

GROUND FISH FISHERIES  
OF  
WASHINGTON, OREGON, AND CALIFORNIA  
IN 1987

by

Charles S. Korson

Southwest Region  
National Marine Fisheries Service  
300 South Ferry Street  
Terminal Island, California 90731

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## Summary of the Fishery in 1987

The following tables and figures present annual landings, exvessel values, and fishing vessel fleet data for the commercial groundfish fisheries off Washington, Oregon, and California from 1981 through 1987. During the 1987 fishing year shoreside landings increased by over 12 percent to 91,300 mt. Joint venture Pacific whiting landings were up 30 percent to over 106,000 mt. As a result the total commercial landed catch rose 21 percent when compared to the 1986 fishing year. The exvessel value of the total commercial landed catch was \$83.5 million or 28.5 percent higher than in 1986. The exvessel value of shoreside and joint venture landings increased 28 and 33 percent, respectively.

Groundfish landings for individual species/species groups were generally higher in 1987, with lingcod, Pacific cod, Pacific whiting, rockfish, and all flatfish species increasing. Because of lower quotas or stricter trip limits, landings of sablefish and Pacific ocean perch decreased.

Landings were noticeably higher for trawl and longline gear but declined for pots and setnets. The declining trend in the size of the trawl fleet over the past few years was reversed in 1987. The groundfish otter trawl fleet increased in size for the first time since 1983. The pot and longline groundfish fleets remained about constant in 1987. As in past years the number of setnet vessels participating in the groundfish fishery cannot be determined.

The figures presented in this document characterize the trends in the West Coast groundfish fishery over the past several years. Landings and exvessel value by gear and for the major components of the fishery (i.e., shoreside and JV) are graphed from 1981-1987. All "real" exvessel values and prices presented in the accompanying tables reflect the general price level of 1986. They show changes from year to year after the effect of general inflation has been removed.

Table 1 - Landings and Exvessel Values of Landings in Washington, Oregon, and California, Including Joint Venture Deliveries in Waters off These States.

	<u>1987</u>	<u>1986</u>	<u>% Change</u>
Shoreside (mt)	92,320	82,298	+12.2
Joint Venture (mt)	106,095	81,855	+29.6
Total WOC Landings	198,415	164,153	+20.8
Shoreside Values \$			
Current	71,875,000	56,240,000	+27.8
Real <sup>1</sup>	70,204,100	56,240,000	+24.8
Joint-Venture Value			
Current	11,663,000	8,760,000	+33.1
Real	11,391,900	8,760,000	+30.0
Total WOC Groundfish Landed Value			
Current	83,538,000	65,000,000	+28.5
Real	81,596,000	65,000,000	+25.5

Source: Pacific Coast Fishery Information Network (PacFIN); most current preliminary data as of June 1988  
 NMFS, Northwest Region

1/ Real values are current values adjusted to eliminate the effects of inflation. This adjustment has been made by dividing current values by the current year GNP implicit price deflator, with a base year of 1986. The GNP deflators are 1.00 in 1986 and 1.0238 in 1987.

Table 2- Average Annual Exvessel Prices Paid for Some Commercially Important Groundfish Species from 1977-1987.

	Sablefish		All Rockfish Combined		Widow Rockfish		Dover Sole		English Sole		Petrale Sole	
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
1978	.283	.448	.181	.286	-	-	.207	.327	.245	.388	.371	.587
1979	.356	.518	.199	.290	-	-	.215	.313	.286	.416	.447	.651
1980	.199	.265	.159	.212	-	-	.211	.281	.328	.437	.458	.611
1981	.215	.262	.169	.206	.135	.164	.223	.270	.297	.362	.512	.624
1982	.252	.289	.195	.224	.157	.180	.233	.267	.318	.365	.606	.696
1983	.237	.262	.223	.246	.192	.212	.224	.247	.322	.356	.682	.755
1984	.218	.232	.251	.267	.225	.240	.231	.246	.321	.343	.709	.755
1985	.334	.343	.281	.289	.250	.257	.240	.246	.333	.342	.736	.756
1986	.374	.374	.313	.313	.275	.275	.258	.258	.360	.360	.777	.777
1987	.472	.461	.350	.343	.322	.314	.305	.298	.402	.393	.816	.797

Source: PacFIN, Groundfish Report Series

NOTE: Real prices were adjusted for inflation using the GNP implicit price deflator, where 1986=1.00.  
All prices are weighted averages.

Table 3 - Commercial Landings (mt) of Individual Groundfish Species by State for 1986 and 1987.

Species	California		Oregon		Washington	
	1986	1987	1986	1987	1986	1987
Lingcod	514	929	656	719	714	1,023
Pacific Cod	-	73	31	659	303	1,545
Pacific Whiting	2,982	4,518	420	183	61	95
Sablefish	6,099	4,347	4,653	5,239	2,415	3,144
Pacific Ocean Perch	30	96	669	549	649	332
Widow Rockfish	2,468	2,274	4,329	6,300	2,765	4,113
Other Rockfish	14,414	14,309	6,771	7,856	4,742	4,581
Dover Sole	10,987	10,761	4,822	6,058	1,480	1,622
English Sole	1,074	1,322	552	595	403	560
Petrable Sole	711	824	709	855	313	526
Other Flatfish	1,701	1,771	1,285	1,572	1,982	2,403

Source: PacFIN, Groundfish Report Series

Table 4 - California, Oregon, and Washington Shoreside Commercial Groundfish Landings (Metric Tons) and Exvessel Values (Thousands of Dollars) from 1977-1987.

Year	California		Oregon		Washington		Total Coast	
	mt	\$	mt	\$	mt	\$	mt	\$
1977	32,082	12,185	10,172	4,150	12,712	4,362	54,966	20,697
1978	36,805	18,457	16,469	7,871	19,285	8,213	72,559	34,541
1979	36,392	19,566	28,935	17,264	22,508	11,112	87,835	47,942
1980	36,862	16,551	28,515	11,425	22,514	9,119	87,891	37,095
1981	42,578	21,448	37,502	14,721	23,093	10,100	103,173	46,269
1982	52,608	27,795	41,023	20,445	25,368	11,405	118,999	59,645
1983	39,498	21,984	35,158	18,345	22,970	11,257	97,626	51,586
1984	40,570	22,914	28,209	15,234	21,080	10,474	89,859	48,622
1985	43,062	26,516	29,023	17,095	19,229	12,449	91,314	56,060
1986	41,246	28,522	24,931	16,813	16,081	10,905	82,298	56,240
1982-86 Average	43,397	25,546	31,669	17,586	20,946	11,298	96,019	54,431
1987	41,410	30,682	30,627	24,328	20,283	16,866	92,320	71,875

Source: State Fishery Agencies  
PacFIN, Groundfish Report Series; 1981-1987  
Annual data updated and current as of June 1988

Table 5 - Landings and Value of Individual Groundfish Species Landed in Washington, Oregon, and California in 1986 and 1987.<sup>1</sup>

Species	1986		1987		mt	% Change	\$
	mt	\$	mt	\$			
Lingcod	1,884	1,317,300	2,586	2,152,800	+37.0		+63.4
Pacific Cod	334	202,200	2,270	1,644,900	+580.0		+713.5
Pacific Whiting	3,463	448,500	4,795	666,100	+38.5		+48.1
Sablefish	13,167	10,867,700	12,730	13,244,600	-3.3		+21.9
Pacific Ocean Perch	1,348	822,700	976	704,400	-27.6		-14.4
Widow Rockfish	9,562	5,803,800	12,687	9,002,300	+32.7		+55.1
Other Rockfish	25,972	18,797,600	26,746	21,477,300	+3.2		+14.3
Dover Sole	17,289	9,821,000	18,441	12,400,400	+6.7		+26.3
English Sole	2,028	1,601,800	2,477	2,195,400	+22.1		+37.1
Petrale Sole	1,733	2,966,500	2,204	3,964,700	+27.2		+33.6
Other Flatfish	4,968	3,003,100	5,747	3,763,500	+15.7		+25.3
TOTAL	81,703	55,652,200	91,659	71,214,400	+12.2		+28.0

Source: PacFIN, Groundfish Report Series

1/ Includes domestic landings from U.S. coastal waters off WOC, but not Puget Sound; A small amount of landings of miscellaneous groundfish species are not included in the totals.



Table 6. West Coast Landings and Exvessel Value of Sablefish by Gear, 1986 and 1987.<sup>1</sup>

	Total WOC 1987		Total WOC 1986	
	mt	\$	mt	\$
Ground trawl	6,430.0 (50.0)	4,625.5 (34.9)	6,007.7 (45.6)	3,554.7 (32.7)
Pot	2,017.0 (15.8)	2,293.7 (17.3)	2,115.9 (16.1)	2,084.6 (19.2)
Longline	4,152.0 (32.6)	6,231.6 (47.0)	3,572.0 (27.1)	4,163.5 (38.3)
Net	36.4 (0.3)	21.1 (0.2)	117.1 (0.9)	55.3 (0.6)
Other	94.7 (0.7)	72.7 (0.6)	1,354.0 (10.3)	1,009.6 (9.3)
Total	12,730.1	13,244.6	13,167.0	10,867.7

1/ Figures in parentheses are the percentages each gear group contributed to the total landed catch and exvessel value.

Table 7 - West Coast Groundfish Shoreside Landings (metric tons) by gear group, 1981-87.

	<u>Trawl</u>	<u>Trap/ Pot</u>	<u>Setline*/ Longline</u>	<u>Gill/Set** Net</u>	<u>Other/Misc</u>
1981	90,797	3,956	3,997	1,632	2,791
1982	103,299	6,530	4,384	2,077	2,709
1983	81,668	5,423	2,191	2,243	6,101
1984	72,693	3,854	1,989	2,199	9,124
1985	75,352	3,703	4,603	3,918	3,737
1986	61,249	2,216	5,894	4,205	8,734
1987	74,719	2,076	6,952	3,903	4,740

Source: PacFIN, Groundfish Report Series, Annual data updated and current as of June 1988

\* Includes commercial pole catch for California landings, because large quantities of sablefish are landed with this gear in PacFIN. Consequently values will differ from previous annual reports.

\*\* Includes gill net, set net, and other net; but not dip, trammel, seine, or miscellaneous nets.

Table 8 - Exvessel Value (thousands of dollars) of West Coast Groundfish Landings by gear group, 1981-1987.

	<u>Trawl</u>	<u>Trap/Pot</u>	<u>Set/Longline*</u>	<u>Gill/Set** Net</u>	<u>Other/Misc</u>
1981	37,855	2,081	3,696	1,468	2,169
1982	46,987	4,863	4,551	1,814	1,430
1983	40,578	3,598	2,091	1,742	3,578
1984	36,885	2,338	2,083	1,955	5,361
1985	41,264	3,154	5,329	3,367	2,946
1986	36,916	2,171	6,811	3,715	6,627
1987	52,162	2,347	9,527	3,806	4,032

Source: PacFIN, Groundfish Report Series, Annual data updated and current as of June 1988.

\* Includes commercial pole catch for California landings, because large quantities of sablefish are landed with this gear in PacFIN. Consequently values will differ from previous annual reports.

\*\* Includes gill net, set net, and other net; but not dip, trammel, seine, or miscellaneous.

Table 9 - Number of Shoreside Vessels in Washington, Oregon, and California Commercial Groundfish Fleets, 1981-1987.

<u>Year</u>	<u>Otter Trawl</u>	<u>Pot/Trap</u> <sup>1</sup>	<u>Longline</u> <sup>1</sup>
1981	408	66	191
1982	444	82	208
1983	436	59	185
1984	397	34	96 <sup>2</sup>
1985	358	32	129 <sup>2</sup>
1986	308	25	190 <sup>2</sup>
1987	324	26	186 <sup>3</sup>

Source: State Fishery Agencies

1/ Vessels landing fish caught with this gear-type in two or more states are counted in each state for years 1982-83. These numbers therefore are an upper bound for the true number of vessels using this gear-type.

2/ Represents number of longline vessels landing in Oregon and Washington, where double counting has been eliminated; California data unavailable for those years.

3/ Includes count for sablefish longline vessels landing in California and Oregon and all coastal longline vessels in Washington.

Table 10 - Washington, Oregon, and California Groundfish Shoreside Trawl Fleet Characteristics, 1983-87.

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Total Number Landing	397	358	308	324
Frequency by Size (Length) Class				
< 30 feet	2	2	1	1
30-39	20	15	9	10
40-49	100	96	73	74
50-59	108	93	87	87
60-69	104	98	90	96
70-79	44	39	37	39
80-89	11	6	6	10
> 90	8	9	5	7
Vessel Characteristics:				
Average Length	57.41	57.6	58.2	58.8
Average Horsepower	312.4	309.7	310.8	319.6
Average Net Tonnage	45.5	45.8	47.6	49.7
Number Vessels Based in Each State				
California	169	157	126	121
Oregon	146	121	110	120
Washington	82	80	72	83
Vessels Landing in More than One State	61	41	34	35

Source: State Fishery Agencies

Table 11 - West Coast Commercial Groundfish Shoreside Landings, Exvessel Values (Thousands of Dollars) and Average Vessel Gross Revenues for Selected Gear Groups, 1980-1987. (Numbers of vessels using gear types other than the three listed below are unknown).

<u>Year</u>	<u>Groundfish Otter Trawl</u> <sup>1</sup>			<u>Pot/Trap</u>			<u>Longline</u>		
	<u>mt</u>	<u>\$</u>	<u>\$ per Vessel</u>	<u>mt</u>	<u>\$</u>	<u>\$ per Vessel</u>	<u>mt</u>	<u>\$</u>	<u>\$ per Vessel</u>
1981	90,800	37,900	92.9	3,956	2,080	31.5	3,997	3,700	11.3
1982	103,300	47,000	105.8	6,530	4,860	59.3	4,384	4,600	13.2
1983	81,700	40,600	93.1	5,423	3,600	61.0	2,191	2,100	7.2
1984	72,700	36,900	92.9	3,854	2,340	68.8	1,989	2,100	N/A
1985	75,400	41,300	115.4	3,703	3,154	98.6	4,603	5,300	N/A
1986	61,200	36,900	119.8	2,216	2,171	86.8	5,894	6,800	N/A
1987	74,700	52,200	161.1	2,076	2,347	90.3	6,952	9,500	51.1

Source: PacFIN, Groundfish Report Series, data updated and current as of June 1988.

1/ Includes bottom, roller, and midwater trawls.

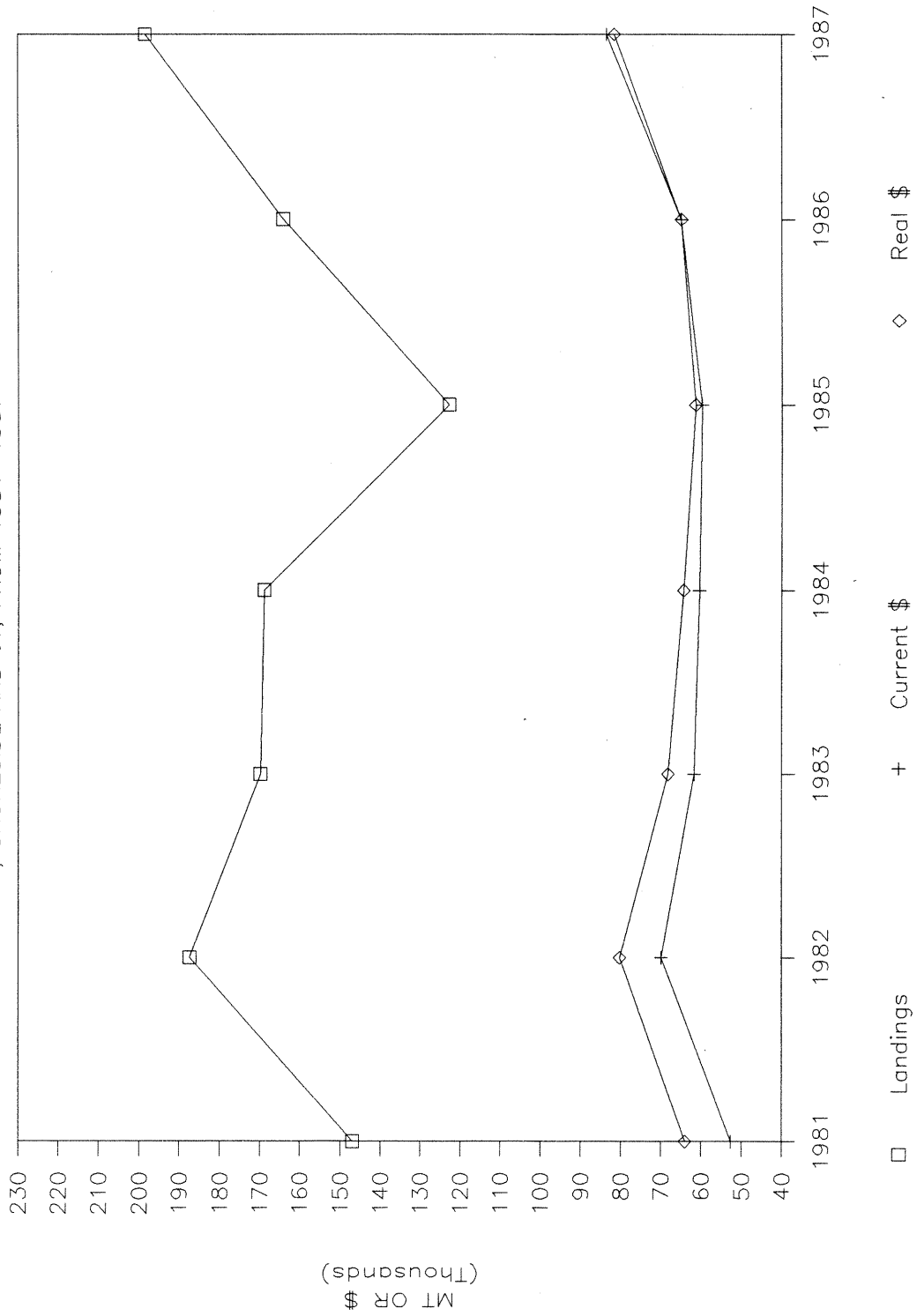
Table 12 - Landings and Participation in Pacific Whiting Joint-Venture Fisheries off of Washington, Oregon, and California, 1979-1987.

<u>Year</u>	<u>Landings (mt)</u>	<u>Estimated Dollar Value (\$)</u>	<u>Number of Trawl Vessel</u>	<u>Average Revenue Per Vessel (\$)</u>
1979	9,054	1,162,000	11	105,600
1980	26,793	3,275,000	15	218,300
1981	43,758	6,345,000	21	302,100
1982	68,420	10,367,000	17	609,800
1983	72,140	10,217,000	19	537,700
1984	79,047	11,841,000	21	563,800
1985	31,567	3,751,000	17	220,700
1986	81,855	8,760,000	25	350,400
1987	106,095	11,663,000	31	376,200

Source: PacFIN, Groundfish Report Series  
 NMFS, Northwest Regional Office

# TOTAL WOC GROUND FISH LANDINGS AND VALUE

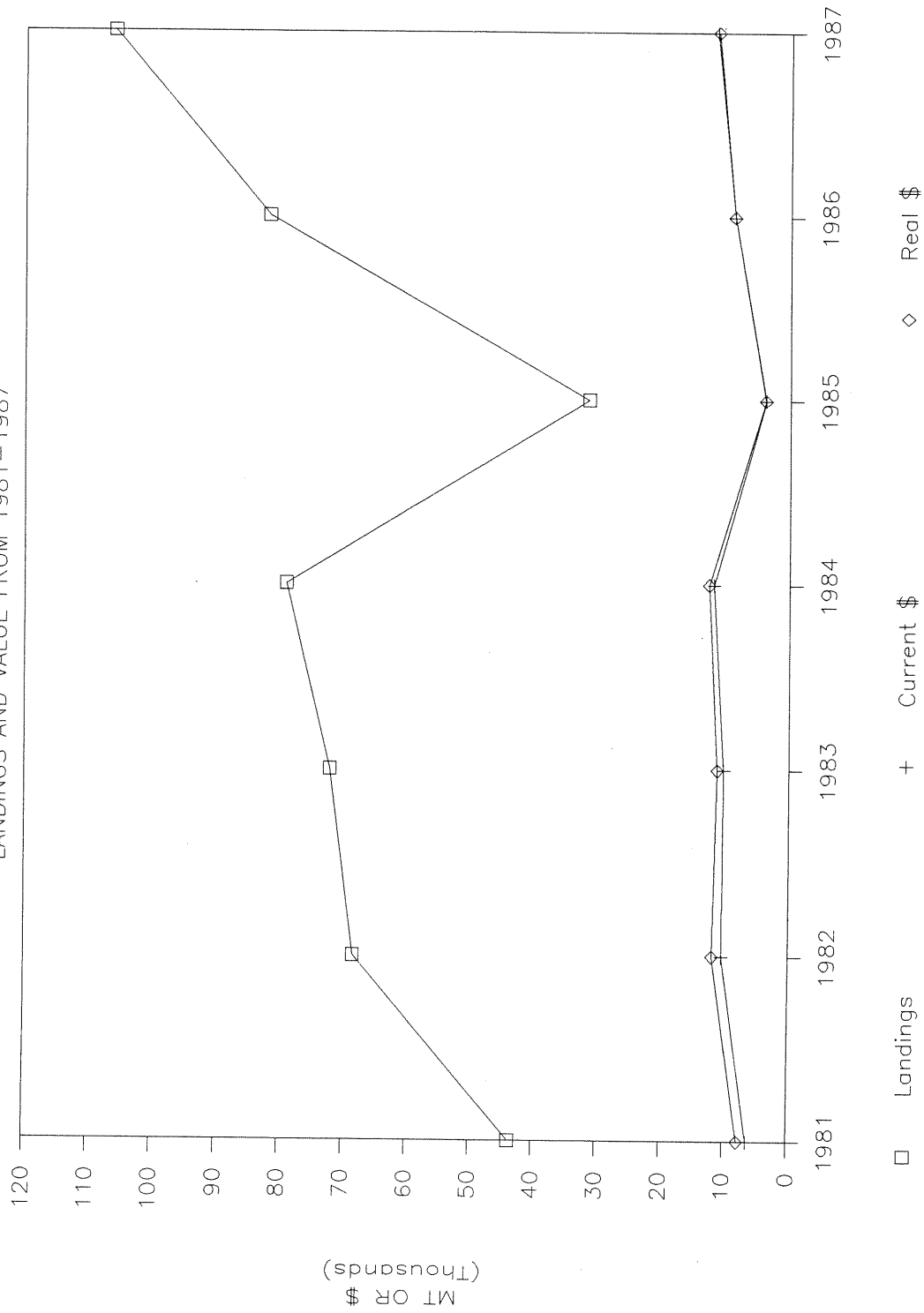
, SHORESIDE AND JV, FROM 1981-1987





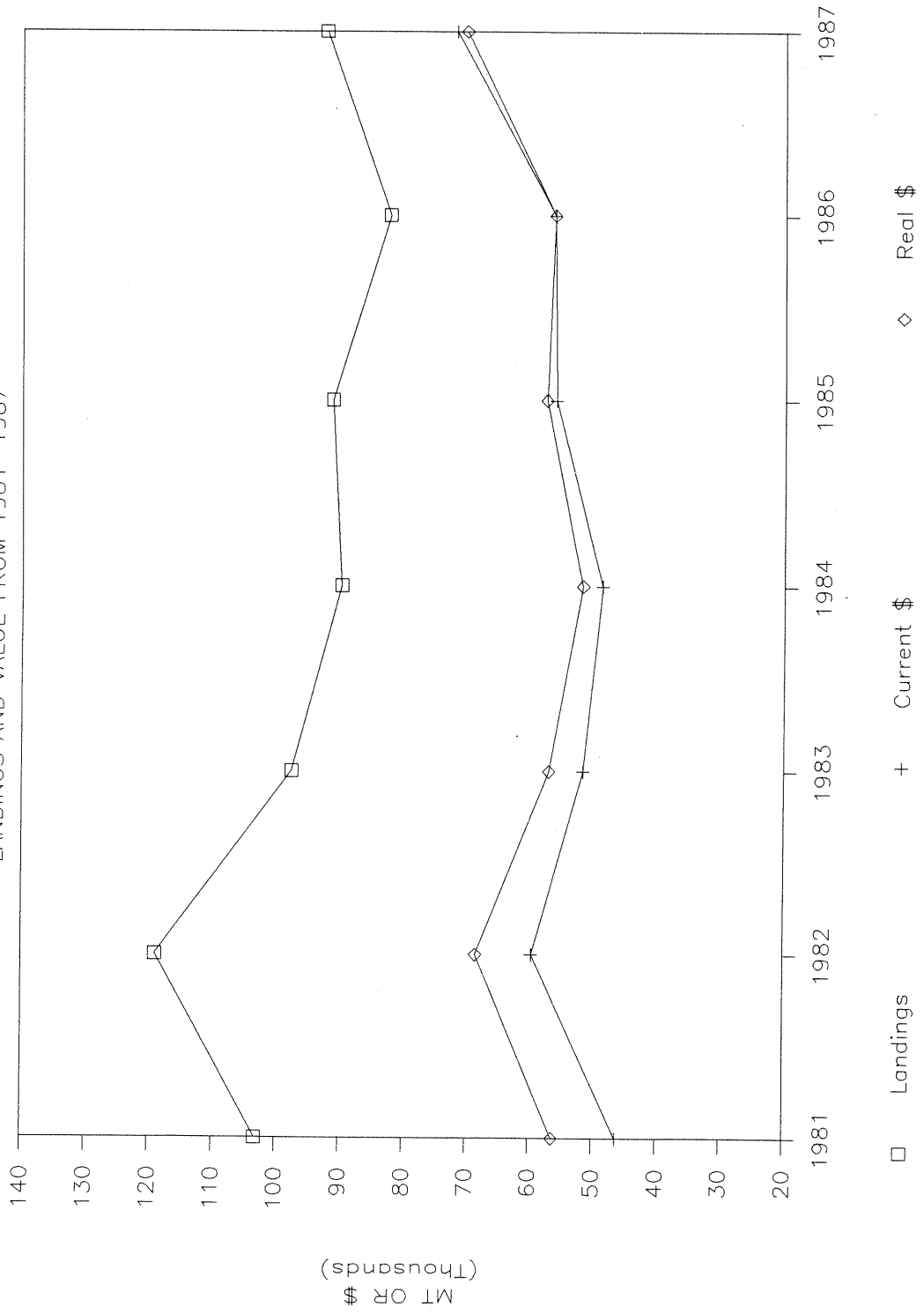
# WOC PACIFIC WHITING JOINT VENTURE

LANDINGS AND VALUE FROM 1981-1987



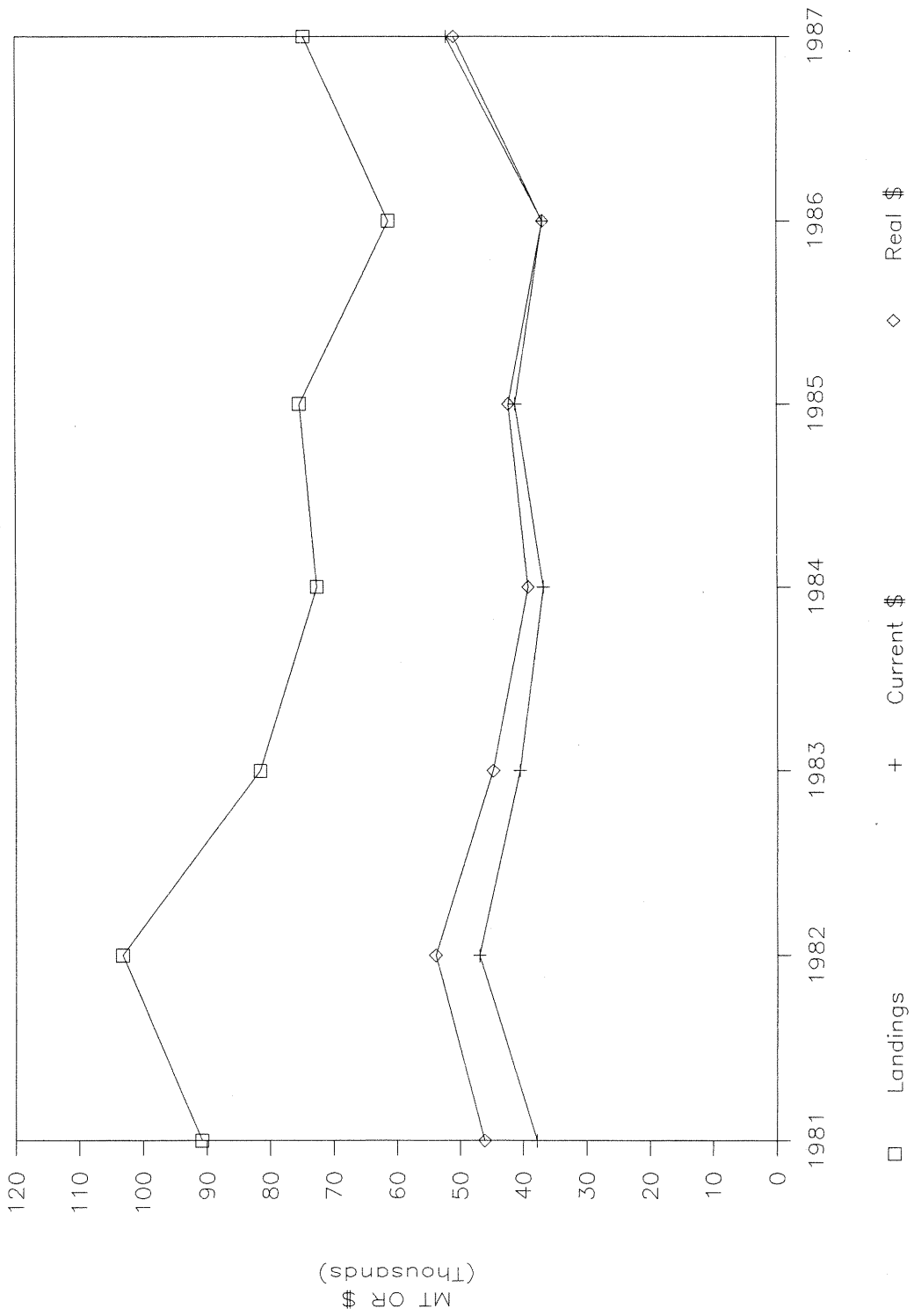
# WOC SHORESIDE GROUND FISH

LANDINGS AND VALUE FROM 1981-1987



# WOC GROUNDFISH LANDINGS AND VALUE

FOR GROUNDFISH TRAWL GEAR, 1981-1987



# WOC GROUNDFISH LANDINGS

FOR FIXED GEAR FROM 1981-1987

