregon and Washington communities on the Columbia River, an average of \$32.5 million from 1986-1990 (inflation-adjusted). For 2008, income impacts associated with the Columbia River commercial catch (non-Indian and treaty Indian) were estimated at \$14.2 million, which was the highest value since 1989 (\$23.5 million). The income impacts in 2007 were \$7.1 million and \$10.5 million in 2006 (all values in inflation-adjusted 2008 dollars, Table IV-19). In FEAM, most of the benefit of higher than average salmon prices was assumed to go to the harvesters.

Buoy 10 and Area 4B Add-On

The estimated local community income impact associated with the 2008 Buoy 10 recreational fishery was \$1.3 million, 8 percent below the inflation-adjusted 2007 level of \$1.4 million, and 82 percent below the 1987-1990 inflation-adjusted average of \$7.2 million (Table IV-20). There was a late season Area 4B add-on fishery this year, which was the first since 2000. The associated local community income impact

1/ Income impact estimates for the commercial fishery do not include postseason settlement payments fishers may have received from buyers. These postseason settlements may be particularly significant for the California fishery.

with the area 4B add-on is \$29,800. Between 1996 and 2000, the average annual inflation-adjusted total state-level income impact associated with the Area 4B add-on fishery was \$135,000 (Table IV-20).

TABLE IV-1. Average monthly exvessel troll salmon price in dollars per dressed pound for California, Oregon, and Washington in 2008.

Species/Grade	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
CALIFORNIA											
Chinook ^{a/}	-	-	-	-	-	-	-	-	-	-	-
Coho	-	-	-	-	-	-	-	-	-	-	-
OREGON											
Chinook											
Large (>11 Pounds)	-	-	8.75	6.92	6.08	5.83	4.98	6.32	6.34	-	7.21
Medium (7-11 Pounds)	-	-	8.51	6.76	8.14	5.64	4.40	6.14	6.51	-	7.49
Small (<7 Pounds)	-	-	8.01	4.87	-	6.00	3.00	-	-	-	6.94
Ungraded Chinook	-	-	8.48	5.70	7.33	5.73	5.13	6.81	7.00	-	7.21
Weighted Average	-	-	8.56	6.59	7.22	5.76	4.87	6.47	6.36	-	7.31
Mixed Coho	-	-	-	-	3.33	2.85	1.82	-	-	-	2.79
WASHINGTON^{b/}											
Chinook											
Large (>11 Pounds)	-	-	9.18	6.19	5.91	6.06	6.19	-	-	-	6.93
Medium (8-11 Pounds)	-	-	8.46	6.03	5.59	5.91	6.02	-	-	-	6.62
Small (<8 Pounds)	-	-	9.52	2.22	4.28	5.64	5.00	-	-	-	4.99
Ungraded Chinook	-	-	-	-	-	-	-	-	-	-	-
Weighted Average	-	-	9.01	6.19	5.79	6.12	6.11	-	-	-	6.74
Mixed Coho	-	-	-	-	2.09	2.43	2.79	-	-	-	2.38

a/ Chinook salmon typically sold in two size categories. Prices paid in these categories are not extracted from dealer ticket information.

b/ Non-Indian data only.

TABLE IV-2. Troll Chinook and coho landed in California, estimates of exvessel value, and average price (dollars per dressed pound) in nominal and real (2008) dollars.^{a/}

Year or Avg.	Chinook				Coho				Total ^{b/}	
	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)
1979	17,356	42,901	2.53	6.25	2,303	5,693	2.19	5.41	19,659	48,593
1980	12,741	28,874	2.27	5.14	408	925	1.36	3.08	13,149	29,798
1981-1985	10,945	20,985	2.42	4.58	554	1,074	1.94	4.02	11,499	22,059
1986-1990	21,151	34,378	2.56	4.12	490	784	1.36	2.66	21,641	35,162
1991-1995	7,335	10,133	2.28	3.18	143	207	1.25	2.35	7,478	10,340
1996	5,984	7,809	1.44	1.88	-	-	-	-	5,984	7,809
1997	7,288	9,355	1.38	1.77	-	-	-	-	7,288	9,355
1998	3,060	3,885	1.66	2.11	-	-	-	-	3,060	3,885
1999	7,429	9,297	1.93	2.42	-	-	-	-	7,429	9,297
2000	10,304	12,620	2.01	2.46	-	-	-	-	10,304	12,620
2001	4,773	5,709	1.98	2.37	-	-	-	-	4,773	5,709
2002	7,776	9,140	1.55	1.83	-	-	-	-	7,776	9,140
2003	12,181	14,021	1.91	2.20	-	-	-	-	12,181	14,021
2004	17,895	20,022	2.87	3.21	-	-	-	-	17,895	20,022
2005	12,913	13,996	2.97	3.22	-	-	-	-	12,913	13,996
2006	5,350	5,621	5.13	5.39	-	-	-	-	5,350	5,621
2007	7,902	8,078	5.18	5.30	-	-	-	-	7,902	8,078
2008	-	-	-	-	-	-	-	-	-	-

a/ These exvessel values do not include the postseason settlement payments some fishers may have received from buyers and therefore may underestimate the true payments received by fishers for their landings. Beginning circa 1999, these postseason settlements are believed to have grown for the California fishery. For 2002, the exvessel value reported here is believed to be under reported by roughly 5% to 10%.

b/ Does not include pink salmon landings, if any.

TABLE IV-3. Troll Chinook and coho landed in Oregon, estimates of exvessel value, and average price (dollars per dressed pound) in nominal and real (2008) dollars.

Year or Avg.	Chinook				Coho				Total ^{a/}	
	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)
1971-1975	2,036	7,431	0.89	3.30	3,658	13,676	0.64	2.35	5,694	21,107
1976-1980	5,290	13,990	2.17	5.72	6,389	17,412	1.51	3.98	11,679	31,402
1981-1985	3,582	6,832	2.46	4.66	2,248	4,473	1.45	2.76	5,830	11,305
1986-1990	9,381	15,223	2.47	3.98	3,203	5,210	1.54	2.48	12,584	20,433
1991-1995	1,971	2,729	2.24	3.12	326	472	0.64	0.91	2,297	3,200
1996	3,007	3,924	1.56	2.04	-	-	-	-	3,007	3,924
1997	2,469	3,169	1.60	2.05	-	-	-	-	2,469	3,169
1998	2,297	2,916	1.64	2.08	-	-	-	-	2,297	2,916
1999	1,400	1,752	1.94	2.43	1	1	1.03	1.29	1,401	1,753
2000	2,988	3,659	2.02	2.47	75	92	1.06	1.30	3,063	3,751
2001	4,680	5,597	1.61	1.93	41	49	0.79	0.94	4,721	5,647
2002	5,383	6,328	1.54	1.81	8	9	0.75	0.88	5,391	6,337
2003	7,186	8,271	1.97	2.27	36	42	0.85	0.98	7,222	8,313
2004	9,832	11,001	3.45	3.86	86	97	1.24	1.39	9,919	11,098
2005	8,466	9,176	3.17	3.44	37	40	1.87	2.03	8,503	9,216
2006	2,663	2,797	5.48	5.76	38	40	2.90	3.05	2,701	2,838
2007	2,630	2,688	5.66	5.79	193	197	1.90	1.94	2,822	2,885
2008 ^{b/}	480	480	7.31	7.31	9	9	2.79	2.79	489	489

a/ Does not include pink salmon landings.

b/ Preliminary.

TABLE IV-4. Non-Indian troll Chinook and coho landed in Washington, estimates of exvessel value, and average price (dollars per dressed pound) in nominal and real (2008) dollars.^{a/}

Year or Avg.	Chinook				Coho				Total ^{b/}	
	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)
1971-1975	2,714	10,033	0.89	3.31	3,060	11,340	0.66	2.46	5,775	21,373
1976-1980	5,313	14,348	2.39	6.26	6,086	16,396	1.67	4.39	11,399	30,743
1981-1985	1,954	3,836	2.46	4.66	1,272	2,507	1.32	2.50	3,225	6,343
1986-1990 ^{c/}	1,310	2,121	2.61	4.22	360	573	1.62	2.62	1,670	2,694
1991-1995 ^{d/}	550	780	2.17	3.03	120	170	0.86	1.21	670	950
1996	d/	d/	d/	d/	59	77	0.86	1.12	d/	d/
1997	125	160	1.55	1.99	-	-	-	-	125	160
1998	123	156	1.51	1.92	-	-	-	-	123	156
1999	377	472	1.90	2.38	19	24	0.88	1.10	396	496
2000	224	275	1.71	2.09	34	42	1.09	1.33	258	316
2001	349	417	1.44	1.72	34	41	0.69	0.83	383	458
2002	756	889	1.11	1.30	2	2	1.58	1.86	758	891
2003	951	1,094	1.15	1.32	40	46	0.74	0.85	991	1,141
2004	1,079	1,208	2.14	2.39	106	118	1.16	1.30	1,185	1,326
2005	1,273	1,380	2.70	2.93	16	18	1.65	1.79	1,290	1,398
2006	1,029	1,081	4.64	4.88	16	17	1.69	1.78	1,045	1,098
2007	905	925	4.90	5.01	48	49	1.46	1.49	953	974
2008	673	673	6.73	6.73	36	36	2.49	2.49	709	709

a/ All values in this table are based on preliminary information available at the start of each year's salmon review.

b/ Does not include pink salmon landings.

c/ There was no legal coho fishery in 1988. The value used in this average for 1988 is for landings of fish caught south of Cape Falcon and seizures of illegal fish.

d/ In 1994-1996 Chinook were caught off Oregon and landed in Washington. Value information was not provided to preserve confidentiality.

TABLE IV-5. Non-Indian troll pink salmon landed in Oregon and Washington, estimates of exvessel value, and average price (dollars per dressed pound) in nominal and real (2008) dollars.

Year or Avg. ^{a/}	Oregon				Washington				Total ^{a/}	
	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)	Nominal Price Per Pound (\$)	Real Price Per Pound (\$)	Nominal Value (\$*1,000)	Real Value (\$*1,000)
1976-1980	167	462	0.75	1.97	1,200	3,130	0.54	1.43	1,367	3,592
1981-1985	129	249	0.74	1.41	287	563	0.41	0.79	416	812
1986-1990	41	68	0.77	1.24	57	89	0.66	1.07	98	158
1991-1995	1	2	0.88	1.22	38	54	0.64	0.89	39	56
1997	b/	b/	0.56	0.72	b/	b/	0.20	0.26	b/	b/
1999	b/	b/	0.67	0.84	b/	b/	0.38	0.48	b/	b/
2001	1	1	0.58	0.69	b/	b/	0.22	0.26	1	1
2003	b/	b/	0.85	0.98	b/	b/	0.30	0.35	b/	b/
2005	b/	b/	1.25	1.35	b/	b/	0.52	0.56	b/	b/
2007 ^{c/}	b/	b/	1.03	1.05	b/	b/	0.33	0.34	b/	b/

a/ Odd year averages.

b/ Less than \$500.

c/ Preliminary.

TABLE IV-6. Pounds of salmon landed by the commercial troll ocean fishery for major California port areas.^{a/}

Year or Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	State Total
CHINOOK (thousands of dressed pounds)						
1976-1980	393	1,403	1,449	1,733	889	5,867
1981-1985	350	428	1,128	1,806	742	4,454
1986-1990	155	405	2,299	3,648	1,592	8,097
1991-1995	2	25	183	1,893	1,326	3,429
1996	3	92	278	1,695	2,046	4,113
1997	c/	14	35	2,711	2,488	5,248
1998	1	22	35	1,081	709	1,847
1999	3	27	30	2,681	1,105	3,846
2000	3	20	354	2,607	2,148	5,131
2001	3	61	192	1,735	418	2,409
2002	54	108	872	3,060	912	5,008
2003	38	7	3,096	2,753	498	6,392
2004	308	65	1,292	3,712	853	6,230
2005	25	77	889	2,258	1,098	4,347
2006	-	-	273	684	87	1,043
2007	34	81	357	888	165	1,525
2008	-	-	-	-	-	-
COHO (thousands of dressed pounds)						
1976-1980	360	391	277	109	48	1,184
1981-1985	89	104	89	54	9	345
1986-1990	22	43	136	53	9	262
1991-1995	c/	4	11	56	23	94
1996	-	-	-	-	-	-
1997	-	-	-	-	-	-
1998	-	-	-	-	-	-
1999	-	-	-	-	-	-
2000	-	-	-	-	-	-
2001	-	-	-	-	-	-
2002	-	-	-	-	-	-
2003	-	-	-	-	-	-
2004	-	-	-	-	-	-
2005	-	-	-	-	-	-
2006	-	-	-	-	-	-
2007	-	-	-	-	-	-
2008	-	-	-	-	-	-

a/ The major port areas listed may include smaller ports as follows: Crescent City includes only Crescent City; Eureka includes Trinidad and Humboldt Bay; Fort Bragg includes Shelter Cove, Noyo Harbor, Mendocino, and Pt. Arena; San Francisco includes Bodega Bay, Sausalito, Berkeley, and Half Moon Bay; Monterey includes Santa Cruz, Moss Landing, Morro Bay, Avila, and all ports south of Pt. Conception.

b/ Prior to 2005 landings were based on catch area, not port of landing.

c/ Less than 500 pounds.

TABLE IV-7. Pounds of salmon landed by the commercial troll ocean fishery for major Oregon port areas.^{a/}

Year or Avg.	Astoria	Tillamook	Newport	Coos Bay	Brookings	State Total
CHINOOK (thousands of dressed pounds)						
1976-1980	171	118	530	908	700	2,427
1981-1985	92	45	271	638	386	1,432
1986-1990	52	264	829	2,118	468	3,731
1991-1995	7	86	580	235	31	940
1996	21	125	1,219	417	142	1,926
1997	3	32	1,053	381	73	1,542
1998	b/	66	953	326	52	1,398
1999	13	32	194	403	80	721
2000	89	97	532	648	114	1,481
2001	73	223	1,673	776	152	2,897
2002	330	275	1,442	1,223	218	3,488
2003	265	245	1,634	1,353	142	3,639
2004	134	113	1,121	1,214	267	2,850
2005	130	214	1,034	1,054	239	2,671
2006	99	67	218	56	45	486
2007	22	37	76	232	98	464
2008 ^{c/}	38	19	-	-	8	65
COHO (thousands of dressed pounds)						
1976-1980	385	660	1,190	1,661	357	4,252
1981-1985	133	293	451	550	111	1,537
1986-1990	73	473	693	648	69	1,957
1991-1995	17	93	110	104	1	325
1996	-	-	-	-	-	-
1997	-	-	-	-	-	-
1998	-	-	-	-	-	-
1999	1	-	-	-	-	1
2000	71	-	-	-	-	71
2001	50	b/	2	-	-	52
2002	6	5	-	-	-	11
2003	32	11	-	-	-	43
2004	47	22	-	-	-	70
2005	9	11	-	-	-	20
2006	8	5	-	-	-	13
2007	37	34	13	14	3	101
2008 ^{c/}	2	1	-	-	-	3

a/ The major port areas listed include smaller ports as follows: Astoria also includes Gearhart/Seaside and Cannon Beach; Tillamook also includes Garibaldi, Netarts, Pacific City, and Nehalem Bay; Newport also includes Depoe Bay, Siletz Bay, Salmon River, and Waldport; Coos Bay also includes Florence, Winchester Bay, Charleston, and Bandon; Brookings also includes Port Orford and Gold Beach.

b/ Less than 500 pounds.

c/ Preliminary.

TABLE IV-8. Pounds of salmon landed by the non-Indian commercial troll ocean fishery for major Washington port areas.^{a/b/}

Year or Avg.	Neah Bay	La Push	Westport	Ilwaco	Coastal Community		State Total ^{c/}
					Total	Puget Sound	
CHINOOK (thousands of dressed pounds)							
1976-1980	288	421	919	261	1,889	426	2,315
1981-1985	88	32	370	74	564	124	689
1986-1990	71	17	234	48	371	122	493
1991	128	7	127	14	276	32	308
1992	160	46	232	10	447	58	507
1993	122	35	132	2	291	41	332
1994 ^{d/}	-	-	-	-	-	7	7
1995 ^{d/}	-	-	3	-	3	12	15
1996 ^{d/}	-	-	4	1	5	13	18
1997	20	e/	45	-	65	15	80
1998	30	-	34	-	64	18	82
1999	62	2	66	3	133	65	198
2000	85	1	38	8	131	e/	131
2001	97	-	138	6	241	-	241
2002	262	33	322	61	678	-	678
2003	470	67	243	29	810	12	821
2004	250	74	158	15	497	7	504
2005	170	100	181	20	471	e/	471
2006	86	64	40	26	216	5	222
2007	38	31	105	8	182	2	184
2008	20	17	49	13	99	1	100
COHO (thousands of dressed pounds)							
1976-1980	600	786	1,066	678	3,130	496	3,626
1981-1985	133	63	277	142	616	128	744
1986-1990	70	19	97	53	239	19	259
1991	87	16	126	45	274	31	304
1992	25	13	21	4	63	12	75
1993	11	7	43	2	63	3	66
1994	-	-	-	-	-	-	-
1995	84	18	7	-	109	2	111
1996	45	1	23	-	68	e/	68
1997	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-
1999	7	1	4	1	13	9	21
2000	-	-	15	16	31	e/	31
2001	2	-	39	9	49	-	49
2002	-	-	e/	1	1	-	1
2003	11	12	21	8	52	2	54
2004	12	20	53	4	89	1	91
2005	2	1	3	5	10	-	10
2006	3	3	3	1	10	e/	10
2007	3	3	9	17	33	-	33
2008	2	3	8	1	14	e/	14

a/ All values in this table are based on preliminary information available at the start of each year's salmon review.

b/ The major port areas listed may include smaller ports as follows: Neah Bay includes only Neah Bay; La Push also includes Kalaloch; Westport also includes Aberdeen, Bay City, Copalis Beach, Hoquiam, Moclips, Taholah, Bay Center, Grayland Beach, Raymond, South Bend, and Tokeland; Ilwaco also includes Long Beach, Nahcotta, Naselle, and all Columbia River Ports; Puget Sound includes all Puget Sound ports east of Neah Bay.

c/ State total includes landings where port of landing is not specified.

d/ There was no ocean commercial fishery for Chinook north of Cape Falcon; however, Chinook were caught off Oregon and landed in Washington.

e/ Less than 500 pounds.

TABLE IV-9. Exvessel values (expressed in 2008 dollars) of inriver commercial harvest of Columbia River salmon.^{a/}

Fishery	Species	Average Price Per Landed Pound ^{b/} (dollars)						Exvessel Value (thousands of dollars)						Pounds (thousands)					
		1987-2003	2004	2005	2006	2007	2008 ^{c/}	1987-2003	2004	2005	2006	2007	2008 ^{c/}	1987-2003	2004	2005	2006	2007	2008 ^{c/}
OREGON																			
Non-Indian ^{d/}	Chinook																		
Gillnet	Spring	4.13	4.16	3.70	4.92	5.51	6.18	496	1,149	340	645	782	711	116	276	92	131	142	115
	Fall Brights	1.41	1.53	1.76	2.25	2.89	2.50	1,698	627	479	670	361	1,030	749	409	273	298	135	413
	Tules	0.39	0.25	0.28	0.29	0.05	0.06	100	55	37	19	1	6	156	224	132	65	e/	112
	Coho	1.24	1.01	1.16	1.38	1.66	1.31	1,089	760	915	659	315	670	785	755	789	478	189	511
	Chum	0.43	0.28	0.34	0.27	0.77	0.79	e/	e/	e/	e/	e/	e/	2	e/	e/	e/	e/	e/
	TOTAL							3,383	2,591	1,772	1,993	1,459	2,418	1,807	1,664	1,286	971	466	1,151
WASHINGTON^{e/h/}																			
Non-Indian	Chinook																		
Gillnet	Spring	4.46	4.40	3.88	3.86	7.22	6.71	223	304	239	336	129	315	44	69	62	87	18	47
	Fall ^{g/}	1.31	1.44	1.51	2.03	2.58	2.55	656	488	354	442	235	509	333	338	235	218	91	199
	Coho	1.24	1.05	1.12	1.40	1.67	1.26	451	389	213	290	256	277	369	370	191	207	154	219
	Chum	0.38	0.28	0.87	-	0.20	0.97	1	e/	e/	-	e/	e/	1	e/	e/	-	e/	e/
	TOTAL							1,331	1,181	806	1,068	621	1,102	747	777	487	512	263	466
Treaty Indian ^{f/}	Chinook																		
All Gears ^{i/}	Spring	3.01	1.76	1.83	2.47	7.16	4.45	53	184	122	447	e/	972	34	105	67	180	e/	e/
	Fall ^{g/}	0.93	0.60	0.55	1.47	1.99	1.36	1,068	487	776	1,333	1,268	1,600	914	806	1,404	905	638	1,172
	Coho	0.87	0.25	0.33	0.59	0.80	0.80	15	11	11	27	53	149	18	43	34	45	66	184
	TOTAL							1,136	682	909	1,807	1,321	2,720	970	954	1,504	1,130	705	1,574
Columbia River Total		-	-	-	-	-	-	6,576	5,274	3,726	5,218	3,850	7,554	6,576	4,280	3,545	2,842	1,628	3,800

a/ Excluding pink, sockeye, and steelhead.

b/ Gillnet exvessel salmon prices are recorded in round weight and therefore are not strictly comparable to exvessel troll prices.

c/ Preliminary. (All Washington values in this table are based on preliminary information available when each year's Salmon Review is drafted.)

d/ Mainstem below Bonneville and select areas (Youngs Bay, Tongue Point, Blind Slough, and Deep River).

e/ Less than \$500 or 500 pounds.

f/ Treaty Indian landings and values do not include direct sales to consumers.

g/ Includes fall brights, tules, and jacks. Price changes may reflect a change in the mix of brights, tules, and jacks rather than annual price changes.

h/ Washington prices for years prior to 2000 are based on a combination of Washington and Oregon value information.

i/ Primarily mainstem Columbia set gillnet but also includes Klickitat dipnet, Drano Lake (Little White Salmon River mouth), and Priest Rapids Pool fisheries.

TABLE IV-10. California, Oregon, and Washington ocean recreational salmon effort in thousands of angler trips and catch in thousands of fish by boat type. (Page 1 of 2)

Year or Avg.	Angler Trips		Chinook Catch ^{a/}		Coho Catch ^{a/}	
	Charter	Private	Charter	Private	Charter	Private
CALIFORNIA						
1981-1985	68.9	78.1	74.6	34.4	1.5	18.3
1986-1990	95.9	144.8	100.1	66.3	5.3	35.1
1991-1995	81.7	131.8	85.9	83.0	3.8	18.7
1996	84.6	140.9	72.9	91.2	b/	0.6
1997	102.6	131.7	122.3	106.6	b/	0.5
1998	67.0	85.0	59.7	62.3	b/	0.1
1999	62.6	84.4	40.5	47.4	b/	0.6
2000	94.0	120.4	91.9	94.0	b/	0.4
2001	69.9	95.2	43.2	55.6	0.1	1.2
2002	86.6	123.4	85.1	96.9	b/	0.8
2003	59.4	75.3	48.3	46.4	0.1	0.6
2004	97.7	121.0	124.7	96.5	b/	1.4
2005	69.1	103.0	61.3	81.9	b/	0.7
2006	44.9	81.6	35.3	61.0	b/	1.6
2007	31.4	74.5	12.4	35.4	b/	0.7
2008 ^{c/}	0.1	0.3	-	b/	-	-
OREGON^{d/e/}						
1979	73.7	187.7	5.4	13.3	59.8	101.8
1980	79.0	218.9	5.1	11.9	98.3	207.5
1981-1985	45.7	187.9	6.2	26.9	48.0	117.6
1986-1990	56.5	184.6	7.0	28.8	71.6	148.4
1991-1995	18.0	81.8	1.3	8.0	27.1	76.2
1996	5.6	38.3	1.2	10.1	3.0	4.2
1997	3.9	26.4	1.5	6.2	2.4	3.6
1998	1.8	24.2	0.5	3.6	0.5	1.8
1999	5.5	43.9	0.9	6.9	3.4	10.3
2000	9.8	68.7	3.6	21.8	7.5	25.7
2001	18.2	102.3	6.4	20.8	19.3	75.0
2002	15.7	91.9	7.9	39.5	9.0	27.5
2003	23.4	121.1	8.8	31.8	23.7	90.0
2004	21.1	124.6	14.6	41.8	13.1	58.8
2005	9.9	66.1	4.5	23.4	3.1	10.6
2006	8.0	54.4	1.5	10.1	3.6	12.0
2007	11.4	76.9	0.6	6.4	10.6	50.1
2008 ^{c/}	1.9	28.5	0.2	1.4	1.0	11.1

TABLE IV-10. California, Oregon, and Washington ocean recreational salmon effort in thousands of angler trips and catch in thousands of fish by boat type. (Page 2 of 2)

Year or Avg.	Angler Trips		Chinook Catch ^{a/}		Coho Catch ^{a/}	
	Charter	Private	Charter	Private	Charter	Private
			WASHINGTON^{f/g/}			
1979	220.8	89.8	61.1	15.7	227.9	62.4
1980	193.9	86.2	41.1	12.5	288.4	73.1
1981-1985	102.0	69.7	42.6	13.8	113.3	69.2
1986-1990	53.5	59.4	16.0	10.0	78.0	77.6
1991-1995	28.0	45.1	4.5	4.2	41.5	54.8
1996	15.3	23.5	b/	0.2	24.5	24.4
1997	12.5	15.1	1.7	2.3	12.5	12.8
1998	5.5	6.8	1.1	0.9	5.6	7.1
1999	17.5	29.9	5.7	4.1	16.3	23.7
2000	17.1	27.9	5.1	3.4	27.9	35.8
2001	41.2	72.4	11.9	10.8	66.2	98.2
2002	37.0	57.4	30.9	27.0	30.4	43.7
2003	44.5	75.5	16.0	18.1	53.4	84.9
2004	36.5	73.1	10.3	14.6	37.6	75.1
2005	31.7	58.9	15.9	20.4	19.2	32.6
2006	24.5	39.1	4.0	6.7	16.2	19.9
2007	26.7	45.9	3.1	5.9	33.7	50.1
2008 ^{c/}	14.2	22.2	6.0	8.6	8.3	10.5

a/ Catch numbers may include some illegal harvest.

b/ Fewer than 50 fish.

c/ Preliminary.

d/ Salmon data from surveyed ports only. These generally include Astoria, Garibaldi, Depoe Bay, Newport, Winchester Bay, Coos Bay, and Brookings. Since 1981, Pacific City and Florence have also been included. Gold Beach data are included from 1981-1987. Astoria was not included in 1994.

e/ Numbers do not include angling from the Columbia River jetty.

f/ Numbers do not include angling from the Columbia River jetty or from the late-season state waters Area 4B fishery.

g/ Values for 1982-1985 include some inriver Columbia River fishing after closure of the ocean fishery.

TABLE IV-11. Estimates of California recreational ocean salmon angler trips (thousands) by port area and boat type.

Year or Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	State Total
CHARTER TRIPS						
1976-1980	1.5	1.2	2.4	63.5	4.0	72.7
1981-1985	0.7	1.3	1.8	62.1	3.0	68.9
1986-1990	1.0	3.5	4.0	74.3	13.1	95.9
1991-1995	0.4	0.8	2.8	55.7	22.0	81.7
1996	a/	0.6	5.1	57.6	21.4	84.6
1997	-	0.8	2.2	69.1	30.6	102.7
1998	-	0.3	2.7	44.2	19.7	66.9
1999	-	0.4	2.3	51.0	8.9	62.6
2000	0.1	1.6	8.6	53.9	29.9	94.0
2001	a/	1.4	9.7	43.4	15.4	69.9
2002	-	1.6	10.7	54.9	19.4	86.6
2003	-	1.1	8.2	38.7	11.4	59.4
2004	0.1	1.9	10.7	63.4	21.5	97.7
2005	-	0.9	8.9	45.8	13.5	69.1
2006	-	0.7	6.9	29.2	8.0	44.9
2007	-	1.6	5.4	20.9	3.5	31.4
2008 ^{b/}	-	-	0.1	-	-	0.1
PRIVATE TRIPS						
1976-1980	18.4	22.7	9.3	34.4	6.0	90.8
1981-1985	22.4	21.8	7.8	16.8	9.3	78.1
1986-1990	38.6	34.4	11.4	24.3	36.1	144.8
1991-1995	13.9	14.0	17.6	37.1	49.3	131.9
1996	11.3	13.6	26.2	46.6	43.2	140.9
1997	6.6	11.6	18.0	42.1	53.5	131.7
1998	3.3	6.4	5.7	36.9	32.7	85.0
1999	5.8	11.6	7.9	38.8	20.3	84.4
2000	7.2	11.5	17.0	29.8	54.9	120.4
2001	8.6	14.7	21.1	28.1	22.7	95.2
2002	3.9	16.1	21.1	33.9	48.5	123.4
2003	2.2	12.5	15.5	27.9	17.1	75.3
2004	3.1	20.5	19.8	42.7	35.0	121.0
2005	2.5	13.9	15.4	39.0	32.2	103.0
2006	1.5	14.2	14.1	32.1	19.7	81.6
2007	2.1	16.8	11.7	22.2	21.7	74.5
2008 ^{b/}	-	-	0.3	-	-	0.3
TOTAL TRIPS						
1976-1980	20.0	23.9	11.7	97.9	10.0	163.5
1981-1985	23.1	23.1	9.6	78.9	12.2	147.0
1986-1990	39.6	37.9	15.4	98.6	49.2	240.7
1986-1990	14.3	14.8	20.4	92.8	71.2	213.6
1996	11.3	14.2	31.3	104.2	64.5	225.4
1997	6.6	12.4	20.2	111.2	84.0	234.4
1998	3.3	6.7	8.4	81.1	52.4	151.9
1999	5.8	12.0	10.2	89.8	29.2	147.0
2000	7.2	13.1	25.6	83.7	84.8	214.4
2001	8.6	16.0	30.8	71.5	38.2	165.1
2002	3.9	17.7	31.8	88.8	67.9	210.1
2003	2.2	13.6	23.7	66.6	28.5	134.6
2004	3.2	22.4	30.6	106.1	56.5	218.7
2005	2.5	14.8	24.3	84.8	45.7	172.1
2006	1.5	15.0	21.0	61.4	27.7	126.5
2007	2.1	18.4	17.1	43.1	25.2	105.9
2008 ^{b/}	-	-	0.4	-	-	0.4

a/ Fewer than 50 angler trips.

b/ Preliminary.

TABLE IV-12. Estimates of Oregon recreational ocean salmon angler trips (thousands) by port area and boat type.

Year or Avg.	Astoria	Tillamook	Newport	Coos Bay	Brookings	State Total
CHARTER TRIPS						
1979	18.5	2.8	26.7	22.7	3.0	73.7
1980	26.3	3.7	26.7	19.6	2.8	79.1
1981-1985	10.3	3.0	17.2	11.9	3.3	45.7
1986-1990	7.1	5.3	27.5	13.0	3.6	56.5
1991-1995 ^{a/}	4.3	1.6	7.9	3.5	0.7	18.0
1996	1.9	0.8	2.1	0.1	0.6	5.6
1997	1.3	0.3	1.8	-	0.5	3.9
1998	0.4	0.1	0.8	0.2	0.3	1.8
1999	1.7	0.3	2.3	0.5	0.7	5.5
2000	1.2	0.6	4.8	2.3	0.8	9.8
2001	4.3	1.4	8.8	3.0	0.7	18.2
2002	3.1	1.6	7.1	3.5	0.3	15.7
2003	3.9	2.0	13.0	4.0	0.5	23.4
2004	3.0	2.5	11.1	3.8	0.6	21.1
2005	2.3	1.0	3.7	2.6	0.3	9.9
2006	2.1	0.6	3.0	2.0	0.3	8.0
2007	2.6	1.1	5.6	1.9	0.2	11.4
2008 ^{b/}	0.7	0.1	0.9	0.1	0.1	1.9
PRIVATE TRIPS						
1979	24.3	16.3	45.4	52.9	48.8	187.7
1980	20.1	29.3	56.6	65.2	47.7	218.9
1981-1985	15.6	27.1	40.4	51.8	53.0	187.9
1986-1990	10.6	23.7	47.1	48.4	54.8	184.5
1991-1995 ^{a/}	8.5	12.0	17.0	22.4	22.0	82.0
1996	3.7	7.5	0.6	3.8	22.7	38.3
1997	2.3	3.4	0.6	3.9	16.1	26.4
1998	1.7	5.9	0.5	2.2	13.8	24.2
1999	5.7	10.9	5.0	7.1	15.1	43.8
2000	7.2	10.9	8.2	21.2	21.2	68.7
2001	19.0	15.1	14.8	28.1	25.4	102.4
2002	9.0	22.8	10.9	29.9	19.4	91.9
2003	15.4	26.0	26.5	38.9	14.3	121.1
2004	15.6	26.8	27.9	36.7	17.7	124.6
2005	11.0	11.1	9.7	22.1	12.3	66.1
2006	6.2	15.3	7.4	15.2	10.4	54.4
2007	9.8	20.0	15.2	21.0	10.9	76.9
2008 ^{b/}	2.9	9.0	4.6	7.3	4.7	28.5
TOTAL TRIPS						
1979	42.8	19.1	72.1	75.6	51.8	261.4
1980	46.4	33.0	83.3	84.8	50.5	298.0
1981-1985	26.0	30.0	57.5	63.7	56.3	233.5
1986-1990	17.7	29.0	74.6	61.4	58.4	241.0
1991-1995 ^{a/}	12.8	13.6	24.9	26.0	22.7	100.0
1996	5.6	8.3	2.7	3.9	23.3	43.9
1997	3.6	3.7	2.4	3.9	16.6	30.3
1998	2.1	6.0	1.3	2.4	14.1	26.0
1999	7.4	11.2	7.3	7.6	15.8	49.3
2000	8.4	11.5	13.0	23.5	22.0	78.5
2001	23.3	16.5	23.6	31.1	26.1	120.6
2002	12.1	24.4	18.1	33.4	19.7	107.6
2003	19.3	28.0	39.6	42.9	14.8	144.5
2004	18.6	29.3	39.0	40.5	18.3	145.7
2005	13.3	12.1	13.4	24.6	12.6	76.0
2006	8.2	15.9	10.4	17.2	10.6	62.3
2007	12.4	21.0	20.8	23.0	11.1	88.3
2008 ^{b/}	3.7	9.1	5.4	7.4	4.8	30.4

a/ The fishery north of Cape Falcon was closed in 1994, and it is assumed that no trips were taken out of Astoria into the south of Cape Falcon area. No samplers were stationed in Astoria.

b/ Preliminary.

TABLE IV-13. Estimates of Washington recreational ocean salmon angler trips (thousands) by port area and boat type.

Year or Avg.	Neah Bay ^{a/}	La Push	Westport	Ilwaco ^{b/}	State Total
CHARTER TRIPS					
1984 ^{c/}	0.3	-	11.6	18.0	29.9
1985 ^{c/}	2.0	-	42.2	20.7	64.9
1986-1990	2.0	-	35.7	15.9	53.5
1991-1995	0.7	0.1	19.4	7.9	28.0
1996	0.2	d/	10.3	4.8	15.3
1997	0.1	0.1	10.0	2.4	12.5
1998	-	-	4.5	1.1	5.5
1999	0.5	0.1	11.5	5.5	17.5
2000	0.7	0.1	12.2	4.1	17.1
2001	1.4	0.3	25.6	13.9	41.2
2002	1.5	0.4	24.5	10.6	37.0
2003	2.0	0.9	27.3	14.3	44.5
2004	1.9	0.6	22.5	11.4	36.5
2005	1.2	0.6	20.5	9.4	31.7
2006	0.5	0.5	15.4	8.0	24.5
2007	0.6	0.4	15.7	10.1	26.7
2008 ^{e/}	0.3	0.2	9.9	3.7	14.2
PRIVATE TRIPS					
1984 ^{c/}	8.3	0.2	2.3	36.0	46.8
1985 ^{c/}	15.2	1.5	13.7	19.4	49.8
1986-1990	16.9	2.5	16.6	23.4	59.4
1991-1995	16.4	2.8	18.5	25.4	63.1
1996	9.1	1.3	5.2	7.9	23.5
1997	2.8	0.9	7.3	4.1	15.1
1998	-	0.6	3.5	2.6	6.8
1999	7.6	2.9	7.6	11.8	29.9
2000	7.3	1.8	7.7	11.1	27.9
2001	16.6	3.1	24.1	28.7	72.4
2002	12.2	3.0	16.9	25.3	57.4
2003	18.4	3.5	20.7	32.9	75.5
2004	24.2	3.9	15.7	29.3	73.1
2005	17.2	4.4	14.7	22.6	58.9
2006	12.9	3.6	9.1	13.5	39.1
2007	12.8	2.9	10.2	20.0	45.9
2008 ^{e/}	5.3	1.9	8.8	6.3	22.2
TOTAL TRIPS					
1984 ^{c/}	8.6	0.2	13.9	54.0	76.7
1985 ^{c/}	17.2	1.5	55.9	40.1	114.7
1986-1990	18.9	2.5	52.3	39.3	113.0
1991-1995	17.1	2.9	37.9	33.3	91.1
1996	9.3	1.3	15.5	12.7	38.8
1997	2.9	0.9	17.3	6.5	27.5
1998	-	0.6	8.0	3.7	12.3
1999	8.1	3.0	19.1	17.3	47.4
2000	7.9	2.0	19.8	15.2	45.0
2001	17.9	3.4	49.7	42.5	113.6
2002	13.7	3.4	41.4	35.9	94.4
2003	20.4	4.4	48.0	47.1	120.0
2004	26.1	4.6	38.2	40.6	109.5
2005	18.5	4.9	35.2	32.1	90.6
2006	13.4	4.1	24.5	21.5	63.6
2007	13.4	3.3	25.9	30.1	72.7
2008 ^{e/}	5.6	2.1	18.7	10.0	36.4

a/ Does not include effort from the late-season state water Area 4B fishery.

b/ Does not include effort from the Columbia River Jetty.

c/ Values for 1984 and 1985 include some Columbia River fishing after closure of the ocean fishery.

d/ Fewer than 50 angler trips.

e/ Preliminary.

TABLE IV-14. Oregon and Washington recreational salmon, bottomfish, and sturgeon angler trips (thousands) by ocean port area and boat type for the area north of Cape Falcon. (Page 1 of 3)

Year	Columbia River and Buoy 10					Westport			La Push			Neah Bay and Area 4B Add-On		
	Charter	Private	Subtotal	Jetty	Total	Charter	Private	Total	Charter	Private	Total	Charter	Private	Total
SALMON EFFORT														
1984	NA	NA	-	NA	54.0	11.6	2.3	13.9	0.0	0.2	0.2	0.3	8.3	8.6
1985	NA	NA	-	NA	90.3	42.2	13.7	55.9	0.0	1.5	1.5	2.0	15.2	17.2
1986	NA	NA	-	NA	144.3	36.6	14.8	51.4	0.0	1.7	1.7	2.4	17.4	19.8
1987	39.5	130.0	169.5	12.4	181.9	34.1	9.8	43.9	0.0	2.0	2.0	1.9	17.8	19.7
1988	34.5	154.4	188.9	16.9	205.8	23.5	13.9	37.4	0.0	2.8	2.8	2.0	14.8	16.8
1989	40.4	169.2	209.6	22.9	232.5	40.8	18.7	59.5	0.0	1.6	1.6	2.8	25.5	28.3
1990	32.8	128.7	161.5	5.7	167.2	43.4	25.9	69.3	0.0	4.2	4.2	3.0	30.8	33.8
1991	37.9	172.7	210.6	35.5	246.1	28.6	24.2	52.8	0.2	3.3	3.5	1.9	23.5	25.4
1992	22.3	116.6	138.9	28.4	167.3	28.1	25.6	53.7	0.2	2.3	2.5	1.1	18.6	19.7
1993	20.2	103.3	123.5	24.6	148.1	27.4	23.5	50.9	0.1	2.8	2.9	1.6	25.7	27.3
1994	0.5	6.3	6.8	3.6	10.4	-	-	-	-	-	-	-	-	-
1995	9.0	43.4	52.4	8.5	60.9	12.7	9.0	21.7	0.1	1.4	1.5	0.3	9.2	9.5
1996	7.3	26.8	34.1	7.5	41.6	10.3	5.2	15.5	a/	1.3	1.3	0.3	10.6	10.9
1997	8.4	53.0	61.3	7.4	68.7	10.0	7.3	17.3	0.1	0.9	0.9	0.2	4.6	4.8
1998	3.2	30.7	33.9	3.6	37.5	4.5	3.5	8.0	0.0	0.6	0.6	0.1	6.3	6.4
1999	8.7	63.9	72.6	6.2	78.8	11.5	7.6	19.1	0.1	2.9	2.9	0.5	7.6	8.1
2000	9.8	82.2	92.0	7.0	99.0	12.2	7.7	19.8	0.1	1.8	2.0	1.1	10.3	11.4
2001	22.5	165.0	187.5	17.0	204.5	25.6	24.1	49.7	0.3	3.1	3.4	1.4	16.8	18.1
2002	15.2	115.1	130.3	2.8	133.1	44.5	16.9	41.4	0.4	3.0	3.4	1.5	12.2	13.7
2003	19.3	133.3	152.7	7.2	159.8	27.3	20.7	48.0	0.9	3.5	4.4	2.0	18.4	20.4
2004	15.8	113.3	129.2	3.2	132.3	22.5	15.7	38.2	0.6	3.9	4.6	1.9	24.2	26.1
2005	12.0	88.5	100.5	c/	100.5	20.5	14.7	35.2	0.6	4.4	4.9	1.2	17.2	18.5
2006	10.4	59.8	70.2	1.7	71.9	15.4	9.1	24.5	0.5	3.6	4.1	0.5	12.9	13.4
2007	13.6	64.2	77.8	c/	77.8	15.7	10.2	25.9	0.4	2.9	3.3	0.6	12.8	13.4
2008 ^{b/}	5.5	40.7	46.1	0.4	46.1	9.9	8.8	18.7	0.2	1.9	2.1	0.3	6.1	6.4

TABLE IV-14. Oregon and Washington recreational salmon, bottomfish, and sturgeon angler trips (thousands) by ocean port area and boat type for the area north of Cape Falcon. (Page 2 of 3)

Year	Columbia River and Buoy 10					Westport			La Push			Neah Bay and Area 4B Add-On		
	Charter	Private	Subtotal	Jetty	Total	Charter	Private	Total	Charter	Private	Total	Charter	Private	Total
BOTTOMFISH EFFORT^{d/}														
1984	2.1	0.1	2.2	-	-	12.4	0.5	12.9	0.0	0.0	0.0	1.8	12.3	14.1
1985	1.9	0.2	2.1	-	-	15.3	1.0	16.3	0.0	0.1	0.1	3.0	10.6	13.6
1986	1.7	0.2	1.9	-	-	19.6	0.8	20.4	0.0	0.2	0.2	3.5	11.4	14.9
1987	1.7	0.3	2.0	0.5	2.5	21.1	1.2	22.3	0.0	0.5	0.5	5.6	16.0	21.6
1988	2.1	0.2	2.3	0.8	3.1	24.4	1.1	25.5	0.0	0.7	0.7	5.7	14.8	20.5
1989	1.2	0.6	1.8	1.5	3.3	19.3	1.0	20.3	0.0	0.6	0.6	6.8	16.3	23.1
1990	1.4	0.3	1.7	2.4	4.1	21.8	0.8	22.6	0.0	0.8	0.8	6.4	18.1	24.5
1991	1.3	0.4	1.7	1.8	3.5	23.5	1.1	24.6	0.0	0.9	0.9	5.9	18.2	24.1
1992	1.4	0.5	1.9	2.3	4.1	20.5	2.2	22.7	0.0	1.5	1.5	4.8	19.1	23.9
1993	2.2	0.6	2.8	2.6	5.4	21.5	1.8	23.0	0.1	1.1	1.2	5.1	19.2	24.3
1994	2.7	0.7	3.3	2.7	6.0	26.0	1.7	27.7	0.2	1.9	2.1	4.1	15.0	19.1
1995	1.3	0.9	2.3	2.2	4.4	21.1	1.6	22.7	a/	1.6	1.6	4.1	19.2	23.3
1996 ^{e/f/}	1.2	0.5	1.7	1.7	3.4	21.4	1.2	22.6	0.0	1.6	1.6	4.8	21.0	25.8
1997	1.2	0.7	2.0	2.5	4.4	19.2	1.4	20.6	0.0	2.2	2.2	4.9	22.7	27.7
1998	1.8	0.5	2.3	0.9	3.2	21.5	1.3	22.8	0.0	1.2	1.2	5.1	23.9	29.0
1999	1.0	0.5	1.5	0.5	2.0	17.1	1.2	18.3	0.1	1.0	1.1	4.5	20.3	24.9
2000	1.2	0.6	1.8	0.5	2.3	16.7	0.9	17.6	0.2	1.3	1.5	4.5	20.1	24.6
2001	2.8	0.4	3.2	0.9	4.1	13.9	1.2	15.1	0.3	0.9	1.2	4.7	16.5	21.2
2002	14.3	0.5	1.9	0.8	2.8	14.9	1.2	16.1	0.3	1.2	1.6	4.0	15.7	19.7
2003	2.4	0.5	2.9	0.9	3.8	16.3	1.8	18.2	1.0	2.5	3.6	5.2	21.4	26.6
2004	2.4	0.8	3.2	0.3	3.5	14.8	1.7	16.5	0.4	1.7	2.1	3.5	15.2	18.7
2005	2.5	1.1	3.7	c/	3.7	15.5	1.8	17.3	0.5	2.5	3.0	3.5	18.8	22.4
2006	3.6	1.2	4.9	0.9	5.7	17.7	1.8	19.5	0.3	2.8	3.1	4.4	16.9	21.3
2007	3.1	1.5	4.6	c/	4.6	16.2	1.6	17.7	0.5	2.5	3.0	4.3	15.7	20.0
2008 ^{b/}	2.9	2.0	4.9	0.4	4.9	15.5	1.7	17.2	1.0	2.3	3.3	2.3	16.2	18.5

TABLE IV-14. Oregon and Washington recreational salmon, bottomfish, and sturgeon angler trips (thousands) by ocean port area and boat type for the area north of Cape Falcon. (Page 3 of 3)

Year	Columbia River and Buoy 10					Westport			La Push			Neah Bay and Area 4B Add-On		
	Charter	Private	Subtotal	Jetty	Total	Charter	Private	Total	Charter	Private	Total	Charter	Private	Total
STURGEON EFFORT^{g/}														
1984	1.7	28.4	30.1	-	30.1	-	-	-	-	-	-	-	-	-
1985	5.0	31.2	36.2	-	36.2	-	-	-	-	-	-	-	-	-
1986	5.7	35.7	41.4	-	41.4	-	-	-	-	-	-	-	-	-
1987	6.0	43.2	49.2	-	49.2	-	-	-	-	-	-	-	-	-
1988	6.2	32.4	38.5	-	38.5	-	-	-	-	-	-	-	-	-
1989	4.3	22.0	26.3	-	26.3	-	-	-	-	-	-	-	-	-
1990	3.9	28.0	31.9	-	31.9	-	-	-	-	-	-	-	-	-
1991	3.6	26.0	29.7	-	29.7	-	-	-	-	-	-	-	-	-
1992	5.0	38.3	43.3	-	43.3	-	-	-	-	-	-	-	-	-
1993	6.1	48.6	54.6	-	54.6	-	-	-	-	-	-	-	-	-
1994	7.5	40.4	47.8	-	47.8	-	-	-	-	-	-	-	-	-
1995	7.7	55.2	62.9	-	62.9	-	-	-	-	-	-	-	-	-
1996	11.1	45.2	56.3	-	56.3	-	-	-	-	-	-	-	-	-
1997	12.2	48.4	60.7	-	60.7	-	-	-	-	-	-	-	-	-
1998	14.2	64.3	78.5	-	78.5	-	-	-	-	-	-	-	-	-
1999	13.2	57.1	70.3	-	70.3	-	-	-	-	-	-	-	-	-
2000	11.6	52.1	63.7	-	63.7	-	-	-	-	-	-	-	-	-
2001	10.8	40.9	51.7	-	51.7	-	-	-	-	-	-	-	-	-
2002	9.9	45.9	55.8	-	55.8	-	-	-	-	-	-	-	-	-
2003	6.6	38.1	44.7	-	44.7	-	-	-	-	-	-	-	-	-
2004	7.4	32.2	39.6	-	39.6	-	-	-	-	-	-	-	-	-
2005	8.7	51.2	59.9	-	59.9	-	-	-	-	-	-	-	-	-
2006	6.7	37.3	44.0	-	44.0	-	-	-	-	-	-	-	-	-
2007	7.9	39.8	47.7	-	47.7	-	-	-	-	-	-	-	-	-
2008 ^{b/}	7.5	38.5	46.0	-	46.0	-	-	-	-	-	-	-	-	-

a/ Fewer than 50 angler trips.

b/ Preliminary.

c/ Columbia River north jetty was not sampled in 2005 and 2007 due to construction limiting access.

d/ Oregon data is a minimum estimate, as the jetty is not sampled, and bottomfish sampling of vessels only occurs when the ocean is open for salmon.

e/ No Oregon bottomfish trips are included.

f/ Includes tuna trips: Ilwaco - 9 charter, 14 private; Westport - 784 charter, 0 private.

g/ Annual sturgeon angler trips for the lower Columbia River from the western tip of Puget Island to mouth.

TABLE IV-15. Buoy 10^{ab/} and Area 4B add-on recreational salmon angler trips and catch by boat type. (Page 1 of 2)

Year or Avg.	Angler Trips			Chinook Catch			Coho Catch			Pink Catch	
	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private
OREGON BUOY 10											
1987-1990	4,002	38,619	4,029	793	6,415	29	3,292	18,348	690	-	-
1991-1995	1,528	21,547	4,555	122	1,318	30	1,625	14,520	1,389	-	-
1996	179	6,122	2,285	59	419	-	66	1,361	532	-	-
1997	1,071	16,207	2,744	273	4,032	-	592	5,411	761	-	-
1998	588	9,949	631	145	2,191	-	59	1,169	31	-	-
1999	454	19,030	1,370	125	3,834	9	18	3,357	146	-	-
2000	836	27,492	2,129	26	3,083	4	297	7,523	295	-	-
2001	1,616	54,444	4,115	47	5,578	10	1,481	56,403	523	-	-
2002	512	39,943	1,589	31	10,728	-	2	3,058	52	-	-
2003	991	45,461	2,315	47	7,903	-	624	28,518	526	-	-
2004	66	33,092	1,170	19	9,191	-	17	7,585	47	-	-
2005	135	33,051	935	18	6,875	6	51	4,785	36	-	-
2006	37	24,194	1,457	1	1,350	-	-	2,800	-	-	-
2007	156	19,983	793	6	2,511	-	38	4,841	97	-	-
2008 ^{c/}	198	19,020	-	43	5,608	-	69	4,487	-	-	-
WASHINGTON BUOY 10											
1987-1990	10,678	71,927	6,567	1,907	14,398	68	8,353	40,415	1,627	1	11
1991-1995	4,162	41,770	5,908	466	3,710	42	5,178	31,681	1,426	-	16
1996	352	9,096	-	37	894	-	123	2,455	-	-	-
1997	3,614	30,334	1,755	1,125	7,701	22	2,143	11,290	160	-	-
1998	1,080	16,388	1,362	333	3,075	40	188	1,584	44	-	-
1999	1,055	27,672	-	185	5,697	-	175	5,165	-	-	-
2000	3,685	36,268	2,108	286	2,626	60	2,123	11,033	207	-	-
2001	2,765	62,944	-	-	6,791	-	3,282	70,349	-	-	-
2002	1,001	40,927	485	232	8,424	26	98	3,023	-	-	-
2003	216	39,844	-	22	8,344	-	139	24,633	-	-	-
2004	685	33,805	-	45	6,791	-	139	7,381	-	-	-
2005	183	20,879	-	5	2,383	-	34	1,972	-	-	-
2006	421	14,597	-	5	351	-	8	879	-	-	-
2007	711	14,421	-	33	1,226	-	343	3,037	-	-	-
2008 ^{c/}	804	12,445	-	154	2,544	-	436	3,581	-	-	-

TABLE IV-15. Buoy 10^{a/b/} and Area 4B add-on recreational salmon angler trips and catch by boat type. (Page 2 of 2)

Year or Avg.	Angler Trips			Chinook Catch			Coho Catch			Pink Catch	
	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private
TOTAL BUOY 10											
1987-1990	14,680	110,547	10,596	2,700	20,812	98	11,645	58,763	2,317	1	11
1991-1995	5,690	63,317	10,463	588	5,029	72	6,803	46,201	2,814	0	16
1996	531	15,218	2,285	96	1,313	0	189	3,816	532	0	0
1997	4,685	46,541	4,499	1,398	11,733	22	2,735	16,701	921	0	0
1998	1,668	26,337	1,993	478	5,266	40	247	2,753	75	0	0
1999	1,509	46,702	1,370	310	9,531	9	193	8,522	146	0	0
2000	4,521	63,760	4,237	312	5,709	64	2,420	18,556	502	0	0
2001	4,381	117,388	4,115	47	12,369	10	4,763	126,752	523	0	0
2002	1,513	80,870	2,074	263	19,152	26	100	6,081	52	0	0
2003	1,207	85,305	2,315	69	16,247	0	763	53,151	526	0	0
2004	751	66,897	1,170	64	15,982	0	156	14,966	47	0	0
2005	318	53,930	935	23	9,258	6	85	6,757	36	0	0
2006	458	38,791	1,457	6	1,701	0	8	3,679	0	0	0
2007	867	34,404	793	39	3,737	0	381	7,878	97	0	0
2008 ^{c/}	1,002	31,465	0	197	8,152	0	505	8,068	0	0	0
TOTAL AREA 4B ADD-ON^{d/}											
1989-1990	1,084	10,941	-	62	375	-	2,095	18,021	-	36	212
1991-1995	343	5,481	-	9	122	-	580	7,351	-	58	776
1996	36	1,511	-	-	5	-	61	2,266	-	-	-
1997	136	1,788	-	-	4	-	65	1,429	-	139	412
1998	71	6,296	-	5	98	-	125	7,937	-	-	3
1999 ^{e/}	-	-	-	-	-	-	-	-	-	-	-
2000	373	3,046	-	-	8	-	614	3,796	-	-	-
2001 ^{f/}	-	-	-	-	-	-	-	-	-	-	-
2002 ^{f/}	-	-	-	-	-	-	-	-	-	-	-
2003 ^{f/}	-	-	-	-	-	-	-	-	-	-	-
2004 ^{f/}	-	-	-	-	-	-	-	-	-	-	-
2005 ^{f/}	-	-	-	-	-	-	-	-	-	-	-
2006 ^{e/}	-	-	-	-	-	-	-	-	-	-	-
2007 ^{f/}	-	-	-	-	-	-	-	-	-	-	-
2008 ^{c/}	-	782	-	-	11	-	-	137	-	-	-

a/ Starting in 2000, includes catch upstream from the Astoria-Megler Bridge to the new boundary line from Tongue Point, Oregon to Rocky Point, Washington.

b/ Prior to 1987, data on charter and private anglers were combined. Total Buoy 10 catch and effort data prior to 1987 are provided in Table B-21.

c/ Preliminary.

d/ There was no Area 4B add-on fishery prior to 1989.

e/ There was no Area 4B add-on fishery opening because the Area 4 ocean quota was not attained.

f/ There was no Area 4B add-on fishery planned.

TABLE IV-16. Estimates of California coastal community and state personal income impacts in thousands of real (2008) dollars of the troll and recreational ocean salmon fishery for major port areas.^{a/}

Year or Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	Coastal Community	
						Total ^{b/}	State Total
OCEAN TROLL^{c/}							
1976-1980	6,481	16,463	16,143	21,177	9,089	69,354	89,162
1981-1985	3,284	3,961	9,271	17,501	5,963	39,981	49,777
1986-1990	1,237	3,061	16,285	31,623	11,825	64,030	78,582
1991-1995	10	145	1,024	11,908	6,784	19,872	23,947
1996-2000	11	173	724	12,480	7,566	20,954	22,170
2001	14	294	972	10,212	2,160	13,652	14,170
2002	257	492	3,501	14,564	3,922	22,736	24,152
2003	207	36	14,211	14,807	2,336	31,597	35,142
2004	1,820	402	6,960	21,867	4,922	35,970	36,727
2005	136	409	5,073	12,633	6,630	24,881	25,504
2006	-	-	2,311	5,976	908	9,195	9,494
2007	310	770	3,182	7,595	1,548	13,406	13,645
2008 ^{d/}	-	-	-	-	-	-	-
RECREATIONAL							
1976-1980	1,260	1,461	851	12,786	856	17,214	19,310
1981-1985	1,380	1,423	682	11,323	904	15,712	17,686
1986-1990	2,338	2,437	1,188	13,839	3,719	23,521	27,411
1991-1995	848	913	1,379	11,706	5,606	20,452	24,012
1996-2000	393	723	1,408	11,736	5,155	19,415	22,587
2001	337	732	1,976	7,126	2,868	13,038	14,026
2002	150	814	2,089	8,952	4,410	16,415	17,627
2003	85	613	1,578	6,476	2,131	10,882	11,656
2004	128	1,028	2,046	10,486	4,132	17,820	19,057
2005	97	650	1,654	7,907	3,002	13,311	14,263
2006	57	642	1,363	5,352	1,807	9,221	9,936
2007	81	838	1,100	3,795	1,315	7,129	7,741
2008 ^{d/}	-	-	25	-	-	25	29

a/ Per pound and per day estimates of income impacts provided from output of the Fishery Economic Assessment Model (FEAM). These are the income impacts associated with expenditures in the troll or recreational sectors. There is no differentiation between money new to the area and money which would otherwise have been expended in other sectors. It is assumed that all fish landed at a port is processed in the port area. Values through 1995 are based on a 1992 run of the FEAM using 1989 U.S. Forest Service IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 U.S. Forest Service IMPLAN data. Beginning in 2001 values are based on a 2003 run of the FEAM using 1998 U.S. Forest Service IMPLAN data.

b/ Total personal income impacts on coastal areas. Totals do not include impacts of one coastal area on another.

c/ Excluding pink salmon.

d/ Preliminary.

TABLE IV-17. Estimates of Oregon coastal community and state personal income impacts in thousands of real (2008) dollars of the troll and recreational ocean salmon fishery for major port areas.^{a/}

Year or Avg.	Astoria	Tillamook	Newport	Coos Bay	Brookings	Coastal Community Total ^{b/}	State Total
OCEAN TROLL^{c/}							
1976-1980	4,161	5,356	12,563	19,334	8,038	49,452	67,048
1981-1985	1,348	1,734	4,068	7,174	3,114	17,439	23,699
1986-1990	623	3,635	8,089	15,592	2,955	30,894	41,723
1991-1995	87	678	2,778	1,350	137	5,031	6,783
1996-2000	145	284	2,942	1,699	410	5,480	6,678
2001	362	739	5,537	2,909	597	10,144	12,348
2002	1,035	876	4,731	4,182	756	11,581	14,025
2003	1,012	917	6,117	5,561	655	14,262	17,257
2004	853	682	6,035	6,566	1,406	15,542	16,796
2005	706	1,176	5,026	4,979	1,179	13,065	14,118
2006	923	574	1,509	407	354	3,767	4,041
2007	272	386	628	1,830	728	3,844	4,126
2008 ^{d/}	301	149	-	-	57	506	533
RECREATIONAL							
1979	3,495	1,116	5,315	5,382	2,590	17,898	23,076
1980	4,220	1,854	5,868	5,640	2,518	20,099	25,886
1981-1985	2,060	1,661	3,968	4,047	2,816	14,552	18,891
1986-1990	1,410	1,764	5,491	4,000	2,932	15,597	20,305
1991-1995	958	771	1,746	1,559	1,101	6,135	7,955
1996-2000	371	425	419	462	888	2,565	3,382
2001	1,331	717	1,692	1,419	990	6,148	7,536
2002	776	1,017	1,334	1,555	729	5,412	6,661
2003	1,133	1,177	2,668	1,943	572	7,493	9,217
2004	1,017	1,279	2,464	1,836	707	7,304	8,995
2005	738	528	837	1,141	472	3,716	4,554
2006	530	622	658	816	401	3,026	3,719
2007	744	844	1,276	1,021	411	4,296	5,281
2008 ^{d/}	214	332	277	277	178	1,278	1,573

a/ Per pound and per day estimates of income impacts provided by the FEAM. These are the income impacts associated with expenditures in the troll or recreational sectors. There is no differentiation between money new to the area and money which would otherwise have been expended in other sectors. It is assumed that all fish landed at a port is processed in the port area. Values through 1995 are based on a 1992 run of the FEAM using 1989 U.S. Forest Service IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 U.S. Forest Service IMPLAN data. Beginning in 2001 values are based on a 2003 run of the FEAM using 1998 U.S. Forest Service IMPLAN data.

b/ Total personal income impacts on coastal areas. Totals do not include impacts of one coastal area on another.

c/ Excluding pink salmon.

d/ Preliminary.

TABLE IV-18. Estimates of Washington coastal community and state personal income impacts in thousands of real (2008) dollars of the troll and recreational ocean salmon fishery for major port areas.^{a/}

Year or Avg.	Neah Bay	La Push	Westport	Ilwaco ^{b/}	Coastal Community		State Total
					Total ^{c/d/}	Puget Sound	
OCEAN TROLL^{e/f/}							
1976-1980	6,008	8,203	16,264	5,824	36,300	8,086	57,910
1981-1985	1,181	478	4,458	1,066	7,184	1,726	11,292
1986-1990	654	172	2,051	446	3,324	1,001	5,445
1991-1995 ^{g/}	482	107	686	49	1,325	193	1,951
1996-2000	162	3	196	19	380	100	523
2001	297	0	617	41	956	0	1,034
2002	612	80	1,073	179	1,943	0	2,142
2003	1,110	187	916	134	2,348	42	2,722
2004	817	258	1,015	99	2,189	26	2,530
2005	670	400	1,030	127	2,226	1	2,515
2006	498	403	387	260	1,548	33	1,832
2007	219	223	912	113	1,467	19	1,632
2008	112	124	424	104	765	10	855
RECREATIONAL							
1976-1980	2,218	1,100	22,065	10,801	36,185	-	48,367
1981-1985	1,342	137	8,682	4,462	14,623	-	19,573
1986-1990	1,030	118	4,927	2,656	8,730	-	11,640
1991-1995	547	107	3,041	1,542	5,237	-	6,942
1996-2000	290	79	1,424	697	2,489	-	3,291
2001	749	152	5,568	3,528	9,997	-	11,679
2002	637	163	5,129	2,808	8,737	-	10,208
2003	926	259	5,777	3,742	10,704	-	12,522
2004	1,085	230	4,713	3,089	9,116	-	10,689
2005	744	233	4,301	2,501	7,779	-	9,109
2006	488	205	3,176	1,944	5,813	-	6,804
2007	498	159	3,259	2,541	6,456	-	7,548
2008	216	95	2,143	905	3,360	-	3,926

a/ Per pound and per recreational day estimates of income impacts provided by the FEAM. These are the income impacts associated with expenditures in the troll or recreational sectors. There is no differentiation between money new to the area and money which would otherwise have been expended in other sectors. It is assumed that all fish landed at a port is processed in the port area. Values through 1995 are based on a 1992 run of the FEAM using 1989 U.S. Forest Service IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 U.S. Forest Service IMPLAN data. Beginning in 2001 values are based on a 2003 run of the FEAM using 1998 U.S. Forest Service IMPLAN data.

b/ Recreational values exclude recreational shorebased effort from the Columbia River north jetty.

c/ Total personal income impacts on coastal areas. Totals do not include impacts of one coastal area on another.

d/ Through 1993, commercial values include a very small amount of fish landed in Washington coastal areas not included in the major port groups.

e/ Excluding pink salmon.

f/ All commercial values in this table are based on preliminary information available at the start of each year's Salmon Review.

g/ The non-Indian commercial and recreational fisheries were closed north of Cape Falcon in 1994. Some commercial catch taken south of Cape Falcon was landed in the Puget Sound area.

TABLE IV-19. Local personal income impacts in real (2008) dollars of the inriver commercial salmon fishery on Oregon and Washington Columbia River communities.^{a/}

Fishery	Species	1987-2002	2003	2004	2005	2006	2007	2008 ^{b/}
OREGON								
Non-Indian ^{c/}	Chinook							
Gillnet	Spring	968	868	2,106	633	1,145	1,298	1,030
	Fall Brights	2,623	1,373	1,397	1,014	1,316	722	1,960
	Tules	259	206	297	177	86	-	-
	Coho	1,826	2,748	1,694	1,854	1,243	500	1,267
	Chum	1	-	1	d/	d/	d/	d/
	TOTAL	5,677	5,195	5,495	3,678	3,790	2,521	4,258
Treaty Indian ^{e/}	Chinook							
All Gears	Spring	12	11	351	-	1	119	573
	Fall Brights	1,144	45	1,434	535	713	694	1,765
	Tules	82	-	345	81	14	-	-
	Coho	11	-	54	1	29	30	101
	TOTAL	1,249	56	2,183	617	757	842	2,438
WASHINGTON^{b/f/}								
Non-Indian	Chinook							
Gillnet	Spring	445	166	553	440	617	164	419
	Fall ^{g/}	1,104	960	1,110	786	890	446	961
	Coho	812	1,487	868	429	544	405	531
	Chum	2	d/	d/	d/	-	d/	1
	TOTAL	2,363	2,613	2,531	1,655	2,051	1,015	1,912
Treaty Indian ^{e/}	Chinook							
All Gears ^{h/}	Spring	107	407	410	266	889	1	1,733
	Fall ^{g/}	2,184	2,354	1,631	2,684	2,944	2,551	3,561
	Coho	35	28	59	48	76	127	347
	TOTAL	2,327	2,789	2,100	2,998	3,910	2,679	5,641
GRAND TOTAL								
Non-Indian		8,040	7,808	8,025	5,333	5,841	3,536	6,170
Treaty Indian		3,576	2,845	4,283	3,615	4,667	3,521	8,079
Columbia River		11,617	10,653	12,308	8,948	10,507	7,057	14,249

a/ Excluding pink, sockeye, and steelhead. Values through 1995 are based on a 1992 run of the FEAM using 1989 U.S. Forest Service IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 U.S. Forest Service IMPLAN data. Beginning in 2001 values are based on a 2003 run of the FEAM using 1998 U.S. Forest Service IMPLAN data.

b/ Preliminary. (All Washington values in this table are based on preliminary information available when each year's Salmon Review is drafted.)

c/ Mainstem below Bonneville and Select Areas (Youngs Bay, Tongue Point, Blind Slough, and Deep River).

d/ Less than \$500.

e/ Treaty Indian values do not include direct sales to consumers.

f/ Washington income impacts for years prior to 2000 are based on a combination of Washington and Oregon value information.

g/ Includes fall brights, tules, and jacks.

h/ Primarily mainstem Columbia set gillnet but also includes Klickitat dipnet, Drano Lake (Little White Salmon River mouth), and Priest Rapids Pool fisheries.

TABLE IV-20. Local personal income impacts in real (2008) dollars of the Buoy 10 recreational fishery in Oregon and Washington and the Area 4B add-on fishery in Washington.

Year	Total Angler Trips (thousands)	Income Impacts (thousands of dollars)		
		Oregon	Washington	Total
BUOY 10 (including bank fishing)				
1987-1990	136	2,607	4,545	7,151
1991-1995	79	1,482	2,522	4,005
1996-2000	45	950	1,299	2,249
2001	126	2,453	2,590	5,044
2002	84	1,650	1,552	3,202
2003	89	1,955	1,354	3,309
2004	69	1,311	1,242	2,553
2005	55	1,310	722	2,032
2006	41	980	560	1,539
2007	36	811	608	1,419
2008 ^{b/}	32	751	560	1,311
AREA 4B ADD-ON ^{c/}				
1989-1990	12	-	644	644
1991-1995	6	-	300	300
1996-2000	3	-	135	135
2001	-	-	-	-
2002	-	-	-	-
2003	-	-	-	-
2004	-	-	-	-
2005	-	-	-	-
2006	-	-	-	-
2007	-	-	-	-
2008	1	-	30	30

a/ Values through 1995 are based on a 1992 run of the FEAM using 1989 U.S. Forest Service IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 U.S. Forest Service IMPLAN data. Beginning in 2001 values are based on a 2003 run of the FEAM using 1998 U.S. Forest Service IMPLAN data.

b/ Preliminary

c/ There were no Area 4B add-on fisheriew prior to 1989.

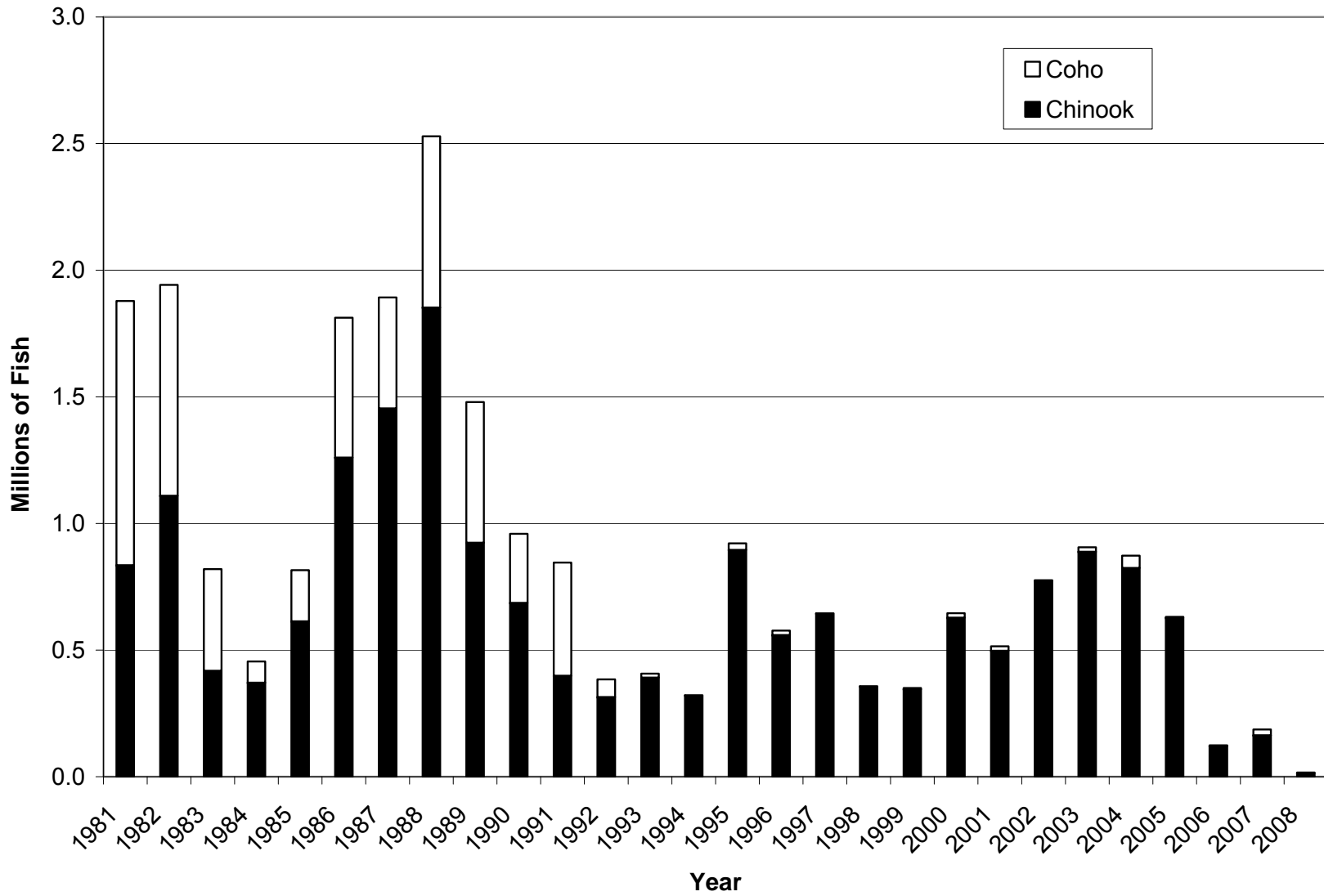


Figure IV-1. West Coast ocean non-Indian commercial Chinook and coho harvest.

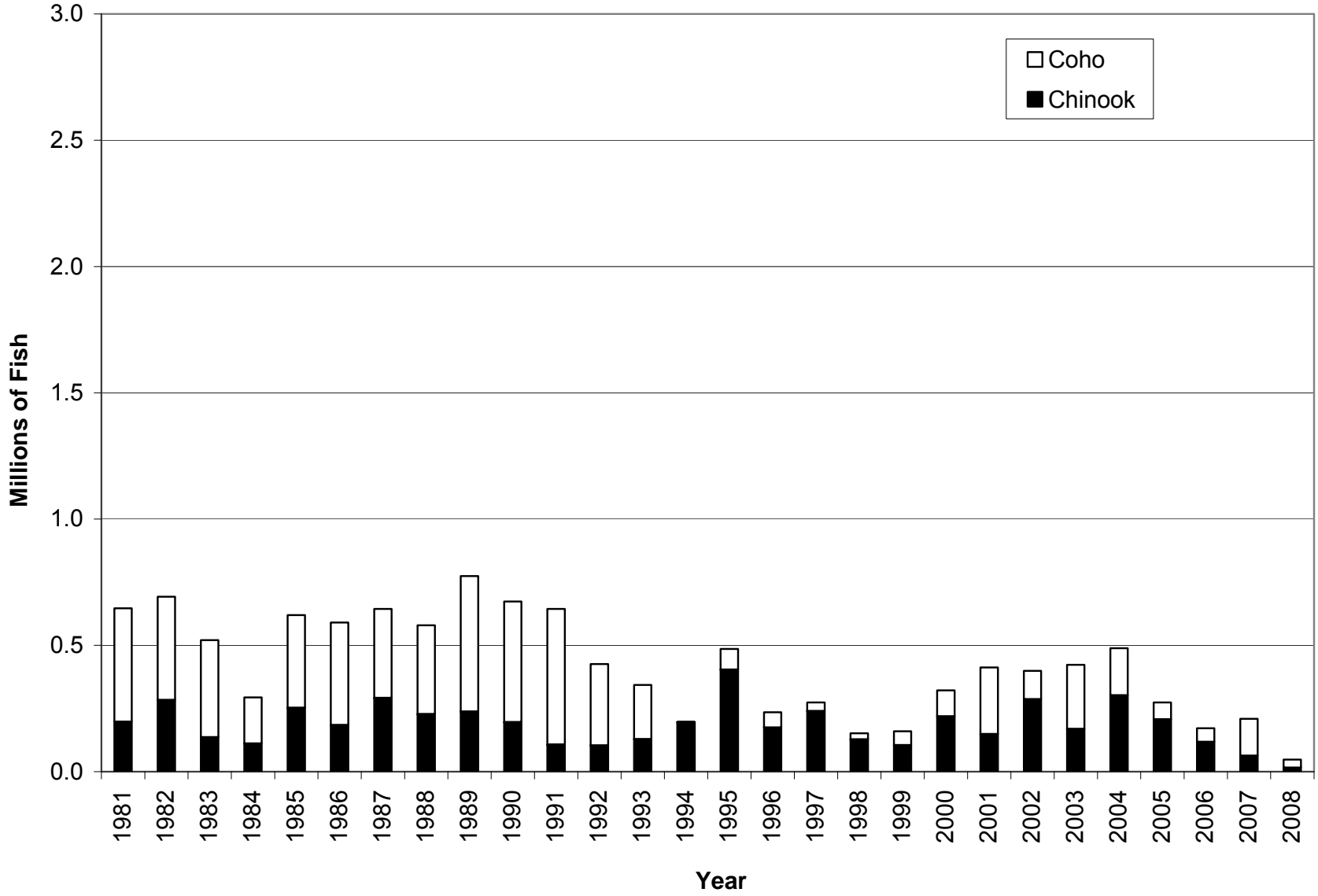


Figure IV-2. West Coast ocean recreational Chinook and coho harvest.

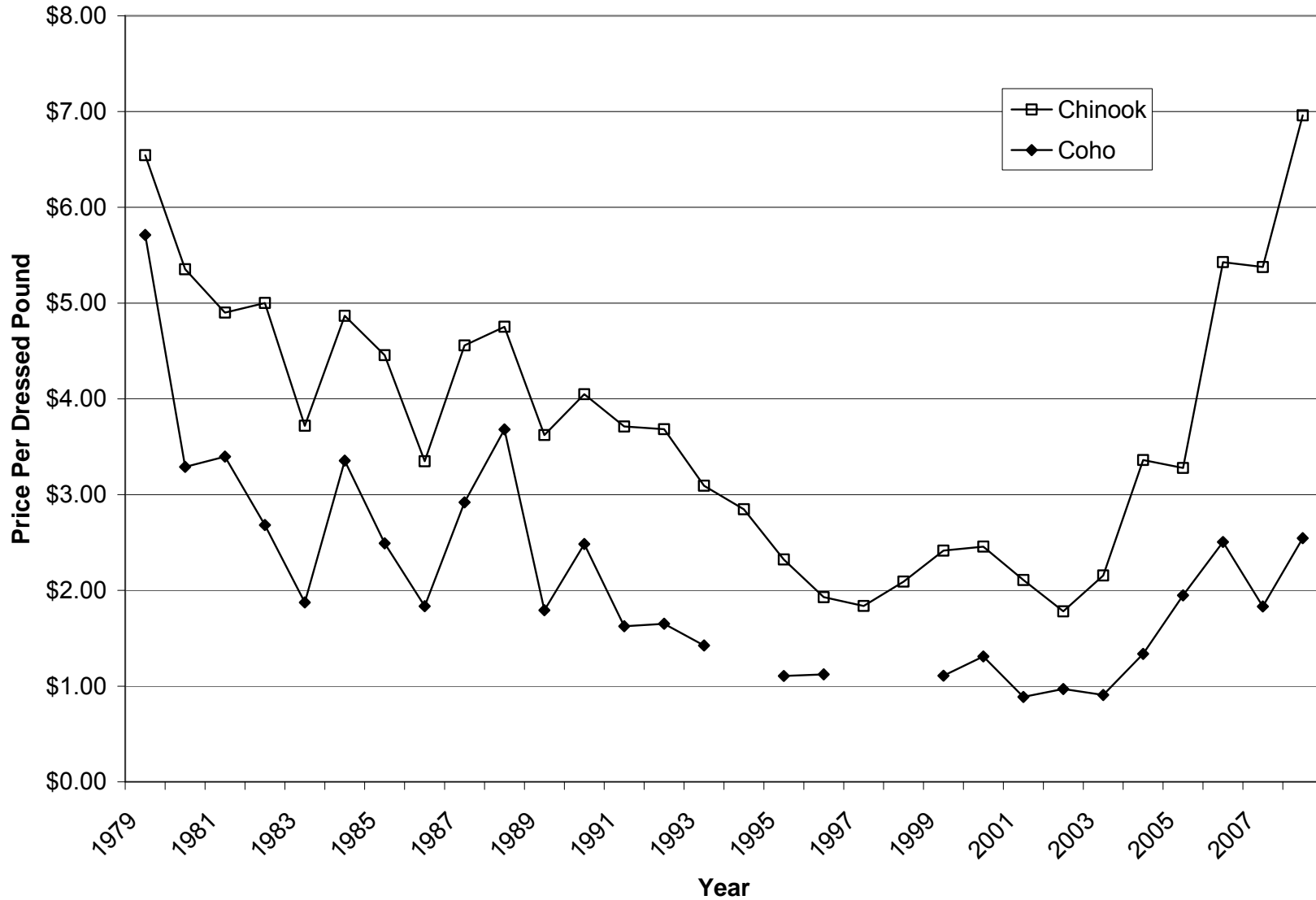


Figure IV-3. West Coast non-Indian ocean commercial salmon annual exvessel prices (2008 dollars).

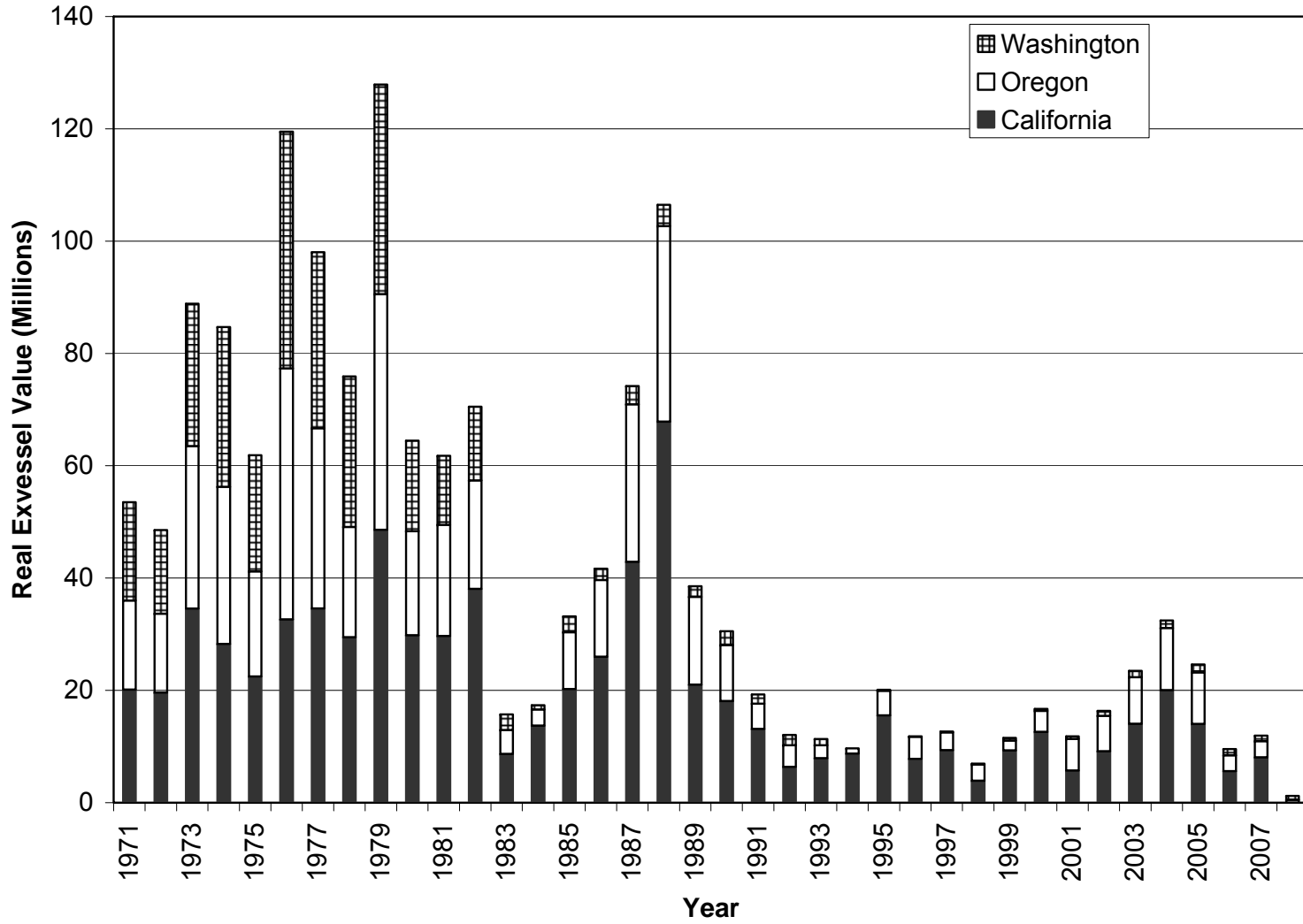


Figure IV-4. Exvessel value of West Coast non-Indian ocean commercial Chinook and coho landings by state of landing (2008 dollars).

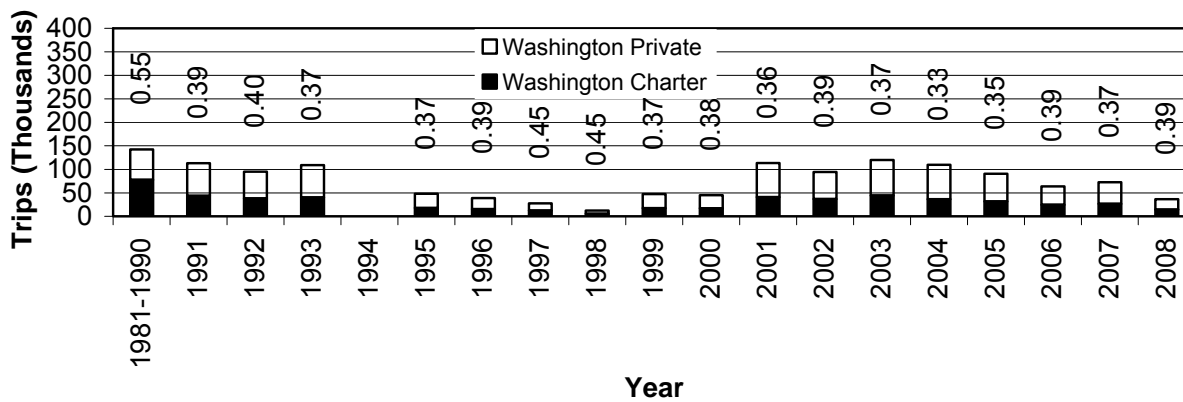
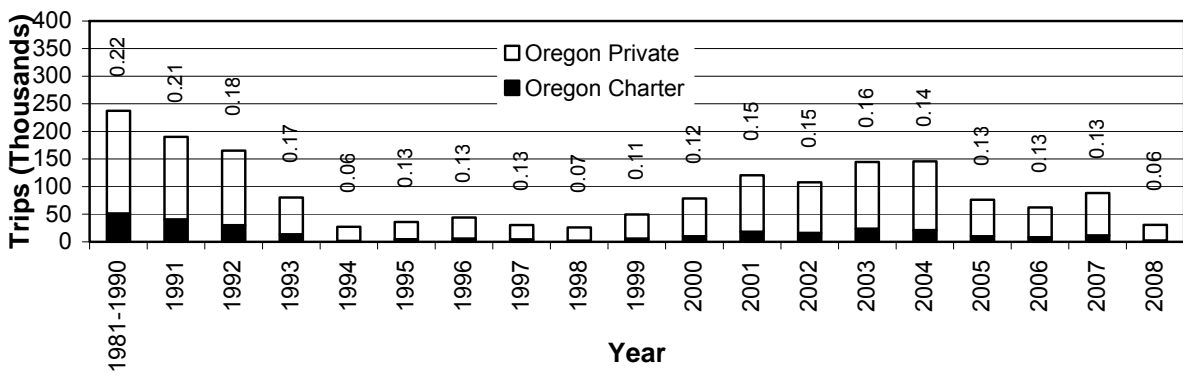
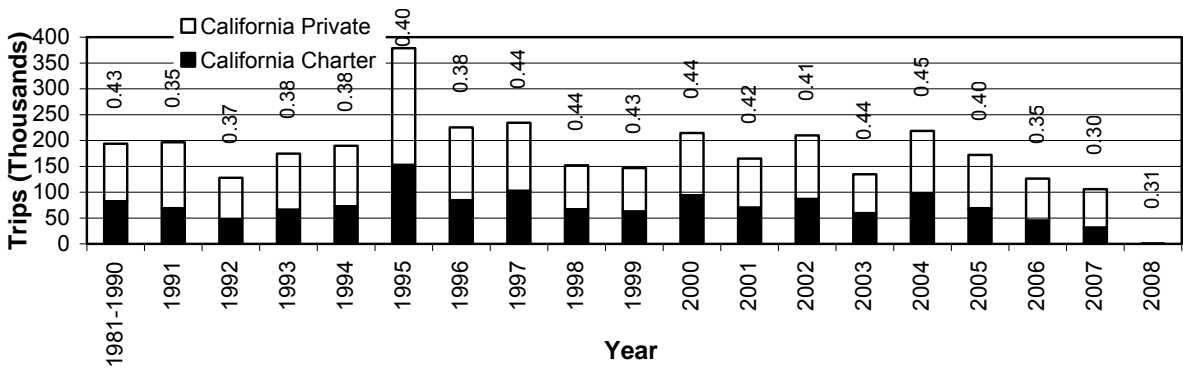


Figure IV-5. Total recreational ocean salmon trips for California, Oregon, and Washington, with proportion of charter trips shown above each bar.

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