CHAPTER IV

SOCIOECONOMIC ASSESSMENT OF THE 2012 OCEAN SALMON FISHERIES

SUMMARY: Total 2012 exvessel value of the Council-managed non-Indian troll commercial salmon fishery was $19.6 million, the highest total since an inflation-adjusted $26.2 million in 2005, largely due to California's highest value commercial salmon fishery since that year. The exvessel value of the coastwide commercial fishery in 2012 was triple the 2007-2011 inflation-adjusted average of $6.5 million, but 68 percent below the 1979 through 1990 inflation-adjusted average of $61.8 million. The coastwide average exvessel price for Chinook in 2012 was $5.31 per pound, three percent below last year's inflation-adjusted average. At $2.03 per pound, average 2012 West Coast coho prices were five percent lower than last year's inflation-adjusted average. The preliminary number of vessel-based ocean salmon recreational angler trips taken on the West Coast in 2012 was 288,800, an increase of 36 percent from last year, but 52 percent below the 1979 through 1990 average. Total West Coast income impacts associated with recreational and commercial ocean salmon fisheries for all three states combined in 2012 were estimated at $55.8 million, the highest level since an inflation-adjusted $74.6 million in 2005. While total income impacts in 2012 were 71 percent above the prior year's inflation-adjusted level, they were still the ninth lowest level on record. The five lowest income impacts (adjusted for inflation) were all recorded in years since 2005.

ALLOCATION OF THE SALMON RESOURCE

Salmon management by the Council involves numerous allocation issues including:

- Determining the amount of salmon available for ocean harvest after considering expected abundances, harvests by inside fisheries, and spawning escapement goals.
- Allocating harvest among broad management areas and among port areas within the management areas.
- Allocating harvest between Indian and non-Indian harvesters.
- Allocating the non-Indian portion 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 level 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 commercial and recreational 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 that is encountered in that area at a higher rate than in other areas. The geographic distribution of harvest opportunity along the coast involves balancing the often conflicting objectives of maximizing ocean harvest and distributing the responsibility for resource conservation. A brief outline of the regulatory objectives which shaped the 2012 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

In-season Price Trends

Coastwide average exvessel prices for Chinook and coho in 2012 were $5.31 and $2.03 per pound, respectively. Monthly exvessel price data provide information on price trends over the season (Table IV-1). California Chinook prices were at their highest in October, averaging $7.09 per pound. Oregon Chinook prices were highest in April, averaging $7.15 per pound. Washington average Chinook prices were highest in May at $6.15 per pound (There were no Washington landings in April). California and Oregon average Chinook prices were at their lowest in July, while Washington average Chinook prices were lowest in September. For the season, exvessel Chinook prices in Washington, Oregon and California averaged $5.34, $5.75 and $5.17 per pound, respectively. Coho prices in Washington and Oregon averaged $1.99 and $2.20 per pound, respectively.

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

Available information on average Chinook and coho troll exvessel price and value by state and species, compiled from fish receiving tickets and expressed both in nominal terms and inflation-adjusted 2012 dollars, is presented in Tables IV-2, IV-3, and IV-4. Data on pink salmon are shown in Table IV-5 (Note: There was no commercial pink salmon fishery in 2012). 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 state and port for Chinook and coho are presented in Tables IV-6, IV-7 and IV-8. These tables and the following discussion describe the non-Indian commercial fishery in Council management areas and associated state territorial ocean area waters.

Total 2012 coastwide exvessel value of the Council-managed non-Indian commercial troll salmon fishery was $19.6 million, more than double the prior year ($9.4 million), and more than two-and-a-half times the 2010 level of $7.4 million (adjusted for inflation). Exvessel value was more than 15 times its all-time low level of $1.3 million recorded in 2008 (including pinks, adjusted for inflation).

In 2012 California achieved $13 million in commercial troll exvessel landings value of Chinook, two-and-a-half times the prior year's level ($5.2 million), and more than ten times the 2010 California commercial ocean salmon harvest value of $1.3 million (adjusted for inflation). In 2010 California saw its first commercial salmon fishery for three years, albeit still heavily constrained by SRFC management objectives. While 2012 saw the highest landings value since 2005, landings revenues were still 60 percent below the 1979-1990 inflation-adjusted average of $32.4 million.

The 2012 exvessel value of the Oregon commercial troll Chinook and coho harvest of $4.3 million was the highest level since 2005 ($9.8 million), 75 percent higher than the prior year ($2.4 million), and 129 percent above the 2007-2011 average of $1.9 million (inflation-adjusted). Still Oregon's 2012 commercial troll harvest was 78 percent below the 1979-1990 average of $19.5 million, and 90 percent below the highest value of $44.8 million recorded in 1979 (inflation-adjusted).

The 2012 exvessel value of Washington's non-Indian troll Chinook and coho harvest of $2.4 million was 37 percent above last year's inflation-adjusted value of $1.7 million. Average exvessel value of Washington's commercial landings over the past three years (2010-2012) of $2.4 million is higher in inflation-adjusted terms than in any year since 1990. However the 2010-2012 average is still 73 percent below the 1979-1990 inflation-adjusted average of $8.8 million.

The 2012 average West Coast ocean harvest Chinook price of $5.31 per pound is the fifth highest in nominal terms reported since 1979, but trending lower from $6.96, $5.70, $5.54 and $5.35 per pound reported in 2008, 2009, 2010, and 2011 respectively. Adjusted for inflation, the average Chinook price over the last seven years (2006-2012) was $5.92 per pound. Chinook prices have not been this high (i.e., $5.92 per pound) since 1979, when the average inflation-adjusted price was $6.98 per pound. One of the main reasons prices have been high in recent years is due to the relatively restricted fishing opportunities (see Chapter I and Appendix C for details). Although the 2012 average Chinook price was 13 percent below the previous five-year (2007-2011) inflation-adjusted average of $6.06 per pound, it was eight percent above the 1979-1990 average of $4.90 per pound, and 28 percent above the 1979-2011 average of $4.14 per pound. At $2.03 per pound, 2012 average West Coast coho prices were the lowest since 2007, five percent down from last year, ten percent lower than two years ago, and 36 percent lower than the 1979-1990 inflation-adjusted average.

In terms of numbers of fish, the 2012 coastwide, non-Indian commercial troll Chinook harvest of 324,700 fish was more than two-and-a-half times last year and more than triple 2010 (Figure IV-1). The number of Chinook harvested commercially in 2012 was the highest level since 2005 but 51 percent below the 1976-2011 long-term average of 658,600 fish (Note: The 2008, 2009 and 2010 Chinook harvests were the first, second and third lowest, respectively, on record). The 2012 coastwide average weight per Chinook (11.4 pounds) was fifteen percent lower than last year's average (13.3 pounds), ten percent below the previous five year (2007-2011) average, and the lowest average weight since 2001 (Appendix D Tables D-1, D-2, and D-3).

The non-Indian commercial fishery caught 3,900 coho coastwide in 2012, an increase of 11 percent over the prior year (3,500), and 24 percent above the 2010 catch (3,100), but 91 percent below the 2009 coho recent year peak harvest level of 42,000 fish. The coastwide average weight per coho (5.5 pounds), although the lowest since 1999 (5.3 pounds), was only slightly below last year's (and the long-term 1979-2011) average of 5.6 pounds. The highest average coho weights recorded since 1980 were 8.5 pounds in 2006 and 8.4 pounds in 2008. Coastwide coho exvessel value was $43,500 in 2012, five percent above the inflation-adjusted value for the prior year ($41,400), and 92 percent lower than the inflation-adjusted $572,100 recorded in 2009 (Figure IV-4).

West Coast ports with the highest Chinook landings (by weight) in 2012 were San Francisco (32 percent), Monterey (17 percent), Fort Bragg (16 percent), Newport (7 percent) and Coos Bay (6 percent). By comparison, in 2011, Fort Bragg (36 percent), Coos Bay (13 percent) and San Francisco (13 percent) were the leading ports. In 2012, areas north of Cape Falcon accounted for about 14 percent of coastwide Chinook harvest by weight, their lowest share since 2007 (9 percent), compared with 21 percent in 2011, 51 percent in 2010, 95 percent in 2009 and 84 percent in 2008. Between 2000 and 2007 areas north of Cape Falcon accounted for an average of nine percent of coastwide Chinook harvest by weight.

Compared with last year, commercial Chinook harvest by weight in 2012 was up 154 percent in California, 84 percent in Oregon and 35 percent in Washington. Compared with last year, the 2012 Coho harvest by weight was up 47 percent in Oregon and 3 percent in Washington. Commercial harvest of coho in California has been prohibited since 1992.

Ocean Commercial Salmon Harvesters

Based on Pacific Coast Fisheries Information Network (PacFIN) data, a total of 1,022 vessels participated in the West Coast commercial salmon fishery in 2012. This is 22 percent more than participated in 2011 (840), 59 percent greater than the number participating in 2010 (642), more than three times the number participating in 2009 (313), and more than four-and-a-half times the number that participated in 2008 (221). The 2012 vessel total was the highest participation level since the 2005 total of 1,221 vessels.

Note that these coastwide vessel counts are lower than the totals derived from summing Appendix D state-level tables (Tables D-4, D-5, and D-6) because vessels may be counted in more than one state and because of differences in the degree of completeness at the time the data were summarized for this report.

In 2012, 619 commercial vessels made salmon landings in California compared with 464 vessels in 2011 and 215 vessels in 2010. Zero vessels landed in California in 2008 and 2009. In 2007, there were 601 vessels active in California (Table D-4). In Oregon, the active fleet increased by 65 vessels in 2012, to 369 vessels compared to 304 vessels the prior year (Table D-5). The number of active vessels in Washington decreased by seven from 112 vessels last year to 105 vessels in 2012 (Table D-6). Coastwide, the number of limited entry salmon permits issued in 2012 decreased by 33 from the previous year to 2,310. Landings were made on 47 percent of all permits in 2012, up from 38 percent in 2011, 29 percent in 2010 and 13 percent in 2009. Note: Years 2008 and 2009 are the two lowest vessel participation years on record (1982-2012). From 1982 to 1993 an average of 5,193 of 7,942 total permits (65 percent) harvested on an annual basis. Harvest opportunity began declining substantially after that time, and some permits were subsequently purchased in a buyback program.

In 2012, coastwide average inflation-adjusted exvessel value of salmon landings per vessel increased 68 percent compared to 2011, to $18,000 per vessel. Compared to last year, average exvessel revenue per vessel in 2012 was up 87 percent in California, 44 percent in Oregon, and 46 percent in Washington. Some caution needs to be exercised in interpreting average per vessel exvessel revenue. For example, the averages may be influenced as much by a disproportionate change in the 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 participants in each state's fisheries is included 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 is for ceremonial and subsistence purposes, the vast majority of the catch is sold commercially. Commercial treaty Indian fisheries provide food to consumers and generate income in local and state economies through expenditures related to harvesting, processing, and marketing of the catch. In 2012 the treaty Indian ocean troll fishery harvested 57,500 Chinook (540,900 pounds) and 37,300 coho (197,600 pounds), compared with 34,700 Chinook (381,400 pounds) and 13,600 coho (77,600 pounds) in 2011, 34,300 Chinook (298,600 pounds) and 11,500 coho (80,000 pounds) in 2010, and 12,800 Chinook (103,800 pounds) and 60,700 coho (347,100 pounds) in 2009 (Tables A-15 and D-3). The preliminary exvessel value of Chinook and coho landed in the treaty Indian ocean troll fishery was $2.4 million in 2012 compared with inflation-adjusted values of $1.7 million in 2011, $1.4 million in 2010, and $1.1 million in 2009 (revenue values based on January 25, 2013 PacFIN data).

Columbia River Commercial Fishery

Harvest in the ocean salmon fisheries impacts the 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 treaty Indian and non-Indian commercial harvest of Chinook, coho and chum salmon in the Columbia River. 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 prices.

Total exvessel value of treaty Indian and non-Indian commercial salmon harvested in the Columbia River in 2012 was $6.4 million. This was 40 percent below the 2011 level of $10.6 million, and 38 percent below the inflation-adjusted 2010 level of $10.4 million. Of these amounts, the total inflation-adjusted exvessel value of non-Indian commercial salmon harvested in the Columbia River was $3.3 million in 2012, $4.9 million in 2011, and $5.3 million recorded in 2010 (Table IV-9).

Total 2012 exvessel value of treaty Indian salmon harvested in the Columbia River and sold on fish tickets was $3.1 million. This is 46 percent below the inflation-adjusted level of $5.7 million in 2011, and 39 percent below the inflation-adjusted 2010 value of $5.1 million. Note that these values include only sales made to licensed fish buyers. Treaty Indian fisher direct sales to the public are accounted for in harvest monitoring reports (Table B-20), but estimates of the pounds and value of such sales are not included in Table IV-9.

Puget Sound and Washington Coastal Inside Fisheries

Information on 2012 Puget Sound and Washington coastal inside fisheries is preliminary. Based on PacFIN data (as of January 25, 2013), the 2012 exvessel value of all salmon species taken in the commercial non-Indian fisheries in Puget Sound and Washington coastal inside fisheries (excluding the Columbia River) was $6 million. Of this, $1.6 million were Chinook and coho. In 2011 the total inflation-adjusted exvessel value of the commercial non-Indian salmon fisheries in these areas was $12.4 million for all salmon species, of which $2.1 million were Chinook and coho. In 2010 the total inflation-adjusted exvessel value of the commercial non-Indian salmon fisheries in these areas was $11.2 million for all salmon species, of which $1.2 million were Chinook and coho. The 1981 through 2011 inflation-adjusted average annual exvessel value was $17.7 million, of which on average approximately $4.4 million were Chinook and coho.

The preliminary 2012 exvessel value reported to PacFIN (as of January 25, 2013) for all salmon species taken in the commercial treaty Indian fisheries in Puget Sound and Washington coastal inside fisheries (excluding the Columbia River) was $9.4 million. Of this, $7.2 million were Chinook and coho. In previous years, substantial additional landing reports have come in after publication of this review. The updated value for 2011 commercial treaty Indian harvest in Puget Sound and Washington coastal inside fisheries is $20.5 million for all salmon species, of which $7.7 million were Chinook and coho (inflation-adjusted). From 1981 through 2011 the inflation-adjusted average annual exvessel value of commercial treaty Indian fisheries in Puget Sound and Washington coastal inside areas is $22.5 million, of which on average $8.5 million were 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 2007-2012. Average commercial catch of fall Chinook was about 21,300 in those years, most of which occurred in the estuary. Commercial sales also occurred in spring Chinook gillnet fisheries in 1989, 1996, 2000-2004, and 2007-2012, with an annual average of about 1,200 fish sold. The 1989 harvest of 27,700 Chinook had an average weight per fish of 15.4 pounds and sold for $852,000 ($1.4 million adjusted to 2012 dollars). In 1996, 3,129 spring Chinook and 40,147 fall Chinook were harvested, with an average weight per fish landed of 13.5 pounds and value at first sale of an estimated $525,000 ($729,000 adjusted to 2012 dollars). Records are not available for the weight and value of harvests after 1996 as each Indian fisher now markets their fish independently. The fishery has occurred in most recent years with the exception of 2005 and 2006. In 2012 the commercial fall Chinook harvest was approximately 82,900 fish, more than double the next highest total of 40,147 in 1996. By comparison, 15,600 fall Chinook were harvested in 2011, and 15,300 were harvested in 2010. The spring Chinook commercial harvest was 856 fish, the most since 2,300

were harvested in 2007. By comparison, 33 spring Chinook were taken in 2011, and 259 were harvested in 2010 (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 2012 was 288,800, an increase of 36 percent over 2011, and 58 percent over the 2010 level, but 52 percent below the 1979-1990 annual average. Compared with 2011, the preliminary estimates of the number of trips taken in 2012 increased by 38 percent in Oregon and 5 percent in Washington. California effort was up 60 percent compared with last year. (Note that Washington effort estimates shown in Tables IV-10 and IV-13 may 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 ocean area salmon fishing takes place primarily in two modes: (1) anglers fishing from privately owned pleasure craft, and (2) anglers employing the services of charter vessels. 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 also occur from jetties and piers. Coastwide, the proportion of angler trips taken on charter vessels in 2012 increased slightly to 29 percent compared with 27 percent of trips in 2011, and 25 percent in 2010. Underlying this coastwide trend was a 9 percent increase over last year in the proportion of charter trips in California, and a 5 percent increase in Washington, but a 20 percent decrease in Oregon. Figure IV-5 and Tables IV-10, IV-11, IV-12, and IV-13 display details of recreational effort and catch by port area and mode for each state.

California

The number of ocean recreational salmon trips in California in 2012 (146,500) continued its upward trend and was the most in any year since 2005 (172,100). The number of salmon trips in 2012 was higher than in the prior year in all areas: more than 10 times last year's total in Crescent City, 64 percent higher in Eureka, two percent higher in Fort Bragg, 65 percent higher in San Francisco, and 57 percent higher in Monterey. A total of 122,900 Chinook were caught in California on a total of 146,500 trips, for a success rate of 0.84 fish per trip. The charter industry's share of California recreational salmon trips in 2012 was about 35 percent, which was nine percent above last year's share, and 32 percent above the average share over the recent past (2007-2011) (Table IV-10, Table IV-11 and Figure IV-5).

Oregon

Ocean recreational salmon trips in Oregon in 2012 were up 38 percent to 67,300 trips compared with an estimated 48,800 angler trips in 2011 (Tables IV-10 and IV-12). Total trips in 2012 were 26 percent higher than 2010, and 10 percent above the most recent five year average (2007-2011). Compared with last year, effort was lower north of Cape Falcon (down 34 percent in Astoria), but generally higher to the South (down four percent in Tillamook, up 24 percent in Newport, 59 percent in Coos Bay, and triple last year's effort level in Brookings). The charter industry's share of Oregon recreational salmon trips in 2012 was about 10 percent, which is 20 percent lower than last year, and about 12 percent below the recent five year (2007-2011) average share of 11 percent (Table IV-10, Table IV-12 and Figure IV-5).

From 1984 to 1993, on average coho accounted for 87 percent of the annual Oregon recreational ocean salmon catch. 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 from 0.246 salmon per angler-day in 1998 to 0.435 in 1999. From 2002 through 2011, retention rates ranged between 0.44 and 1.08 salmon per angler-day. While the 2012 retention rate of 0.52 was toward the lower end of this range, it was the highest since a retention rate of 1.08 recorded in 2009. In 2012, coho's contribution to the total Oregon recreational ocean salmon catch was only 46 percent, the lowest share since 33 percent in 2005.

Washington

In 2012, 75,000 ocean angler trips were taken on vessels on the Washington coast, an increase of five percent from the 71,400 trips taken in 2011, and four percent above the recent five year (2007-2011) average of 72,000. About 33 percent of Washington angler trips were taken on charter vessels in 2012, up five percent from 2011, but below the recent five year average share of 34 percent (Table IV-10, Table IV-13 and Figure IV-5).

The angler success rate in Washington (in terms of retained fish per angler-trip) was 0.86 in 2012, down ten percent from 0.96 in 2011, and 23 percent below the recent five year (2007-2011) average success rate of 1.12. Note that these figures do not include angler effort that occurs from the ocean side of the Columbia River jetty, or in the state managed Area 4B add-on fishery (if open).

In order to increase angler participation in non-salmon recreational fishing (e.g., bottomfish) and to extend the length of the salmon season, partial-week closures were instituted in the recreational fishery north of Cape Falcon beginning in 1985. Sunday through Thursday salmon openings were used beginning in 1996 in the Westport and Columbia River port areas. Until more recently the Neah Bay and La Push areas were generally open seven days per week. In 2012 the recreational salmon fishery was open seven-days-a-week in the Columbia River area (south of Leadbetter Point). Most open areas north of Leadbetter Point were open seven days per week throughout the season, with the exception of Queets River to Leadbetter Point, which was open Sunday through Thursday during June 24–August 2 and seven days per week thereafter. In 2012 there were 44,500 bottomfish trips north of Cape Falcon, a five percent increase from 42,400 trips in 2011 (Table IV-14). All port areas north of Cape Falcon except Neah Bay showed an increase in total bottomfish trips compared with 2011.

Buoy 10 and Area 4B Add-On Fisheries

In 2012 anglers fishing from private and charter boats made a total of 63,700 trips in the Buoy 10 fishery. This effort level is 34 percent higher than the 47,700 trips in 2011, and 23 percent above the 51,600 trips in 2010. Angler success/retention rates in the Buoy 10 fishery increased to 0.41 salmon per day in 2012 from 0.38 in 2011 and 0.29 in 2010 (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), with the exception of 2008, when there were an estimated 782 private trips and no charter trips. There was no Area 4B add-on fishery in 2012.

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 based on commercial landed pounds and recreational fishing days (angler-trip), and were generated using the Fishery Economic Assessment Model (FEAM). The income impact estimation process is discussed and results presented below. More detailed information on these procedures 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 salmon fisheries, and trip-related expenditures made by recreational salmon anglers, expressed at the local community (county) and state levels. Income impacts are estimated based on several components: reported commercial landings and exvessel prices by area, an inventory of area harvesters and processors, estimates of harvester and processor expenditures, surveys of the expenditure patterns of recreational fishers, and local and state-level total income impact coefficients generated by IMPLAN® models constructed for each area. In FEAM, most of the benefit of higher than average exvessel prices is assumed to go to the harvesters. Commercial ocean harvest that is landed outside the coastal areas (e.g., landings in Puget Sound ports) is not included in the estimates of coastal community impacts, but is included in overall state-level impacts.

The income impacts presented below are estimates of annual trends and are intended to indicate the possible redirection of activity between nonfishing 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 2012 dollars.

West Coast Ocean Fishery Income Impacts

Total state level income impacts associated with recreational and commercial ocean salmon fisheries for all three states combined in 2012 were $55.8 million, the highest level since $74.6 million in 2005 (in inflation-adjusted terms). The 2012 total was 71 percent above the inflation-adjusted 2011 level of $32.6 million, but 85 percent below the inflation-adjusted value for 1979 of $369 million (the largest value in the data series) (Tables IV-16 through IV-18). West Coast income impacts associated with the 2012 non-Indian commercial ocean fishery were $31.9 million, more than double the estimate for 2011 ($15.1 million), and triple the recent five year (2007-2011) average of $10.3 million in inflation-adjusted terms [1/]. Income impacts related to the 2012 ocean recreational fishery were estimated at $23.9 million, 36 percent above last year's level of $17.5 million, and 57 percent above the 2007-2011 inflation-adjusted average of $15.6 million. Note that these coastwide values may mask effects in particular communities. 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

Historically 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 inflation-adjusted average of $34.7 million was generated annually from 1986-1990. In 2012, income impacts associated with the Columbia River commercial catch (combined non-Indian and treaty Indian)

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.

were estimated at $12.3 million. This value is 40 percent below last year's level of $20.5 million, and 20 percent below the 2007-2011 inflation-adjusted average of $15.5 million, over which time total inflation-adjusted income impacts of these fisheries ranged from $7.7 million in 2007 to $20.5 million in 2011 (Table IV-19).

Buoy 10 and Area 4B Add-On

Estimated local community income impacts associated with the 2012 Buoy 10 recreational fishery were $2.6 million, 33 percent higher than the previous year, 30 percent above the inflation-adjusted 2010 level, and 35 percent higher than the inflation-adjusted average over 2007-2011 of $1.95 million (Table IV-20). There was no late-season Area 4B add-on fishery in 2012. The most recent add-on fishery occurred in 2008, the first since 2000. The inflation-adjusted local community income impacts associated with the 2008 area 4B add-on fishery were $31,700. Between 1995 and 2000, when the Area 4B add-on fishery occurred in five out of six years, annual inflation-adjusted state-level income impacts associated with the Area 4B add-on fishery averaged $155,000 (Table IV-20).

TABLE IV-1. Average monthly exvessel troll salmon price in dollars per dressed pound for California, Oregon, and Washington in 2012.

Species/Grade	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
CALIFORNIA											
Chinook[a/]	-	-	6.48	6.11	3.95	5.42	6.07	7.09	-	-	5.17
Coho	-	-	-	-	-	-	-	-	-	-	-
OREGON											
Chinook											
Large (>11 Pounds)	-	7.59	6.68	6.55	4.69	4.99	5.21	5.97	6.76	-	6.02
Medium (7-11 Pounds)	-	6.84	6.35	6.19	4.23	4.49	5.20	5.57	6.50	-	5.71
Small (<7 Pounds)	-	6.60	6.03	5.59	5.19	4.17	4.75	4.48	5.94	-	5.50
Ungraded Chinook	-	7.31	6.45	6.39	4.85	5.01	5.08	5.25	6.86	-	5.52
Weighted Average	-	7.15	6.46	6.34	4.65	4.82	5.16	5.55	6.67	-	5.75
Mixed Coho	-	-	-	-	1.59	2.19	2.23	-	-	-	2.20
WASHINGTON[b/]											
Chinook											
Large (>11 Pounds)	-	-	6.15	6.33	4.32	4.66	4.28	-	-	-	5.18
Medium (8-11 Pounds)	-	-	6.22	5.92	3.76	4.16	3.42	-	-	-	5.66
Small (<8 Pounds)	-	-	4.18	3.81	3.72	2.29	2.30	-	-	-	3.88
Ungraded Chinook	-	-	-	-	-	-	-	-	-	-	-
Weighted Average	-	-	6.15	6.12	4.23	4.60	4.05	-	-	-	5.34
Mixed Coho	-	-	-	-	1.64	1.73	2.31	-	-	-	1.99

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 (inflation adjusted, 2012) dollars.[a/]

	Chinook				Coho				Total[b/]	
Year or Avg	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	45,778	2.53	6.67	2,303	6,074	2.19	5.78	19,659	51,852
1980	12,741	30,797	2.27	5.49	408	986	1.36	3.29	13,149	31,784
1981-1985	10,945	22,388	2.42	4.89	554	1,146	1.94	4.29	11,499	23,534
1986-1990	21,151	36,622	2.56	4.39	490	835	1.36	2.83	21,641	37,457
1991-1995	7,335	10,787	2.28	3.38	143	220	1.25	2.50	7,478	11,008
1996	5,984	8,313	1.44	2.00	-	-	-	-	5,984	8,313
1997	7,288	9,949	1.38	1.88	-	-	-	-	7,288	9,949
1998	3,060	4,130	1.66	2.24	-	-	-	-	3,060	4,130
1999	7,429	9,882	1.93	2.57	-	-	-	-	7,429	9,882
2000	10,304	13,416	2.01	2.62	-	-	-	-	10,304	13,416
2001	4,773	6,077	1.98	2.52	-	-	-	-	4,773	6,077
2002	7,776	9,743	1.55	1.95	-	-	-	-	7,776	9,743
2003	12,181	14,941	1.91	2.34	-	-	-	-	12,181	14,941
2004	17,895	21,344	2.87	3.42	-	-	-	-	17,895	21,344
2005	12,913	14,905	2.97	3.43	-	-	-	-	12,913	14,905
2006	5,350	5,982	5.13	5.74	-	-	-	-	5,350	5,982
2007	7,902	8,587	5.18	5.63	-	-	-	-	7,902	8,587
2008	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-
2010	1,246	1,295	5.47	5.69	-	-	-	-	1,246	1,295
2011	5,133	5,226	5.18	5.27	-	-	-	-	5,133	5,226
2012[c/]	13,023	13,023	5.17	5.17	-	-	-	-	13,023	13,023

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 percent to 10 percent.

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

c/ Preliminary.

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 (inflation adjusted, 2012) dollars.

	Chinook				Coho				Total[a/]	
Year or Avg.	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	7,931	0.89	3.53	3,658	14,597	0.64	2.51	5,694	22,529
1976-1980	5,290	14,929	2.17	6.10	6,389	18,583	1.51	4.24	11,679	33,512
1981-1985	3,582	7,289	2.46	4.97	2,248	4,772	1.45	2.94	5,830	12,061
1986-1990	9,381	16,216	2.47	4.24	3,203	5,550	1.54	2.65	12,584	21,766
1991-1995	1,971	2,905	2.24	3.32	326	502	0.64	0.96	2,297	3,407
1996	3,007	4,177	1.56	2.17	-	-	-	-	3,007	4,177
1997	2,469	3,370	1.60	2.18	-	-	-	-	2,469	3,370
1998	2,297	3,101	1.64	2.21	-	-	-	-	2,297	3,101
1999	1,400	1,862	1.94	2.58	1	1	1.03	1.37	1,401	1,864
2000	2,988	3,891	2.02	2.63	75	98	1.06	1.38	3,063	3,988
2001	4,680	5,959	1.61	2.05	41	53	0.79	1.01	4,721	6,011
2002	5,383	6,745	1.54	1.93	8	10	0.75	0.94	5,391	6,755
2003	7,186	8,814	1.97	2.42	36	44	0.85	1.04	7,222	8,859
2004	9,832	11,728	3.45	4.12	86	103	1.24	1.48	9,919	11,831
2005	8,466	9,772	3.17	3.66	37	43	1.87	2.16	8,503	9,814
2006	2,663	2,977	5.48	6.13	38	43	2.90	3.24	2,701	3,020
2007	2,630	2,857	5.66	6.15	193	209	1.90	2.06	2,822	3,067
2008	484	514	7.31	7.77	10	11	2.82	3.00	494	525
2009	77	82	5.06	5.33	267	281	2.04	2.15	345	363
2010	2,775	2,886	5.49	5.71	16	16	2.23	2.32	2,791	2,902
2011	2,396	2,440	5.96	6.07	5	5	2.01	2.05	2,401	2,445
2012[b/]	4,260	4,260	5.75	5.75	8	8	2.20	2.20	4,268	4,268

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 (inflation adjusted, 2012) dollars.[a/]

	Chinook				Coho				Total[b/]	
Year or Avg.	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	10,709	0.89	3.54	3,060	12,103	0.66	2.63	5,775	22,812
1976-1980	5,313	15,312	2.39	6.68	6,086	17,498	1.67	4.68	11,399	32,810
1981-1985	1,954	4,092	2.46	4.97	1,272	2,674	1.32	2.67	3,225	6,767
1986-1990[c/]	1,310	2,259	2.61	4.50	360	611	1.62	2.79	1,670	2,870
1991-1995[d/]	550	830	2.17	3.22	120	181	0.86	1.28	670	1,011
1996	d/	d/	d/	d/	59	81	0.86	1.20	d/	d/
1997	125	171	1.55	2.12	-	-	-	-	125	171
1998	123	166	1.51	2.04	-	-	-	-	123	166
1999	377	502	1.90	2.53	19	25	0.88	1.17	396	527
2000	224	292	1.71	2.23	34	44	1.09	1.42	258	336
2001	349	444	1.44	1.83	34	43	0.69	0.88	383	488
2002	756	947	1.11	1.39	2	2	1.58	1.98	758	949
2003	951	1,166	1.15	1.41	40	49	0.74	0.91	991	1,216
2004	1,079	1,287	2.14	2.55	106	126	1.16	1.38	1,185	1,413
2005	1,273	1,470	2.70	3.12	16	19	1.65	1.90	1,290	1,488
2006	1,029	1,150	4.64	5.19	16	18	1.69	1.89	1,045	1,168
2007	905	983	4.90	5.32	48	53	1.46	1.59	953	1,035
2008	673	716	6.73	7.15	36	38	2.49	2.65	709	754
2009	893	941	5.76	6.07	276	291	2.02	2.13	1,169	1,232
2010	3,083	3,206	5.61	5.83	32	33	2.14	2.23	3,115	3,240
2011	1,652	1,682	5.12	5.21	35	36	2.10	2.14	1,687	1,718
2012	2,323	2,323	5.34	5.34	35	35	1.99	1.99	2,358	2,358

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 (inflation adjusted, 2012) dollars.

	Oregon				Washington				Total[a/]	
Year or Avg.[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	493	0.75	2.10	1,200	3,340	0.54	1.53	1,367	3,833
1981-1985	129	266	0.74	1.50	287	600	0.41	0.84	416	866
1986-1990	41	73	0.77	1.32	57	95	0.66	1.14	98	168
1991-1995	1	2	0.88	1.29	38	57	0.64	0.95	39	59
1997	b/	b/	0.56	0.77	b/	b/	0.20	0.27	b/	b/
1999	b/	b/	0.67	0.89	b/	b/	0.38	0.51	b/	b/
2001	1	1	0.58	0.74	b/	b/	0.22	0.28	1	1
2003	b/	b/	0.85	1.04	b/	b/	0.30	0.37	b/	b/
2005	b/	b/	1.25	1.44	b/	b/	0.52	0.60	b/	b/
2007	b/	b/	1.11	1.21	b/	b/	0.33	0.36	b/	b/
2009	b/	b/	0.51	0.54	b/	b/	0.33	0.35	b/	b/
2011	-	-	1.31	1.33	1	1	0.83	0.85	1	1

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/b/]

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
1996-2000	2	35	146	2,155	1,699	4,037
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	-	-	-	-	-	-
2009	-	-	-	-	-	-
2010	-	4	186	16	20	228
2011	8	53	622	215	94	992
2012[c/]	5	78	608	1,185	646	2,521
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	d/	4	11	56	23	94
1996-2000	-	-	-	-	-	-
2001	-	-	-	-	-	-
2002	-	-	-	-	-	-
2003	-	-	-	-	-	-
2004	-	-	-	-	-	-
2005	-	-	-	-	-	-
2006	-	-	-	-	-	-
2007	-	-	-	-	-	-
2008	-	-	-	-	-	-
2009	-	-	-	-	-	-
2010	-	-	-	-	-	-
2011	-	-	-	-	-	-
2012	-	-	-	-	-	-

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, and Mendocino; 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/ Preliminary.

d/ 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
1996-2000	25	70	790	435	92	1,414
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	39	19	-	-	8	66
2009	7	4	-	-	5	15
2010	116	40	185	122	43	506
2011	30	14	68	231	59	402
2012[c/]	84	63	274	222	97	741
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
1996-2000	14	-	-	-	-	14
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	3	1	-	-	-	4
2009	48	43	35	5	b/	131
2010	6	1	-	-	-	7
2011	2	1	-	-	-	3
2012[c/]	3	1	-	-	-	4

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 Total	Puget Sound	State Total[c/]
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
1991-1995[d/]	137	29	123	9	204	30	234
1996-2000[d/]	49	1	37	3	80	22	102
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
2009	31	25	92	3	153	2	155
2010	48	62	402	10	522	-	522
2011	113	44	155	11	322	-	322
2012	172	92	147	23	435	-	435
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
1991-1995	52	14	49	13	102	12	111
1996-2000	10	e/	8	3	22	2	24
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
2009	29	34	54	14	131	5	136
2010	1	2	12	1	15	-	15
2011	6	2	9	e/	17	-	17
2012	7	5	6	1	18	-	18

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 in 1994-1996; however, Chinook were caught off Oregon and landed in Washington.

e/ Less than 500 pounds.

TABLE IV-9. Exvessel values (inflation adjusted, 2012 dollars) of inriver commercial harvest of Columbia River salmon.[a/]
(Page 1 of 2)

	Non-Indian Gillnet[b/]						Treaty Indian[c/] - All Gears						
	Chinook						Chinook						
		Fall						Fall					Columbia River
Year or Avg.	Spring	Brights[d/]	Tules	Coho	Chum	TOTAL	Spring	Brights[d/]	Tules	Coho	Chum	TOTAL	Total By State
						Oregon							
						Average Price Per Landed Pound[e/] (dollars)							
1987-2003	4.40	1.50	0.41	1.32	0.57		4.57	1.43	0.37	1.00	-		
2004	4.44	1.63	0.26	1.07	0.30		2.21	1.35	0.12	0.70	-		
2005	3.94	1.87	0.30	1.24	0.36		-	1.20	0.20	1.07	-		
2006	5.23	2.39	0.31	1.46	0.29		3.35	1.71	0.29	1.40	-		
2007	5.86	3.08	0.05	1.76	0.81		4.07	2.84	0.03	1.16	-		
2008	6.57	2.66	0.61	1.39	0.69		4.93	2.72	0.48	1.23	0.96		
2009	4.75	2.17	0.57	1.28	0.55		3.60	1.47	0.38	0.97	-		
2010	5.13	2.20	0.62	1.45	0.70		4.38	2.10	0.66	1.97	-		
2011	5.17	2.32	0.59	1.68	0.78		3.64	2.40	0.72	1.56	-		
2012[g/]	5.82	2.21	0.54	1.61	0.49		5.52	2.56	0.74	1.85	-		
						Exvessel Value (thousands of dollars)							
1987-2003	528	1,809	106	1,159	2	3,604	6	742	19	7	-	774	4,377
2004	1,225	668	59	810	f/	2,762	177	642	36	20	-	874	3,637
2005	363	511	40	975	f/	1,888	-	240	13	1	-	254	2,141
2006	686	713	20	701	f/	2,120	f/	353	3	16	-	373	2,493
2007	831	384	1	334	f/	1,550	69	393	1	16	-	478	2,028
2008	759	1,097	68	712	f/	2,636	343	997	62	54	f/	1,455	4,091
2009	460	947	95	1,079	f/	2,582	150	594	38	25	-	807	3,389
2010	1,962	937	160	810	1	3,870	614	476	92	34	-	1,215	5,085
2011	1,189	1,473	138	737	f/	3,537	186	608	31	31	-	857	4,394
2012[g/]	1,056	900	110	149	f/	2,215	74	350	5	11	-	440	2,655
						Pounds (thousands)							
1987-2003	116	749	156	785	2	1,807	3	337	62	5	-	407	2,213
2004	276	409	224	755	f/	1,664	80	476	299	29	-	884	2,548
2005	92	273	132	789	f/	1,286	-	200	67	1	-	267	1,554
2006	131	298	65	478	f/	971	f/	206	11	12	-	229	1,200
2007	142	135	f/	189	f/	466	17	138	25	14	-	194	660
2008	116	413	112	512	f/	1,152	70	366	129	44	f/	609	1,761
2009	97	436	168	846	f/	1,547	42	403	100	26	-	571	2,118
2010	382	426	257	560	1	1,626	140	226	140	17	-	524	2,150
2011	230	635	234	439	f/	1,537	51	253	43	20	-	367	1,905
2012[g/]	181	407	204	92	f/	885	13	137	7	6	-	163	1,048

TABLE IV-9. Exvessel values (inflation adjusted, 2012 dollars) of inriver commercial harvest of Columbia River salmon.[a/] (Page 2 of 2)

	Non-Indian Gillnet[b/]						Treaty Indian[c/] - All Gears						
	Chinook						Chinook						
		Fall						Fall					Columbia River
Year or Avg.	Spring	Brights[d/]	Tules	Coho	Chum	TOTAL	Spring	Brights[d/]	Tules	Coho	Chum	TOTAL	Total By State
Washington[g/h/i/]													
Average Price Per Landed Pound[e/] (dollars)													
1987-2003	5.39	1.40		1.32	0.50		3.89	0.99		0.93	-		
2004	4.69	1.54		1.12	0.30	-	1.87	0.64		0.26	-		
2005	4.13	1.60		1.19	0.92	-	1.95	0.59		0.35	-		
2006	4.10	2.16		1.49	-	-	2.63	1.57		0.63	0.56		
2007	7.29	2.77		1.37	1.05	-	4.84	1.48		0.87	0.98		
2008	7.13	2.71		1.34	1.03	-	4.73	1.45		0.85	0.96		
2009	5.57	1.88		1.19	0.62	-	3.17	0.98		0.60	-		
2010	5.20	2.03		1.36	0.62	-	3.92	1.19		0.92	-		
2011	4.57	1.94		1.54	0.59	-	3.57	1.85		1.46	3.19		
2012	6.27	2.04		1.63	0.43	-	4.75	1.73		1.26	-		
Exvessel Value (thousands of dollars)													
1987-2003	252	699		480	1	1,417	60	1,137		16	-	1,210	2,627
2004	324	520		415	f/	1,259	197	519		11	-	727	1,986
2005	254	377		227	f/	858	130	826		12	-	968	1,827
2006	358	470		308	-	1,135	473	1,416		28	f/	1,918	3,053
2007	138	250		272	f/	660	f/	1,348		56	f/	1,404	2,064
2008	334	540		294	f/	1,169	1,031	1,695		156	f/	2,882	4,051
2009	331	566		312	f/	1,210	650	862		26	-	1,539	2,748
2010	564	532		337	2	1,434	2,061	1,804		23	-	3,888	5,322
2011	359	760		243	1	1,362	1,697	2,958		237	1	4,892	6,254
2012	330	727		62	f/	1,119	922	1,704		36	-	2,662	3,781
Pounds (thousands)													
1987-2003	46	333		369	1	747	37	914		18	-	966	1,713
2004	69	338		370	f/	777	105	806		43	-	954	1,731
2005	62	235		191	f/	487	67	1,404		34	-	1,504	1,992
2006	87	218		207	-	512	180	905		45	f/	1,130	1,642
2007	18	91		154	f/	263	f/	638		66	f/	705	968
2008	47	199		219	f/	466	218	1,172		184	f/	1,574	2,040
2009	59	302		262	1	624	205	880		44	-	1,129	1,753
2010	108	262		247	2	620	526	1,521		25	-	2,072	2,693
2011	78	391		158	1	628	475	1,596		163	f/	2,234	2,862
2012	53	355		38	f/	446	194	980		28	-	1,202	1,648

a/ Excluding pink, sockeye, and steelhead.

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

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

d/ For Washington, this column 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.

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

f/ Less than $500 or 500 pounds.

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

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

i/ Treaty Indian values are primarily mainstem Columbia set gillnet but also include 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)

	Angler Trips		Chinook Catch[a/]		Coho Catch[a/]	
Year or Avg.	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
1996-2000	82.2	112.5	77.5	80.3	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	0.1	0.3	0.0	b/	-	-
2009	0.6	4.7	0.1	0.6	-	b/
2010	13.6	35.0	4.7	10.1	-	0.2
2011	29.5	62.2	18.7	31.1	b/	0.3
2012[c/]	51.2	95.2	43.2	79.7	b/	0.1
			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
1996-2000	5.3	40.3	1.5	9.7	3.4	9.1
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	1.9	28.5	0.2	1.4	1.0	11.1
2009	12.6	71.9	0.2	1.3	14.2	75.4
2010	5.0	48.3	0.6	4.4	2.8	15.5
2011	5.9	42.8	0.6	4.6	3.5	15.3
2012[c/]	6.6	60.7	1.5	17.3	3.0	13.1

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)

	Angler Trips		Chinook Catch[a/]		Coho Catch[a/]	
Year or Avg.	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
1991-1995	13.6	20.6	2.7	2.2	17.4	20.8
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	14.2	22.2	6.0	8.6	8.3	10.5
2009	29.4	69.5	3.1	9.2	47.9	90.0
2010	26.5	54.4	15.4	21.5	14.1	22.2
2011	22.2	49.2	9.8	19.3	15.1	24.4
2012[c/]	24.5	50.5	11.8	21.8	11.8	19.3

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
1996-2000	a/	0.7	4.2	55.2	22.1	82.1
2001	a/	1.4	9.7	43.4	15.4	69.9
2002	0.0	1.6	10.7	54.9	19.4	86.6
2003	0.0	1.1	8.2	38.7	11.4	59.4
2004	0.1	1.9	10.7	63.4	21.5	97.7
2005	0.0	0.9	8.9	45.8	13.5	69.1
2006	0.0	0.7	6.9	29.2	8.0	44.9
2007	0.0	1.6	5.4	20.9	3.5	31.4
2008	-	-	0.1	-	-	0.1
2009	0.0	0.6	-	-	-	0.6
2010	0.0	0.3	1.8	8.0	3.6	13.6
2011	0.0	1.5	4.4	17.5	6.0	29.5
2012[b/]	0.1	3.4	4.1	33.0	10.6	51.2
			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
1996-2000	6.8	10.9	15.0	38.8	40.9	112.5
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	-	-	0.3	-	-	0.3
2009	1.1	3.6	-	-	-	4.7
2010	0.2	3.7	4.8	11.4	15.0	35.0
2011	0.8	12.7	9.9	16.9	21.9	62.2
2012[b/]	7.7	19.9	10.6	23.8	33.2	95.2
			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
1991-1995	14.3	14.8	20.4	92.8	71.2	213.6
1996-2000	6.8	11.7	19.1	94.0	63.0	194.6
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	-	-	0.4	-	-	0.4
2009	1.1	4.3	-	-	-	5.4
2010	0.2	4.0	6.6	19.4	18.5	48.7
2011	0.8	14.2	14.4	34.4	28.0	91.7
2012[b/]	7.8	23.3	14.7	56.8	43.8	146.5

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
1996-2000	1.3	0.4	2.4	0.6	0.6	5.3
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	0.7	0.1	0.9	0.1	0.1	1.9
2009	2.7	1.3	8.1	0.3	0.2	12.6
2010	1.8	0.4	2.8	0.1	0.1	5.0
2011	1.6	0.5	3.6	0.1	0.1	5.9
2012[b/]	1.7	0.4	3.7	0.5	0.2	6.6
			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
1996-2000	4.1	7.7	3.0	7.6	17.8	40.3
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	2.9	9.0	4.6	7.3	4.7	28.5
2009	9.5	21.1	21.5	14.1	5.8	71.9
2010	8.5	13.1	12.2	8.6	5.9	48.3
2011	5.8	12.3	8.3	10.2	6.2	42.8
2012[b/]	3.1	12.0	11.1	16.0	18.6	60.7
			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
1996-2000	5.4	8.1	5.3	8.3	18.4	45.6
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	3.7	9.1	5.4	7.4	4.8	30.4
2009	12.3	22.4	29.6	14.4	5.9	84.5
2010	10.3	13.5	15.0	8.6	6.0	53.3
2011	7.4	12.8	12.0	10.3	6.3	48.8
2012[b/]	4.8	12.4	14.8	16.5	18.8	67.3

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
1996-2000	0.3	0.1	9.7	3.6	13.6
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	0.3	0.2	9.9	3.7	14.2
2009	0.5	0.7	18.5	9.7	29.4
2010	0.4	0.6	18.4	7.0	26.5
2011	0.5	0.7	14.1	6.9	22.2
2012[d/]	0.8	0.7	16.2	6.9	24.5
			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
1996-2000	8.8	1.6	12.7	12.8	35.8
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	5.3	1.9	8.8	6.3	22.2
2009	16.0	4.4	19.3	29.8	69.5
2010	11.1	3.2	20.0	20.1	54.4
2011	10.6	3.6	19.4	15.7	49.2
2012[d/]	12.7	3.3	21.1	13.4	50.5
			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
1996-2000	9.1	1.6	22.4	16.4	49.4
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	5.6	2.1	18.7	10.0	36.4
2009	16.5	5.1	37.8	39.5	98.9
2010	11.5	3.8	38.4	27.0	80.8
2011	11.1	4.2	33.5	22.5	71.4
2012[d/]	13.4	3.9	37.3	20.3	75.0

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

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/ 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)

	Columbia River and Buoy 10					Westport			La Push			Neah Bay and Area 4B Add-On		
Year	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	5.5	40.7	46.1	0.4	46.5	9.9	8.8	18.7	0.2	1.9	2.1	0.3	6.1	6.4
2009	13.1	109.9	122.9	2.6	125.5	18.5	19.3	37.8	0.7	4.4	5.1	0.5	16.0	16.5
2010	8.9	79.9	88.9	0.1	89.0	18.4	20.0	38.4	0.6	3.2	3.8	0.4	11.1	11.5
2011	10.5	76.2	86.7	2.2	88.9	14.1	19.4	33.5	0.7	3.6	4.2	0.5	10.6	11.1
2012[b/]	9.5	79.3	88.8	2.7	91.5	16.2	21.1	37.3	0.7	3.3	3.9	0.8	12.7	13.4

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)

	Columbia River and Buoy 10					Westport			La Push			Neah Bay and Area 4B Add-On		
Year	Charter	Private	Subtotal	Jetty	Total	Charter	Private	Total	Charter	Private	Total	Charter	Private	Total
						BOTTOM FISH 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	2.9	2.0	4.9	0.4	5.3	15.5	1.7	17.2	1.0	2.3	3.3	2.3	16.2	18.5
2009	2.1	1.3	3.3	0.3	3.6	13.0	2.2	15.2	0.7	2.7	3.4	1.5	13.6	15.1
2010	2.9	1.7	4.7	0.5	5.2	11.7	1.8	13.5	0.7	3.6	4.3	1.2	15.4	16.6
2011	3.6	1.8	4.5	0.9	5.4	13.9	2.4	16.3	0.5	4.8	5.3	1.2	14.2	15.4
2012[b/]	3.2	2.0	5.2	0.6	5.8	15.5	2.5	18.0	0.4	5.9	6.3	0.9	13.5	14.4

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 3 of 3)

	Columbia River and Buoy 10					Westport			La Push			Neah Bay and Area 4B Add-On		
Year	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	7.5	38.5	46.0	-	46.0	-	-	-	-	-	-	-	-	-
2009	6.1	43.0	49.1	-	49.1	-	-	-	-	-	-	-	-	-
2010	5.4	31.4	36.8	-	36.8	-	-	-	-	-	-	-	-	-
2011	3.6	21.7	25.3	-	25.3	-	-	-	-	-	-	-	-	-
2012[b/]	2.4	16.5	18.9	-	18.9	-	-	-	-	-	-	-	-	-

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[a/b/] and Area 4B add-on recreational salmon angler trips and catch by boat type. (Page 1 of 2)

	Angler Trips			Chinook Catch			Coho Catch			Pink Catch	
Year or Avg.	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	0	0
1991-1995	1,528	21,547	4,555	122	1,318	30	1,625	14,520	1,389	0	0
1996-2000	626	15,760	1,832	126	2,712	3	206	3,764	353	0	0
2001	1,616	54,444	4,115	47	5,578	10	1,481	56,403	523	0	0
2002	512	39,943	1,589	31	10,728	-	2	3,058	52	0	0
2003	991	45,461	2,315	47	7,903	-	624	28,518	526	0	0
2004	66	33,092	1,170	19	9,191	-	17	7,585	47	0	0
2005	135	33,051	935	18	6,875	6	51	4,785	36	0	0
2006	37	24,194	1,457	1	1,350	-	-	2,800	-	0	0
2007	156	19,983	793	6	2,511	-	38	4,841	97	0	0
2008	198	19,020	-	43	5,608	-	69	4,487	-	0	0
2009	182	39,425	1,684	1	3,550	16	164	27,000	466	0	0
2010	82	30,159	710	2	4,537	11	8	5,171	22	0	0
2011	70	30,074	1,705	3	7,150	34	6	5,029	315	0	0
2012[c/]	468	39,753	1,368	52	12,934	22	42	4,909	104	0	0
					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	0	16
1996-2000	1,957	23,952	1,045	393	3,999	24	950	6,305	82	0	0
2001	2,765	62,944	-	-	6,791	-	3,282	70,349	-	0	0
2002	1,001	40,927	485	232	8,424	26	98	3,023	-	0	0
2003	216	39,844	-	22	8,344	-	139	24,633	-	0	0
2004	685	33,805	-	45	6,791	-	139	7,381	-	0	0
2005	183	20,879	-	5	2,383	-	34	1,972	-	0	0
2006	421	14,597	-	5	351	-	8	879	-	0	0
2007	711	14,421	-	33	1,226	-	343	3,037	-	0	0
2008	804	12,445	-	154	2,544	-	436	3,581	-	0	0
2009	389	31,123	-	4	2,369	-	312	20,185	-	0	0
2010	106	21,241	-	7	2,250	-	11	2,767	-	0	0
2011	372	17,188	-	43	3,689	-	70	2,194	-	0	0
2012[c/]	447	23,034	-	51	5,491	-	82	2,248	-	0	0

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)

	Angler Trips			Chinook Catch			Coho Catch			Pink Catch	
Year or Avg.	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
1996-2000	2,583	39,712	2,877	519	6,710	27	1,157	10,070	435	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	1,002	31,465	0	197	8,152	0	505	8,068	0	0	0
2009	571	70,548	1,684	5	5,919	16	476	47,185	466	0	0
2010	188	51,400	710	9	6,787	11	19	7,938	22	0	0
2011	442	47,262	1,705	46	10,839	34	76	7,223	315	0	0
2012[c/]	915	62,787	1,368	103	18,425	22	124	7,157	104	0	0
					TOTAL AREA 4B ADD-ON[d/]						
1989-1990	1,084	10,941	-	62	375	-	2,095	18,021	-	36	212
1991-1995	429	6,852	-	12	153	-	725	9,188	-	73	970
1996	36	1,511	-	-	5	-	61	2,266	-	0	0
1997	136	1,788	-	-	4	-	65	1,429	-	139	412
1998	71	6,296	-	5	98	-	125	7,937	-	0	3
1999[e/]	-	-	-	-	-	-	-	-	-	0	0
2000	373	3,046	-	-	8	-	614	3,796	-	0	0
2001-2005[f/]	-	-	-	-	-	-	-	-	-	0	0
2006[e/]	-	-	-	-	-	-	-	-	-	0	0
2007[f/]	-	-	-	-	-	-	-	-	-	0	0
2008	-	782	-	-	11	-	-	137	-	0	0
2009[f/]	-	-	-	-	-	-	-	-	-	0	0
2010[f/]	-	-	-	-	-	-	-	-	-	0	0
2011[f/]	-	-	-	-	-	-	-	-	-	0	0
2012[f/]	-	-	-	-	-	-	-	-	-	0	0

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. Prior to 2000 includes only downstream from the Astoria-Megler Bridge.
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 (inflation adjusted, 2012) 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	6,917	17,569	17,227	22,599	9,700	74,012	95,151
1981-1985	3,503	4,226	9,891	18,671	6,362	42,654	53,105
1986-1990	1,317	3,261	17,348	33,685	12,598	68,210	83,713
1991-1995	11	155	1,090	12,677	7,222	21,155	25,493
1996-2000	12	184	770	13,271	8,047	22,284	23,577
2001	15	313	1,034	10,871	2,300	14,534	15,086
2002	274	524	3,732	15,524	4,181	24,234	25,744
2003	221	38	15,145	15,780	2,489	33,672	37,449
2004	1,940	429	7,420	23,311	5,247	38,346	39,152
2005	145	436	5,403	13,453	7,061	26,497	27,160
2006	-	-	2,459	6,359	980	9,799	10,103
2007	330	818	3,383	8,073	1,646	14,250	14,504
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010[e/]	-	35	1,759	139	159	2,091	2,172
2011	67	431	4,885	2,195	966	8,545	8,825
2012[d/]	38	677	4,615	10,466	5,657	21,453	21,994
				RECREATIONAL			
1976-1980	1,342	1,556	906	13,617	912	18,333	20,564
1981-1985	1,470	1,515	726	12,059	963	16,733	18,835
1986-1990	2,490	2,595	1,266	14,738	3,960	25,049	29,192
1991-1995	903	972	1,468	12,466	5,970	21,780	25,572
1996-2000	418	770	1,500	12,498	5,490	20,676	24,054
2001	359	779	2,103	7,586	3,053	13,880	14,932
2002	160	867	2,224	9,530	4,694	17,476	18,765
2003	91	652	1,680	6,894	2,269	11,585	12,408
2004	137	1,094	2,178	11,163	4,399	18,971	20,288
2005	104	692	1,761	8,417	3,196	14,170	15,184
2006	61	683	1,452	5,697	1,923	9,817	10,577
2007	86	892	1,171	4,040	1,400	7,590	8,241
2008	-	-	26	-	-	26	31
2009	46	230	-	-	-	276	323
2010	9	192	421	1,671	1,122	3,415	3,709
2011	32	713	974	3,307	1,752	6,777	7,363
2012[d/]	335	1,253	960	5,881	2,847	11,277	12,175

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

e/ Eureka impacts are from fish caught in the Fort Bragg area fishery and landed in Eureka.

TABLE IV-17. Estimates of Oregon coastal community and state personal income impacts in thousands of real (inflation adjusted, 2012) 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	4,441	5,716	13,408	20,633	8,578	52,775	71,554
1981-1985	1,438	1,850	4,340	7,654	3,322	18,605	25,284
1986-1990	664	3,872	8,617	16,610	3,148	32,910	44,446
1991-1995	93	722	2,957	1,437	146	5,355	7,220
1996-2000	154	303	3,130	1,807	436	5,829	7,103
2001	386	787	5,894	3,097	636	10,799	13,145
2002	1,103	934	5,043	4,458	806	12,344	14,950
2003	1,078	977	6,519	5,927	698	15,199	18,390
2004	909	727	6,434	7,000	1,499	16,568	17,905
2005	752	1,252	5,353	5,302	1,255	13,914	15,035
2006	982	611	1,606	433	377	4,008	4,300
2007	289	410	667	1,946	774	4,086	4,386
2008	411	201	-	-	71	684	720
2009	168	157	138	19	42	524	560
2010	934	271	1,356	920	363	3,844	4,134
2011	232	98	539	1,847	497	3,213	3,452
2012[d/]	672	468	2,013	1,775	688	5,617	6,047
				RECREATIONAL			
1979	3,722	1,188	5,660	5,731	2,758	19,060	24,575
1980	4,494	1,974	6,249	6,006	2,681	21,405	27,568
1981-1985	2,194	1,769	4,226	4,309	2,999	15,497	20,118
1986-1990	1,502	1,879	5,848	4,259	3,122	16,610	21,624
1991-1995	1,020	821	1,860	1,660	1,172	6,533	8,472
1996-2000	395	453	446	492	946	2,732	3,602
2001	1,417	763	1,801	1,510	1,054	6,545	8,022
2002	827	1,083	1,420	1,655	776	5,761	7,091
2003	1,206	1,253	2,841	2,069	608	7,976	9,812
2004	1,083	1,362	2,623	1,955	752	7,775	9,576
2005	786	562	892	1,215	502	3,956	4,849
2006	564	662	700	869	427	3,222	3,959
2007	792	898	1,359	1,087	437	4,573	5,622
2008	227	354	294	295	189	1,360	1,674
2009	798	969	1,959	584	241	4,551	5,603
2010	611	544	854	338	230	2,577	3,160
2011	477	533	826	412	241	2,490	3,061
2012[d/]	388	504	946	684	733	3,254	4,017

a/ Per pound and per day estimates of income impacts are provided from output of the Fishery Economic Assessment Model (FEAM). These are the income impacts associated with expenditures in the troll and/or recreational sectors. There is no differentiation between money that may be new to the area versus money that may otherwise have been expended in other sectors. It is assumed that all fish landed at a port are processed in the port area. Values through 1995 are based on a 1992 run of the FEAM using 1989 IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 IMPLAN data. Beginning in 2001, values are from a FEAM run based on 2000 PacFIN landings and 1998 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 (inflation adjusted, 2012) 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 Total[c/d/]	Puget Sound	State Total
			OCEAN TROLL[e/f/]				
1976-1980	6,412	8,756	17,357	6,216	38,741	8,628	61,804
1981-1985	1,260	510	4,756	1,138	7,665	1,841	12,047
1986-1990	697	183	2,185	475	3,541	1,066	5,801
1991-1995[g/]	513	113	730	52	1,411	206	2,076
1996-2000	173	3	208	20	404	106	556
2001	316	0	657	44	1,017	0	1,100
2002	652	85	1,144	191	2,071	0	2,283
2003	1,183	200	976	143	2,502	45	2,901
2004	871	275	1,082	106	2,334	27	2,697
2005	713	426	1,097	135	2,371	1	2,678
2006	530	429	412	276	1,647	36	1,950
2007	233	237	969	120	1,560	21	1,734
2008	152	201	574	153	1,079	13	1,216
2009	308	318	1,109	77	1,811	35	2,065
2010	332	522	3,943	86	4,882	-	5,100
2011	757	299	1,413	84	2,553	-	2,833
2012	1,128	651	1,441	200	3,419	-	3,871
			RECREATIONAL				
1976-1980	2,362	1,172	23,499	11,503	38,536	-	50,812
1981-1985	1,429	146	9,246	4,752	15,573	-	20,571
1986-1990	1,096	125	5,247	2,829	9,297	-	12,163
1991-1995	582	114	3,238	1,642	5,577	-	7,216
1996-2000	309	84	1,516	742	2,650	-	3,424
2001	797	162	5,928	3,756	10,643	-	12,434
2002	678	173	5,461	2,989	9,301	-	10,867
2003	986	276	6,150	3,984	11,395	-	13,331
2004	1,155	245	5,017	3,288	9,705	-	11,379
2005	792	248	4,579	2,662	8,281	-	9,697
2006	520	218	3,381	2,070	6,188	-	7,243
2007	530	169	3,469	2,705	6,873	-	8,036
2008	230	102	2,282	964	3,577	-	4,179
2009	618	271	4,353	2,979	8,222	-	9,617
2010	446	223	4,359	2,085	7,113	-	8,311
2011	441	241	3,487	1,911	6,080	-	7,113
2012	559	231	3,961	1,838	6,588	-	7,712

a/ Per pound and per day estimates of income impacts are provided from output of the Fishery Economic Assessment Model (FEAM). These are the income impacts associated with expenditures in the troll and/or recreational sectors. There is no differentiation between money that may be new to the area versus money that may otherwise have been expended in other sectors. It is assumed that all fish landed at a port are processed in the port area. Values through 1995 are based on a 1992 run of the FEAM using 1989 IMPLAN data. Values from 1996 through 2000 are based on a 1998 run of the FEAM using 1996 IMPLAN data. Beginning in 2001, values are from a FEAM run based on 2000 PacFIN landings and 1998 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 (inflation adjusted, 2012) dollars of the inriver commercial salmon fishery on Oregon and Washington Columbia River communities.[a/]

Year or Avg.	Non-Indian - Gillnet[b/] Chinook Spring	Chinook Fall Brights[d/]	Chinook Fall Tules	Coho	Chum	TOTAL	Treaty Indian - All Gears[c/] Chinook Spring	Chinook Fall Brights[d/]	Chinook Fall Tules	Coho	Chum	TOTAL	Columbia River Total
Oregon													
1987-2003	1,024	2,715	273	2,002	3	6,017	13	1,149	82	11	e/	1,256	7,273
2004	2,245	1,489	317	1,806	1	5,858	374	1,529	367	57	-	2,328	8,185
2005	674	1,080	188	1,974	e/	3,916	-	570	87	1	-	658	4,574
2006	1,218	1,401	92	1,323	e/	4,033	1	759	15	31	-	806	4,839
2007	1,449	768	e/	584	e/	2,801	126	737	e/	32	-	895	3,696
2008	1,306	2,081	195	1,347	e/	4,930	609	1,882	204	107	-	2,802	7,732
2009	821	1,878	283	2,107	e/	5,089	279	1,313	145	56	-	1,793	6,882
2010	3,459	1,846	449	1,497	2	7,253	1,105	948	250	56	-	2,360	9,613
2011	2,088	2,853	395	1,281	e/	6,617	344	1,169	80	55	-	1,648	8,265
2012[f/]	1,827	1,755	326	261	e/	4,170	128	660	13	19	-	820	4,990
Washington[f/g/h/]													
1987-2003	456	1,167		907	2	2,532	133	2,337		37	-	2,507	5,039
2004	589	1,183		926	e/	2,698	437	1,738		63	-	2,238	4,936
2005	469	837		456	e/	1,762	284	2,858		51	-	3,192	4,955
2006	657	947		579	-	2,182	947	3,133		81	e/	4,161	6,343
2007	234	474		475	e/	1,183	1	2,712		135	e/	2,847	4,030
2008	570	1,021		564	1	2,156	1,842	3,785		369	e/	5,996	8,153
2009	578	1,166		628	1	2,373	1,235	2,261		75	-	3,571	5,944
2010	993	1,069		637	4	2,703	3,770	4,283		52	-	8,106	10,809
2011	640	1,535		435	2	2,612	3,140	6,056		434	e/	9,629	12,241
2012	565	1,440		108	1	2,115	1,632	3,519		69	-	5,219	7,334
Columbia River													
1987-2003	1,480	4,155		2,909	5	8,550	146	3,568		49	e/	3,762	12,312
2004	2,834	2,989		2,732	1	8,555	812	3,634		120	-	4,566	13,121
2005	1,143	2,105		2,431	e/	5,679	-	3,514		52	-	3,850	9,529
2006	1,875	2,439		1,902	-	6,216	947	3,906		113	-	4,966	11,182
2007	1,683	1,241		1,058	e/	3,983	127	3,449		167	-	3,743	7,726
2008	1,876	3,298		1,911	1	7,086	2,451	5,871		476	-	8,798	15,885
2009	1,399	3,327		2,735	1	7,463	1,514	3,718		131	-	5,363	12,826
2010	4,452	3,364		2,134	6	9,956	4,876	5,482		108	-	10,466	20,422
2011	2,728	4,783		1,716	2	9,229	3,484	7,305		488	-	11,277	20,506
2012[f/]	2,393	3,522		369	1	6,285	1,760	4,192		88	-	6,040	12,324

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

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

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

d/ For Washington and the Columbia River this column includes fall brights, tules, and jacks.

e/ Less than $500.

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

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

h/ Treaty Indian values are primarily mainstem Columbia set gillnet but also include Klickitat dipnet, Drano Lake (Little White Salmon River mouth), and Priest Rapids Pool fisheries.

TABLE IV-20. Local personal income impacts in real (inflation adjusted, 2012) dollars of the Buoy 10 recreational fishery in Oregon and Washington and the Area 4B add-on fishery in Washington.

Year or Avg.	Total Angler Trips (thousands)	Income Impacts (thousands of dollars) Oregon	Washington	Total
		BUOY 10 (including bank fishing)		
1987-1990	136	2,776	4,840	7,616
1991-1995	79	1,579	2,686	4,265
1996-2000	45	1,011	1,384	2,395
2001	126	2,612	2,757	5,369
2002	84	1,757	1,652	3,409
2003	89	2,082	1,441	3,523
2004	69	1,396	1,322	2,718
2005	55	1,395	769	2,164
2006	41	1,043	596	1,639
2007	36	864	647	1,511
2008	32	799	596	1,395
2009	73	1,690	1,169	2,859
2010	52	1,261	766	2,027
2011	49	1,296	677	1,973
2012 [b/]	65	1,734	897	2,631
		AREA 4B ADD-ON [c/]		
1989-1990	12	-	686	686
1991-1995	6	-	400	400
1996-2000	3	-	143	143
2001	-	-	-	-
2002	-	-	-	-
2003	-	-	-	-
2004	-	-	-	-
2005	-	-	-	-
2006	-	-	-	-
2007	-	-	-	-
2008	1	-	32	32
2009	-	-	-	-
2010	-	-	-	-
2011	-	-	-	-
2012 [b/]	-	-	-	-

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

b/ Preliminary

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

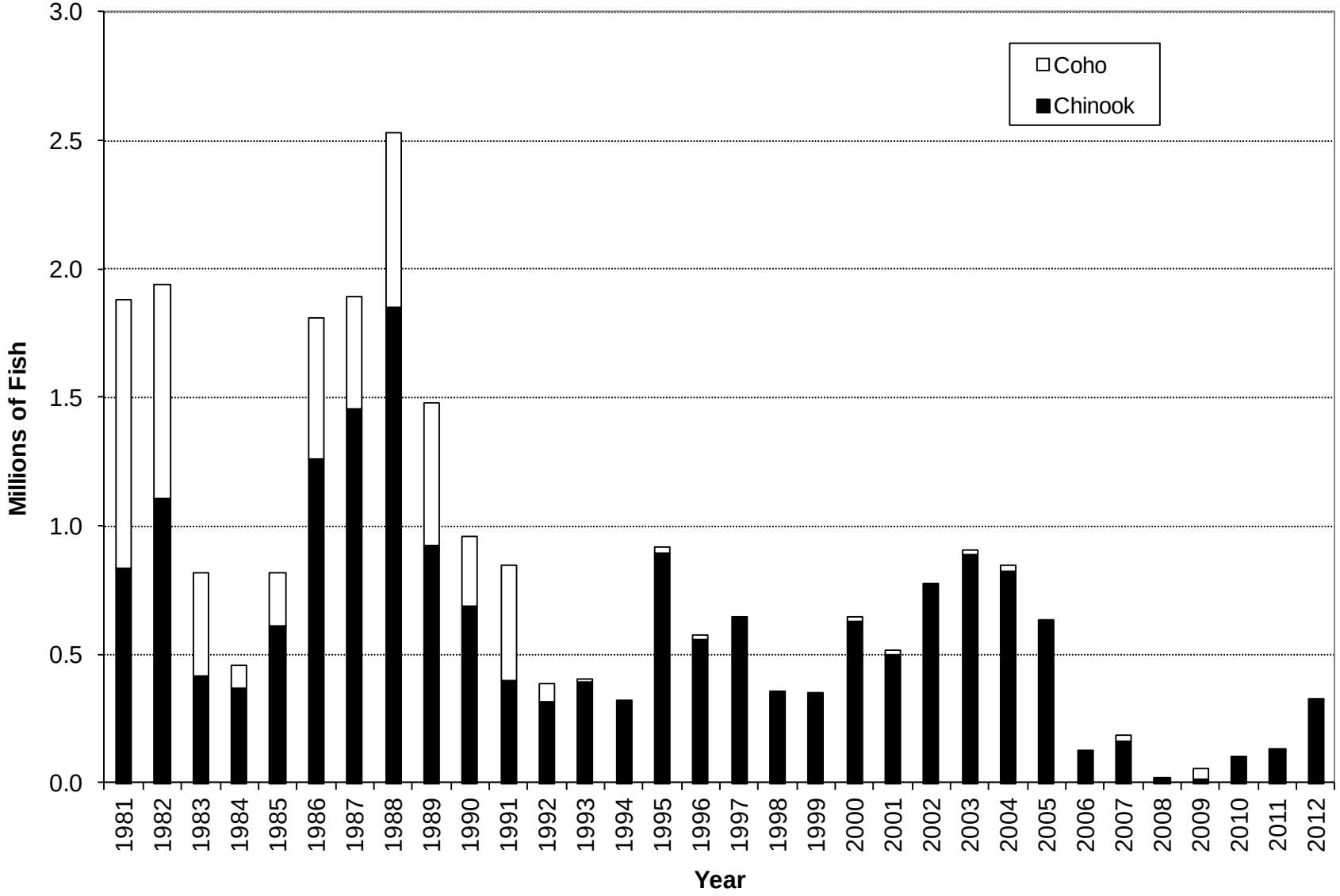

Figure IV-1. West Coast ocean non-Indian commercial Chinook and coho harvest.

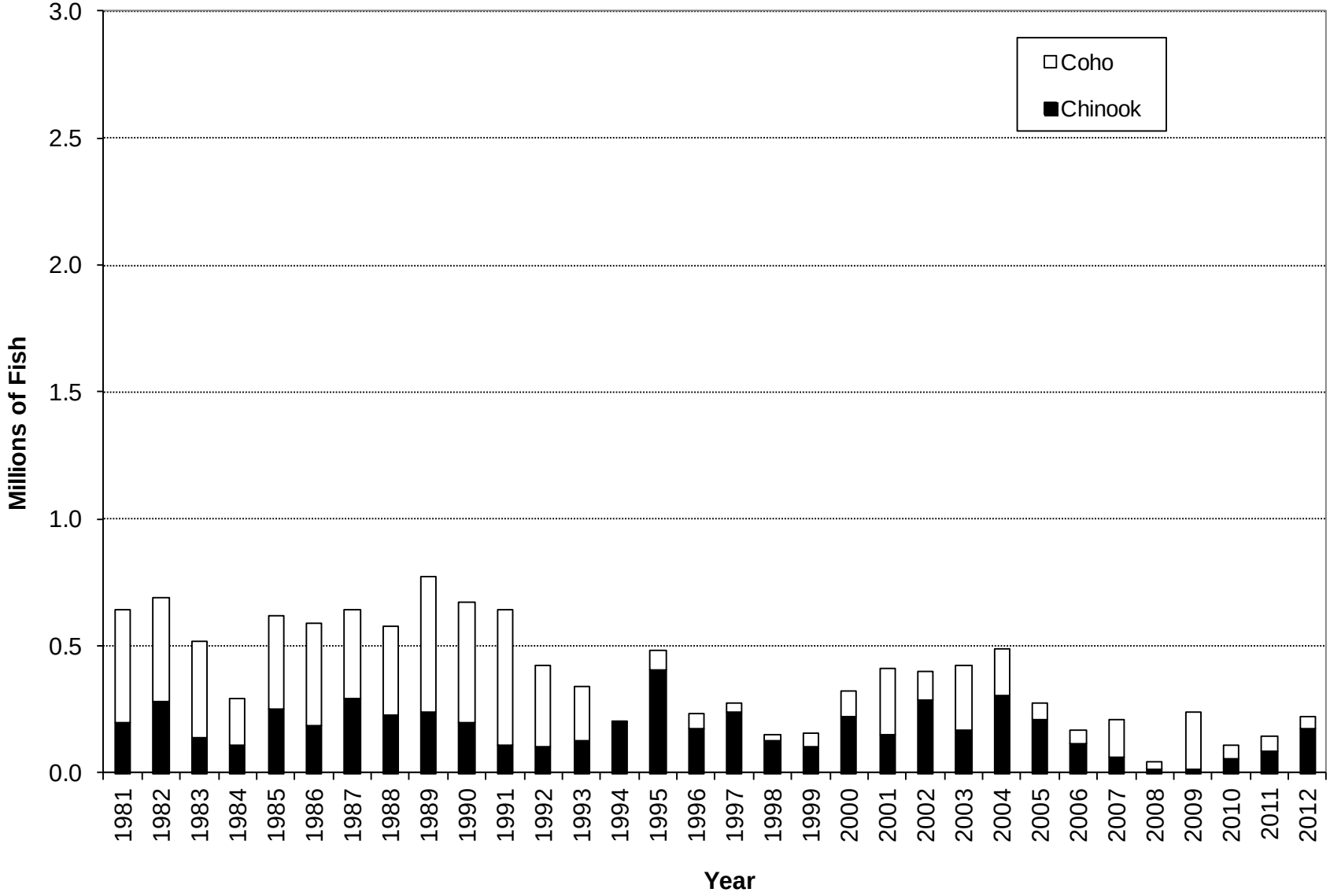

Figure IV-2. West Coast ocean recreational Chinook and coho harvest.

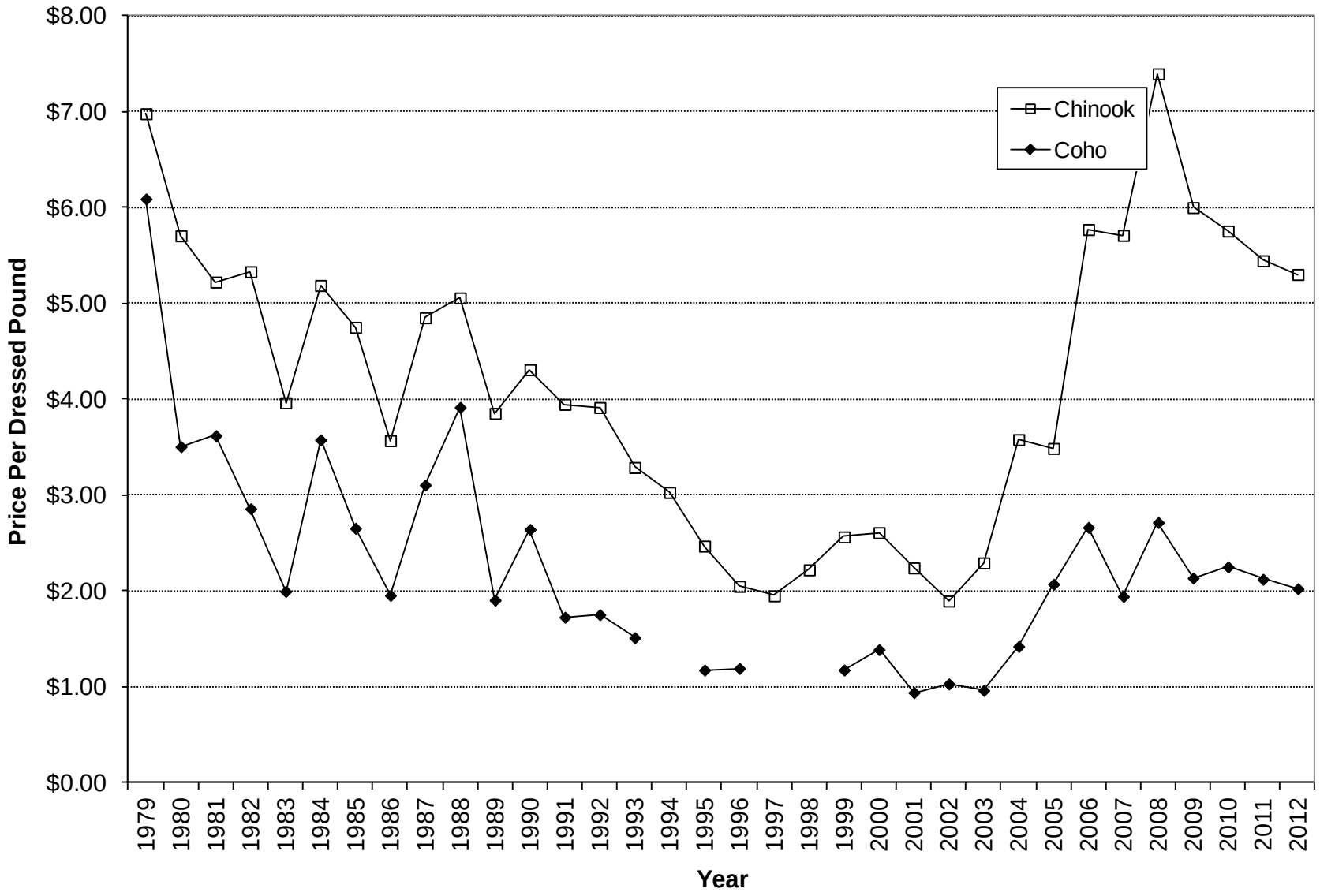

Figure IV-3. West Coast non-Indian ocean commercial salmon annual exvessel prices (inflation adjusted, 2012 dollars).

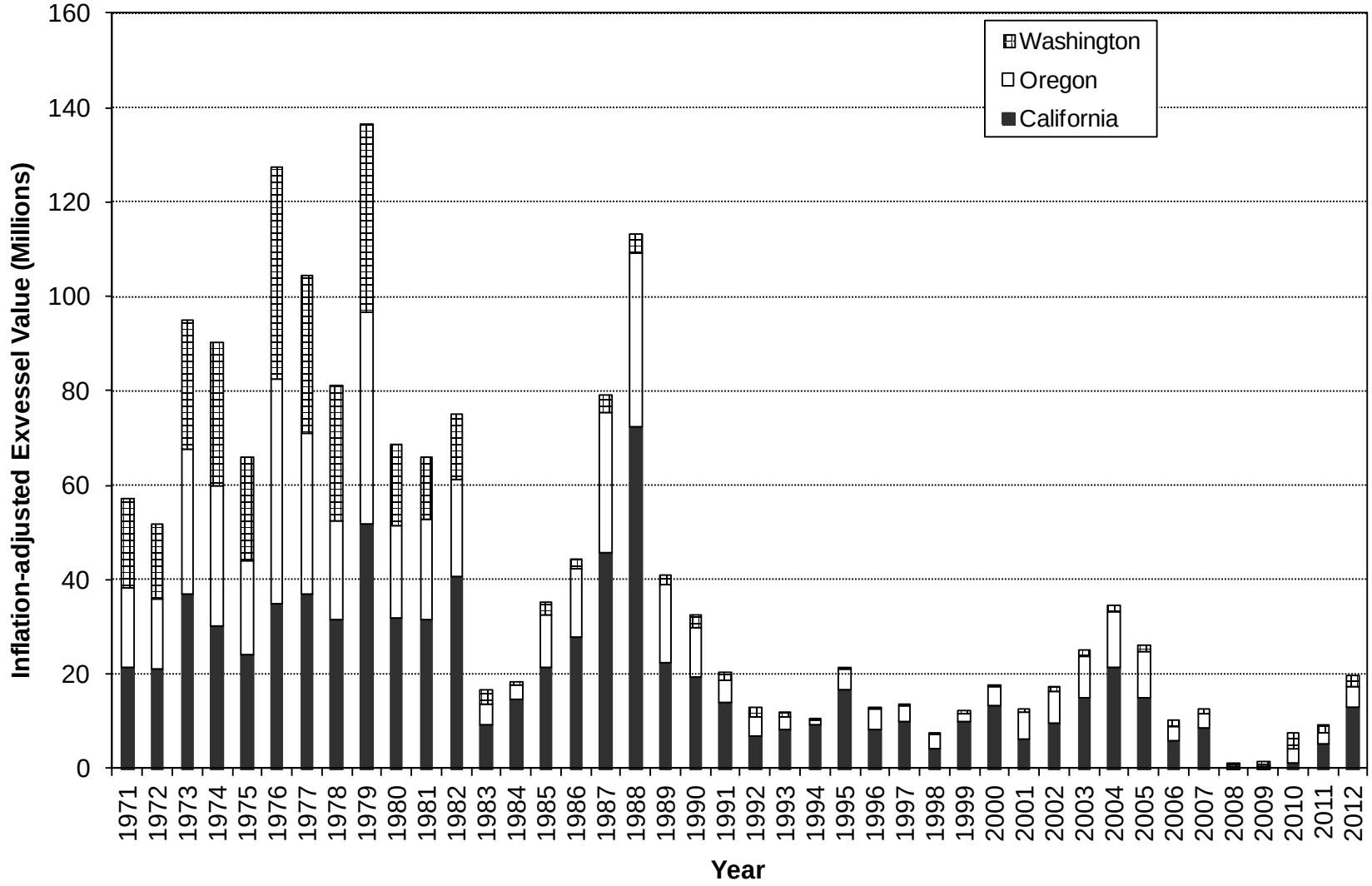

Figure IV-4. Exvessel value of West Coast non-Indian ocean commercial Chinook and coho landings by state of landing (inflation adjusted, 2012 dollars).

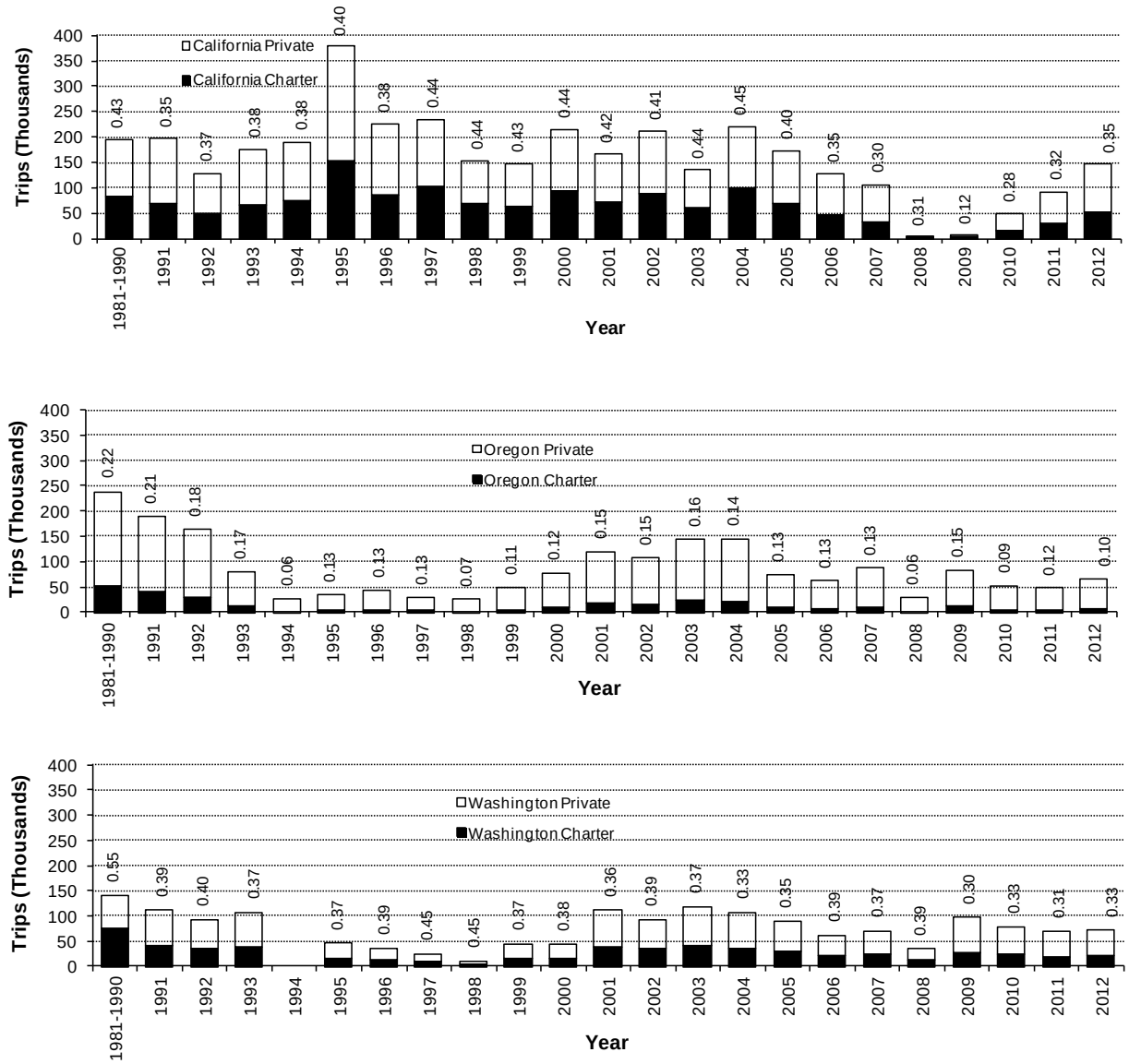

Figure IV-5. Total recreational ocean salmon trips for California, Oregon, and Washington, with proportion of charter trips shown above each bar.

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