



NOAA Technical Memorandum NMFS-AFSC-63

Oregon, Washington, and Alaska Exports of Edible Fishery Products, 1994

by
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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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ABSTRACT

Oregon, Washington, and Alaska (defined in this report as the Pacific Northwest) exports of edible fishery products in 1994 declined 7% in quantity from 1993 to 1.39 billion pounds (lb) or 629,048 metric tons (t). The value of these fishery exports declined by 4.8% to \$2.05 billion. Although there were declines in exports of salmon, crab, and fish roe, the decrease in total exports was primarily due to the 18.9% decline in crab exports and the 11% decline in whole or dressed salmon exports. In 1994, groundfish exports of \$862 million and salmon exports of \$737 million accounted for 42% and 35.9%, respectively, of the total value of Pacific Northwest fishery exports. The value of Pacific Northwest exports comprised 65.6% of total U.S. edible fishery exports, down from 70% in 1993. In 1994, Pacific Northwest exports were shipped to 42 countries with the top 4 countries accounting for 93.5% of the total. Increased trade with Canada, the People's Republic of China, Australia, the Netherlands, and Taiwan, could not offset the decreased trade of fishery products with Japan, the Republic of Korea, the United Kingdom, and France. Exports to Japan totaled \$1.6 billion or 78.5% of the total, down 6.2% in value from \$1.7 billion in 1993. Canada was in the second spot with shipments of \$148 million or 7.2% of total exports. The Republic of Korea was in the third spot with \$88 million or 4.3% of the total exports, down 10.3% from \$98 million in 1993. Pacific Northwest exports to the United Kingdom declined 8.7% from 1993 to \$70.6 million or 3.5% of the total exports.

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INTRODUCTION

Exports of edible fishery products from Oregon, Washington, and Alaska continue to be a major contributor to both total U.S. fishery exports and to the economy of the Pacific Northwest. This report compares exports of edible fishery products from the Pacific Northwest with total U.S. fishery exports, examines fishery exports by product and major importing country, reviews changes in patterns in exports, and updates the report of Kinoshita and Terry (1994).

For the purposes of these analyses, the Pacific Northwest is defined as the states of Oregon, Washington, and Alaska. The export data used in this report are from the U.S. Department of Commerce, Bureau of the Census. The database is maintained by the National Marine Fisheries Service (NMFS), Fisheries Statistics Division, Silver Spring, Maryland.

Export data from the Oregon, Washington, and Alaska customs districts were used in this report. This method covers the major exports of salmon, groundfish, crabs, and herring. Also included are categories of exports not identified by species but as whole or dressed fish, minced fish, fish balls, cakes and pudding, and fish sticks. This approach to assessing exports of fishery products is not without problems. First, species harvested in the Pacific Northwest may be exported from customs districts outside the region. Second, species harvested in other regions may be shipped from Oregon, Washington, and Alaska customs districts. However, both problems appear to be minor. There were 22 export items in 1993 that were likely to have originated from other parts of the United States. Of these 22 fishery products, most were tropical tunas and lobsters, and they accounted for 0.35% of the total value of 1993 Pacific Northwest exports and were not included in this report. Most fishery products are shipped from the general area where they are harvested or processed, provided there are sufficient quantities to be shipped. Two major

products shipped from the Pacific Northwest, whole or dressed Pacific salmon and frozen crab, accounted for 91.5% and 94%, respectively, of total U.S. exports of these two products in 1994. In recent years, much of the fish harvested in Alaska has been shipped directly to Pacific Rim countries. Other products may be first shipped to Washington State, then exported to their final destination.

The Harmonized System (HS) of coding imports and exports replaced the old Tariff-Schedule of the United States (TSUSA) in 1989. The HS product codes, in most cases, provided greater detail by species, product, and condition. The HS in 1989 had 179 categories compared with only 62 under the old TSUSA. Since 1989, there has been numerous changes as products were added, while others were eliminated. In 1994, there were about 200 export categories of edible fishery products. After eliminating products not likely to originate from the Pacific Northwest and products not exported in 1994, there were 151 products recorded. The 151 products were then consolidated down to 43 items. The HS product codes appear in Appendix Table 1. Scientific names of species identified in this report are listed in Appendix Table 2. Note that totals and percentages in the tables may not always agree because of rounding, and that percentage changes may not agree because they were calculated from unrounded data.

PACIFIC NORTHWEST EXPORTS

After quadrupling from 1984 to 1992, the value of Pacific Northwest exports of edible fishery products declined in 1993 for the first time since 1984. Exports of edible fishery product in 1994 declined again for a second year in a row, down 4.8% from 1993 to \$2.05 billion, and accounted for 65.6% of the total U.S. exports of edible fishery products (Table 1). The quantity of Pacific Northwest exports on a product weight basis totaled 1.39 billion pounds (lb) or 629,048 metric tons (t), a drop of 7% from 1993 (Table 2 and Fig. 1).

Table 1.--Pacific Northwest exports of edible fishery products (million dollars) excluding and including joint venture sales and percent of total U.S. exports of edible fishery products, 1981-94.*

Year	Excluding joint ventures			Including joint ventures		
	Pacific Northwest	Total U.S.	% Total U.S.	Pacific Northwest	Total U.S.	% Total U.S.
1981	\$ 805	\$1,073	75.0	\$ 818	\$1,094	74.8
1982	739	999	74.0	775	1,035	74.9
1983	668	908	73.6	715	959	74.6
1984	648	842	77.0	724	921	78.6
1985	837	1,010	82.9	940	1,115	84.3
1986	1,034	1,290	80.2	1,187	1,445	82.1
1987	1,232	1,578	78.1	1,432	1,792	79.9
1988	1,700	2,162	78.6	1,920	2,383	80.6
1989	1,747	2,277	76.7	1,872	2,395	78.2
1990	2,071	2,779	74.5	2,114	2,831	74.7
1991	2,218	3,037	73.0	2,218	3,041	72.9
1992	2,570	3,357	76.6	2,570	3,357	76.6
1993	2,154	3,077	70.0	2,154	3,077	70.0
1994	2,051	3,126	65.6	2,051	3,126	65.6

Note: Joint ventures off the Pacific Northwest ended in 1990 and ended off the East Coast in 1991.

* - Total U.S. exports for 1993-94 include both domestic and foreign (re-exports).

Sources: U.S. Dep. Commer., Bureau of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070; and Natl. Mar. Fish. Serv., Fisheries of the United States, 1991, Silver Spring, MD 20910.

Table 2.--Pacific Northwest exports of edible fishery products, percent change in quantity (million lb) and value (million dollars) from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Fresh and frozen						
Salmon						
Chinook	4.2	6.4	55.1	\$ 12.1	\$ 14.9	23.4
Chum	26.2	21.7	-17.3	28.3	22.0	-22.4
Pink	15.7	19.8	25.7	16.7	23.2	38.9
Sockeye	235.2	176.2	-25.1	436.4	356.6	-18.3
Coho	16.9	25.1	48.7	32.0	45.9	43.5
Not specified	6.1	7.1	15.8	12.6	16.6	31.7
Subtotal	304.3	256.3	-15.8	538.0	479.1	-11.0
Groundfish						
Halibut	6.7	6.9	3.3	13.6	15.1	11.6
Flatfish	133.3	170.5	27.9	62.5	103.0	65.0
Cod	73.1	85.9	17.4	55.0	76.0	38.2
Pollock	2.1	3.0	39.7	1.0	1.2	21.4
Mackerel	42.2	38.1	-9.6	18.3	16.3	-11.0
Whiting	2.3	6.8	200.6	1.8	5.8	220.8
Sablefish	44.1	33.5	-24.0	88.5	87.2	-1.5
Other, nspf	126.5	77.3	-38.9	98.2	58.5	-40.4
Subtotal	430.3	422.0	-1.9	338.9	363.2	7.2
Herring	72.0	72.5	.7	44.1	50.2	13.8
Filletts						
Cod	1.7	3.1	80.8	3.1	3.3	6.6
Halibut	1.6	.7	-52.1	3.1	2.6	-17.0
Pollock	4.7	9.6	101.9	4.0	8.5	110.5
Other, nspf	9.0	5.2	-42.7	14.7	8.8	-39.9
Subtotal	17.0	18.5	9.1	24.9	23.2	-6.9
Fish roe						
Pollock	23.8	19.6	-17.6	103.8	88.4	-14.8
Herring	11.7	12.8	9.2	28.7	23.0	-19.9
Salmon	22.9	22.9	.1	119.6	113.1	-5.4
Other, nspf	8.8	8.1	-7.7	21.0	20.7	-1.4
Subtotal	67.2	63.4	-5.6	273.1	245.2	-10.2
Other						
Surimi	326.5	307.4	-5.8	298.3	312.9	4.9
Minced	7.2	3.7	-48.7	4.5	2.8	-37.2
Meat	14.3	34.6	142.5	13.4	29.1	117.4
Balls, cake, etc.	1.4	.4	-73.2	.9	.6	-38.2
Fish sticks	23.6	15.4	-34.6	25.5	18.1	-29.1
Subtotal	372.9	361.5	-3.1	342.6	363.4	6.1

Table 2.--Continued.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Cod, cured	1.5	2.3	52.7	2.3	3.1	32.8
Canned						
Salmon						
Pink	28.6	37.0	29.3	\$ 45.7	\$ 54.7	19.5
Sockeye	38.7	36.0	-6.8	81.1	77.3	-4.7
Other	5.9	7.2	21.4	12.2	13.1	7.7
Subtotal	73.2	80.2	9.6	139.0	145.1	4.4
Fish, other	3.7	11.3	203.5	6.9	12.7	84.2
Crab						
King	12.8	7.7	-40.2	84.2	46.3	-45.0
Snow	100.3	67.5	-32.7	268.1	251.9	-6.0
Dungeness	.8	.9	16.7	3.2	2.7	-15.7
Not specified	15.0	4.3	-71.1	36.9	17.4	-52.8
Subtotal	128.8	80.4	-37.6	392.4	318.4	-18.9
Crabmeat	3.5	3.8	8.1	10.6	12.9	21.4
Sea urchin	2.1	2.5	20.3	6.2	5.8	-6.3
Caviar	.3	.1	-55.0	4.4	1.3	-71.1
Shrimp	4.5	2.8	-38.4	16.2	11.9	-26.4
Crustaceans	.2	.1	-37.8	.6	.7	16.6
Molluscs	10.0	8.9	-11.1	14.2	14.7	3.8
Total	1,491.6	1,386.8	-7.0	\$2,154.4	\$2,050.9	-4.8

nspf - Not specifically provided for.

Note: Discrepancies in totals are due to rounding. and percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar.. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

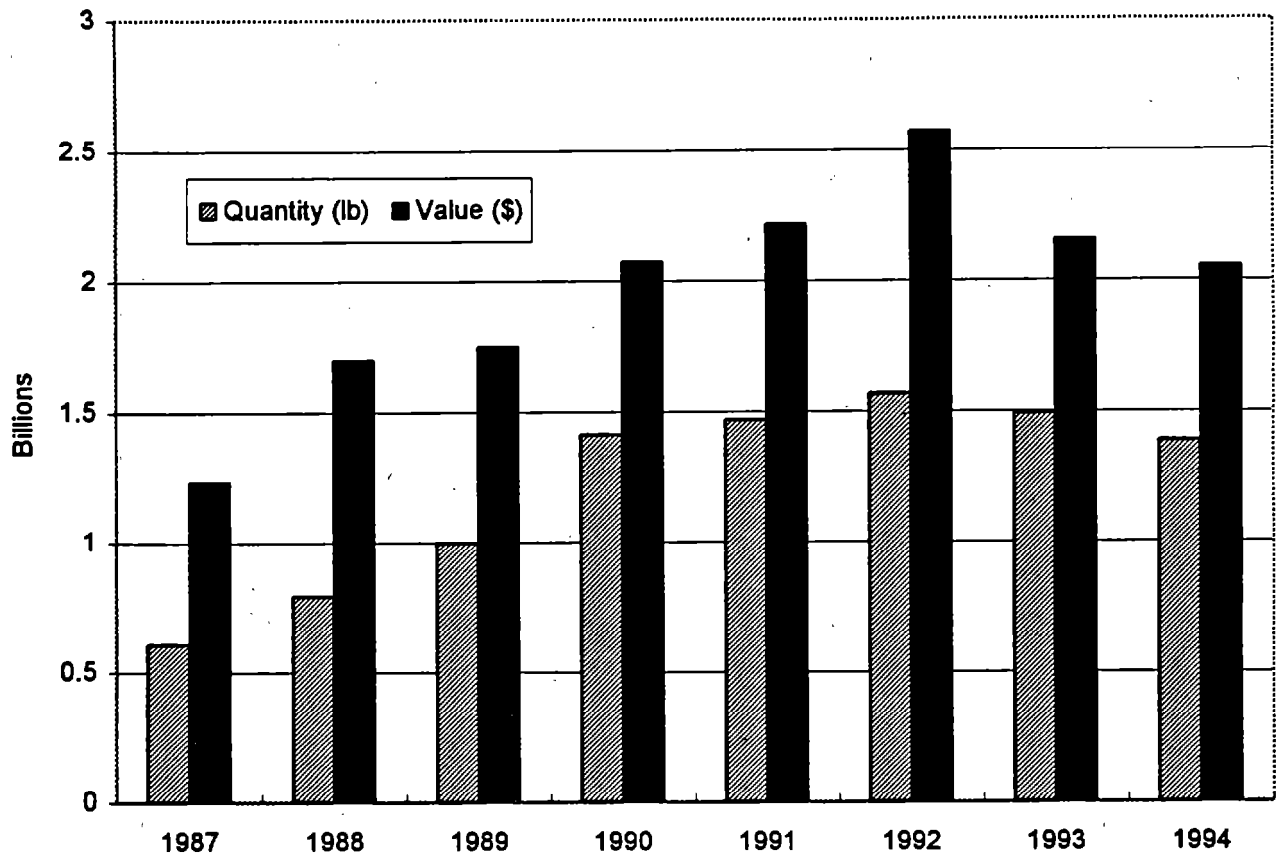


Figure 1. --Quantity and value of Pacific Northwest exports of edible fishery products, 1987-94.

The upward trend, which started in 1985, was reversed in 1993 and 1994 (Fig. 2). The decline in 1994 resulted mostly from the 17.9% drop in crab exports. Exports of whole or dressed salmon declined 11% from 1993, while exports of groundfish were up 3.4% from a year earlier.

Part of the upward trend of exports in the 1980s was in the form of joint venture sales (i.e., direct sales by U.S. fishing vessels to foreign processing vessels in the U.S. Exclusive Economic Zone (EEZ)) off Alaska and the Pacific Coast. They were not included with Pacific Northwest exports in official U.S. merchandise trade data. For a complete picture of exports, joint venture sales were added to fishery exports from 1981 to 1991 (Gharrett 1992). Joint venture sales in the U.S. EEZ off Alaska and the Pacific Coast ended in 1990 and were terminated off the East Coast in 1991.

Major Products

Groundfish exports, including halibut, increased 3.4% in value to \$862 million or 42% of the region's exports of edible fishery products in 1994. Since 1990, groundfish exports have accounted for 38% to 48% of total Pacific Northwest exports. Pacific salmon exports dropped 7.5% from \$797 million in 1993 to \$737 million in 1994, and comprised 35.9% of fishery exports, down from 37% in 1993. Prior to 1990 and before the major expansion of the domestic Alaska groundfish fishery, salmon exports had accounted for 50% to 76% of total Northwest exports. Crab products ranked third with a value of \$331 million or 16.2% of the total, followed by herring products with \$73 million or 3.6% of the total. The Pacific Northwest exports of edible fishery products, by major products and product groups for 1993 and 1994, are presented in Table 2. Table 3 and Figure 3 summarize Pacific Northwest exports in more general product groups.

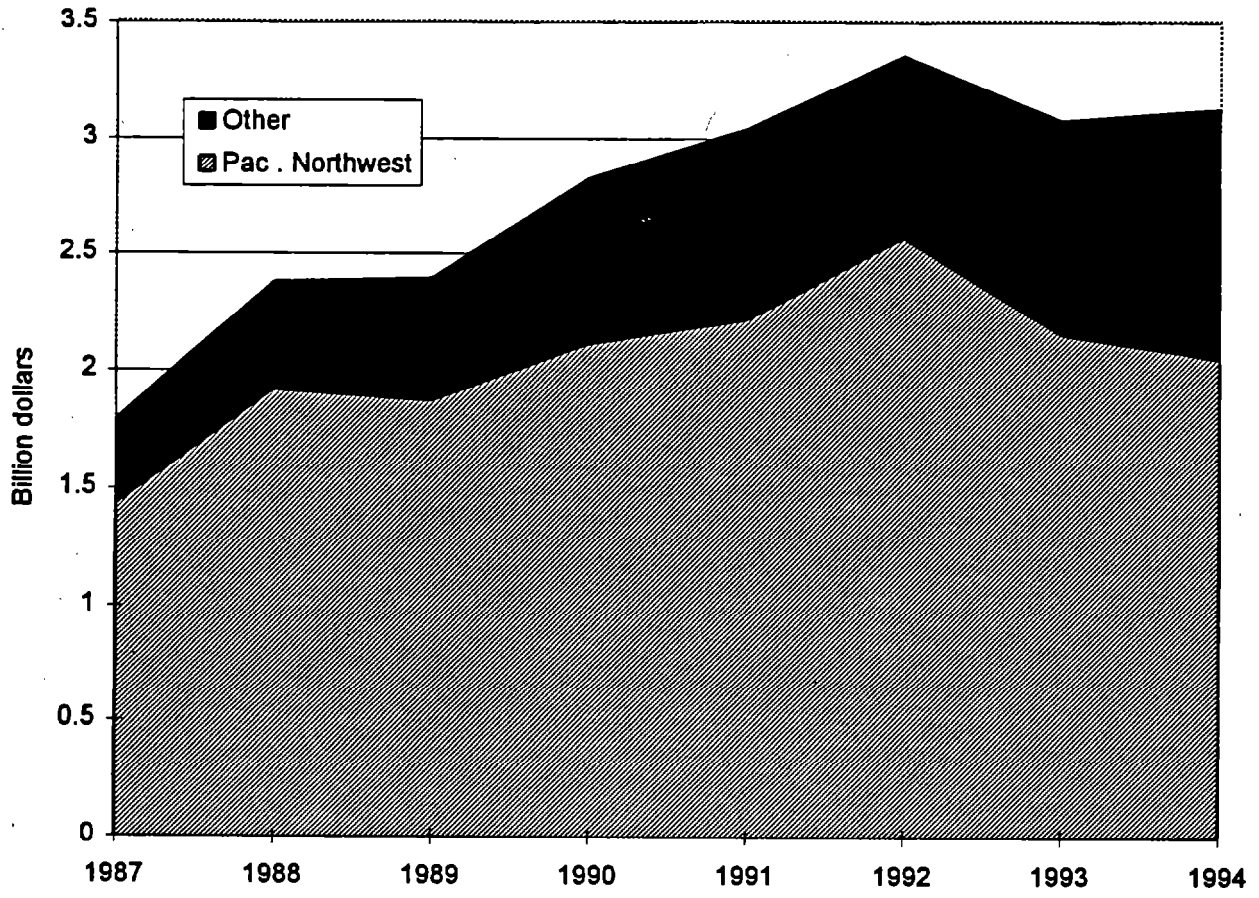


Figure 2.--Pacific Northwest and total U.S. exports of edible fishery products, 1987-94. Includes joint venture sales.

Table 3.--Pacific Northwest exports of edible fishery products or product groups (million dollars) and percent of total, 1981-94.

Year	Salmon	Herring	Ground- fish+	Crab	Other	Total
Value						
1981	\$572	\$ 57	\$ 30	\$106	\$40	\$ 805
1982	531	60	25	87	36	739
1983	510	67	23	40	29	668
1984	480	60	47	36	25	648
1985	597	104	66	53	17	837
1986	707	78	126	107	16	1,034
1987	728	93	204	184	24	1,232
1988	967	115	358	231	29	1,700
1989	878	59	531	242	37	1,747
1990	822	71	795	345	38	2,071
1991	612	76	1,074	417	39	2,218
1992	891	89	1,112	433	45	2,570
1993	797	73	833	403	48	2,154
1994	737	73	862	331	47	2,051
Percent						
1981	71.0	7.1	3.7	13.2	5.0	100.0
1982	71.9	8.1	3.3	11.8	4.9	100.0
1983	76.4	10.0	3.4	6.0	4.3	100.0
1984	74.1	9.3	7.2	5.5	3.9	100.0
1985	71.3	12.4	7.9	6.4	2.0	100.0
1986	68.4	7.5	12.2	10.4	1.5	100.0
1987	59.1	7.5	16.6	14.9	1.9	100.0
1988	56.9	6.8	21.0	13.6	1.7	100.0
1989	50.3	3.4	30.4	13.8	2.1	100.0
1990	39.7	3.4	38.4	16.7	1.8	100.0
1991	27.6	3.4	48.4	18.8	1.8	100.0
1992	34.7	3.5	43.3	16.8	1.7	100.0
1993	37.0	3.4	38.7	18.7	2.2	100.0
1994	35.9	3.6	42.0	16.2	2.3	100.0

- Other fresh, frozen, cured, roe, and processed finfish excluding salmon, herring, and other nongroundfish species.

Note: Discrepancies in totals are due to rounding.

Sources : U.S. Dep. Commer., Bureau of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

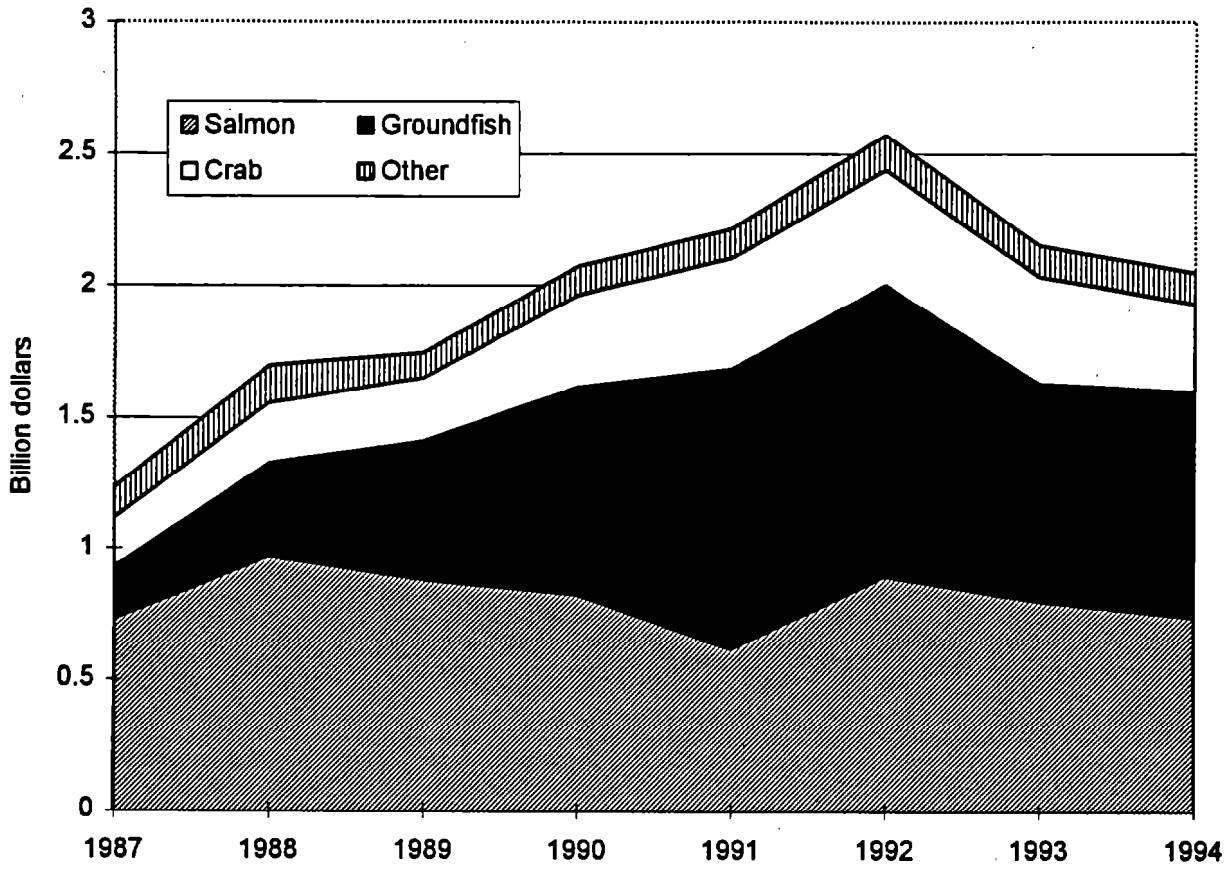


Figure 3.--Pacific Northwest exports of edible fishery products by major products groups, 1987-94.

Exports of -fresh, frozen, cured, and processed groundfish declined by 2.6% in quantity but increased by 3.4% in value from \$833 million in 1993 to \$862 million in 1994. The increase in groundfish exports reflected higher flatfish and cod landings off Alaska and slightly higher prices compared with the weak prices in 1993. In Japan, the major market for groundfish, the weak economy continues to dampen demand. Groundfish exports were made up of \$363 million of whole or dressed fish; \$23 million of fillets; \$109 million of fish roe; \$363 million of surimi and minced fish including meat, balls, cakes, and minced fish sticks; and \$3.1 million of cured fish (Table 4).

The Alaska groundfish landings in 1994 were up 5.3% above 1993 levels. The catch of the most important species, walleye (Alaska) pollock, amounted to 3.1 billion lb (1.4 million t) in 1994, up 3.2% from a year earlier. The increase in the groundfish landings was aided by the higher Pacific cod and flatfish landings. Production of a major export commodity, pollock surimi, was estimated at just over 400 million lb (181,957 t), up 21% from 1993, as production was shifted from pollock fillets and minced fish, which declined 11.5% from 1993 (Tromble 1995). Exports of surimi and minced fish including meat, balls, cakes, and sticks declined 3.1% from 373 million lb in 1993 to 362 million lb in 1994, with the value increasing by 6.1% to \$363 million. Surimi exports in 1994 totaled 307 million lb, and were valued at \$313 million. Exports of whole or dressed groundfish were down 1.9% to 422, million lb in 1994, but with higher prices, the value rose by 7.2% to \$363 million. An increase in the cod quota lifted exports of whole or dressed cod to 85.9 million lb, up 17.4% from 1993, and flatfish exports increased by 27.9%. Pollock roe exports declined by 14.8% in value due to the 17.6% decline in quantity. The larger amounts of small size roe in the catch was offset by slightly higher prices

Table 4.--Pacific Northwest exports of groundfish products including Pacific halibut, percent change in quantity (million lb) and value (million dollars) from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Halibut	6.7	6.9	3.3	13.6	15.1	11.6
Flatfish	133.3	170.5	27.9	62.5	103.0	65.0
Cod	73.1	85.9	17.4	55.0	76.0	38.2
Pollock	2.1	3.0	39.7	1.0	1.2	21.4
Mackerel	42.2	38.1	-9.6	18.3	16.3	-11.0
Whiting	2.3	6.8	200.6	1.8	5.8	220.8
Sablefish	44.1	33.5	-24.0	88.5	87.2	-1.5
Other, nspf	126.5	77.3	-38.9	98.2	58.5	-40.4
Subtotal	430.3	422.0	-1.9	338.9	363.2	7.2
Filletts						
Cod	1.7	3.1	80.8	3.1	3.3	6.6
Halibut	1.6	.7	-52.1	3.1	2.6	-17.0
Pollock	4.7	9.6	101.9	4.0	8.5	110.5
Other, nspf	9.0	5.2	-42.7	14.7	8.8	-39.9
Subtotal	17.0	18.5	9.1	24.9	23.2	-6.9
Fish roe						
Pollock	23.8	19.6	-17.6	103.8	88.4	-14.8
Other, nspf	8.8	8.1	-7.7	21.0	20.7	-1.4
Subtotal	32.7	27.8	-14.9	124.8	109.1	-12.5
Other						
Surimi	326.5	307.4	-5.8	298.3	312.9	4.9
Minced	7.2	3.7	-48.7	4.5	2.8	-37.2
Meat	14.3	34.6	142.5	13.4	29.1	117.4
Balls, cake, etc.	1.4	.4	-73.2	.9	.6	-38.2
Fish sticks	23.6	15.4	-34.6	25.5	18.1	-29.1
Subtotal	372.9	361.5	-3.1	342.6	363.4	6.1
Cod, cured	1.5	2.3	52.7	2.3	3.1	32.8
Total	854.4	832.1	-2.6	\$833.4	\$862.1	3.4

nspf - Not specifically provided for.

Note: Discrepancies in totals are due to rounding and percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar, Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

for smaller size roe in Japan (Atkinson 1994). Groundfish exports by country of destination are shown in Appendix Table 3.

The quantity of total salmon exports in 1994 dropped by 10.2% to 359 million lb, and the value declined 7.5% to \$737 million. The 1994 Alaska salmon catch totaled 867 million lb, up 2.4% from the 847 million lb in 1993 (Bearden 1995). The sockeye salmon catch fell by 22.8% to 294 million lb, and the pink salmon catch increased 9% to 365 million lb. In contrast to the decline of the sockeye salmon catch, ex-vessel prices increased by 25% from 1993. Average ex-vessel prices of all species of salmon increased by 5.8% from a year ago, with the value of the Alaska salmon catch amounting to \$424 million, up from \$391 million in 1993. The quantity of whole or dressed salmon exported in 1994 declined by 15.8% from 1993, while the value declined by 11% to \$479 million. The overall decline of salmon exports was due to a 25% decline in quantity of sockeye salmon exports, while the export price was 9.1% higher than in 1993. Japanese salmon prices were partially affected by higher holdings of sockeye salmon and increased competition from farmed salmon from Norway and Chile. While whole or dressed salmon exports were lower, canned salmon exports were up by 9.6% in quantity and 4.4% in value from 1993. Exports by country of destination for total salmon, whole or dressed salmon, and canned salmon are presented in Appendix Tables 4, 5, and 6, respectively.

Exports of crab and crabmeat fell to 84 million lb in 1994, down 36%, and were valued at \$331 million, down 17.8% by value from 1993. Catch of snow crab (Chionocetes opilio) was about 36% less than the previous year and amounted to 140 million lb in 1994. The catch of Tanner crab (C. bairdi) crab was down by 52% to 7.5 million lb, and the king crab catch declined by over one-half from 1993 to under 12 million lb in 1994.

Exports of herring products in 1994 totaled 85.3 million lb and were valued at \$73.2 million, up 2% by quantity and just 0.4% by value. Exports of whole herring were off by 0.7% by quantity from 1993, while herring roe exports were up by 9%. By value, whole fish were down by 13.8%, and herring roe was down by almost 20%. The supply of herring was up as the Alaska catch increased to 105 million lb, up 8.9% from 1993.

Major Importers

Pacific Northwest exports of edible fishery products were sold to 42 countries in 1994, with Japan being the leading buyer. The top four countries, Japan, Canada, the Republic of Korea, and the United Kingdom, purchased 93.5% of the total (Tables 5 and 6, and Fig. 4). There were significant declines in the value of exports to Japan (6.2%), the Republic of Korea (10.3%), the United Kingdom (8.7%), and France (32.5%) in 1994. At the same time, exports increased to Canada (4%), the People's Republic of China (42.2%), the Netherlands (50%), and Australia (21.2%).

Japan's imports of edible fishery products from the Pacific Northwest dropped 6.2% to \$1.6 billion and accounted for 78.5% of the total value of the Pacific Northwest's fishery exports in 1994. Purchases by Japan in the 1986-94 period have ranged from 75% to 82% of Pacific Northwest fishery exports; In 1994, the Japanese were the leading buyers of whole or dressed Pacific salmon (89%), whole Pacific herring (96%), sablefish (98%), crab (91%), surimi (87%), and total fish roe (93%) (Appendix Table 7). Exports of the most important category sold to Japan, whole or dressed salmon, declined 17.6% in quantity and declined 11.5% in value to \$425 million. Lower catches of king and Tanner crab off Alaska reduced supplies available for export. Exports of crab to Japan were off by 37.7% and the value dropped by 19.5% from 1993. Not all products declined in value in 1994, as exports of other flatfish, cod, and surimi staged

Table 5.--Quantity (million lb) and value (million dollars) of Pacific Northwest edible fishery products exported to the leading countries for 1993 and 1994 and percent change, 1993-94.

country	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Japan	1,069.6	1,009.5	-5.6	\$1,717.3	\$1,610.8	-6.2
Canada	86.7	87.8	1.3	142.4	148.1	4.0
Rep. of Korea	194.0	129.2	-33.4	98.3	88.2	-10.3
United Kingdom	38.9	37.0	-4.8	77.3	70.6	-8.7
People's Republic of China	16.9	41.2	143.8	24.4	34.7	42.2
Australia	7.2	10.1	39.3	13.3	16.2	21.2
Netherlands	6.2	10.0	61.8	10.1	15.1	50.1
Taiwan	11.3	11.8	3.7	9.0	12.2	36.4
France	12.1	9.2	-24.2	17.3	11.7	-32.5
Federal Republic of Germany	9.6	8.7	-9.5	8.5	9.2	7.6
Hong Kong	1.4	3.8	167.7	3.4	5.3	56.4
Portugal	3.5	5.4	56.5	3.2	4.8	51.0
Denmark	2.9	3.6	22.0	3.2	4.2	31.2
Thailand	17.2	6.3	-63.5	8.4	3.8	-55.1
Belgium	2.4	2.4	-.8	4.3	3.5	-19.1
Malaysia	1.3	3.2	151.0	.9	2.9	236.8
Spain	1.1	1.9	79.4	1.8	2.6	44.0
Italy	1.4	1.9	30.1	1.3	2.0	51.9
Ireland	.5	.7	33.0	1.0	1.2	24.4
Sweden	2.3	.9	-58.5	3.1	1.1	-63.2
New Zealand	1.0	.6	-34.1	1.6	1.0	-41.2
Norway	2.8	.2	-93.1	2.6	.3	-87.6
Other	1.3	1.5	14.1	1.7	1.5	-15.0
Total	1,491.6	1,386.8	-7.0	\$2,154.4	\$2,050.9	-4.8

Note: Discrepancies in totals are due to rounding.
Percentages are based on unrounded data.

Sources: U.S. Dep. Commer., Bureau of the Census, database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Table 6.--Value (million dollars) and percent of Pacific Northwest edible fishery products exported to major countries, 1986-94.

Country	1986	1987	1988	1989	1990	1991	1992	1993	1994
Value									
Japan	\$ 776.8	\$ 936.7	\$1,401.3	\$1,426.1	\$1,608.1	\$1,660.4	\$2,060.9	\$1,717.3	\$1,610.8
Canada	71.6	92.5	90.4	124.8	100.6	96.0	96.7	142.4	148.1
Rep. of Korea	26.7	31.5	35.9	52.5	94.4	145.9	127.4	98.3	88.2
United Kingdom	71.1	58.4	66.0	56.5	80.5	113.8	125.7	77.3	70.6
France	34.4	48.9	31.2	18.0	29.8	32.5	36.2	17.3	11.7
Australia	12.5	14.3	15.3	16.2	14.4	11.8	15.7	13.3	16.2
Other	<u>40.7</u>	<u>49.5</u>	<u>60.0</u>	<u>53.2</u>	<u>142.7</u>	<u>157.9</u>	<u>107.8</u>	<u>88.4</u>	<u>105.4</u>
Total	\$1,033.7	\$1,231.8	\$1,700.1	\$1,747.3	\$2,071.1	\$2,218.3	\$2,570.4	\$2,154.4	\$2,050.9
Percent									
Japan	75.1	76.0	82.4	81.6	77.7	74.9	80.2	79.7	78.5
Canada	6.9	7.5	5.3	7.2	4.8	4.3	3.8	6.6	7.2
Rep. of Korea	2.6	2.6	2.1	3.0	4.6	6.6	4.9	4.6	4.3
United Kingdom	6.9	4.7	3.9	3.2	3.9	5.1	4.9	3.6	3.5
France	3.3	4.0	1.9	1.0	1.4	1.5	1.4	0.8	0.6
Australia	1.2	1.2	0.9	0.9	0.7	0.5	0.6	0.6	0.8
Other	<u>3.9</u>	<u>4.0</u>	<u>3.5</u>	<u>3.1</u>	<u>6.9</u>	<u>7.1</u>	<u>4.2</u>	<u>4.1</u>	<u>5.1</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Discrepancies in totals are due to rounding.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0700.

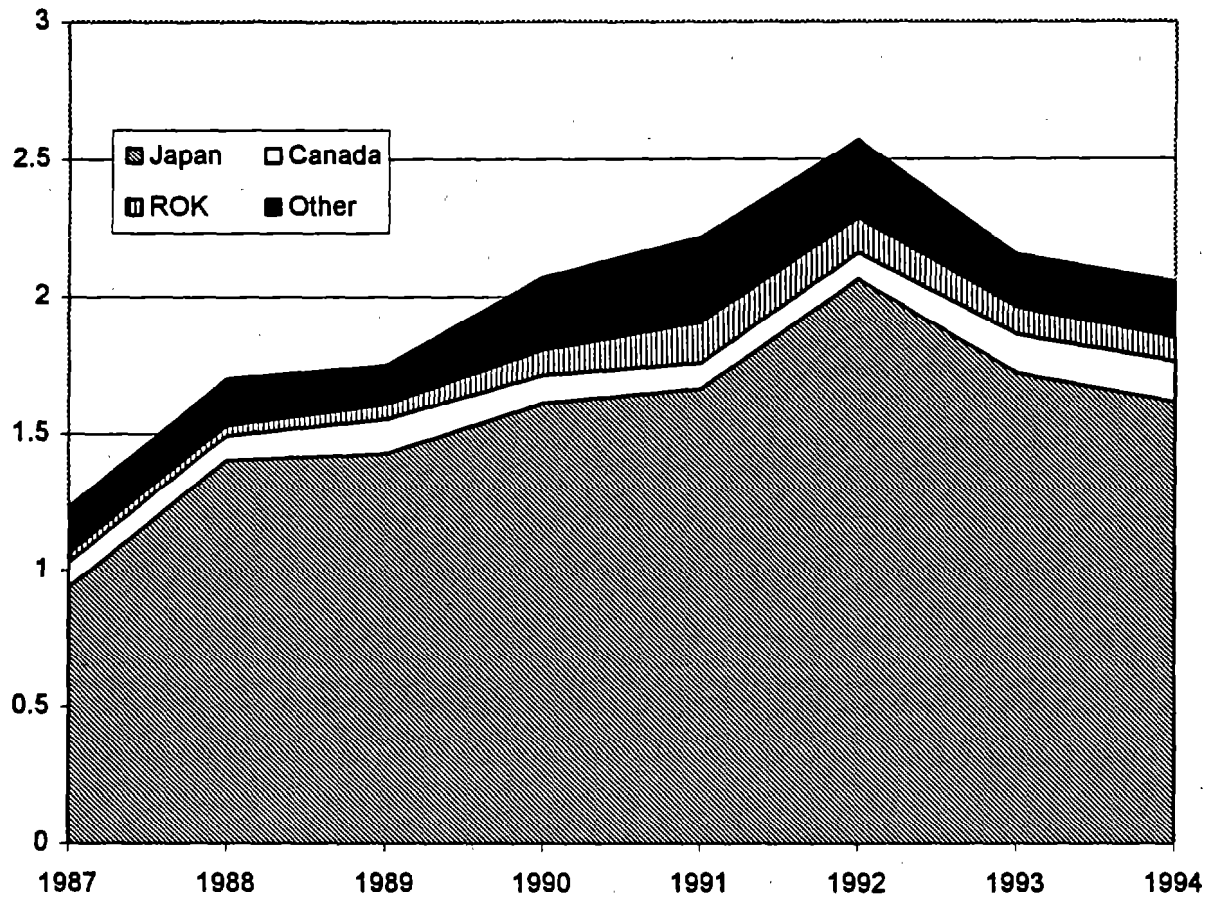


Figure 4. --Pacific Northwest exports of edible fishery products by country of destination, 1987-94.

a mild comeback. The decline of exports to Japan can be attributed to the sluggish economy and resulting weakness in consumption, increased international competition, and an imbalance in supply and demand (Atkinson 1994). The Japanese economy in 1994 was up slightly from 1993, with the gross national expenditure up just 0.4% from 1993.

Canada was the second largest importer, with purchases of \$148 million or 7.2% of the total Pacific Northwest fishery exports, up 4% from \$142 million in 1993. Increased purchases of canned salmon accounted for all of the increase (Appendix Table 8). Canada is a net exporter of salmon products. However, they augment their supply of salmon by purchasing fresh, frozen, and canned salmon from U.S. producers when there is a shortfall in their catch. The British Columbia salmon catch in 1994 was just under 144 million lb (65,233 t), down 22% from 1993.

In the third spot was the Republic of Korea which imported 4.3% of the total exports. Exports fell 33.4% in quantity, and the value declined 10.3% from 1993 to \$88.2 million in 1994. Reduced purchases of whole or dressed groundfish and surimi were responsible for the decline, while increases of fish roe and fish meat exports partially offset the declines (Appendix Table 9).

The United Kingdom was the fourth largest importer with purchases of \$70.6 million or 3.5% of the total (Appendix Table 10). The quantity of imported edible fishery products declined by 4.8%, and the value slipped by 8.7% from 1993. Most of the decline was attributed to lower sales of canned salmon, which fell 7.6% in 1994 to 34.3 million lb in quantity and declined by 10% to \$67 million in value. The United Kingdom was the leading buyer of canned salmon, with 46.2% of the canned salmon exports, down from 53.7% in 1993. Purchases of whole or dressed groundfish and salmon totaled \$2.5 million, up 34% from 1993, but substantially below the \$16.3 million exported in 1992.

In the fifth spot was the People's Republic of China, with purchases of \$34.7 million, up 42% from the \$24.4 million in 1993. The People's Republic of China's purchases were concentrated on two products, snow crab and whole or dressed flatfish, which accounted for 85.9% of the total imports (Appendix Table 11). Fishery exports to this country began in 1990 with only \$132,000 of edible fishery products and have increased each year since.

Exports to Australia ranked sixth, up one spot, gaining 39.3% in quantity and 21.1% in value to 10 million lb and \$16.2 million, respectively (Appendix Table 12). The gain was attributed to the 20.8% increase of canned salmon exports. Australia was the third leading buyer of canned salmon, with \$15.7 million or 10.8% of the total canned salmon exports from the Pacific Northwest.

Rounding out the top 10 leading importers were the Netherlands, Taiwan, France, and the Federal Republic of Germany with purchases of \$15.1, \$12.2, \$11.7, and \$9.2 million, respectively. Exports to the Netherlands increased by 50% from \$10.1 million in 1993, primarily due to increased purchases of salmon products (Appendix Table 13). In the eighth position was Taiwan, up 36.4% from the previous year, resulting from sizable gains in whole or dressed salmon and groundfish exports (Appendix Table 14). Exports to France ranked ninth, down three spots from 1993, as exports declined 24.3% in quantity and 32.5% in value to 9.2 million lb and \$11.7 million, respectively (Appendix Table 15). The drop was attributed to the drop in whole or dressed salmon, down 39.9% from 1993 and comprised 72.9% of fishery exports to France. Exports to Germany were up 7.5% from 1993 to \$9.2 million in 1994 (Appendix Table 16).

Exports by Customs District

By quantity, 1.0 billion lb or 72.8% of Pacific Northwest fishery exports in 1994 were shipped from the Alaska customs district, compared with 350 million lb or 25.2% from Washington, and 27 million lb or 2% from Oregon (Tables 7 and 8). By value, \$1.35 billion or 65.8% of the total was from Alaska, \$661 million or 32.2% was from Washington, and \$40 million or 2% was from Oregon (Fig. 5). Table 9 presents the percentage distribution by customs district from 1977.

Pacific Northwest fishery exports in 1994 destined for Pacific Rim countries declined to \$1.78 billion or 86.6% of total exports compared with the \$1.88 billion or 87.1% in 1993, with \$1.3 billion shipped from Alaska and \$424.6 million from Washington in 1994. Exports to Europe totaled \$126.9 million in 1994, or 6.2% of the total, down from \$134.3 million and 6.2% of total exports in 1993, with \$109.5 million shipped from Washington and \$17.4 million from Alaska in 1994. Exports to Europe declined by 5.5% as lower sales of canned salmon to the United Kingdom and of whole or dressed salmon to France contributed to most of the decline.

Table 7.--Quantity (1,000 pounds), value (1,000 dollars), and percent of total 1993 value of Pacific Northwest edible fishery products exported by customs district to area or country of destination, 1993.

District	Asia*	Europe.	Canada	Other	Total
Quantity					
Alaska	1,075,810	13,897	14,280	44	1,104,031
Washington	229,664	69,993	72,424	534	372,616
Oregon	14,861	63	14	--	14,939
Total	1,320,335	83,953	86,718	578	1,491,585
Value					
Alaska	\$1,446,893	\$ 11,111	\$ 16,137	\$ 18	\$1,474,160
Washington	400,628	123,110	126,231	552	650,523
Oregon	29,576	93	20	--	29,687
Total	\$1,877,097	\$134,314	\$142,388	\$570	\$2,154,369
Percent of total value					
Alaska	67.2	0.5	0.7	0.0	68.4
Washington	18.6	5.7	5.9	0.0	30.2
Oregon	1.4	0.0	0.0	--	1.4
Total	87.1	6.2	6.6	0.0	100.0

* Includes Australia and New Zealand.

Note: Discrepancies in totals are due to rounding.

Sources: U.S. Dep. Commer., Bureau of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Table 8.--Quantity (1,000 pounds), value (1,000 dollars), and percent of total 1994 value of Pacific Northwest edible fishery products exported by customs district to area or country of destination, 1994.

District	Asia+	Europe	Canada	Other	Total
Quantity					
Alaska	973,612	17,943	17,956	16	1,009,825
Washington	215,564	64,146	69,859	434	350,004
Oregon	26,950	--	7	4	26,961
Total	1,216,126	82,089	87,822	454	1,386,790
Value					
Alaska	\$1,310,730	\$ 17,377	\$ 21,936	\$ 91	\$1,350,132
Washington	424,611	109,526	126,125	454	660,718
Oregon	40,027	--	11	7	40,046
Total	\$1,775,368	\$126,903	\$148,072	\$552	\$2,050,896
Percent of total value					
Alaska	63.9	0.8	1.0	0.0	65.8
Washington	20.7	5.3	6.1	0.0	32.2
Oregon	2.0	--	0.0	0.0	2.0
Total	86.6	6.2	7.2	0.0	100.0

* Includes Australia and New Zealand.

Note: Discrepancies in totals are due to rounding.

Sources: U.S. Dep. Commer., Bureau of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

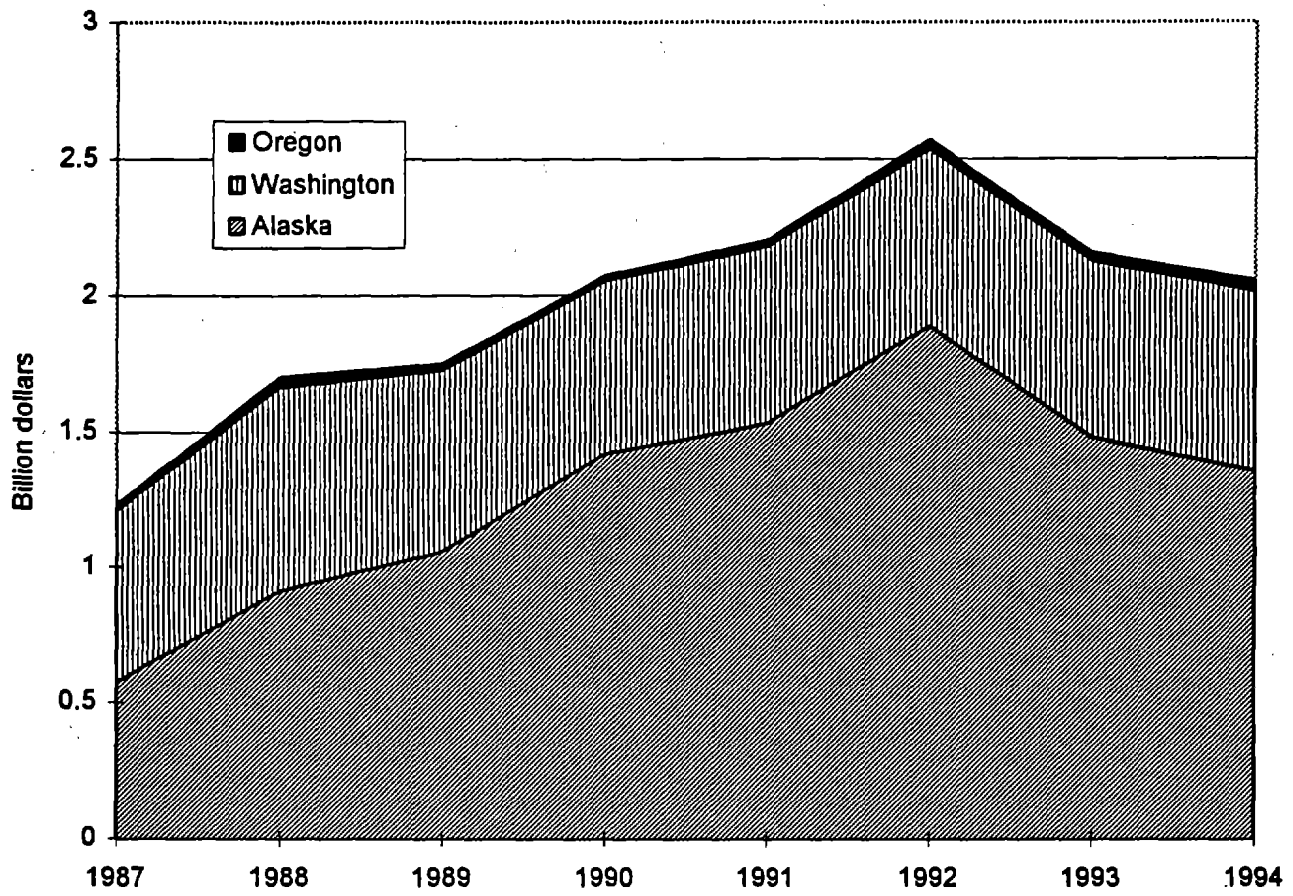


Figure 5.--Pacific Northwest exports of edible fishery products by customs districts, 1987-94.

Table 9.--Pacific Northwest exports of edible fishery products by customs districts as percentage of the total, 1977-94.

Year	Quantity (%)			Value (%)		
	Oregon	Washington	Alaska	Oregon	Washington	Alaska
1977	2.1	83.3	14.6	2.2	81.6	16.2
1978	2.5	68.3	29.3	2.4	65.1	32.5
1979	2.8	51.6	45.6	1.9	51.6	46.5
1980	1.4	55.4	43.2	1.4	59.5	39.1
1981	1.4	53.9	44.7	1.5	57.5	41.0
1982	2.0	42.4	55.6	2.3	50.1	47.6
1983	1.3	40.6	58.1	1.6	48.8	49.6
1984	1.8	43.8	54.4	1.8	53.9	44.3
1985	1.7	39.5	58.8	1.7	45.6	52.7
1986	1.5	45.5	53.1	1.9	49.0	49.2
1987	1.6	46.4	52.0	1.8	51.6	46.6
1988	1.6	34.5	63.9	2.2	44.3	53.5
1989	1.1	31.7	67.2	1.4	38.2	60.4
1990	0.6	21.9	77.5	1.0	30.7	68.3
1991	0.7	23.1	76.2	1.0	29.4	69.6
1992	1.1	20.8	78.1	1.3	25.4	73.3
1993	1.0	25.0	74.0	1.4	30.2	68.4
1994	2.0	25.2	72.8	2.0	32.2	65.8

Note: Discrepancies in percentages not adding to 100% are due to rounding.

Sources: U.S. Dep. Commer., Bureau of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

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APPENDIX

Appendix Table 1. --Export categories of edible fishery products for 1994.

Product description
Trout, rainbow, fresh, farmed
fresh
Salmon, Atlantic, fresh, farmed
Atlantic, fresh, wild
chinook, fresh
chum, fresh
pink, fresh
sockeye, fresh
coho, fresh
Danube, fresh
Salmonidae, nspf, fresh
Flatfish, halibut, Greenland turbot, fresh
plaice, fresh
sole, fresh
nspf, fresh
Tuna, albacore, fresh
Herring, fresh
Groundfish, cod, nspf, fresh
Groundfish, pollock, Atlantic, fresh
Mackerel, fresh
Shark, dogfish, fresh
Eels, fresh
Sablefish, fresh
Lingcod, fresh
Fish, nspf, fresh
Fish, nspf, liver and roe, fresh
Salmon, chinook, frozen
chum, frozen
pink, frozen
sockeye, frozen
coho, frozen
Pacific, nspf, frozen
Trout, frozen
Salmon, Atlantic, Danube; frozen
Salmonidae, nspf, frozen
Flatfish, halibut, Atlantic, Pacific, frozen
turbot, Greenland, frozen
plaice, frozen
sole, frozen
nspf, frozen
Tuna, albacore, frozen
Herring, frozen
Groundfish, cod, nspf, frozen
Groundfish, pollock, Atlantic, frozen
Mackerel, frozen
Shark, dogfish, frozen

Appendix Table 1.--Continued.

Product description

Eels, frozen
Sea bass, frozen
Groundfish, hake, whiting, frozen
Sablefish, frozen
Fish, nspf, frozen
Sturgeon roe, frozen
Herring roe, frozen
Salmon, nspf, roe, frozen
Groundfish, pollock, Alaska roe, frozen
Fish, nspf, liver and roe, frozen
Fish, nspf, fillet, fresh
Groundfish, cod fillet, frozen
Flatfish, halibut, nspf, fillet, frozen
Groundfish, pollock, Alaska fillet, frozen
Fish, nspf, fillet, frozen
Surimi
Groundfish, cod, nspf, minced, frozen > 6.8 kg
Fish, nspf, minced, frozen > 6.8 kg
Fish, nspf, meat, frozen
Salmon, nspf, roe, cured
Herring roe, cured
Fish, nspf, liver and roe, cured
Fish, nspf, fillet, dried/salted/brined
Salmon, smoked
Herring,- smoked
Fish, nspf, smoked
Groundfish, cod, dried
Fish, nspf, dried
Herring, salted
Groundfish, cod, salted
Fish, nspf, salted
Shrimp, shell-on, frozen < 15 count size
 shell-on, frozen 15/20 count size
 shell-on, frozen 21/25 count size
 shell-on, frozen 26/30 count size
 shell-on, frozen 31/40 count size
 shell-on, frozen 41/50 count size
 shell-on, frozen 51/60 count size
 shell-on, frozen 61/70 count size
 shell-on, frozen > 70 count size
 peeled, frozen
Crabmeat, nspf, frozen
Crab, king, frozen
 snow, frozen
Dungeness, frozen
nspf, frozen

Appendix Table I.--Continued.

Product description

Crawfish, freshwater, frozen
Crustaceans, nspf, frozen
Shrimp, live/fresh/dried/salted/brined
Crabmeat, nspf, fresh/dried/salted/brined
Crab, nspf, live/fresh/dried/salted/brined
Crustaceans, nspf, live/fresh/dried/salted/brined
Oysters, live/fresh/frozen/dried/salted/brined
Scallops, live/fresh
Scallops, frozen/dried/salted/brined
Mussels, live/fresh, farmed
 live/fresh, wild
 frozen/dried/salted/brined
Squid, (Loligo), live/fresh
 nspf, live/fresh
 nspf, and cuttlefish, live/fresh
 nspf, fillet, frozen
 (Loligo opalescens), frozen/dried/salted/brined
 (Loligo pealei), frozen/dried/salted/brined
 (Loligo, nspf), frozen/dried/salted/brined
 nspf, frozen/dried/salted/brined
 and cuttlefish, frozen/dried/salted/brined
Octopus, live/fresh
 frozen/dried/salted/brined
Snail, . other than sea snail, - live/fresh/frozen/salted
Sea urchin, roe, fresh
 live/fresh
Molluscs, nspf, live/fresh
Clam, frozen/dried/salted/brined
Molluscs, nspf, frozen/dried/salted/brined
Fish, shellfish, nspf, juice
Salmon, nspf, canned in oil
 chum, canned not in oil
 pink, canned not in oil
 sockeye, canned not in oil
 nspf, canned not in oil
 nspf, prepared/preserved not in airtight container
Herring, prepared/preserved
Mackerel, prepared/preserved
Sticks, type products, coated, not minced
 type products, not coated, not minced
Fish, nspf, prepared meals containing shellfish
Fish balls, cakes, pudding; prepared/preserved
Sticks, type products, coated of minced
 type products, not coated of minced
Caviar, caviar substitute, prepared/preserved

Appendix Table 1.--Continued.

Product description
Crab product prepared meals containing fish
Crabmeat, king in airtight container
snow (<u>Chionocetes opilio</u>) in airtight container
snow, other in airtight container
Dungeness in airtight container
nspf, in airtight container
king, frozen
snow (<u>Chionocetes opilio</u>), frozen
snow, other, frozen
Dungeness, frozen
nspf, frozen
nspf, other preparations
Crab, nspf, other preparations
Shrimp, products prepared meals containing fish
frozen in airtight containers
frozen
canned
other preparations
Crustaceans, nspf, products prepared meals containing fish
nspf, prepared/preserved
Molluscs/other, nspf, products prepared meals containing fish
Clam, prepared/preserved
Abalone, prepared/preserved
Scallops, prepared/preserved
Squid (<u>Loligo</u>), prepared/preserved
Squid, nspf, prepared/preserved
Molluscs, nspf, prepared/preserved
Soups, broths, based on fish or other seafood

nspf - Not specifically provided for.

Sources: U.S. Dep. Commer., Bur. of the Census; U.S. Dep. of Treasury, Bur. of Customs; and available from Alaska Fish. Sci. Cent, 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix Table 2.--Scientific names of species identified in this report.

Common name	Scientific name
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FISH	
Cod, Pacific	<u>Gadus macrocephalus</u>
Flounders and soles	<u>Pleuronectidae</u> family
Halibut, Pacific	<u>Hippoglossus stenolepis</u>
Herring, Pacific	<u>Clupea pallasii</u>
Mackerel, Atka	<u>Pleurogrammus monopterygius</u>
Perch, Pacific ocean	<u>Sebastes alutus</u>
Pollock, walleye	<u>Theragra chalcogramma</u>
Rockfish	<u>Sebastes</u> and <u>Sebastolobus</u> species
Sablefish	<u>Anoplopoma fimbria</u>
Salmon, Pacific	<u>Oncorhynchus</u> species
Chinook	<u>O. tshawytscha</u>
Chum	<u>O. keta</u>
Coho	<u>O. kisutch</u>
Pink	<u>O. gorbuscha</u>
Sockeye	<u>O. nerka</u>
Turbot, Greenland	<u>Reinhardtius hippoglossoides</u>
Whiting (hake), Pacific	<u>Merluccius productus</u>
CRUSTACEANS	
Crab, Dungeness	<u>Cancer magister</u>
Crab, king	<u>Lithodes</u> and <u>Paralithodes</u> species
Crab, snow (Tanner)	<u>Chionoecetes bairdi</u> and <u>opilio</u>
Shrimp	<u>Pandalus</u> , <u>Pandalopsis</u> , and <u>Cranqon</u> species

Appendix Table 3. --Pacific Northwest exports of groundfish products including halibut by country of destination, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Country	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Japan	585.1	604.6	3.3	\$662.0	\$684.2	3.4
Rep. of Korea	189.6	123.4	-34.9	89.7	79.0	-11.9
Canada	24.9	25.7	3.0	41.3	42.0	1.6
People's Republic of China	4.3	34.0	688.8	2.3	13.3	477.9
Taiwan	11.0	9.9	-10.2	8.0	9.0	12.4
Federal Republic of Germany	8.5	7.6	-10.8	6.8	7.0	3.2
Portugal	3.5	5.4	55.4	3.2	4.8	49.3
Hong Kong	.7	3.0	358.3	1.7	3.7	117.8
Thailand	16.0	5.6	-65.0	6.4	2.8	-56.1
France	1.3	.9	-33.9	2.9	2.7	-4.3
Spain	.8	1.7	112.1	1.5	2.5	65.0
United Kingdom	.7	1.6	148.5	.9	2.4	164.6
Italy	1.4	1.9	34.0	1.2	2.0	69.1
Netherlands	.3	1.0	259.5	.4	1.0	169.5
Denmark	1.4	.7	-46.7	1.2	.9	-23.5
Sweden	.5	.6	18.4	.6	.5	-12.8
Norway	2.4	.2	-93.5	1.5	.3	-82.9
Other	2.0	4.2	112.4	1.8	4.0	118.3
Total	854.4	832.1	-2.6	\$833.4	\$862.1	3.4

Note: Discrepancies in totals are due to rounding and percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix Table 4. --Pacific Northwest exports of salmon products (fresh, frozen, canned, cured, and roe) by country of destination, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Country	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Japan	285.5	239.9	-16.0	\$600.3	\$538.0	-10.4
Canada	41.8	44.1	5.6	66.2	74.1	11.9
United Kingdom	38.1	35.3	-7.4	76.1	68.1	-10.6
Australia	6.9	9.5	38.4	13.0	15.7	20.8
Netherlands	5.8	8.9	54.6	9.6	14.2	48.0
France	10.7	8.2	-22.7	14.3	8.9	-37.6
Belgium	2.4	2.3	-4.7	4.0	3.3	-17.9
Denmark	1.5	2.8	91.2	1.9	3.3	70.5
Rep. of Korea	1.2	2.4	93.3	2.0	2.4	23.6
People's Republic of China	.6	.9	51.1	.8	2.1	150.3
Federal Republic of Germany	.9	1.0	15.9	1.4	2.0	42.3
Taiwan	.2	1.1	535.9	.3	1.4	343.2
Ireland	.5	.7	33.0	1.0	1.2	24.4
New Zealand	1.0	.5	-45.1	1.6	.8	-50.5
Hong Kong	.5	.4	-27.0	.8	.5	-30.7
South Africa	.3	.3	13.6	.4	.4	-1.7
Thailand	.5	.5	-14.4	.5	.3	-37.0
Sweden	1.5	.2	-83.1	1.5	.3	-82.1
Other	.6	.3	-55.3	1.0	.4	-58.1
Total	400.4	359.4	-10.2	\$796.6	\$737.2	-7.5

Note: Discrepancies in totals are due to rounding and percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix Table 5.--Pacific Northwest exports of fresh and frozen salmon by country of destination, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Country	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Japan	262.1	215.9	-17.6	\$480.0	\$424.8	-11.5
Canada	21.4	19.4	-9.5	29.6	29.2	-1.6
France	10.6	8.1	-23.9	14.2	8.5	-39.9
Denmark	1.4	2.8	96.4	1.8	3.3	83.3
Rep. of Korea	1.2	2.4	93.7	2.0	2.4	24.0
Netherlands	.4	1.5	233.6	.8	2.4	197.4
People's Republic of China	.6	.9	44.5	.8	1.9	131.1
Belgium	1.2	1.1	-2.7	1.8	1.7	-5.2
Taiwan	.1	1.1	677.8	.2	1.4	520.1
Federal Republic of Germany	.9	.7	-23.2	1.4	1.1	-21.9
United Kingdom	.9	.9	1.6	1.5	.9	-36.0
Hong Kong	.5	.4	-27.5	.8	.5	-31.6
Thailand	.5	.5	-14.4	.5	.3	-37.0
Sweden	1.4	.2	-82.6	1.4	.3	-81.6
Spain	.2	.1	-68.3	.3	.1	-73.0
Other	.6	.4	-37.8	1.0	.4	-60.1
Total	304.3	256.3	-15.8	\$538.0	\$479.1	-11.0

Note: Zero indicates less than 50,000 lb or \$50,000.
Discrepancies in totals are due to rounding and percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix Table 6. --Pacific Northwest exports of canned salmon by country of destination, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Country	Quantity			Value		
	1993	1994	% change	1993	1994	% change
United Kingdom	37.2	34.3	-7.6	\$ 74.6	\$ 67.1	-10.1
Canada	20.4	24.7	21.3	36.6	45.0	22.9
Australia	6.9	9.5	38.4	13.0	15.7	20.8
Netherlands	5.3	7.4	39.3	8.8	11.8	34.2
Japan	.6	1.7	166.0	1.0	1.6	62.6
Belgium	1.2	1.1	-6.8	2.2	1.5	-30.4
Ireland	.5	.7	41.9	.9	1.2	31.4
New Zealand	1.0	.5	-45.1	1.6	.8	-50.5
Other	.2	.2	12.6	.3	.4	33.3
Total	73.2	80.2	9.6	\$139.0	\$145.1	4.4

Note: Discrepancies in totals are due to rounding and percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska' Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix Table 7. --Pacific Northwest exports of edible fishery products to Japan by product, quantity (million lb), value, (million dollars), and percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Salmon						
Chinook	3.4	5.9	70.8	\$ 10.8	\$ 13.8	28.0
Chum	11.5	4.4	-62.0	11.7	4.6	-60.8
Pink	7.0	9.4	35.6	6.3	9.5	52.0
Sockeye	226.0	170.5	-24.6	423.8	345.6	-18.4
Coho	11.5	20.5	78.3	21.4	37.9	76.8
Other	2.7	5.2	93.6	6.1	13.4	118.6
Subtotal	262.1	215.9	-17.6	480.0	424.8	-11.5
Groundfish						
Halibut	.8	1.1	45.2	1.7	2.7	60.7
Oth. flatfish	48.5	86.6	78.7	36.6	72.0	96.7
Cod	40.9	72.5	77.1	34.0	62.8	84.9
Pollock	.4	.3	-25.3	.4	.2	-55.7
Mackerel	19.6	27.0	37.6	11.3	12.1	6.4
Hake	2.3	1.7	-24.4	1.8	1.5	-20.0
Sablefish	43.7	32.9	-24.5	87.4	85.4	-2.3
Other, nspf	99.7	59.8	-40.0	83.3	48.1	-42.3
Subtotal	255.8	282.0	10.2	256.5	284.7	11.0
Herring	64.0	67.9	6.0	40.2	47.8	19.0
Roe						
Pollock	23.1	17.6	-24.0	100.4	79.9	-20.4
Herring	11.3	12.7	11.9	28.1	22.7	-19.3
Salmon	22.8	22.3	-1.8	119.3	111.6	-6.5
Other, nspf	8.4	5.7	-32.0	17.9	13.6	-23.7
Subtotal	65.6	58.3	-11.1	265.7	227.8	-14.2
Fillets	5.4	4.5	-16.2	9.5	5.8	-38.9
Other						
Surimi	264.9	263.7	-.5	253.1	273.7	8.2
Minced	6.2	2.7	-55.7	3.6	2.1	-42.4
Meat, nspf	6.6	21.9	230.1	6.0	17.1	185.9
Balls, cake, and pudding	.0	.1	427.8	.1	.3	354.9
Sticks, minced	14.5	6.3	-56.4	14.9	7.0	-53.3
Subtotal	292.3	294.8	0.9	277.6	300.2	8.1
Fish, other	2.2	8.4	273.8	4.6	8.2	78.6

Appendix Table 7.--Continued.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Crab						
King	12.1	7.1	-41.6	\$ 81.2	\$ 42.7	-47.4
Snow	91.4	61.5	-32.7	247.1	231.4	-6.3
Dungness	.5	.7	22.1	2.5	2.0	-20.4
Other, nspf	12.8	3.6	-71.9	30.9	14.9	-51.7
Subtotal	116.8	72.8	-37.7	361.7	291.1	-19.5
Crabmeat	2.4	3.2	35.1	8.9	11.8	32.9
Sea urchin	.9	.7	-29.6	5.3	4.5	-15.4
Caviar	.3	.1	-55.8	4.0	1.1	-72.4
Shrimp	.5	.3	-34.4	1.4	.9	-33.2
Crustaceans	.1	.0	-73.1	.4	.2	-33.5
Molluscs	1.0	.6	-46.1	1.6	1.9	15.6
Total	1,069.6	1,009.5	-5.6	\$1,717.3	\$1,610.8	-6.2

nspf - Not specifically provided for.

Note: Discrepancies in totals are due to rounding and percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; and Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix Table 8.--Pacific Northwest exports of edible fishery products to Canada by product, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Salmon						
Chinook	0.2	0.1	-48.2	\$ 0.6	\$ 0.3	-52.0
Chum	5.1	6.8	34.2	6.1	6.9	12.8
Pink	5.2	5.7	8.7	6.6	9.1	37.4
Sockeye	7.7	4.1	-47.1	10.3	7.2	-29.6
Coho	1.3	1.6	30.8	2.6	3.3	26.3
Other, nspf	1.9	1.1	-44.5	3.5	2.4	-30.3
Subtotal	21.4	19.4	-9.5	29.6	29.2	-1.6
Halibut	5.1	4.1	-19.5	10.5	9.4	-11.0
Flatfish, other	.2	.5	96.7	.5	.9	85.0
Herring	3.7	3.7	-.2	1.5	2.0	28.9
Cod	1.1	2.3	102.4	2.0	2.6	29.0
Other, nspf	2.3	3.9	72.8	3.6	5.2	44.1
Fish roe	.4	.1	-64.0	.8	.8	.8
Filletts						
Cod	.7	1.2	66.4	1.3	1.5	10.4
Halibut	1.3	.6	-53.1	2.3	2.3	-1.2
Other, nspf	4.5	3.3	-27.9	7.7	5.6	-27.9
Subtotal	6.5	5.1	-22.4	11.4	9.3	-18.1
Surimi, minced, meat, balls, cake, and pudding						
Sticks, minced	2.2	1.7	-19.9	3.1	3.4	11.2
	7.2	7.8	7.4	9.8	10.4	6.0
Canned salmon						
Pink	9.4	14.9	58.8	15.0	22.1	47.2
Sockeye	7.4	6.5	-13.1	13.9	15.4	10.8
Other	3.5	3.3	-5.9	7.7	7.5	-2.5
Subtotal	20.4	24.7	21.3	36.6	45.0	22.9
Fish, other	1.4	2.1	44.3	2.4	3.1	30.9

Appendix Table E.--Continued.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Crab	1.1	0.7	-34.1	\$ 5.1	\$ 4.1	-19.4
Crabmeat	.8	.5	-34.1	1.0	.9	-7.9
Shrimp	3.3	2.3	-31.2	12.5	10.5	-16.2
Shellfish, other	9.5	8.9	-6.4	12.1	11.5	-5.1
Total	86.7	87.8	1.3	\$142.4	\$148.1	4.0

nspf - Not specifically provided for.

Note: Discrepancies in totals are due to rounding.
Percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat, Div., Silver Spring, MD 20910; Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix Table 9. --Pacific Northwest exports of edible fishery products to the Republic of Korea by product, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Groundfish						
Flatfish	66.4	46.1	-30.5	\$18.5	\$15.3	-17.5
Cod	21.8	5.3	-75.7	11.9	5.3	-55.4
Pollock	1.7	2.5	52.4	.6	.9	56.2
Mackerel	22.5	11.1	-50.6	7.0	4.2	-39.3
Other	20.9	16.7	-20.3	8.8	8.3	-6.2
Subtotal	133.3	81.8	-38.6	46.8	34.0	-27.4
Salmon	1.2	2.4	93.7	2.0	2.4	24.0
Fish roe						
Pollock	.7	2.1	205.4	3.3	8.5	155.6
Other	.1	1.8	1,393.0	.5	3.6	619.7
Filletts	.5	.6	3.4	.1	.5	269.4
Other						
Surimi	50.8	28.5	-44.0	36.3	25.6	-29.5
Minced	.	.4	.	.	.4	.
Meat	2.5	8.1	219.7	2.0	6.2	205.1
Balls, cake, and Pudding	1.3	.2	-82.6	.6	.2	-70.5
Sticks, minced	.4	.1	-85.4	.3	.0	-83.4
Subtotal	55.0	37.2	-32.4	39.2	32.4	-17.4
Crab						
Snow	1.0	.6	-36.0	2.7	2.3	-12.8
Other	.8	.3	-69.5	2.1	1.3	-38.7
Other fish and shellfish						
	1.3	2.5	85.3	1.6	3.1	96.3
Total	194.0	129.2	-33.4	\$98.3	\$88.2	-10.3

Note: Discrepancies in totals are due to rounding and percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix Table 10. --Pacific Northwest exports of edible fishery products to the United Kingdom by product, quantity (million lb), value (million dollars), and, percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Salmon						
Chum	0.4	0.5	35.4	\$ 0.6	\$ 0.6	-2.1
Sockeye	.3	.	.	.6	.	.
Other	.2	.4	68.5	.3	.4	40.0
Subtotal	.9	.9	1.6	1.5	.9	-36.0
Other	.2	1.0	380.9	.4	1.6	275.9
Fillets	.1	.1	40.9	.2	.2	-3.8
Surimi, minced, and meat	.4	.5	31.8	.3	.6	87.0
Canned salmon						
Chum	10.4	11.4	9.6	17.2	17.7	2.9
Sockeye	24.9	21.2	-14.8	54.0	46.3	-14.3
Other	1.8	1.7	-8.7	3.5	3.1	-10.5
Subtotal	37.2	34.3	-7.6	74.6	67.1	-10.1
Fish, other	.1	.1	98.2	.1	.2	127.6
Shellfish	.1	.0	-85.9	.2	.1	-75.1
Total	38.9	37.0	-4.8	\$77.3	\$70.6	-8.7

Note: Discrepancies in totals are due to rounding.
Percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070'.

Appendix Table 11. --Pacific Northwest exports of edible fishery products to the People's Republic of China by product, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Flatfish	3.0	32.5	988.0	\$ 0.9	\$12.7	1,237.6
Herring	3.4	.4	-87.1	1.7	.2	-86.6
Other	.8	2.1	152.4	.9	2.2	139.7
Crab						
Snow	7.0	5.2	-26.4	15.9	17.1	7.4
Other	1.2	.7	-47.6	2.9	1.9	-36.7
Other	1.5	.5	-68.7	2.0	.6	-69.2
Total	16.9	41.2	143.8	\$24.4	\$34.7	42.2

Note: Discrepancies in totals are due to rounding.
Percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; Alaska Fish Sci. Cent., 7600 Sand Point Way N.E., BIN C15700 Seattle, WA 98115-0070.

Appendix Table 12. --Pacific Northwest exports of edible fishery products to Australia by product, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Canned						
Salmon						
Pink	4.2	5.6	35.2	\$ 6.5	\$ 7.9	21.9
Sockeye	2.4	3.5	47.2	5.8	7.2	24.5
Other	.3	.4	13.5	.8	.7	-15.5
Subtotal	6.9	9.5	38.3	13.0	15.7	20.8
Other	.3	.5	59.1	.3	.5	36.3
Total	7.2	10.1	39.3	\$13.3	\$16.2	21.2

Note: Discrepancies in totals are due to rounding.
Percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; Alaska Fish. Sci. Cent., 7600 Sand Point Way N.E., BIN C15706, Seattle, WA 98115-0070.

Appendix Table 13.--Pacific Northwest exports of edible fishery products to the Netherlands by product, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Salmon						
Chum	0.2	0.3	75.9	\$ 0.2	\$ 0.4	64.2
Sockeye	.1	.1	28.2	.1	.2	101.1
Coho	.1	.1	31.2	.3	.2	-47.3
Other	.1	.9	1,342.7	.1	1.6	1,166.8
Subtotal	.4	1.5	233.5	.8	2.4	197.4
Canned						
Salmon						
Pink	2.4	3.3	39.4	3.4	4.5	30.2
Sockeye	2.8	4.0	40.2	5.2	7.1	36.1
Other	.1	.1	13.5	.1	.2	73.2
Subtotal	5.3	7.4	39.3	8.8	11.8	34.2
Other	.4	1.0	176.0	.5	1.0	92.2
Total	6.2	10.0	61.8	\$10.1	\$15.1	50.1

Note: Discrepancies in totals are due to rounding.
Percentages are based on unrounded numbers.

Sources : U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; Alaska Fish Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix. Table 14. --Pacific Northwest exports of edible fishery products to Taiwan by product, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Salmon	0.1	1.1	676.3	\$0.2	\$ 1.4	520.2
Groundfish	.2	1.4	535.5	.2	1.9	684.7
Surimi	6.7	6.6	-2.6	5.7	5.9	4.1
Minced fish, fish meat, fish balls, cakes, and fish sticks	3.5	1.8	-46.8	2.0	1.1	-44.5
Fish, other	.6	.3	-56.1	.3	.4	50.7
Shellfish, total	.2	.6	286.2	.6	1.5	163.5
Total	11.3	11.8	3.7	\$9.0	\$12.2	36.4

Note: Discrepancies in totals are due to rounding.
Percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; Alaska Fish Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

Appendix Table 15. --Pacific Northwest exports of edible fishery products to France by product, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Salmon						
Chum	5.3	4.9	-6.3	\$ 5.3	\$ 4.3	-18.4
Pink	1.9	1.1	-41.8	2.0	1.1	-47.4
Coho	2.4	1.4	-43.5	4.9	2.2	-55.4
Other	1.0	.7	-35.2	1.9	.9	-52.0
Subtotal	10.6	8.1	-24.0	14.2	8.5	-39.9
Fish roe	.1	.3	168.3	1.5	1.7	14.2
Fillets	.3	.4	24.9	.5	.8	44.2
Surimi, minced, meat and fish sticks	.9	.2	-73.4	.8	.2	-70.8
Other	.2	.2	35.7	.3	.5	64.3
Total	12.1	9.2	-24.3	\$17.3	\$11.7	-32.5

Notet Discrepancies in totals are due to rounding.
 Percentages are based on unrounded numbers.

Sources: U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar.
 Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; Alaska
 Fish Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle,
 WA 98115-0070.

Appendix Table 16. --Pacific Northwest exports of edible fishery products to the Federal Republic of Germany by product, quantity (million lb), value (million dollars), and percent change from 1993 to 1994.

Product	Quantity			Value		
	1993	1994	% change	1993	1994	% change
Whole or dressed						
Salmon	0.9	0.7	-23.4	\$1.4	\$1.1	-21.9
Cod	2.3	.	.	1.4	.	.
Other	2.6	.6	-76.4	1.8	.6	-66.1
Fish roe	.1	.4	639.4	.6	1.7	175.9
Fillets	3.1	6.8	115.0	2.6	5.4	108.2
Surimi, minced, meat and sticks	.5	.2	-65.1	.4	.3	-35.6
Fish, other	.1	.0	-92.0	.2	.1	-62.8
Crab and crabmeat	.0	.0	-86.9	.1	.0	-39.1
Total	9.6	8.7	-9.5	\$8.5	\$9.2	7.5

Note: Discrepancies in totals are due to rounding.
Percentages are based on unrounded numbers.

Sources : U.S. Dep. Commer., Bur. of the Census; database from Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910; Alaska Fish Sci. Cent., 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070.

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