

**Year 2005 Economic Summary for California & Oregon Salmon Fishery**  
**National Marine Fisheries Service**  
**Southwest Region**  
**Sustainable Fisheries Division**

Overall, year 2005 ex-vessel revenue and economic impacts on California and Oregon was comparable to recent years and historical trends for the salmon fishery.

In 2005 California salmon (Chinook) fisherman earned \$12,783,000 in ex-vessel revenue. Ex-vessel revenue in 2004 was \$18,383,000, 31% greater than 2005. Ex-vessel revenue in 2003 was similar to 2005 at \$12,842,000, only 0.5% greater than 2005. Years 2002 and 2001 had lower ex-vessel revenues than 2005 at \$8,364,000 and \$5,225,000 respectively. The five year (2001-2005) average was \$12,130,000, which is 5% below year 2005 and the long term (1993-2005) average was \$9,721,000, which is 31% below year 2005.

In 2005 Oregon salmon (Chinook and Coho) fishermen earned \$8,503,000 in ex-vessel revenue. Year 2004 was higher at \$10,189,000 in ex-vessel revenue, up 17% from 2005. Ex-vessel revenues for years 2003, 2002, and 2001 were all lower than 2005 at \$7,614,000, \$5,799,000 and \$5,169,000, respectively. The five year (2001-2005) average was \$7,455,000, which is 14% below year 2005 and the long term (1993-200) average was \$4,497,000, which is 89% less than year 2005.

**Ex-vessel Revenue in inflation adjusted 2005 dollars**

Year or Average	California	Oregon
2001	\$5,225,000	\$5,169,000
2002	\$8,364,000	\$5,799,000
2003	\$12,842,000	\$7,614,000
2004	\$18,383,000	\$10,189,000
2005	\$12,783,000	\$8,503,000
Average 2001-2005	\$12,130,000	\$7,455,000
Average 1993-2005	\$9,721,000	\$4,497,000

California includes revenue from Chinook.

Oregon includes revenue from Chinook and Coho salmon.

California Chinook landings in 2005 were 4,300,000 pounds, down 31% from 2004, but up 78% from 2001. The inflation adjusted price per pound in 2005 was \$2.97, up \$0.02 from 2004 and up \$0.80 from 2001.

Oregon Chinook and Coho landings in 2005 were 2,691,000 pounds, down 8% from 2004, and down 9% from 2001. The inflation adjusted price per pound in 2005 for Chinook was \$3.17, down \$0.37 from 2004, but up \$1.41 from 2001. The inflation adjusted price per pound in 2005 for Coho was \$1.87, up \$0.67 from 2004 and up \$1.01 from 2001.

**Landings in dressed pounds and real price per pound in year 2005 inflation adjusted dollars**

Year or Average	California		Oregon		
	Landings	Price/Pound	Landings	Price/Pound	
				Chinook	Coho
2001	2,409,000	\$2.17	2,949,000	\$1.76	\$0.86
2002	5,008,000	\$1.67	3,499,000	\$1.66	\$0.81
2003	6,392,000	\$2.01	3,682,000	\$2.08	\$0.90
2004	6,230,000	\$2.95	2,920,000	\$3.54	\$1.27
2005	4,300,000	\$2.97	2,691,000	\$3.17	\$1.87
Average 2001-2005	4,868,000	\$2.43	3,148,000	\$2.44	\$1.14
Average 1993-2005	4,369,000	\$2.24	2,348,000	\$2.32	\$1.19

Anglers (charter and private boats) in California took 171,900 trips in 2005 targeting Chinook salmon. This was down 21% from 2004 and up 4% from 2001. Chinook catch by anglers (charter and private boats) was 143,200 fish in 2005, down 35% from 2004 and up 45% from 2001.

Anglers (charter and private boats) in Oregon took 76,100 trips in 2005 targeting Chinook, down 48% from 2004 and down 37% from 2001. Chinook catch by anglers (charter and private boats) was 27,900 fish in 2005, down 51% from 2004 and up 3% from 2001.

**Private and Charter Angler Trips and Catch in number of fish**

Year or Average	California		Oregon	
	Trips	Catch	Trips	Catch
2001	165,000	98,800	120,500	27,200
2002	210,100	182,000	107,600	47,400
2003	134,700	94,700	144,500	40,600
2004	218,700	221,100	145,700	56,400
2005	171,900	143,200	76,100	27,900
Average 2001-2005	201,300	170,700	118,900	39,900
Average 1993-2005	180,100	148,000	74,300	21,200

In 2005, the total economic impacts for the California commercial salmon fishery on the State were \$23,290,000. Years 2004 and 2003 were higher at \$33,720,000 (up 31%) and \$32,188,000 (up 28%) from 2005, respectively. Economic impacts for years 2002 and 2001, however, were lower than 2005 at \$22,101,000 and \$12,970,000, respectively. The five year (2001-2005) average was \$24,854,000, which is 6% higher than year 2005 and the long term (1993-2005) average was \$22,715,000, which is 3% lower than 2005.

In 2005, the total economic impacts for the Oregon commercial salmon fishery on the State were \$13,026,000. Years 2004 and 2003 were higher at \$14,487,000 (up 10%) and \$15,806,000 (up 18%) from 2005, respectively. Years 2002 and 2001, however, were lower than 2005 at \$10,597,000 and \$9,285,000, respectively. The five year (2001-2005) average was \$13,491,000, which is 3% higher than year 2005 and the long term (1993-2005) average was \$6,918,000, which is 88% lower than year 2005.

**Economic Impacts in Inflation Adjusted 2005 Dollars for Commercial Fishing**

Year or Average	California	Oregon
2001	\$12,970,000	\$11,302,000
2002	\$22,101,000	\$12,834,000
2003	\$32,188,000	\$15,806,000
2004	\$33,720,000	\$14,487,000
2005	\$23,290,000	\$13,026,000
Average 2001-2005	\$24,854,000	\$13,491,000
Average 1993-2005	\$22,715,000	\$6,918,000

In 2005, the total economic impacts for the California recreational salmon fishery on the State were \$17,877,000. Year 2004 was higher at \$23,684,000 (up 25%) from 2005. Year 2003 was lower at \$14,511,000 (down 23%) from 2005. Year 2002 was higher at \$18,813,000 and year 2001 was lower at \$14,958,000, compared to 2005. The five year (2001-2005) average was \$19,153,000, which is 7% higher than 2005 and the long term (1993-2005) average was \$21,247,000, which is 16% higher than year 2005.

In 2005, the total economic impacts for the Oregon recreational salmon fishery on the State were \$5,236,000. Years 2001 through 2004 were all higher than year 2005, with the high in 2003 at \$10,314,000 (up 49%) and the low year in 2002 at \$7,552,000 (up 31%) from 2005. The five year (2001-2005) average was \$8,363,000, which is 37% higher than year 2005 and the long term (1993-2005) average was \$5,179,000, which is 11% less than year 2005.

**Economic Impacts in Inflation Adjusted 2005 Dollars for Recreational Fishing**

Year or Average	California	Oregon
2001	\$17,555,000	\$8,507,000
2002	\$22,137,000	\$7,552,000
2003	\$14,511,000	\$10,314,000
2004	\$23,684,000	\$10,207,000
2005	\$17,877,000	\$5,236,000
Average 2001-2005	\$19,153,000	\$8,363,000
Average 1993-2005	\$21,247,000	\$5,179,000

It should be noted that in 2005, two port areas, Crescent City and Brookings had lower economic impacts for the recreational fishery in their respective coastal communities compared to historical trends. Crescent City had an economic impact of \$131,000 in 2005. The five year (2001-2005) average was \$215,000 (difference of 39%) and the long term (1993-2005) average was \$374,000 (difference of 65%). Brookings had an economic impact of \$550,000 in 2005, but the five year (2001-2005) average was \$805,000 (difference of 32%) and the long term (1993-2005) average was \$821,000 (difference of 33%). These two port areas should be paid special attention when projecting year 2006 economic impacts.

**Economic Impacts in Inflation Adjusted 2005 Dollars for Recreational Fishing for  
Crescent City and Brookings**

Year or Average	Crescent City	Brookings
2001	\$454,000	\$1,148,000
2002	\$203,000	\$857,000
2003	\$115,000	\$657,000
2004	\$170,000	\$813,000
2005	\$131,000	\$550,000
Average 2001-2005	\$215,000	\$805,000
Average 1993-2005	\$374,000	\$821,000

Unfortunately, tribal data is not as available as non-tribal commercial and recreational fishery data; however, tribes are allocated 50% of the salmon share and therefore do play an important role in the salmon fishery. In 2005, the Yurok and Hoopa Valley Reservations weren't able to use any Chinook salmon for commercial revenue. The total tribal subsistence level for 2005 was at a low of 8,025 fish. The most comparable year within recent years was in 1993 at 9,811 Chinook, which is 18% higher than 2005. Also, the estuary area had the largest subsistence drop in 2005 compared to the Mid and Upper Klamath and Trinity River Areas.

**Tribal Fishery in Number of Fish**

Year or Average	Estuary Subsistence	Total Subsistence
2001	22,154	39,044
2002	11,207	24,700
2003	5,608	30,078
2004	6,848	25,971
2005	2,254	8,025
Average 2001-2005	9,614	25,564
Average 1993-2005	7,287	22,257

**Data Sources:**

Davis, S. 2003. West Coast Groundfish Fishery Economic Assessment Model: Final Report for Cooperative Agreement No. NEPA-0402. PFMC, Portland, September 28, 2003.

Pacific Fishery Management Council. 2006. Review of 2005 Ocean Salmon Fisheries. (Document prepared for the Council and its advisory entities.) Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 200, Portland, Oregon 97220-1384.

## **Salmon Summary**

The following is a data summary showing historical trends related to the commercial and recreational salmon fishery in California and Oregon relative to the 2005 season. This summary is presented to provide an assessment of economic impacts resulting from the 2005 season restrictions and projections for the upcoming year 2006 salmon fishery management measures in California and Oregon.

Data related to the salmon fishery is available starting from the year 1976. However, in order to provide a more realistic synopsis of recent allocation schemes, this analysis was restricted to fit this time frame. In the year 1987, an allocation of approximately 30% of the available harvest was given to tribes and in 1993, that allocation was increased to 50% of the available harvest (Pierce: 1998). Upon looking at the economic impacts for commercial fisheries (see appendix III), is reasonable to provide an analysis beginning with year 1993, since there is an overall leveling out of economic impacts through the years 1993-2005 and therefore has less outliers and shows more stability. A primary reason for this leveling is the initiation of tribal allocations, compared to previous years without those allocations.

## 1.0 CALIFORNIA

### 1.1 California Ocean Troll

Table 1 shows coastal community and State personal income impacts in thousands of real 2005 dollars of the troll ocean salmon fishery through the years 1993-2005 in California. The median, high and low years, average without the high and low years, an average for the past five years (2001-2005), and overall average (1993-2005) is provided for each port area, the coastal community total and State total

♦Table 1: California Ocean Troll\*/ \*\*\*

Year	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	Coastal Community Total**	State Total
1993	8	49	993	7,600	5,013	13,663	16,577
1994	0	30	368	11,526	3,775	15,698	18,556
1995	15	99	492	15,531	12,145	28,282	34,460
1996	13	391	1,092	7,914	8,188	17,598	19,084
1997	1	59	153	12,815	9,074	22,102	23,381
1998	5	105	172	5,653	2,855	8,790	9,225
1999	16	143	164	15,284	4,969	20,575	21,241
2000	15	92	1,733	15,437	9,532	26,809	28,507
2001	13	269	889	9,347	1,977	12,496	12,970
2002	235	450	3,204	13,327	3,589	20,805	22,101
2003	190	33	13,017	13,563	2,139	28,941	32,188
2004	1,671	368	6,391	20,077	4,519	33,025	33,720
2005****	84	339	2,627	11,468	7,815	22,332	23,290
Median	15	105	993	12,815	4,969	20,805	22,101
High/Year	1,671 (2004)	450 (2002)	13,017 (2003)	20,077 (2004)	12,145 (1995)	33,025 (2004)	34,460 (1995)
Low/Year	0 (1994)	30 (1994)	153 (1997)	5,653 (1998)	1,977 (2001)	8,790 (1998)	9,225 (1998)
Ave. w/o High & Low	54	177	1,711	12,165	5,588	20,846	22,874
Five Year Average	438	292	5,225	13,556	4,008	23,520	24,854
Overall Average	174	187	2,407	12,272	5,815	20,855	22,715

\*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 sector. 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. Beginning in 1996 values are based on a 1998 run of the FEAM using 1996 U.S. Forest Service IMPLAN data.

\*\*Income impacts on the coastal economy. Totals do not include impacts of one coastal community on another.

\*\*\*Excluding pink salmon.

♦Data Sources: See References (Section 4.0).

\*\*\*Preliminary

It can be observed that years 1995 and 2004 were high years for three of the port areas (Monterey, Crescent City and San Francisco), the coastal community and State totals. Years 1994 and 1998 were the low years for three of the port areas (Crescent City, Eureka and San Francisco), the coastal community and State totals. The coastal community totals ranged from a low of \$8,790,000 in 1998 to a high of \$33,025,000 in 2004 and has a median of \$20,805,000. The coastal community overall average is \$20,855,000, the average eliminating the high and low years is \$20,846,000, which is only a \$9,000 difference. However, the past five year average is slightly higher at \$23,520,000, mainly due to 2004.

Table 1.1 shows the change in total impacts in thousands of real 2005 dollars and as a percentage from year to year for each port area, the coastal community total and State total.

♦ Table 1.1: California Ocean Troll

Year	Crescent City		Eureka		Fort Bragg		San Francisco		Monterey		Coastal Community Total		State Total	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
93-94	-8	-100.0	-20	-40.0	-625	-63.0	3,926	51.7	-1,237	-24.7	2,036	14.9	1,978	11.9
94-95	15	DIV/0	70	235.5	124	33.7	4,005	34.8	8,370	221.7	12,584	80.2	15,905	85.7
95-96	-3	-17.6	292	294.5	601	122.1	-7,617	-49.0	-3,956	-32.6	-10,684	-37.8	-15,376	-44.6
96-97	-12	-91.6	-332	-84.8	-939	-86.0	4,901	61.9	886	10.8	4,503	25.6	4,296	22.5
97-98	4	348.4	46	77.6	19	12.6	-7,162	-55.9	-6,219	-68.5	-13,312	-60.2	-14,156	-60.5
98-99	11	230.5	38	35.7	-8	-4.9	9,631	170.4	2,114	74.0	11,785	134.1	12,016	130.3
99-00	-1	-4.4	-51	-35.4	1,569	959.1	153	1.0	4,563	91.8	6,234	30.3	7,226	34.2
00-01	-2	-13.8	177	191.4	-843	-48.7	-6,090	-39.5	-7,554	-79.3	-14,313	-53.4	-15,536	-54.5
01-02	222	1,700.1	180	67.0	2,315	260.3	3,980	42.6	1,612	81.5	8,309	66.5	9,131	70.4
02-03	-45	-19.3	-417	-92.7	9,813	306.3	235	1.8	-1,450	-40.4	8,136	39.1	10,087	45.6
03-04	1,481	781.3	335	1,018.9	-6,626	-50.9	6,514	48.0	2,380	111.2	4,083	14.1	1,532	4.8
04-05	-1,587	-95.0	-29	-7.9	-3,764	-58.9	-8,609	-42.9	3,296	73.0	-10,692	-32.4	-10,430	-30.9

It can be observed that overall, the economic impacts from year to year range widely. Looking at the coastal community total, years 1993-1994 and 2003-2004 had the least percentage change of 14.9% (\$2,036,000) and 14.1% (\$4,083,000), respectively; whereas, years 1994-1995 and 1998-1999 had the largest percentage change of 80.2% (\$12,584,000) and 134.1% (\$11,785,000), respectively.

♦ Data Sources: See References (Section 4.0).

## 1.2 California Recreational

Table 2 shows coastal community and State personal income impacts in thousands of real 2005 dollars of the recreational salmon fishery through the years 1993-2005 in California. The median, high and low years, average without the high and low years, an average for the past five years (2001-2005), and overall average (1993-2005) is provided for each port area, the coastal community total and State total.

\*Table 2: California Recreational\*

Year	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	Coastal Community Total**	State Total
1993	835	1,028	1,154	9,854	2,636	15,507	17,925
1994	517	355	1,106	12,359	2,879	17,216	19,550
1995	636	720	1,797	15,841	14,032	33,026	39,621
1996	594	781	1,987	11,601	4,747	19,709	23,055
1997	345	703	1,210	13,033	6,370	21,661	25,207
1998	173	372	625	8,977	4,013	14,160	16,364
1999	304	657	693	10,116	2,096	13,865	15,659
2000	382	797	1,928	9,970	6,361	19,437	23,061
2001	454	934	2,284	8,289	2,997	14,958	17,555
2002	203	1,036	2,401	10,384	4,789	18,813	22,137
2003	115	785	1,807	7,577	2,231	12,515	14,511
2004	170	1,310	2,340	12,221	4,348	20,389	23,684
2005***	131	828	1,835	9,284	3,281	15,359	17,877
<b>Median</b>	345	785	1,807	10,116	4,013	17,216	19,550
<b>High/Year</b>	835 (1993)	1,310 (2004)	2,401 (2002)	15,841 (1995)	14,032 (1995)	22,026 (1995)	39,621 (1995)
<b>Low/Year</b>	115 (2003)	355 (1994)	625 (1998)	7,577 (2003)	2,096 (1999)	12,515 (2003)	14,511 (2003)
<b>Ave. w/o High &amp; Low</b>	355	785	1,649	10,553	4,059	17,370	20,189
<b>Five Year Average</b>	215	979	2,133	9,551	3,529	16,407	19,153
<b>Overall Average</b>	<b>374</b>	<b>793</b>	<b>1,628</b>	<b>10,731</b>	<b>4,675</b>	<b>18,201</b>	<b>21,247</b>

\*Per pounds 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 recreational sector. 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. Beginning in 1996 values are based on a 1998 run of the FEAM using 1996 U.S. Forest Service IMPLAN data.

\*\*Income impacts on the coastal economy. Totals do not include impacts of one coastal community on another.

\*\*\*Preliminary

It can be observed that year 1995 was the high year for two of the port areas (San Francisco and Monterey), the coastal community and State totals. Year 2003 was the low year for two of the port areas (Crescent City and San Francisco), the coastal community and State totals. The

♦ Data Sources: See References (Section 4.0).



coastal community totals ranged from a low of \$12,515,000 in 2003 to a high of \$22,026,000 in 1995, and has a median of \$17,216,000. The coastal community overall average is \$18,201,000, the average eliminating the high and low years is \$17,370,000, which is an \$831,000 difference. However, the past five year average is slightly lower at \$16,407,000.

Table 2.1 shows the change in total impacts in thousands of real 2005 dollars and as a percentage from year to year for each port area, the coastal community total and State total.

♦ Table 2.1: California Recreational

Year	Crescent City		Eureka		Fort Bragg		San Francisco		Monterey		Coastal Community Total		State Total	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
93-94	-318	-38.1	-674	-65.5	-48	-4.2	2,505	25.4	244	9.3	1,709	11.0	1,625	9.1
94-95	119	23.0	365	103.0	691	62.4	3,482	28.2	11,153	387.3	15,810	91.8	20,070	102.7
95-96	-42	-6.7	62	8.6	190	10.6	-4,241	-26.8	-9,286	-66.2	-13,317	-40.3	-16,566	-41.8
96-97	-249	-41.9	-78	-10.0	-778	-39.1	1,432	12.3	1,624	34.2	1,951	9.9	2,153	9.3
97-98	-172	-49.8	-331	-47.1	-584	-48.3	-4,056	-31.1	-2,358	-37.0	-7,501	-34.6	-8,844	-35.1
98-99	131	75.7	285	76.6	67	10.8	1,139	12.7	-1,917	-47.8	-295	-2.1	-705	-4.3
99-00	78	25.6	140	21.4	1,235	178.3	-146	-1.4	4,265	203.5	5,572	40.2	7,403	47.3
00-01	72	18.8	137	17.2	356	18.5	-1,681	-16.9	-3,364	-52.9	-4,479	-23.0	-5,506	-23.9
01-02	-251	-55.3	102	10.9	117	5.1	2,096	25.3	1,792	59.8	3,855	25.8	4,581	26.1
02-03	-88	-43.3	-251	-24.2	-594	-24.7	-2,807	-27.0	-2,558	-53.4	-6,298	-33.5	-7,626	-34.4
03-04	55	48.0	525	66.9	533	29.5	4,644	61.3	2,118	94.9	7,875	62.9	9,173	63.2
04-05	-39	-22.9	-482	-36.8	-505	-21.6	-2,937	-24.0	-1,067	-24.5	-5,030	-24.7	-5,807	-24.5

It can be observed that overall, the economic impacts from year to year, yet again, range widely; however, there appears to be less of range than the commercial impacts. Looking at the coastal community total, years 1998-1999 and 1996-1997 had the least percentage change of -2.1% (-\$295,000) and 9.9% (\$1,951,000), respectively; whereas, years 1994-1995 and 2003-2004 had the largest percentage change of 91.8% (\$15,810,000) and 62.9% (\$7,875,000), respectively.

♦ Data Sources: See References (Section 4.0).

### 1.3 California Landing, Real Value and Real Price

Table 3 shows the troll Chinook landings in California, estimates of exvessel value and average price (dollars per dressed pound) in real (2005) dollars.

Year or Average	Landings (Thousands of Dressed Pounds)	Real Value (\$1,000)*	Real Price Per Pound (\$)*
1993	2,537	7,237	2.85
1994	3,103	7,993	2.57
1995	6,633	14,228	2.14
1996	4,113	7,146	1.72
1997	5,248	8,561	1.62
1998	1,847	3,555	1.93
1999	3,846	8,507	2.21
2000	5,131	11,548	2.25
2001	2,409	5,225	2.17
2002	5,008	8,364	1.67
2003	6,392	12,842	2.01
2004	6,230	18,383	2.95
2005**	4,300	12,783	2.97
<b>Median</b>	<b>4,300</b>	<b>8,507</b>	<b>2.19</b>
<b>High (Year)</b>	<b>6,633 (1995)</b>	<b>18,383 (2004)</b>	<b>2.97 (2005)</b>
<b>Low (Year)</b>	<b>1,847 (1998)</b>	<b>3,555 (1998)</b>	<b>1.62 (1997)</b>
<b>Average w/o low &amp; high</b>	<b>4,392</b>	<b>9,494</b>	<b>2.23</b>
<b>Five Year Average</b>	<b>4,868</b>	<b>12,130</b>	<b>2.43</b>
<b>Overall Average</b>	<b>4,369</b>	<b>9,721</b>	<b>2.24</b>

\* These exvessel values do not include the postseason settlement payments some fishers 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%.

\*\*Preliminary

Landings range from a low of 1,847,000 pounds in 1998 to a high of 6,633,000 pounds in 1995. The median is 4,300,000 pounds. The overall average is 4,369,000 pounds, the average eliminating the high and low years is similar at 4,392,000 pounds and the past five year average is slightly higher at 4,868,000 pounds, a 499,000 pound difference from the overall average. The real value ranges from a low of \$3,555,000 in 1998 to a high of \$18,383,000 in 2004. The median is \$8,507,000. The overall average is \$9,721,000 and the average eliminating the high and low years is \$9,494,000, which is a \$227,000 difference. The past five year average is slightly higher at \$12,130,000, a \$2,409,000 difference from the overall average. The real price per pound ranged from a low of \$1.62 per pound in 1997 to a

\* Data Sources: See References (Section 4.0).

high of \$2.97 per pound in 2005. The median is \$2.19. The overall average is \$2.24 per pound and the average eliminating the high and low years, was only a \$.01 difference at \$2.23 per pound. The past five year average was higher at \$2.43 per pound, a \$0.19 per pound difference compared to the overall average.

Table 3.1 shows the change in landings, real value and real price per pound from year to year for California State. The change is shown by the total difference in actual pounds or dollar amounts and the percentage difference.

♦Table 3.1: California Landings, Real Value and Real Price

Year	Landings (Thousands of Dressed Pounds)		Real Value (\$1,000)		Real Price Per Pound (\$)	
	Total	%	Total	%	Total	%
93-94	566	22.3	756	10.4	-0.28	-9.9
94-95	3,530	113.8	6,235	78.0	-0.43	-16.7
95-96	-2,520	-38.0	-7,082	-49.8	-0.42	-19.7
96-97	1,135	27.6	1,415	19.8	-0.10	-5.7
97-98	-3,401	-64.8	-5,006	-58.5	0.31	19.0
98-99	1,999	108.2	4,952	139.3	0.28	14.6
99-00	1,285	33.4	3,041	35.7	0.04	1.9
00-01	-2,722	-53.1	-6,323	-54.8	-0.09	-3.8
01-02	2,599	107.9	3,139	60.1	-0.50	-22.9
02-03	1,384	27.6	4,478	53.5	0.34	20.5
03-04	-162	-2.5	5,541	43.1	0.93	46.4
04-05	-1,930	-31.0	-5,600	-30.5	0.02	0.7

The largest percentage change from year to year for landings was in 1994-1995 at 113.8% (3,530,000 pounds) and the lowest percentage change was in 2003-2004 at -2.5% (-162,000 pounds). The largest percentage change from year to year for real value was in 1998-1999 at 139.3% (\$4,952,000) and the lowest percentage change was in 1993-1994 at 10.4% (\$756,000). The largest percentage change from year to year for real price per pound was in 2003-2004 at 46.4% (\$0.93/pound) and the lowest percentage change was in 2004-2005 at 0.7% (\$0.02/pound).

♦ Data Sources: See References (Section 4.0).

## 1.4 California Vessels

Table 4 shows number of vessels landing salmon and the number of vessels with permits for California. The percentage column gives the percentage of vessels landing salmon of vessels with permits.

♦ Table 4: California Vessels

Year	Vessels Landing Salmon	Vessels with Permits	%
1993	1,240	2,741	45.2
1994	1,024	2,470	41.5
1995	1,104	2,344	47.1
1996	985	2,221	44.3
1997	835	2,076	40.2
1998	670	1,899	35.3
1999	666	1,870	35.6
2000	759	1,810	41.9
2001	689	1,733	39.8
2002	708	1,657	42.7
2003	584	1,589	36.8
2004	741	1,592	46.5
2005	678	1,550	43.7
<b>Median</b>	741	1,870	
<b>High/Year</b>	1,240 (1993)	2,741 (1993)	
<b>Low/Year</b>	584 (2003)	1,550 (2005)	
<b>Average w/o High &amp; Low Five Year Ave.</b>	805	1,933	
<b>Overall Average</b>	822	1,966	

It can be observed that year 1993 (1,240 vessels) was the high year for vessels landing salmon and 2003 (584 vessels) was the low year. The median is 741 vessels and the overall average is 822 vessels. The average without the high and low years is similar at 805 vessels, a difference of 17 vessels; however the past five year average is lower at 680 vessels, a difference of 142 vessels. The number of vessels with permits had a high in 1993 (2,741 vessels) and a low in 2005 (1,550). The median is 1,870 vessels and the overall average is 1,966 vessels. The average eliminating the high and low years is similar at 1,933 vessels, a difference of 33 vessels and the past five year average is lower at 1,624 vessels, a 342 vessel difference compared to the overall average. Looking at the percentage column, vessels landing salmon ranged from a high of 47.1% (year 1995) to a low of 35.3% (year 1998) of vessels with permits.

♦ Data Sources: See References (Section 4.0).

Table 4.1 shows the actual change (in number of vessels) and percentage change of vessels from year to year.

♦ Table 4.1: California Vessels

Year	Vessels Landing Salmon		Vessels With Permits	
	Change	% Change	Change	% Change
93-94	-216	-17.4	-271	-9.9
94-95	80	7.8	-126	-5.1
95-96	-119	-10.8	-123	-5.2
96-97	-150	-15.2	-145	-6.5
97-98	-165	-19.8	-177	-8.5
98-99	-4	-0.6	-29	-1.5
99-00	93	14.0	-60	-3.2
00-01	-70	-9.2	-77	-4.3
01-02	19	2.8	-76	-4.4
02-03	-124	-17.5	-68	-4.1
03-04	157	26.9	3	0.2
04-05	-63	-8.5	-42	-2.6

It can be observed that years 2003-2004 and 1997-1998 has the largest percentage changes for vessels landing salmon at 26.9% (157 vessels) and -19.8% (-165 vessels), respectively. Years 1998-1999 and 2001-2002 had the smallest percentage changes at -0.6% (-4 vessels) and 2.8% (19 vessels), respectively. Years 1993-1994 and 1997-1998 were the high years for largest percentage changes of salmon vessels compared to all vessels, -9.9% (-271 vessels with permits) and -8.5% (-177 vessels with permits), respectively.

♦ Data Sources: See References (Section 4.0).

## 1.5 California Angler Trips and Chinook Catch

Table 5 shows California angler trips and Chinook catch for charter and private boats.

♦Table 5: California Angler Trips and Chinook Catch

Year or Average	Angler Trips (Thousands)		Chinook Catch (Thousands of Fish)*	
	Charter	Private	Charter	Private
1993	66.0	108.9	66.0	44.0
1994	72.8	117.1	99.1	84.1
1995	152.9	225.6	182.0	215.2
1996	84.6	140.9	72.9	91.2
1997	102.6	131.7	122.3	106.6
1998	67.0	85.0	59.7	62.3
1999	62.6	84.4	40.5	47.4
2000	94.0	120.4	91.9	94.0
2001	69.9	95.2	43.2	55.6
2002	86.6	123.4	85.1	96.9
2003	59.4	75.3	48.3	46.4
2004	97.7	121.0	124.7	96.5
2005**	68.0	103.9	60.3	82.9
<b>Median</b>	72.8	117.1	72.9	84.1
<b>High/Year</b>	152.9 (1995)	225.6 (1995)	182.0 (1995)	215.2 (1995)
<b>Low/Year</b>	59.4 (2003)	75.3 (2003)	40.5 (1999)	44.0 (1993)
<b>Ave. w/o High &amp; Low</b>	79.3	112.0	79.4	78.5
<b>Five Year Average</b>	76.3	103.8	72.3	75.7
<b>Overall Average</b>	<b>83.4</b>	<b>117.9</b>	<b>84.3</b>	<b>86.4</b>

\*Catch numbers may include some illegal harvest.

\*\*Preliminary.

It can be observed that 1995 was the high year for trips and catch; however 2003 was the low year for trips and 1993 and 1999 were the low years for catch, private and charter, respectively. The median for angler trips by charter boats is 72,800 and the overall average is 83,400. The average eliminating the high and low years and the past five year average are both lower at 79,300 and 76,300 trips respectively. The median for angler trips by private boats is 117,100 and the overall average is 117,900. The average eliminating the high and low years and the past five year average are both lower at 112,000 and 103,800 respectively. The median for Chinook catch by charter boats is 72,900 and the overall average is 84,300. The average eliminating the high and low years and the past five year average are both lower at 79,400 and

♦ Data Sources: See References (Section 4.0).

72,300, respectively. The median for Chinook catch by private boats is 84,100 and the overall average is 86,400. The average eliminating the high and low years and the past five year average are both lower at 78,500 and 75,700, respectively

Table 5.1 shows the change in angler trips and Chinook catch for charter and private boats from year to year for California State. The change is shown by the total difference and the percentage difference.

♦Table 5.1: California Angler Trips and Chinook Catch

Year	Angler Trips		Chinook Catch	
	Charter	Private	Charter	Private
<b>Change</b>	<b>Total</b>	<b>%</b>	<b>Total</b>	<b>%</b>
93-94	6.8	10.3	8.2	7.5
94-95	80.1	110.0	108.5	92.7
95-96	-68.3	-44.7	-84.7	-37.6
96-97	18.0	21.3	-9.2	-6.5
97-98	-35.6	-34.7	-46.7	-35.5
98-99	-4.4	-6.6	-0.6	-0.7
99-00	31.4	50.2	36.0	42.7
00-01	-24.1	-25.6	-25.2	-21.0
01-02	16.7	23.9	28.3	29.7
02-03	-27.2	-31.4	-48.2	-39.0
03-04	38.3	64.5	45.8	60.8
04-05	-29.7	-30.4	-17.2	-14.2
			<b>Total</b>	<b>%</b>
			33.1	50.2
			82.9	83.7
			-109.1	-59.9
			49.4	67.7
			-62.6	-51.2
			-19.2	-32.2
			51.4	126.9
			-48.7	-53.0
			41.9	97.0
			-36.8	-43.2
			76.4	158.1
			-64.3	-51.6
			40.1	91.1
			131.1	155.9
			-124.0	-57.6
			15.4	16.8
			-44.3	-41.6
			-14.9	-23.9
			46.6	98.3
			-38.4	-40.9
			41.3	74.3
			-50.6	-52.1
			50.1	107.9
			-13.5	-14.0

Year 1994-1995 has the highest percentage change for charter angler trips at 110.0% (80,100) and year 1998-1999 has a low change of -6.6% (-4,400). Year 1994-1995 has the highest percentage change for private angler trips at 92.7% (108,500) and year 1998-1999 has a low change of -0.7% (-600). Year 2003-2004 has the highest percentage change for charter Chinook catch at 158.1% (76,400) and year 1998-1999 has a low change of -32.2% (-19,200%). Year 1994-1995 has the highest percentage change for private Chinook catch at 155.9% (131,100) and year 2004-2005 has a low change of -14.0% (-13,500).

♦ Data Sources: See References (Section 4.0).

## 2.0 OREGON

### 2.1 Oregon Ocean Troll

Table 6 shows coastal community and State personal income impacts in thousands of real 2005 dollars of the troll ocean salmon fishery through the years 1993-2005 in Oregon. The median, high and low years, average without the high and low years, an average for the past five years (2001-2005), and overall average (1993-2005) is provided for each port, the coastal community total and State total. The coastal community total is shown eliminating Astoria because Astoria is out of the geographic range where the Klamath salmon issue is being discussed this season and is not subject to the proposed closure.

♦Table 6: Oregon Ocean Troll\*/\*\*\*\*

Year	Astoria	Tillamook	Newport	Coos Bay	Brookings**	Coastal Community Total***	Coastal Community Total - Astoria***	State Total
1993	45	383	1,917	767	112	3,224	3,179	4,319
1994	1	144	712	202	209	1,269	1,268	1,739
1995	24	341	4,344	1,486	174	6,370	6,345	8,573
1996	72	451	4,026	1,402	525	6,477	6,404	7,926
1997	11	123	3,454	1,331	279	5,198	5,187	6,357
1998	0	240	3,161	1,137	219	4,756	4,756	5,802
1999	43	134	768	1,446	378	2,769	2,726	3,344
2000	534	354	2,054	2,459	474	5,875	5,341	7,127
2001	332	677	5,068	2,663	547	9,285	8,954	11,302
2002	947	802	4,329	3,827	692	10,597	9,651	12,834
2003	927	840	5,603	5,094	600	13,064	12,137	15,806
2004	736	588	5,151	5,658	1,254	13,387	12,651	14,487
2005*****	625	1,025	4,625	4,594	1,087	11,956	11,331	13,026
Median	72	383	4,026	1,486	474	6,370	6,345	7,926
High (Year)	947 (2002)	1,025 (2005)	5,603 (2003)	5,658 (2004)	1,254 (2004)	13,387 (2004)	12,651 (2004)	15,806 (2003)
Low (Year)	0 (1998)	123 (1997)	712 (1994)	202 (1994)	112 (1993)	1,269 (1994)	1,268 (1994)	3,344 (1999)
Ave. w/o High & Low	305	450	3,536	2,382	471	7,234	6,910	8,499
Five Year Average	713	786	4,955	4,367	836	11,658	10,945	13,491
<b>Overall Average</b>	<b>331</b>	<b>469</b>	<b>3,478</b>	<b>2,467</b>	<b>504</b>	<b>7,248</b>	<b>8,665</b>	<b>6,918</b>

\*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 sector. 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. Beginning in 1996 values are based on a 1998 run of the FEAM using 1996 U.S. Forest Service IMPLAN data.

♦Data Sources: See References (Section 4.0).



\*\*On average, between 1976-1991 over 50% of the troll fishery community income impacts for the Brookings port area originated from landings in Brookings and Gold Beach. For 1986-1990 an average of about 40% of the impacts for the Brookings port area originated in landings made through Brookings and Gold Beach. In 1992 and 1993, impacts originating through these two ports averaged less than 18% and 11%, respectively, of the total for the Brookings port area.

\*\*\*Income impacts on the coastal economy. Totals do not include impacts of one coastal community on another.

\*\*\*\*Excluding pink salmon.

\*\*\*\*\*Preliminary

It can be observed that years 2003 and 2004 were high years for three of the port areas (Newport, Coos Bay and Brookings), the coastal community and State totals. Year 1994 was the low year for two of the port areas (Newport and Coos Bay) and the coastal community total. The coastal community totals without Astoria ranged from a low of \$1,268,000 in 1994 to a high of \$12,651,000 in 2004 and has a median of \$6,345,000. The coastal community overall average is \$8,665,000, the average eliminating the high and low years is lower at \$6,910,000, a difference of \$1,755,000. The past five year average is higher at \$10,945,000, a difference of \$2,280,000 compared to the overall average.

Table 6.1 shows the change in total impacts from year to year for each port area, the coastal community total and State total. The change is shown by the total difference in actual dollar amounts in thousands of real 2005 dollars as well as the percentage difference.

♦ Table 6.1: Oregon Ocean Troll

Year	Astoria		Tillamook		Newport		Coos Bay		Brookings		Coastal Community Total		Coastal Community Total - Astoria		State Total	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
93-94	-44	-97.8	-239	-62.4	-1,204	-62.8	-565	-73.6	97	86.1	-1,955	-60.6	-1,911	-60.1	-2,580	-59.7
94-95	23	2,349.4	198	137.6	3,631	509.7	1,284	634.0	-35	-16.6	5,101	402.1	5,078	400.5	6,835	393.1
95-96	48	198.9	110	32.1	-318	-7.3	-84	-5.7	351	201.3	107	1.7	59	0.9	-647	-7.6
96-97	-61	-84.4	-327	-72.6	-572	-14.2	-71	-5.1	-247	-46.9	-1,278	-19.7	-1,217	-19.0	-1,569	-19.8
97-98	-11	-99.1	116	94.1	-293	-8.5	-194	-14.6	-60	-21.5	-442	-8.5	-431	-8.3	-554	-8.7
98-99	43	44,723.9	-106	-44.1	-2,393	-75.7	310	27.2	159	72.6	-1,987	-41.8	-2,030	-42.7	-2,458	-42.4
99-00	491	1,136.3	220	164.0	1,286	167.4	1,013	70.0	97	25.6	3,106	112.2	2,615	95.9	3,782	113.1
00-01	-203	-37.9	323	91.3	3,014	146.8	203	8.3	72	15.2	3,410	58.0	3,613	67.6	4,176	58.6
01-02	615	185.6	125	18.5	-739	-14.6	1,165	43.7	146	26.6	1,312	14.1	697	7.8	1,532	13.6
02-03	-20	-2.1	38	4.7	1,274	29.4	1,267	33.1	-92	-13.3	2,466	23.3	2,486	25.8	2,972	23.2
03-04	-191	-20.6	-252	-30.0	-451	-8.1	564	11.1	654	109.0	324	2.5	515	4.2	-1,319	-8.3
04-05	-111	-15.1	437	74.4	-526	-10.2	-1,064	-18.8	-167	-13.3	-1,432	-10.7	-1,320	-10.4	-1,461	-10.1

♦ Data Sources: See References (Section 4.0).

It can be observed that overall, the economic impacts from year to year range widely. Looking at the coastal community total without Astoria, years 1995-1996 and 2003-2004 had the least percentage change of 0.9% (\$59,000) and 4.2% (\$515,000), respectively; whereas, years 1994-1995 and 1999-2000 had the largest percentage change of 400.5% (\$5,078,000) and 95.9% (\$2,615,000), respectively.

## 2.2 Oregon Recreational

Table 7 shows coastal community and State personal income impacts in thousands of real 2005 dollars of the recreational salmon fishery through the years 1993-2005 in Oregon. The median, high and low years, average without the high and low years, an average for the past five years (2001-2005), and overall average (1993-2005) is provided for each port, the coastal community total and State total. Yet again, the coastal community total is shown eliminating Astoria.

♦Table 7: Oregon Recreational\*

Year	Astoria	Tillamook	-Newport	Coos Bay	Brookings**	Coastal Community Total***	Coastal Community Total - Astoria***	State Total
1993	1,244	280	1,055	828	1,045	4,453	3,209	5,771
1994	0	532	7	21	700	1,260	1,260	1,697
1995	694	300	81	35	841	1,951	1,257	2,566
1996	386	419	248	188	1,024	2,264	1,879	3,017
1997	253	183	217	184	734	1,571	1,318	2,088
1998	125	274	107	124	616	1,246	1,121	1,668
1999	458	519	468	385	711	2,541	2,083	3,326
2000	474	550	876	1,236	980	4,117	3,643	5,378
2001	1,377	822	1,596	1,633	1,148	6,576	5,199	8,507
2002	766	1,189	1,245	1,774	857	5,831	5,065	7,552
2003	1,158	1,368	2,570	2,245	657	7,999	6,841	10,314
2004	1,072	1,463	2,432	2,119	813	7,898	6,827	10,207
2005****	773	604	830	1,305	550	4,062	3,289	5,236
Median	694	532	830	828	813	4,062	3,209	5,236
High (Year)	1,377 (2001)	1,463 (2004)	2,570 (2003)	2,245 (2003)	1,148 (2001)	7,999 (2003)	6,841 (2003)	10,314 (2003)
Low (Year)	0 (1994)	183 (1997)	7 (1994)	21 (1994)	550 (2005)	1,246 (1998)	1,121 (1998)	1,668 (1998)
Ave. w/o High & Low	673	623	832	847	816	3,866	3,184	5,031
Five Year Average	1,029	1,089	1,735	1,815	805	6,473	5,444	8,363
Overall Average	675	654	902	929	821	3,982	3,307	5,179

\*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

♦Data Sources: See References (Section 4.0).

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. Beginning in 1996 values are based on a 1998 run of the FEAM using 1996 U.S. Forest Service IMPLAN data.

\*\*On average, between 1976-1991 over 50% of the troll fishery community income impacts for the Brookings port area originated from landings in Brookings and Gold Beach. For 1986-1990 an average of about 40% of the impacts for the Brookings port area originated in landings made through Brookings and Gold Beach. In 1992 and 1993, impacts originating through these two ports averaged less than 18% and 11%, respectively, of the total for the Brookings port area.

\*\*\*Income impacts on the coastal economy. Totals do not include impacts of one coastal community on another.

\*\*\*\*Preliminary

It can be observed that year 2003 was the high year for two of the port areas (Newport Coos Bay), the coastal community and State totals. Years 1994 and 1998 were the low years for three of the port areas (Astoria, Newport and Coos Bay), the coastal community and State totals. The coastal community totals without Astoria ranged from a low of \$1,121,000 in 1998 to a high of \$6,841,000 in 2003 and has a median of \$3,209,000. The coastal community without Astoria overall average is \$3,307,000, the average eliminating the high and low years is \$3,184,000, which is a \$123,000 difference. However, the past five year average is slightly higher at \$5,444,000, a \$2,137,000 difference compared to the overall average. Note that year 2003 and 1994 were also the high and low years for the OR commercial fishery.

Table 7.1 shows the change in total impacts from year to year for each port area, the coastal community total and State total. The change is shown by the total difference in actual dollar amounts in thousands of real 2005 dollars as well as the percentage difference.

♦ Table 7.1: Oregon Recreational

Year	Astoria		Tillamook		Newport		Coos Bay		Brookings		Coastal Community Total		Coastal Community Total - Astoria		State Total	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
93-94	-1,244	-100.0	252	89.9	-1,048	-99.3	-807	-97.4	-345	-33.1	-3,193	-71.7	-1,949	-60.7	-4,074	-70.6
94-95	694	DIV0	-233	-43.7	74	1,036.1	14	65.5	142	20.2	691	54.8	-3	-0.2	869	51.2
95-96	-308	-44.4	119	39.8	167	205.5	152	431.9	183	21.7	313	16.0	621	49.4	451	17.6
96-97	-133	-34.4	-236	-56.2	-32	-12.7	-3	-1.9	-290	-28.4	-694	-30.6	-561	-29.9	-928	-30.8
97-98	-128	-50.6	91	49.6	-110	-50.7	-60	-32.6	-118	-16.0	-324	-20.7	-196	-14.9	-420	-20.1
98-99	334	267.1	245	89.1	361	338.2	261	210.0	95	15.4	1,295	103.9	961	85.7	1,658	99.4
99-00	16	3.5	31	6.0	408	87.1	852	221.3	269	37.9	1,576	62.0	1,560	74.9	2,052	61.7
00-01	903	190.3	271	49.3	720	82.1	397	32.1	169	17.2	2,459	59.7	1,556	42.7	3,130	58.2
01-02	-611	-44.4	367	44.7	-350	-21.9	141	8.6	-292	-25.4	-745	-11.3	-134	-2.6	-956	-11.2
02-03	392	51.3	180	15.1	1,325	106.4	471	26.5	-199	-23.3	2,169	37.2	1,776	35.1	2,763	36.6
03-04	-87	-7.5	94	6.9	-139	-5.4	-125	-5.6	155	23.6	-101	-1.3	-14	-0.2	-107	-1.0
04-05	-299	-27.9	-859	-58.7	-1,602	-65.9	-814	-38.4	-263	-32.3	-3,837	-48.6	-3,538	-51.8	-4,971	-48.7

♦ Data Sources: See References (Section 4.0).

It can be observed that overall, the economic impacts from year to year range widely; however, there appears to be less of range than the commercial impacts. Looking at the coastal community total without Astoria, years 1994-1995 and 2003-2004 had the least percentage change, both with -0.2% (-\$3,000 and -\$14,000, respectively); whereas, years 1998-1999 and 1999-2000 had the largest percentage change of 85.7% (\$961,000) and 74.9% (\$1,560,000), respectively.

### 2.3 Oregon Landings, Real Value and Real Price

Table 8 shows the troll Chinook and Coho landings (thousands of dressed pounds) in Oregon, estimates of exvessel value and average price (dollars per dressed pound) in real (2005) dollars.

\*Table 8: Oregon Landings, Real Value and Real Price

Year or Average	Landings (Thousands of Dressed Pounds)	Real Value (\$1,000)	Real Price Per Pound (\$)	Landings (Thousands of Dressed Pounds)	Real Value (\$1,000)	Real Price Per Pound (\$)	Total Real Value (\$1,000)
	<b>Chinook</b>			<b>Coho</b>			<b>Chinook &amp; Coho</b>
1993	761	2,106	2.76	9	13	1.43	2,119
1994	287	857	2.98	-	-	-	857
1995	1,941	4,008	2.07	-	-	-	4,008
1996	1,926	3,591	1.86	-	-	-	3,591
1997	1,542	2,900	1.88	-	-	-	2,900
1998	1,398	2,669	1.91	-	-	-	2,669
1999	721	1,603	2.22	1	1	1.18	1,604
2000	1,481	3,349	2.26	71	84	1.19	3,433
2001	2,897	5,123	1.76	52	45	0.86	5,169
2002	3,488	5,790	1.66	11	9	0.81	5,799
2003	3,639	7,576	2.08	43	38	0.90	7,614
2004	2,850	10,101	3.54	70	89	1.27	10,189
2005*	2,671	8,466	3.17	20	37	1.87	8,503
<b>Median</b>	1,926	3,591	2.08	38	1.18	31	3,591
<b>High (Year)</b>	3,639 (2003)	10,101 (2004)	3.54 (2004)	71 (2000)	89 (2004)	1.87 (2005)	10,189 (2004)
<b>Low (Year)</b>	287 (1994)	857 (1994)	1.66 (2002)	- (various)	- (various)	- (various)	857 (1994)
<b>Average w/o High &amp; Low</b>	1,971	4,289	2.27	-	-	-	4,310
<b>Five Year Average</b>	3,109	7,411	2.44	39	44	1.14	7,455
<b>Average</b>	<b>1,969</b>	<b>4,472</b>	<b>2.32</b>	<b>35</b>	<b>39</b>	<b>1.19</b>	<b>4,497</b>

\*Preliminary

\*Data Sources: See References (Section 4.0).

Landings for Chinook range from a low of 287,000 pounds in 1994 to a high of 3,639,000 pounds in 2003. The median is 1,926,000 pounds. The overall average is 1,969,000 pounds, and the average eliminating the high and low years is similar at 1,971,000, a 2,000 pound difference. However, the past five year average is higher at 3,109,000 pounds, a 1,140,000 pound difference from the overall average. Coho landings in 2005 were 20,000 pounds. The real value for Chinook ranges from a low of \$857,000 in 1994 to a high of \$10,101,000 in 2004. The median is \$3,591,000. The overall average is \$4,472,000 and the average eliminating the high and low years is similar at \$4,289,000, which is an \$183,000 difference. The past five year average is higher at \$7,411,000, a \$2,939,000 difference from the overall average. The real value of Coho in 2005 was \$37,000, which adding to the Chinook value gives a total real value of \$8,503,000 for year 2005. The real price per pound for Chinook ranged from a low of \$1.66 per pound in 2002 to a high of \$3.54 per pound in 2004. The median is \$2.08. The overall average is \$2.32 per pound and the average eliminating the high and low years, was only a \$.05 difference at \$2.27 per pound. The past five year average was higher at \$2.44 per pound, a \$0.12 per pound difference compared to the overall average. The real price for Coho in 2005 was \$1.87 per pound.

Table 8.1 shows the change in landings, real value and real price per pound from year to year for Oregon State. The change is shown by the total difference in actual pounds or dollar amounts and the percentage difference.

♦Table 8.1: Oregon Landings, Real Value and Real Price

Year Change	Landings (Thousands of Dressed Pounds)		Real Value (\$1,000)		Real Price Per Pound (\$)		Real Value (\$1,000)	
	Total	%	Total	%	Total	%	Total	%
93-94	-474	-62.3	-1,250	-59.3	0.22	7.8	-1,262	-59.6
94-95	1,654	576.3	3,151	367.8	-0.91	-30.6	3,151	367.8
95-96	-15	-0.8	-417	-10.4	-0.21	-9.9	-417	-10.4
96-97	-384	-19.9	-691	-19.2	0.02	0.9	-691	-19.2
97-98	-144	-9.3	-231	-8.0	0.03	1.4	-231	-8.0
98-99	-677	-48.4	-1,066	-39.9	0.32	16.6	-1,064	-39.9
99-00	760	105.4	1,746	108.9	0.04	1.9	1,828	114.0
00-01	1,416	95.6	1,775	53.0	-0.50	-22.1	1,736	50.6
01-02	591	20.4	667	13.0	-0.11	-6.0	631	12.2
02-03	151	4.3	1,785	30.8	0.42	25.4	1,815	31.3
03-04	-789	-21.7	2,525	33.3	1.47	70.6	2,575	33.8
04-05	-179	-6.3	-1,635	-16.2	-0.37	-10.6	-1,686	-16.5
							<b>Chinook &amp; Coho</b>	
							<b>Total</b>	

The largest percentage change from year to year for landings of Chinook was in 1994-1995 at 576.3% (1,654,000 pounds) and the lowest percentage change was in 1995-1996 at -0.8% (-15,000 pounds). The largest percentage change from year to year for real value of Chinook

♦Data Sources: See References (Section 4.0).

was in 1994-1995 at 367.8% (\$3,151,000) and the lowest percentage change was in 1997-1998 at -8.0% (-\$231,000). The largest percentage change from year to year for real price per pound of Chinook was in 2003-2004 at 70.6% (\$1.47/pound) and the lowest percentage change was in 1996-1997 at 0.9% (\$0.02/pound). It can be seen that because of the minimal ex-vessel revenue from Coho landings, the real value changes of Chinook and Coho are similar to the Chinook values alone.

## 2.4 Oregon Vessels

Table 9 shows number of vessels landing salmon and the number of vessels with permits for Oregon. The percentage column gives the percentage of vessels landing salmon of vessels with permits.

♦Table 9: Oregon Vessels

Year	Vessels Landing Salmon	Vessels with Permits	%
1993	612	1,814	33.7
1994	371	1,569	23.6
1995	476	1,465	32.5
1996	455	1,377	33.0
1997	433	1,295	33.4
1998	373	1,201	31.1
1999	328	1,111	29.5
2000	399	1,062	37.6
2001	449	1,175	38.2
2002	468	1,175	39.8
2003	494	1,178	41.9
2004	595	1,181	50.4
2005	565	1,168	48.4
<b>Median</b>	455	1,181	
<b>High/Year</b>	612 (1993)	1,814 (1993)	
<b>Low/Year</b>	328 (1999)	1,062 (2000)	
<b>Average w/o High &amp; Low</b>	462	1,263	
<b>Five Year Ave.</b>	514	1,175	
<b>Overall Average</b>	463	1,290	

It can be observed that year 1993 (612 vessels) was the high year for vessels landing salmon and 1999 (328 vessels) was the low year. The median is 455 vessels and the overall average is 463 vessels. The average without the high and low years is similar at 462 vessels, a difference of only 1 vessel; however the past five year average is higher at 514 vessels, a difference of 51 vessels. The number of vessels with permits had a high in 1993 (1,814 vessels) and a low in 2000 (1,062). The median is 1,181 vessels and the overall average is 1,290

♦Data Sources: See References (Section 4.0).

vessels. The average eliminating the high and low years is similar at 1,263 vessels, a difference of 27 vessels and the past five year average is lower at 1,175 vessels, a 11.5 vessel difference compared to the overall average. Looking at the percentage column, vessels landing salmon ranged from a high of 50.4% (year 2004) to a low of 23.6% (year 1994) of vessels with permits.

Table 9.1 shows the actual change (in number of vessels) and percentage change of vessels from year to year.

♦Table 9.1: Oregon Vessels

Year	Vessels Landing Salmon		Vessels With Permits	
	Change	% Change	Change	% Change
93-94	-241	-39.4	-245	-13.5
94-95	105	28.3	-104	-6.6
95-96	-21	-4.4	-88	-6.0
96-97	-22	-4.8	-82	-6.0
97-98	-60	-13.9	-94	-7.3
98-99	-45	-12.1	-90	-7.5
99-00	71	21.6	-49	-4.4
00-01	50	12.5	113	10.6
01-02	19	4.2	0	0.0
02-03	26	5.6	3	0.3
03-04	101	20.4	3	0.3
04-05	-30	-5.0	-13	-1.1

It can be observed that years 1993-1994 and 1994-1995 has the largest percentage changes for vessels landing salmon at -39.4% (-241 vessels) and 28.3% (105 vessels), respectively. Years 2001-2002 and 1995-1996 had the smallest percentage changes at 4.2% (19 vessels) and -4.4% (-21 vessels), respectively.

♦Data Sources: See References (Section 4.0).

## 2.5 Oregon Angler Trips and Chinook Catch

Table 10 shows Oregon angler trips and Chinook catch for charter and private boats.

♦Table 10: Oregon Angler Trips and Chinook Catch\*\*/\*\*/\*\*

Year or Average	Angler Trips (Thousands)		Chinook Catch (Thousands of Fish)*	
	Charter	Private	Charter	Private
1993	13.4	66.9	0.9	5.6
1994	1.5	25.7	0.5	5.5
1995	4.6	31.2	0.3	6.4
1996	5.6	38.3	1.2	10.1
1997	3.9	26.4	1.5	6.2
1998	1.8	24.2	0.5	3.6
1999	5.5	43.9	0.9	6.9
2000	9.8	68.7	3.6	21.8
2001	18.2	102.3	6.4	20.8
2002	15.7	91.9	7.9	39.5
2003	23.4	121.1	8.8	31.8
2004	21.1	124.6	14.6	41.8
2005****	9.9	66.2	4.5	23.4
<b>Median</b>	9.8	66.2	1.5	10.1
<b>High/Year</b>	23.4 (2003)	124.6 (2004)	14.6 (2004)	41.8 (2004)
<b>Low/Year</b>	1.5 (1994)	24.2 (1998)	0.3 (1995)	3.6 (1998)
<b>Ave. w/o High &amp; Low</b>	10.0	62.1	3.3	16.2
<b>Five Year Average</b>	17.7	101.2	8.4	31.5
<b>Overall Average</b>	<b>10.3</b>	<b>64.0</b>	<b>4.0</b>	<b>17.2</b>

\*Catch numbers may include some illegal harvest.

\*\*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. Astoria was not included in 1994.

\*\*\*Numbers do not include angling from the Columbia River jetty.

\*\*\*\*Preliminary.

It can be observed that 2003 was the high year for charter angler trips and 2004 was the high year for private angler trips and Chinook catch. The low years are 1994 for charter angler trips, 1995 for charter Chinook catch and 1998 for private angler trips and private Chinook catch. The median for angler trips by charter boats is 9,800 and the overall average is 10,300. The average eliminating the high and low years is similar at 10,000, which is a 300 trip difference. The past five year average is higher at 17,700 trips, a 7,400 trip difference from the overall average. The median for angler trips by private boats is 66,200 and the overall average is 64,000. The average eliminating the high and low

\*Data Sources: See References (Section 4.0).



years is 62,100, which is a 1,900 trip difference. The past five year average is much higher at 101,200, a 53,800 trip difference from the overall average. Chinook catch by charter boats ranges from a low of 300 fish in 1995 to 14,600 fish in 2004. The median for Chinook catch by charter boats is 1,500 and the overall average is 4,000 fish. The average eliminating the high and low years is 3,300, which is a difference of 700 fish. The past five year average is higher at 8,400 fish, a difference of 4,400 fish from the overall average. Chinook catch by private boats range from a low of 3,600 fish in 1998 to a high of 41,800 in 2004. The median for Chinook catch by private boats is 10,100 and the overall average is 17,200. The average eliminating the high and low years is 16,200, which is a 1,000 fish difference. The past five year average is higher at 31,500 fish, a 14,300 difference from the overall average.

Table 10.1 shows the change in angler trips and Chinook catch for charter and private boats from year to year for Oregon State. The change is shown by the total difference and the percentage difference.

♦Table 10.1: Oregon Angler Trips and Chinook Catch

Year	Angler Trips (Thousands)			Chinook Catch (Thousands of Fish)		
	Total	Charter	Private	Total	Charter	Private
Change						
93-94	-11.9	-88.8	-41.2	-0.4	-44.4	-0.1
94-95	3.1	206.7	5.5	-0.2	-40.0	0.9
95-96	1.0	21.7	7.1	0.9	300.0	3.7
96-97	-1.7	-30.4	-11.9	0.3	25.0	-3.9
97-98	-2.1	-53.8	-2.2	-1.0	-66.7	-2.6
98-99	3.7	205.6	19.7	0.4	80.0	3.3
99-00	4.3	78.2	24.8	2.7	300.0	14.9
00-01	8.4	85.7	33.6	2.8	77.8	-1.0
01-02	-2.5	-13.7	-10.4	1.5	23.4	18.7
02-03	7.7	49.0	29.2	0.9	11.4	-7.7
03-04	-2.3	-9.8	3.5	5.8	65.9	10.0
04-05	-11.2	-53.1	-58.4	-10.1	-69.2	-18.4

Year 1994-1995 has the highest percentage change for charter angler trips at 206.7% (3,100 trips) and year 2003-2004 has a low change of -9.8% (-2,300 trips). Year 1998-1999 has the highest percentage change for private angler trips at 81.4% (19,700 trips) and year 2003-2004 has a low change of 2.9% (3,500 trips). Years 1995-1996 and 1999-2000 have the highest percentage change for charter Chinook catch, both at 300% (900 fish and 2,700 fish, respectively) and year 2002-2003 has a low change of 11.4% (900 fish). Year 1999-2000 has the highest percentage change for private Chinook catch at 215.9% (14,900 fish) and year 1993-1994 has a low change of -1.8% (-100 fish).

♦Data Sources: See References (Section 4.0).

### 3.0 TRIBAL INFORMATION

Unfortunately, tribal data is not monitored as meticulously as non-tribal commercial and recreational fisheries. However, tribes are allocated 50% of the salmon share and therefore do play an important role in the salmon fishery. Table 11 shows estimates of Yurok and Hoopa Valley Reservation Indian Gillnet Chinook Harvest in Numbers of Fish.

\* Table 11: Tribal Information

Year or Average	Commercial Estuary	Commercial Mid-Klamath	Commercial Upper-Klamath	Subsistence Estuary	Subsistence Mid-Klamath	Subsistence Upper-Klamath	Subsistence - Trinity River	Total
1993	0			3,079	1,665	3,542	1,525	9,811
1994	0			4,421	1,452	3,729	2,360	11,962
1995	0			5,317	2,459	4,657	3,651	16,084
1996	40,147			9,129	1,577	3,035	2,778	56,666
1997	0			5,595	1,482	3,801	1,244	12,122
1998	0			3,470	1,333	3,897	1,540	10,240
1999	2,077			2,442	2,310	5,021	3,074	14,924
2000	4,104	186	813	13,209	1,078	4,238	6,090	29,718
2001	7,074	0	52	22,154	1,725	3,025	5,014	39,044
2002	8,959	0	0	11,207	739	2,559	1,236	24,700
2003	17,095	0	0	5,608	1,381	3,211	2,783	30,078
2004	14,264	0	554	6,848	591	2,005	1,709	25,971
2005*	0	0	0	2,254	467	2,884	2,420	8,025
Median	2,077	0	26	5,595	1,452	3,542	2,420	16,084
High/Year	40,147 (1996)	186 (2000)	813 (2000)	22,154 (2001)	2,459 (1995)	5,021 (1999)	6,090 (2000)	56,666 (1996)
Low/Year	0 (various)	0 (various)	0 (various)	2,254 (2005)	467 (2005)	2,005 (2004)	1,236 (2002)	8,025 (2005)
Ave. w/o High & Low	8,929	-	303	6,393	1,394	3,507	2,554	20,423
Five Year Average	9,478	0	121	9,614	981	2,737	2,632	25,564
Overall Average	7,209	31	237	7,287	1,405	3,508	2,725	22,257

\* Preliminary

It can be observed that in year 2005, tribes weren't able to use any salmon for commercial revenue. The total subsistence level for 2005 was at a low of 8,025 Chinook. The next lowest subsistence level was in 1993 at 9,811 fish. It should be noted that the estuary area had the largest subsistence drop in 2005 compared to the Mid and Upper Klamath and Trinity River Areas.

\* Data Sources: See References (Section 4.0).

#### 4.0 REFERENCES

##### References For Data

Davis, S. 2003. West Coast Groundfish Fishery Economic Assessment Model: Final Report for Cooperative Agreement No. NEPA-0402. PFFMC, Portland, September 28, 2003.

Pacific Fishery Management Council. 2006. Review of 2005 Ocean Salmon Fisheries. (Document prepared for the Council and its advisory entities.) Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 200, Portland, Oregon 97220-1384.

##### Other References

Pierce, Ronnie M. "Klamath Salmon: understanding allocation," February 1998.

## 5.0 DESCRIPTION OF DATA

Economic impacts for recreational and commercial fisheries are calculated using an in-depth complicated process, which involves various sources of data, surveys and models. The following is a brief description, highlighting some of the key components that are taken into account in calculating the economic impacts.

The measure for economic impacts is the economic activity (example measurement units are business sales, jobs, and personal income accruing to households within a defined geographic region) generated from spending by fishing participants.

### Recreational Fishing Economic Impact Model

Items assessed in the recreational fishery model are:

(1) Expenditures per trip (private and charter) and per participant (residents and non-residents) are evaluated as:

#### Trip Expenditures

- Private transportation
- Public Transportation
- Food
- Lodging
- Boat Fuel
- Party/Charter Fees
- Access/Boat Launching
- Equipment Rental
- Bait and Ice

#### Annual Expenditures

- Rods and Reels
- Other Tackle
- License Fees
- Boat Accessories
- Boat Purchase
- Boat Maintenance
- Fishing Vehicle
- Fishing Vehicle Maintenance

- Vacation Home
- Vacation Home Maintenance
- Other (gear, camping equipment, binoculars, clothing, magazines, dues)

- (2) Number of trips and participants
- (3) FEAM Coefficients
- (4) Total Economic Contribution
- (5) Average Earnings
- (6) Direct/Indirect Jobs and Total Jobs
- (7) Net Economic Value Per Trip and Total Net Economic Value

Commercial Fishing Economic Impact Model

Items assessed in the commercial fishery model are:

- (1) Species and Gear Listings
- (2) Pounds
- (3) Revenue
- (4) Price Analysis
- (5) Product Analysis
- (6) Processor Costs Per Finished Pound
- (7) Marginal Impacts Per Round Pound of Landings
- (8) Processed Pounds (hailed out and hauled in)

## 6.0 GRAPHS

Commercial and recreational graphs for California and Oregon.



# CA Coastal Community Economic Impacts - Recreational







