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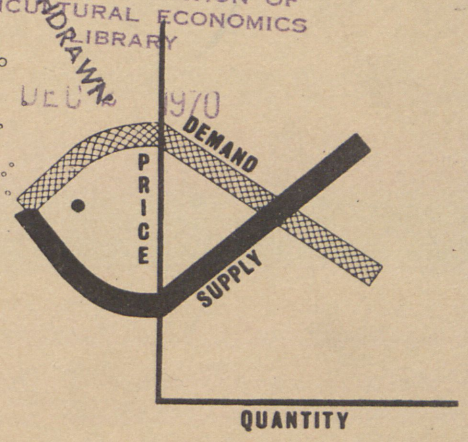

BASIC ECONOMIC INDICATORS

HALIBUT

Master Plan Fishery 50 10 09

Working Paper No. 52

April 1970

US BUREAU OF COMMERCIAL FISHERIES
DIVISION OF ECONOMIC RESEARCH

Foreward

The purpose of "Basic Economic Indicators" is to bring together pertinent economic, technological and biological data for each Master Plan fishery. The Division of Economic Research of the Bureau of Commercial Fisheries has consolidated the basic variables which reflect the economic behavior of a fishery. Having this basic data set under one cover will materially aid research and development currently being conducted on each fishery and will serve as a helpful guide to policy decisions. In addition, Basic Economic Indicators reflect a major shift in thinking away from the separate discipline approach and to an interdisciplinary approach to solving many of the problems faced by the U.S. fishing industry. Hopefully, these data will be of great value in furthering quantitative analyses of the nation's fisheries.

It should be noted that data for 1967 and 1968 are preliminary. Some figures are approximations and are subject to revision. Comments and suggestions may be directed to the Division of Economic Research, 7338 Baltimore Avenue, College Park, Maryland 20740.

The "Basic Economic Indicators" were compiled and reviewed by the staff of the Division of Economic Research under the supervision of Richard K. Kinoshita with major contributions from Bruno G. Noetzel and Kenneth E. Koller.

Frederick W. Bell

Frederick W. Bell, Chief
Division of Economic Research

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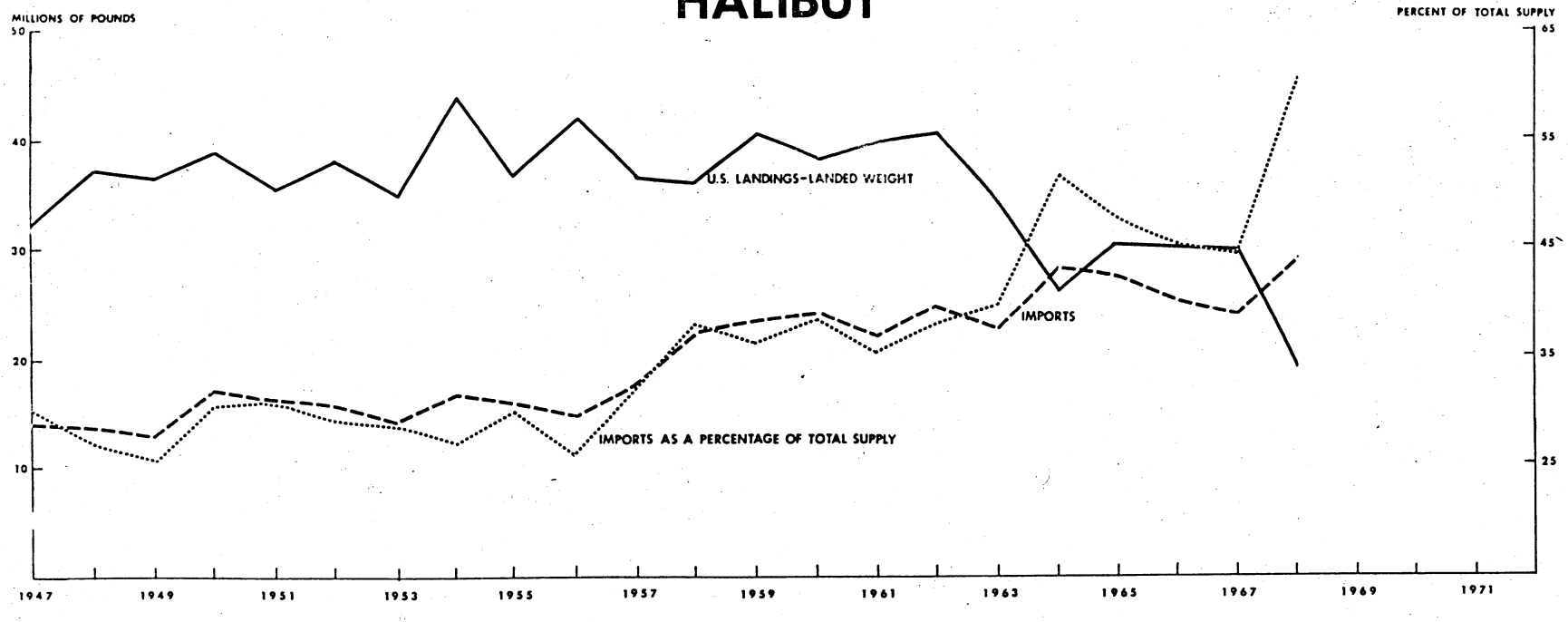

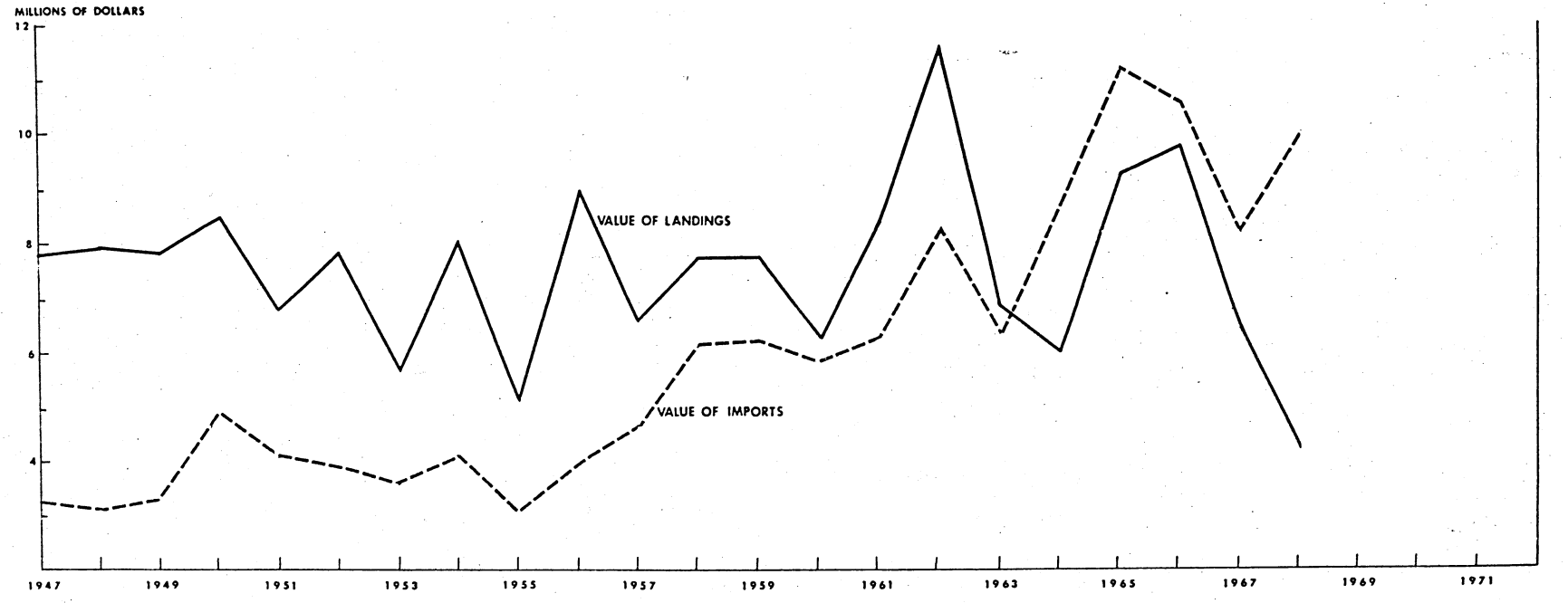

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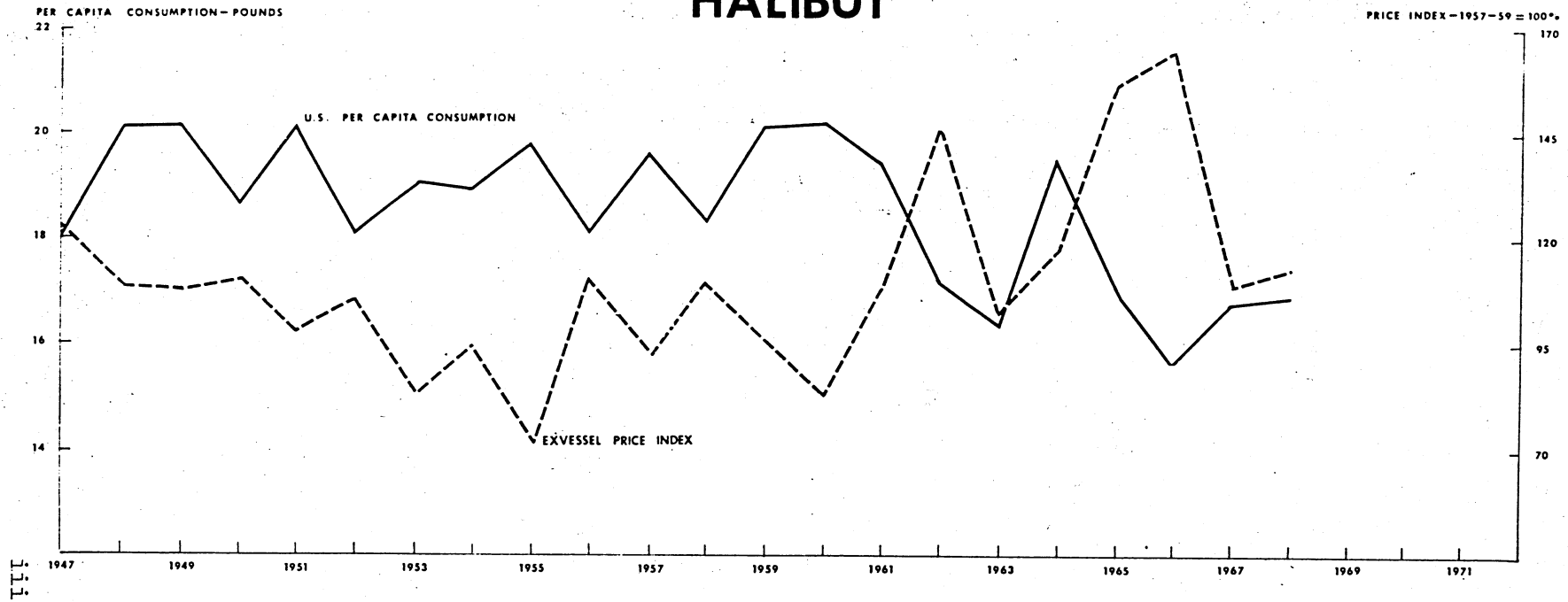

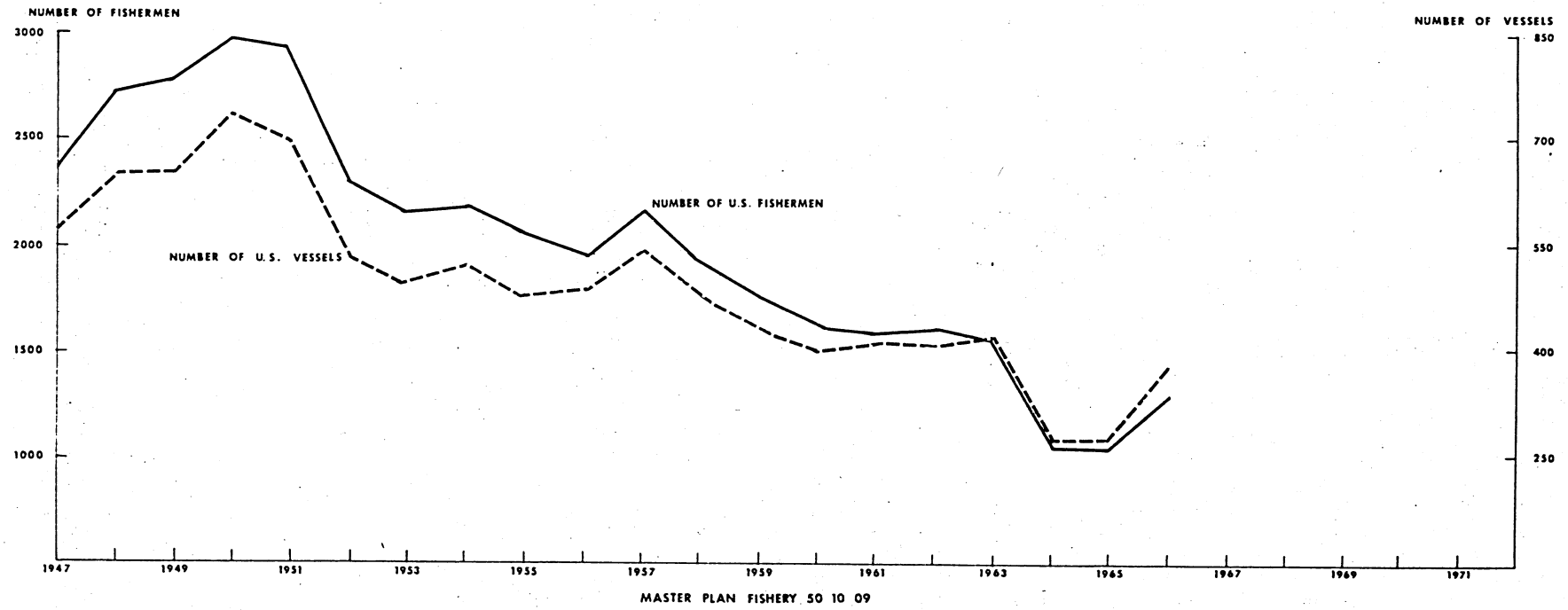

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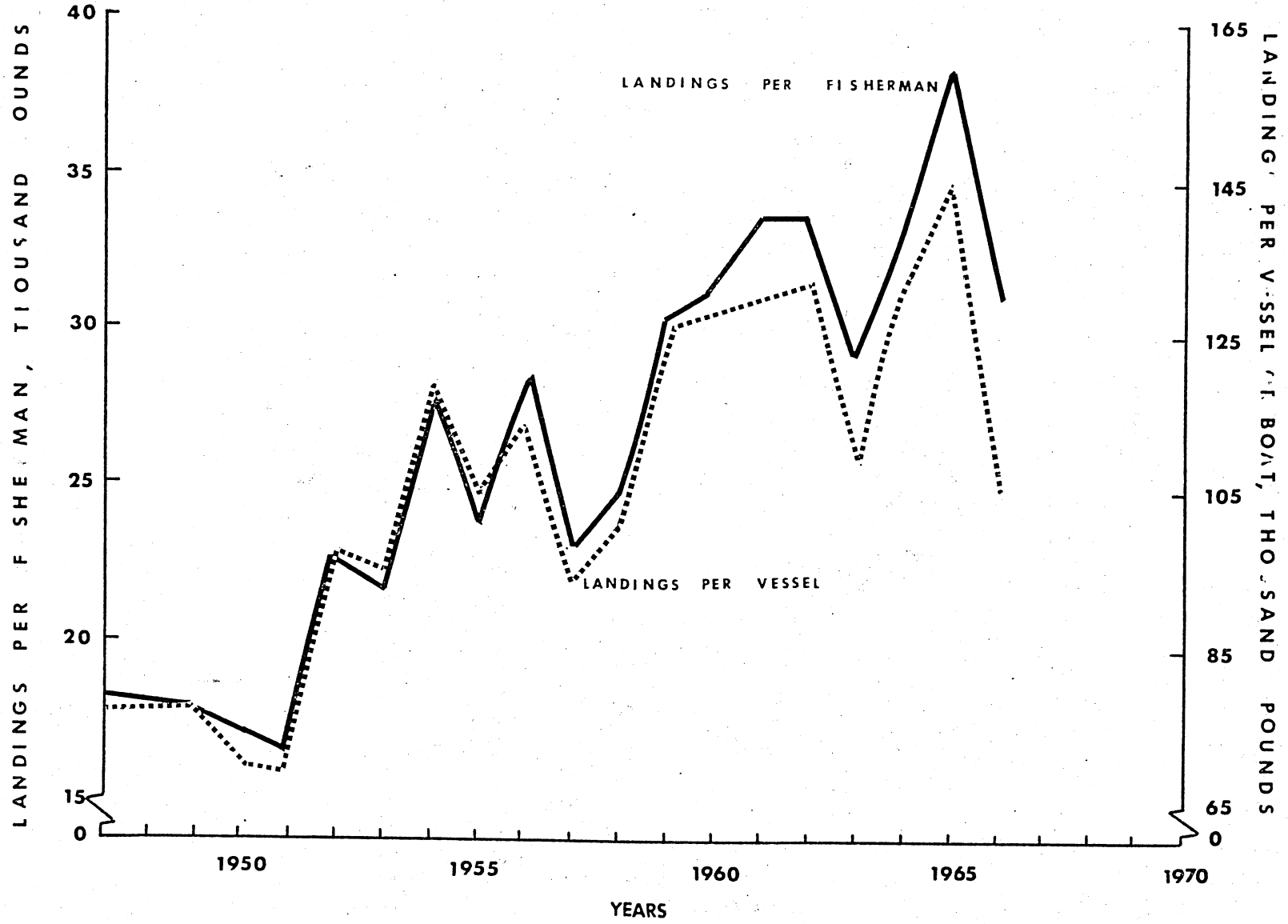
PRODUCTIVITY OF HALIBUT FISHERMEN AND VESSELS AND BOATS



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I INDUSTRY PERFORMANCE INDICATORS

- Cost and earnings of vessels
- Earnings of fishermen
- Productivity
  - Vessels
  - Fishermen
  - Fishing effort
- Costs per pound of fish landed
- Historical growth rates
  - landings
  - fishermen
  - vessels

Table I-1.--Cost and earnings of selected halibut vessels, 1966-68

Item	1966	1967	1968
No. of vessels	24	26	23
Av. length of vessels (feet)	58.6	58.7	59
No. of trips	4.4	5.1	4.6
Av. length of trip (days)	19.8	21.4	23.0
Av. crew size	5.5	5.5	5.5
	----------per vessel----------		
Landings (pounds)	232,072	272,408	246,453
Av. price (cents)	34.0	23.7	24.2
Gross receipts *	$ 88,621	$ 71,771	$ 71,262
Trip expenditure			
Food	n.a.	n.a.	n.a.
Fuel & lube	n.a.	n.a.	n.a.
Ice & icing	n.a.	n.a.	n.a.
Other	n.a.	n.a.	n.a.
Subtotal	13,499	14,628	14,839
Repair & maintenance			
Gear	3,133	2,756	2,741
Hull & engine	3,352	3,221	2,918
Subtotal	6,485	5,977	5,659
Fixed charges			
Interest	312	189	231
Insurance	1,526	1,516	1,810
Taxes (employee)	1,971	1,754	1,772
Administrative	510	442	419
Subtotal	4,319	3,901	4,232
TOTAL CASH EXPENDITURES	24,303	24,506	24,730
Share to labor & capital			
Wages	53,640	39,969	38,450
Captain's commission	1,494	1,033	1,085
Owner's share	9,184	6,263	6,997
TOTAL SHARE EXPENDITURES	64,318	47,265	46,532
Depreciation	1,865	1,699	1,584
Net return before taxes	7,319	4,564	5,413

*Included are receipts from fishing for tuna, salmon, blackcod, groundfish and from charters: in 1966 - $9,606 per vessel
in 1967 - 7,202 per vessel
in 1968 - 11,579 per vessel

Table I-1.--Cost and earnings of selected halibut vessels, 1966-68 (Continued)

Note: In 1966 there were 291 vessels and 35 boats in the U.S. halibut fleet. The sample of 24 vessels in 1966 represents:

8.2 percent of the total number of U.S. vessels
36.4 percent of the Washington and Oregon fleet
18.4 percent of total U.S. halibut landings (quantity)
19.5 percent of total U.S. halibut landings (value)

The sample is representative of the halibut fleet based in the Seattle area.

Source of financial information:
Fishing Vessel Owner's Association, Seattle, Wash.

Source of information on effort and catch:
International Pacific Halibut Commission, Seattle, Wash.

Table I-2.--Earnings of halibut fishermen for selected vessels, 1966-68

Item	1966	1967	1968
No. of vessels	24	26	23
Av. crew size	5.5	5.5	5.5
Gross receipts per vessel	$88,621	$71,771	$71,262
Share to labor per vessel	55,134	41,002	39,535
Av. share per man	9,752	7,267	6,990
Food expenditures per man	n.a.	n.a.	n.a.
Av. share per man including food	n.a.	n.a.	n.a.
Real share excluding food[1/]	8,622	6,248	5,767
Wage in manufacturing	5,842	5,975	6,371
Real wage in manufacturing[1/]	5,165	5,137	5,274

Source: Table I-1

1/ Deflated by CPI.

Table I-3.--Productivity of halibut fisherman and vessels: landings per fisherman, vessel, and catch per skate, 1947-66.

	Landings per fisherman	Landings per vessel	Catch per skate, Area 2 1/	Catch per skate, Area 3 1/
	Pounds	Pounds	Pounds	Pounds
1947	18,313	75,810	86	116
1948	18,160	75,842	91	115
1949	17,936	76,557	90	106
1950	17,314	70,341	96	108
1951	16,385	68,750	96	107
1952	22,537	76,725	116	131
1953	21,742	94,799	137	137
1954	28,183	118,066	150	136
1955	23,901	104,142	131	124
1956	28,487	113,425	135	132
1957	23,047	92,506	108	129
1958	24,969	99,310	111	148
1959	30,602	125,902	111	167
1960	31,470	127,052	113	153
1961	33,620	129,910	106	155
1962	33,673	131,734	92	140
1963	29,442	108,886	91	129
1964	33,353	130,941	91	116
1965	38,770	144,258	96	106
1966	31,208	105,267	96	113
1967			96	116
1968			99	116
1969				
1970				
1971				
1972				

Source: Fishery Statistics of the U.S.

1/ International Pacific Halibut Commission. See Table V-6 for series back to 1929.

Table I-4.--Costs per pound of fish landed for selected halibut vessels, 1966-68

Item	1966	1967	1968
Landings (pounds)	232,072	272,408	246,453
Gross receipts	$ 88,621	$ 71,771	$ 71,262
Average price (cents per lb.)	34.0	23.7	24.2
Total Expenditures	$ 81,302	$ 67,207	$ 65,849
	---------Cents per pound-------		
Trip expenditures	5.19	4.83	5.04
Repair & maintenance	2.49	1.97	1.92
Fixed charges	1.66	1.29	1.44
Share to labor	21.18	13.54	13.43
Depreciation	.72	.56	.54
Cost per unit of output	31.24	22.19	22.37

Source: Table I-1

Table I-5.--Financial structure of fishing firms: halibut vessels 1/

Item	All assets sizes		Under $50,000		Over $50,000	
	Thou. dollars	Percent of total	Thou. dollars	%	Thou. dollars	%
Assets						
Current assets	2.6	5.6	3.2	9.8	1.4	1.9
Net value of vessel	42.3	92.0	27.7	85.0	71.4	98.1
Other non-current assets	1.1	2.4	1.7	5.2	-	-
Total assets	46.0	100	32.6	100	72.8	100
Liabilities						
Total current liabilities	5.5	12.0	2.3	7.1	11.9	16.3
Total long term liabilities	17.0	37.0	18.5	56.7	13.9	19.1
Capital stock and earned surplus	23.5	51.0	11.8	36.2	47.0	64.6
Total liabilities and capital	46.0	100	32.6	100	72.8	100

Source: Data Bank, Division of Economic Research, BCF

1/ A sample of 6 firms, for which data for 1968 was available (fairly representative for halibut fishing industry)

Table I-6.--Estimated market value of a halibut vessel, based on present value of future returns

Mean returns to vessel 1/: $6,840

Discount rate 2/	Expected useful life - Years			
	5	10	15	20
Percent:	Market Value in dollars:			
12	24,700	38,600	46,600	51,000
18	21,400	30,700	34,800	36,600
24	18,800	25,200	27,400	28,100

1/ Based on data from Table I-1: Net return before taxes, plus depreciation, plus interest paid; average value for 1967-68.

2/ Arbitrarily chosen.

Table I-7.--Historical growth rate of Pacific halibut; landings fishermen and vessels

	1947-1966
Landings 1/	-0.73 percent per year
Fishermen 2/	-4.70 percent per year
Vessels 3/	-4.10 percent per year

1/ Log of landings (million lbs.) = 4.7173 - .0031 time (1.53)

2/ Log of number of fishermen (1,000's) = 3.5017 - .0207 time (10.49)

3/ Log of number of vessels (1,000's) = 2.8596 - .0171 time (7.91)

II DEMAND INDICATORS

- Consumption
  - Aggregate
  - Per capita
  - Socio-economic characteristics
- Prices
  - Exvessel
  - Wholesale
  - Retail
- Value
  - Landings
  - Wholesale
  - Retail
- Relative prices
- Seasonal demand
- Price and income elasticities

Table II-1 -- U.S. Consumption of halibut: Aggregate and Per Capita

(Edible Weight)

	Aggregate	Per Capita
	Thou. pounds	Pounds
1947	28,685	.199
1948	31,948	.218
1949	32,340	.217
1950	31,461	.207
1951	33,896	.220
1952	31,095	.199
1953	32,565	.205
1954	34,640	.214
1955	35,422	.214
1956	33,188	.197
1957	36,397	.213
1958	34,879	.200
1959	38,035	.215
1960	40,857	.227
1961	39,577	.216
1962	38,629	.208
1963	34,962	.185
1964	38,587	.202
1965	34,398	.177
1966	31,762	.162
1967	34,396	.174
1968	35,175	.176
1969		
1970		
1971		
1972		

Source: Division of Economic Research, BCF

Table II-2.--U.S. consumption of fresh and frozen halibut by socio-economic characteristics, 1969 1/

(Retail Weight)

Socio-Economic Characteristics	1969				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Total
	Pounds per capita				
RACE					
Negro	.078	.065	.000	.009	.152
White	.120	.070	.067	.065	.322
Other	.000	.000	.000	.000	.000
Not specified	.133	.100	.000	.057	.290
RELIGION					
Catholic	.110	.061	.047	.066	.284
Jewish	.313	.177	.197	.210	.897
Protestant	.114	.066	.063	.056	.299
Other	.085	.284	.126	.024	.519
Not specified	.052	.000	.000	.000	.052
INCOME PER CAPITA					
Under 1,000	.053	.043	.006	.007	.109
1,000-1,999	.094	.062	.057	.066	.279
2,000-2,499	.078	.015	.021	.052	.166
2,500-2,999	.138	.071	.048	.064	.321
3,000-3,499	.090	.070	.148	.076	.384
3,500 & over	.236	.113	.087	.079	.515
OCCUPATION					
Prof. & semiprofessional	.094	.067	.040	.064	.265
Proprietors, managerial	.107	.065	.060	.053	.285
Clerical & sales	.152	.059	.070	.096	.377
Craftsmen, foremen	.154	.089	.105	.072	.420
Head operative	.048	.062	.049	.049	.208
Service workers, & laborers	.146	.066	.046	.040	.298
EDUCATION					
Less than 4 yr. high school	.106	.056	.066	.042	.270
Less than 4 yr. college	.134	.075	.073	.073	.355
College grad.	.101	.068	.036	.073	.278
Head, not spec.	.048	.264	.016	.039	.367
REGION					
New England	.140	.105	.035	.005	.285
Middle Atlantic	.122	.069	.028	.027	.246
E. North Cent.	.081	.045	.035	.035	.196
W. North Cent.	.076	.049	.058	.035	.218
South Atlantic	.018	.015	.011	.010	.054
E. South Cent.	.022	.009	.000	.006	.037
W. South Cent.	.021	.000	.008	.009	.038
Mountain	.903	.233	.263	.344	1.743
Pacific	.258	.197	.256	.246	.957

Source: Division of Economic Research, Bureau of Commercial Fisheries.

1/ Purchases by households for home use

Table II-3 -- Halibut Prices: ExVessel, Wholesale and Retail

	ExVessel[1]		Wholesale		Retail[5]
	Round	Dressed	Dressed[2]	Steaks[3]	
	Cents per pound				
1947	17.83	23.66	NA	41.2	59.3
1948	15.91	20.87	NA	40.2	57.9
1949	15.60	20.91	NA	37.6	54.1
1950	16.33	21.59	36.5	46.5	67.0
1951	14.25	19.21	33.4	42.9	61.8
1952	15.00	20.36	36.9	44.0	63.4
1953	12.06	16.27	31.1	41.2	59.3
1954	13.23	18.39	32.4	39.8	57.3
1955	10.56	14.00	28.3	36.5	52.6
1956	16.34	21.51	37.0	48.5	69.8
1957	13.14	17.89	33.5	39.3	56.6
1958	16.14	21.25	34.9	48.7	70.1
1959	14.45	19.02	33.1	42.8	61.6
1960	12.23	16.25	31.1	43.0	61.9
1961	15.79	20.99	34.8	49.2	70.9
1962	21.53	28.63	42.7	55.4	79.8
1963	15.10	20.07	38.8	47.5	68.4
1964	16.90	22.45	38.5	47.2	68.0
1965	22.75	30.22	44.9	56.8	81.8
1966	24.07	32.02	47.8	59.9	86.3
1967	15.44	21.38	41.4	55.6	80.1
1968	16.73	22.28	38.2	53.4[4]	76.9
1969					
1970					
1971					
1972					

Source: Division of Economic Research.

1/ Pacific coast only. Fishery Statistics of the U.S.

2/ West, 20/80 pounds, fresh or frozen at New York, U.S. Department of Labor, BLS.

3/ Frozen, Manufactured Fishery Products and Processed Fishery Products, BCF.

4/ Estimated

5/ Estimated by applying marketing margins in 1967 to the wholesale price of steaks.

Table II-4.--Value of halibut landings, at wholesale and at retail.

	Exvessel	Wholesale[1/]	Retail[1/]
	----------Thousand dollars----------		
1947	7,786	11,818	17,010
1948	7,904	12,843	18,498
1949	7,821	12,160	17,496
1950	8,457	14,629	21,079
1951	6,886	14,541	20,948
1952	7,851	13,682	19,714
1953	5,733	13,417	19,311
1954	8,140	13,787	19,849
1955	5,249	12,929	18,632
1956	9,087	16,096	23,165
1957	6,631	14,304	20,601
1958	7,786	16,986	24,450
1959	7,840	16,279	23,430
1960	6,302	17,452	25,290
1961	8,488	19,471	28,059
1962	11,658	21,401	30,827
1963	6,972	16,609	23,917
1964	6,022	18,214	26,240
1965	9,329	19,539	28,138
1966	9,827	19,022	27,406
1967	6,536	19,125	27,552
1968			
1969			
1970			
1971			
1972			

1/ Estimated value.

Table II-5.--Retail price of halibut relative to the Consumer Price Index and the Consumer Price Index for meat, poultry, and fish, 1947-68.

	Retail[1]	Retail/CPI[2]	Retail/CPI$_{mpf}$[3]
	Cents per pound		
1947	59.3	76.2	70.0
1948	57.9	69.9	60.2
1949	54.1	65.2	59.4
1950	67.0	80.0	70.5
1951	61.8	68.3	58.1
1952	63.4	68.5	60.2
1953	59.3	63.6	59.5
1954	57.3	61.2	58.5
1955	52.6	56.4	57.1
1956	69.8	73.7	79.3
1957	56.6	57.8	59.3
1958	70.1	69.6	67.1
1959	61.6	60.7	61.4
1960	61.9	60.0	62.5
1961	70.9	68.0	71.4
1962	79.8	75.7	78.5
1963	68.4	64.1	68.3
1964	68.0	62.9	69.0
1965	81.8	74.4	77.8
1966	86.3	66.8	75.6
1967	80.1	68.9	72.0
1968	76.9	63.4	67.6
1969			
1970			
1971			
1972			

Source: BCF and U.S. Department of Labor, BLS

1/ Estimated by applying marketing margins to the wholesale price of halibut steaks.
2/ Consumer Price Index, 1957-59 = 100
3/ Consumer Price Index for meat, poultry and fish 1957-59 = 100

Table II-6 -- Index of Seasonal Demand for Halibut[1/]

Month	Fulton Fish Market
January	116.8
February	111.2
March	100.8
April	94.1
May	87.4
June	84.0
July	84.4
August	88.6
September	95.9
October	104.7
November	112.8
December	117.4

1/ 100 equals average monthly demand.

Source: Frederick V. Waugh and Virgil J. Norton, Same Analyses of Fish Prices, Working Paper No. 22, Division of Economic Research, Bureau of Commercial Fisheries.

Table II-7.--Price and income elasticities for halibut

Price Elasticity = -0.1831

Income Elasticity = 1.211

Demand Equation for United States

$$C/N = -4.1518 - 0.1831 \text{ Log } \left[\frac{P}{CPI}\right] + 1.211 \text{ Log } \left[\frac{Y/CPI}{N}\right]$$

C/N = Halibut consumption per capita

P/CPI = Price of halibut divided by Consumer Price Index (CPI)

$\frac{Y/CPI}{N}$ = Per capita income deflated by CPI

Source: Division of Economic Research, Bureau of Commercial Fisheries

III DEMAND PROJECTIONS

- U.S. Consumption
  - Aggregate
  - Per capita

Table III-1.--Demand projections for halibut, U.S. and world, to the year 2000 1/

Year	U.S. per cap. consumption	U.S. population	U.S. aggregate consumption	World aggregate consumption
	Pounds 2/	Millions	Million pounds 2/	Million pounds 2/
1967 (actual)	.48	197.9	95	128 *
1970	.47	206.0	96	129
1975	.43	219.4	94	129
1980	.40	235.2	93	129
1985	.36	252.9	92	129
1990	.34	270.8	91	129
2000	.29	307.8	90	129

Assumptions:

(1) Declining income elasticity over time;

(2) A Schaefer biological yield curve;

(3) Fishery management instituted when world fishery reaches maximum sustainable yield;

(4) Relative prices of fishery product variable over time (i.e., cost of production derived from (2) allowed to interact with demand);

(5) Projected per capita income and population given by U.S. Department of Agriculture by country;

(6) Constant technology; and

(7) Input prices to fisheries rise at approximately same rate as all consumer prices.

Source: For a fuller description of above assumptions and alternative projections see Working Paper No. 71, "Economic Projections of U.S. and World Demand for Major Fishery Projects," by F. Bell, D. Nash, F. Waugh, and E. Carlson.

1/ For annual projection between five year intervals the reader may interpolate.

2/ Round weight

* At MSY

IV DOMESTIC PRODUCTION

—Landings

—Value

Table IV-1 -- U.S. landings and value of halibut, 1947-68

	Quantity			Value		
	Pacific	Atlantic	Total	Pacific	Atlantic	Total
	---------Thou. pounds[1]-----			-------Thou. dollars--------		
1947	42,843	596	43,439	7,639	147	7,786
1948	48,968	481	49,449	7,792	112	7,904
1949	49,439	476	49,915	7,714	107	7,821
1950	51,092	538	51,630	8,344	113	8,457
1951	47,623	433	48,056	6,788	98	6,886
1952	51,642	396	52,038	7,747	104	7,851
1953	46,765	350	47,115	5,641	92	5,733
1954	60,714	444	61,158	8,034	106	8,140
1955	48,915	344	49,259	5,169	80	5,249
1956	55,159	306	55,465	9,013	74	9,087
1957	49,899	332	50,231	6,556	75	6,631
1958	47,774	292	48,066	7,714	72	7,786
1959	53,713	299	54,012	7,765	75	7,840
1960	50,932	270	51,202	6,232	70	6,302
1961	53,238	285	53,523	8,408	80	8,488
1962	53,757	254	54,011	11,579	79	11,658
1963	45,569	272	45,841	6,883	89	6,972
1964	35,047	307	35,354	5,923	99	6,022
1965	40,497	328	40,825	9,214	115	9,329
1966	40,326	307	40,633	9,708	119	9,827
1967	39,778	293	40,073	6,412	124	6,536
1968	25,700			4,300		
1969						
1970						
1971						
1972						

1/ Round weight.

Source: Fishery Statistics of the United States.

Table IV-2.--Landings of Pacific halibut, by major states

	Alaska	Washington	Other	Total
	Thousand pounds, round weight			
1947	34,016	7,830	997	42,843
1948	34,962	13,253	753	48,968
1949	35,197	13,465	777	49,439
1950	38,636	11,544	912	51.092
1951	32,045	14,901	677	47,623
1952	33,391	17,593	658	51,642
1953	26,750	19,399	616	46,765
1954	36,076	23,444	1,194	60,714
1955	26,505	21,651	759	48,915
1956	33,076	21,364	719	55,159
1957	27,700	21,595	604	49,899
1958	26,353	20,986	435	47,774
1959	29,974	23,408	331	53,713
1960	28,404	22,043	485	50,932
1961	33,423	19,370	445	53,238
1962	36,792	16,480	485	53,757
1963	29,886	15,416	267	45,569
1964	22,758	12,149	140	35,047
1965	30,984	9,354	159	40,497
1966	33,354	6,826	146	40,326
1967				39,778
1968				25,700
1969				
1970				
1971				
1972				

Source: Fishery Statistics of the United States

Table IV-3 -- Sources and disposition of Pacific halibut in the United States, 1947-68

Round Weight Metric Tons

~~(Edible Weight)~~

Year	Beginning stock	Landings	Imports	Total	Ending stocks	Apparent consumption Total	Apparent consumption Per Capita
	Thousand pounds						Pounds
1947	7,659	18,081	10,804	36,544	7,859	28,685	.199
1948	7,859	20,908	10,749	39,516	7,568	31,948	.218
1949	7,568	20,661	9,840	38,069	5,729	32,340	.217
1950	5,729	21,644	13,119	40,492	9,031	31,461	.207
1951	9,031	19,784	12,318	41,133	7,237	33,896	.220
1952	7,237	21,307	12,216	40,760	9,665	31,095	.199
1953	9,665	19,410	10,925	40,000	7,435	32,565	.205
1954	7,435	24,460	13,825	45,720	11,080	34,640	.214
1955	11,080	20,677	12,930	44,687	9,265	35,422	.214
1956	9,265	23,468	11,881	44,614	11,426	33,188	.197
1957	11,426	20,518	13,237	45,181	8,784	36,397	.213
1958	8,784	20,325	15,866	44,975	10,096	34,879	.200
1959	10,096	22,859	16,219	49,174	11,139	38,035	.215
1960	11,139	21,476	16,749	49,364	8,507	40,857	.227
1961	8,507	22,436	16,791	47,734	8,158	39,576	.216
1962	8,158	22,649	21,116	51,923	13,293	38,630	.208
1963	13,293	19,202	17,545	50,040	15,073	34,967	.185
1964	15,073	14,772	18,207	48,052	9,464	38,588	.202
1965	9,464	17,072	18,109	44,645	10,246	34,399	.177
1966	10,246	16,972	16,617	43,835	12,078	31,757	.162
1967	12,078	16,793	17,095	45,966	11,569	34,397	.174
1968	11,569	10,808	21,066	43,443	8,267	35,176	.176
1969	8,267						
1970							
1971							
1972							

Imports are partially estimated from 1947-53.

V DOMESTIC EMPLOYMENT, VESSELS AND EFFORT

- Fishermen
- Vessels
- Trips
- Days at sea
- Days fishing

Table V-1 -- U. S. halibut, fishermen and vessels

	Fishermen	Vessels
	Number	Number
1947	2,372	573
1948	2,723	652
1949	2,783	652
1950	2,982	734
1951	2,933	699
1952	2,309	538
1953	2,167	497
1954	2,170	518
1955	2,061	473
1956	1,947	489
1957	2,146	543
1958	1,925	484
1959	1,765	429
1960	1,627	403
1961	1,592	412
1962	1,604	410
1963	1,557	421
1964	1,060	270
1965	1,053	283
1966	1,302	386
1967		
1968		
1969		
1970		
1971		
1972		

Source: Fishery Statistics of the U. S.

Table V-2 -- Vessels and boats in the U. S. halibut fleet

Year	Regular Halibut Vessels			Regular Halibut Boats		
	Washington and Oregon	Alaska	Total 1/	Washington and Oregon	Alaska	Total 1/
	Number					
1947	147	289	436	-	37	37
1948	174	309	483	-	44	44
1949	185	296	481	1	45	46
1950	209	314	523	-	36	36
1951	203	312	515	-	39	39
1952	190	223	413	-	20	20
1953	181	219	400	-	27	27
1954	197	206	403	-	30	30
1955	198	204	402	2	24	26
1956	176	324	381	3	35	38
1957	175	386	462	1	30	31
1958	147	340	395	3	31	34
1959	136	294	349	-	26	26
1960	139	280	329	-	25	25
1961	121	285	327	-	29	29
1962	114	300	329	-	27	27
1963	101	289	319	-	41	41
1964	92	179	210	-	21	21
1965	78	189	209	-	26	26
1966	66	271	291	-	35	35

Table V-2 -- Vessels and boats in the U. S. halibut fleet
(Continued)

Year	Other Boats			Total Boats 1/	Total Vessels and Boats 1/
	Washington and Oregon	Alaska	Total 1/		
			Number		
1947	-	100	100	137	573
1948	-	125	125	169	652
1949	-	125	125	171	652
1950	-	175	175	211	734
1951	-	145	145	184	699
1952	-	105	105	125	538
1953	-	70	70	97	497
1954	-	85	85	115	518
1955	-	45	45	71	473
1956	-	70	70	108	489
1957	-	50	50	81	543
1958	-	55	55	89	484
1959	2	52	54	80	429
1960	-	49	49	74	403
1961	-	56	56	85	412
1962	-	54	54	81	410
1963	-	61	61	102	421
1964	-	39	39	60	270
1965	-	48	48	74	283
1966	-	60	60	95	386

1/ Exclusive of Duplication
Source: Fishery Statistics of the U. S.

Table V-3 --Fishermen in the U.S. halibut fleet

Year	Fishermen					
	On Vessels			Regular Halibut Boats		
	Washington and Oregon	Alaska	Total 1/	Washington and Oregon	Alaska	Total 1/
	Number					
1947	1,005	1,071	2,076	-	86	86
1948	1,181	1,202	2,383	-	90	90
1949	1,265	1,174	2,439	2	92	94
1950	1,363	1,234	2,597	-	85	85
1951	1,338	1,248	2,586	-	97	97
1952	1,188	895	2,083	-	48	48
1953	1,123	866	1,989	-	57	57
1954	1,126	821	1,947	-	64	64
1955	1,121	798	1,919	4	50	54
1956	986	1,510	1,781	6	55	61
1957	964	1,642	2,019	2	50	52
1958	848	1,488	1,786	5	52	57
1959	811	1,322	1,638	-	44	44
1960	787	1,264	1,516	-	41	41
1961	682	1,245	1,460	-	48	48
1962	661	1,330	1,476	-	46	46
1963	588	1,235	1,393	-	72	72
1964	534	794	966	-	36	36
1965	442	836	936	-	44	44
1966	357	1,057	1,154	-	59	59

Table V-3 --Fishermen in the U.S. halibut fleet (Continued)

Year	Fishermen: Other Boats: Washington and Oregon	Fishermen: Other Boats: Alaska	Fishermen: Other Boats: Total 1/	Total Fishermen 1/
	Number			
1947	-	210	210	2,372
1948	-	250	250	2,723
1949	-	250	250	2,783
1950	-	300	300	2,982
1951	-	250	250	2,933
1952	-	178	178	2,309
1953	-	121	121	2,167
1954	-	159	159	2,170
1955	-	88	88	2,061
1956	-	105	105	1,947
1957	-	75	75	2,146
1958	-	82	82	1,925
1959	5	78	83	1,765
1960	-	70	70	1,627
1961	-	84	84	1,592
1962	-	82	82	1,604
1963	-	92	92	1,557
1964	-	58	58	1,060
1965	-	73	73	1,053
1966	-	89	89	1,302

1/ Exclusive of duplication.

Source: Fishery Statistics of the U.S.

Table V-4.--Fishing effort in the halibut fishery

Year	Area 2		Area 3 1/	
	Effort (skates)	Catch per unit of effort	Effort (skates)	Catch per unit of effort
	Thousand	Pounds	Thousand	Pounds
1929	618	40	434	72
1930	618	35	427	64
1931	535	40	307	71
1932	446	49	266	81
1933	438	52	284	83
1934	406	55	275	86
1935	354	62	249	96
1936	416	54	268	96
1937	387	60	228	112
1938	340	69	220	116
1939	405	60	218	116
1940	407	63	233	116
1941	392	61	230	121
1942	360	64	203	133
1943	341	73	214	133
1944	307	85	187	145
1945	290	80	225	131
1946	338	84	250	124
1947	318	86	241	116
1948	303	91	242	115
1949	289	90	271	106
1950	278	96	280	108
1951	318	96	237	107
1952	266	116	240	131
1953	241	137	198	131
1954	244	150	248	136
1955	220	131	240	124
1956	263	135	238	132
1957	284	108	235	129
1958	276	111	232	148
1959	277	111	243	167
1960	280	113	261	153
1961	271	106	260	155
1962	310	92	330	140
1963	288	91	350	129
1964	215	91	347	116
1965	253	96	368	106
1966	245	96	343	113
1967	208	96	306	116
1968	169	99	277	116

Source: International Pacific Halibut Commission

1/ Includes the Bering Sea

VI BIOLOGICAL STOCK ASSESSMENT

Table VI-1 --Estimates of maximum sustainable yield from world stocks of halibut[1/]

Region	MSY
	Thou. metric tons
I. Northeast Pacific	40.0
II. Atlantic	18.5[1]
World total	58.5

Source: FAO Indicative World Plan for Agricultural Development, Area Reviews on Living Resources of the World's Oceans. Gulland, J.A., "Northeast Pacific."

1/ This represents the six-year average level of landings, 1961-66.

Table VI-2.--Estimate of maximum sustainable yield for halibut in waters fished by U.S. fishermen

Region	MSY (Thous. metric tons)
I. Northeast Pacific	40.0
II. Atlantic	18.5
Total	58.5

Source: Bureau of Commercial Fisheries, Division of Economic Research. FAO data.

VII INTERNATIONAL TRADE

- Imports
  - Quantity
  - Value
  - Price

Table VII-1 -- Quantity, Value and Price of Imports of Halibut to the United States 1/

	Quantity	Value	Price 2/
	Thou. pounds	Thou. dollars	Cents per lb.
1947	14,024	3,252	23.19
1948	13,952	3,162	22.66
1949	12,773	3,317	25.97
1950	17,029	4,954	29.09
1951	15,988	4,176	26.12
1952	15,856	4,039	25.47
1953	14,182	3,580	25.24
1954	16,541	4,137	25.01
1955	15,988	3,187	19.93
1956	15,027	4,171	27.76
1957	17,600	4,734	26.90
1958	22,280	6,134	27.53
1959	23,368	6,201	26.54
1960	24,124	5,832	24.18
1961	21,963	6,330	28.82
1962	24,905	8,245	33.11
1963	22,722	6,358	27.98
1964	28,136	8,831	27.52
1965	27,668	11,161	34.56
1966	25,195	10,610	38.63
1967	23,944	8,215	31.07
1968	29,022	10,028	31.11
1969			
1970			
1971			
1972			

Source: Fishery Statistics of the U.S.

1/ Includes imports of dressed halibut, and fillets and steaks.

2/ Price of dressed halibut.

Table VII- 2.--Imports of halibut to the United States, by country of origin

	Canada			Norway		
	Fresh & Frozen	Fillet	Total	Fresh & Frozen	Fillet	Total
	Thousand pounds					
1947	13,968	n.a.	13,968	n.a.	n.a.	n.a.
1948	13,865	n.a.	13,865	n.a.	n.a.	n.a.
1949	12,766	n.a.	12,766	n.a.	n.a.	n.a.
1950	15,803	n.a.	15,803	636.2	n.a.	636.2
1951	14,891	n.a.	14,891	210.4	n.a.	210.4
1952	14,214	n.a.	14,214	9.8	n.a.	9.8
1953	13,740	n.a.	13,740	n.a.	n.a.	n.a.
1954	16,407	4374	20,781	n.a.	1.3	1.3
1955	15,896	3593	19,489	n.a.	n.a.	n.a.
1956	14,820	3302	18,122	148.5	n.a.	148.5
1957	17,520	3093	20,613	12.1	n.a.	12.1
1958	21,537	3150	24,687	424.6	3.4	428.0
1959	21,551	2845	24,396	1264.7	66.9	1331.6
1960	23,681	2495	26,176	406.0	11.2	417.2
1961	21,278	2633	23,911	507.9	13.0	520.9
1962	23,548	2406	25,934	807.3	39.0	846.3
1963	18,404	2809	21,213	121.8	n.a.	121.8
1964	22,303	3075	25,378	114.5	28.5	143.0
1965	21,451	3448	24,899	134.1	n.a.	134.1
1966	19,421	3316	22,737	22.0	99.7	121.7
1967	15,430	6242	21,672	26.6	n.a.	26.6
1968	17,836	6574	24,410	51.1	229.3	280.4
1969						
1970						
1971						
1972						

Table VII- 2.--Imports of halibut to the United States, by country of origin (Continued)

	Japan			Other		
	Fresh & Frozen Fillet		Total	Fresh & Frozen Fillet		Total
	Thousand pounds					
1947	n.a.	n.a.	n.a.	55.7	n.a.	55.7
1948	n.a.	n.a.	n.a.	86.8	n.a.	86.8
1949	n.a.	n.a.	n.a.	7.0	n.a.	7.0
1950	n.a.	n.a.	n.a.	589.8	n.a.	589.8
1951	.2	n.a.	.2	886.4	n.a.	886.4
1952	n.a.	n.a.	n.a.	1632.2	n.a.	1632.2
1953	21.5	n.a.	21.5	420.5	n.a.	420.5
1954	24.0	7.0	31.0	110.0	180.7	290.7
1955	9.5	n.a.	9.5	82.5	384.0	466.5
1956	n.a.	n.a.	n.a.	58.5	164.0	222.5
1957	n.a.	94.4	94.4	67.9	193.6	261.5
1958	2.5	16.5	19.0	315.9	220.1	536.0
1959	322.5	115.2	437.7	229.8	105.9	335.7
1960	10.0	569.7	579.7	27.0	164.1	191.1
1961	148.3	1606	1754.3	28.8	240.0	268.8
1962	394.2	4335	4729.2	155.5	389.0	544.5
1963	20.7	1810	1830.7	4175.5	198.0	4373.5
1964	138.4	2224	2362.4	11.1	241.5	252.6
1965	n.a.	2232	2232.0	140.9	262.0	402.9
1966	19.1	2051	2070.1	33.9	232.3	266.2
1967	68.3	1949	2017.3	42.1	186.0	228.1
1968	180.1	3882	4062.1	14.8	254.7	269.5
1969						
1970						
1971						
1972						

Source: U.S. Department of Commerce, Bureau of Census

VIII FOREIGN PRODUCTION

—Landings

Table VIII-1 --World halibut landings by major countries 1/

Year	Canada	U.S.	Japan	U.S.S.R.	Norway	West Germany	Iceland	U.K.	Other	Total
					Million pounds, round weight					
1947	34.0	43.4	n.a.	n.a.	13.2	n.a.	1.8	12.1	3.5	108
1948	28.0	49.4	n.a.	n.a.	13.2	.7	3.5	14.3	.9	110
1949	29.3	50.0	n.a.	n.a.	14.1	.9	3.5	15.9	1.3	115
1950	38.4	51.6	n.a.	n.a.	14.8	1.8	1.5	18.7	1.2	128
1951	35.7	48.1	n.a.	n.a.	13.2	2.0	3.5	15.2	1.3	119
1952	35.3	52.0	n.a.	n.a.	12.8	2.2	2.2	13.0	1.5	119
1953	39.9	47.2	n.a.	n.a.	10.4	2.4	1.1	10.4	.6	112
1954	42.1	61.1	n.a.	n.a.	12.1	2.2	.9	9.0	.6	128
1955	34.0	49.2	n.a.	n.a.	11.0	1.8	.7	7.7	1.6	106
1956	40.3	55.6	n.a	n.a.	10.6	2.2	1.1	7.3	1.9	119
1957	42.3	50.3	n.a.	n.a.	12.1	2.6	2.0	9.7	2.0	121
1958	46.7	48.1	n.a.	n.a.	14.3	3.1	1.8	10.4	7.6	132
1959	48.3	54.0	6.6	n.a.	13.2	3.1	2.2	10.6	5.0	143
1960	49.4	51.0	9.9	n.a.	14.3	4.2	3.7	11.5	10.0	154
1961	48.7	53.1	18.5	n.a.	11.5	3.7	4.0	9.5	5.0	154
1962	55.1	54.0	16.5	3.1	12.6	2.9	3.3	8.4	3.1	159
1963	55.1	45.9	16.1	5.1	9.9	2.6	2.6	7.5	7.2	152
1964	51.3	35.3	3.7	5.5	9.5	2.6	2.6	7.9	11.5	130
1965	50.5	40.8	2.6	4.0	8.6	2.6	2.2	7.7	11.0	130
1966	51.4	40.6	n.a.	4.8	6.2	2.0	2.0	6.2	12.8	126
1967	42.3	39.3	n.a.	20.5	6.6	2.2	2.2	6.0	8.9	128

1/ Canadian figures taken from Canadian Fishermen, U.S. figures from U.S. Statistics, others from FAO. Data from import and export sources was not complete enough for thorough analysis.

Table VIII-2.--World halibut landings, international trade and consumption[1/] 1967

Country	Landings	Exports	Imports	Consumption
	Million pounds, round weight			
United States	39.3		42.6	81.9
Canada	42.3	35.1		7.2
U.S.S.R.	20.5			20.5
Norway	6.6			6.6
United Kingdom	6.0			6.0
West Germany	2.2			2.2
Iceland	2.2			2.2
Other	8.9			10.6
Total	128.0			128.0

1/ U.S. figures from U.S. Statistics, Canadian figures taken from Canadian Fishermen, and others from FAO. Imports and export data was not complete for thorough computation.

IX FOREIGN CONSUMPTION

—Consumption
  Aggregate
  Per capita

—Prices

Table IX-1 --Aggregate consumption of halibut, by major consuming countries[1/]

Year	Canada	U.S.	West Germany	Iceland	Norway	U.K.	Other	Total
			Million pound, round weight					
1947	n.a.	68.27	n.a.	n.a.	n.a.	n.a.	39.73	108
1948	n.a.	76.04	n.a.	n.a.	n.a.	n.a.	33.96	110
1949	n.a.	76.97	n.a.	n.a.	n.a.	n.a.	38.10	115
1950	n.a.	74.88	1.30	1.54	13.42	17.36	19.50	128
1951	2.26	80.67	1.56	3.52	11.66	13.85	5.48	119
1955	3.68	74.01	2.18	1.98	11.22	11.87	14.06	119
1953	5.91	77.51	2.66	1.10	9.02	9.67	6.13	112
1954	2.93	82.44	2.85	0.88	10.56	8.37	19.97	128
1955	2.47	84.30	3.98	0.66	9.68	7.27	(2.36)	106
1956	7.13	78.99	0	1.10	9.46	6.84	15.48	119
1957	2.43	86.63	5.04	1.98	10.56	8.58	5.78	121
1958	2.47	83.02	5.92	1.76	12.32	9.44	17.08	132
1959	4.85	90.52	5.27	2.20	11.44	9.70	19.02	143
1960	2.74	97.24	7.71	3.74	11.44	10.14	20.99	154
1961	0.75	94.19	3.76	3.96	11.44	9.48	30.42	154
1962	4.82	91.94	2.85	3.30	12.54	8.34	35.21	159
1963	10.48	83.22	2.65	2.64	9.90	7.48	35.63	152
1964	10.62	91.84	2.62	2.64	9.46	7.92	4.90	130
1965	6.27	81.87	2.66	2.20	8.58	7.70	20.72	130
1966	9.08	75.58	1.97	1.97	6.16	6.15	25.09	126
1967	7.16	81.87	2.07	2.20	6.60	5.90	22.20	128
1968		83.72						

1/ Canadian figures taken from Canadian Fishermen, U.S. figures from U.S. Statistics, others from FAO. Data from import and export sources was not complete enough for thorough analysis.

Table IX-2.--World halibut per capita consumption by country

	U.S.	Canada	Iceland	Norway	U.K.	West Germany
	Pounds, round weight					
1947	0.474	n.a.	n.a.	n.a.	n.a.	n.a.
1948	0.519	n.a.	24.088	3.575	0.255	0.009
1949	0.516	0.160	23.571	3.880	0.285	0.013
1950	0.493	n.a.	10.769	4.110	0.345	0.026
1951	0.524	0.107	24.276	3.538	0.274	0.031
1952	0.474	0.254	13.378	3.371	0.234	0.043
1953	0.488	0.397	7.285	2.683	0.190	0.052
1954	0.509	0.191	5.714	3.110	0.164	0.055
1955	0.509	0.157	4.177	2.823	0.142	0.076
1956	0.467	0.442	6.832	2.733	0.133	n.a.
1957	0.507	0.146	12.000	3.022	0.166	0.094
1958	0.476	0.144	10.414	3.495	0.182	0.109
1959	0.512	0.277	12.791	3.217	0.186	0.096
1960	0.540	0.153	21.250	3.191	0.193	0.139
1961	0.514	0.041	22.123	3.165	0.179	0.067
1962	0.495	0.259	18.132	3.446	0.156	0.050
1963	0.440	0.554	14.270	2.700	0.139	0.046
1964	0.481	0.551	13.968	2.561	0.146	0.045
1965	0.421	0.320	11.458	2.305	0.141	0.045
1966	0.386	0.453	10.102	1.641	0.112	0.033
1967	0.414	0.351	11.055	1.746	0.107	0.036
1968	0.419					
1969						
1970						
1971						
1972						

Source: Computed from data in Canadian Fishermen, FAO Yearbooks, and Bureau of Commercial Fisheries.

Table IX-3 --Prices of halibut by country

	Canada	U.S.	W. Germany
	Cents per pound 1/		
1947	n.a.	n.a.	n.a.
1948	n.a.	n.a.	n.a.
1949	19.08	n.a.	n.a.
1950	26.36	n.a.	n.a.
1951	20.00	n.a.	n.a.
1952	19.09	n.a.	n.a.
1953	17.01	n.a.	n.a.
1954	17.50	15.9	n.a.
1955	15.00	13.4	n.a.
1956	24.61	20.2	n.a.
1957	17.93	15.5	n.a.
1958	22.55	16.0	16.79
1959	19.89	14.3	18.81
1960	16.56	11.8	32.33
1961	21.65	15.2	33.03
1962	32.24	20.4	32.21
1963	22.10	14.2	31.02
1964	24.51	15.6	28.22
1965	32.40	20.7	30.29
1966	33.15	21.3	35.60
1967	18.04	16.8	29.70
1968			
1969			
1970			
1971			
1972			

1/ U.S. dollars, deflated.

Table IX-3 --Prices of halibut by country (Continued)

	Norway	U.K.
	Cents per pound 1/	
1947	n.a.	n.a.
1948	23.69	35.53
1949	23.66	34.65
1950	24.20	31.04
1951	20.93	32.29
1952	22.52	31.71
1953	22.78	32.75
1954	24.00	34.37
1955	22.41	33.74
1956	23.05	35.43
1957	24.60	33.35
1958	21.73	30.88
1959	22.88	31.05
1960	24.34	32.78
1961	19.65	29.66
1962	23.13	34.91
1963	26.05	34.06
1964	24.35	32.06
1965	25.54	30.31
1966	27.87	34.89
1967	29.51	33.70
1968		
1969		
1970		
1971		
1972		

Source: FAO

1/ U.S. dollars, deflated

X U.S. TRADE BARRIERS

Table X-1.--Present U.S. tariff structure for halibut.

Item		Product Description	Rates of Duty: June 30, 1967	Rates of Duty: Jan. 1, 1969	Rates of Duty: K-R Concession (Jan. 1, 1972)	U.S. Imports: Quantity (Thou. lbs.)	U.S. Imports: Value (Thou. dollars)
		Fish, fresh, chilled or frozen, whether or not whole, but not otherwise prepared or preserved:					
		Other:					
		Whole; or processed by removal of heads, viscera, fins, or any combination thereof, but not otherwise processed:					
		Halibut and salmon					
110.20	20	Halibut...	0.5¢ per lb.	.3¢ per lb.	Free	18,082	5,627
		Otherwise processed (whether or not heads, viscera, fins, scales, or any combination thereof have been removed):					
110.60	60	Halibut...	1.5¢ per lb.	.9¢ per lb.	(1) Free	-	-

Source: Division of Economic Research

1/ To be replaced by 110.70.40, which is free in 1972.

Table X-2.--Historical Synopsis of Trade Investigations for Halibut[1/]

L. Section 9(b) of the Fish and Wildlife Act of 1956

None

2. Escape Clause under Executive Orders and the T.E.A. of 1951, as amended (T.C.)

None

3. Section 301 of the T.E.A. of 1962 (T.C.)

None

4. Section 332 of the T.E.A. of 1930 (Investigations by the Tariff Commission)

None

5. Antidumping under Antidumping Act of 1921 (Customs Bureau)

None

6. Counterveiling (Section 303 of T.E.A. of 1930 Customs Bureau)

None

1/ Antidumping information checked since 1954; for Section 332 and counterveiling no summary lists available and an inquiry into a number of cases has not been completed.

XI GOVERNMENT PROGRAMS

—Subsidies

—Mortgage insurance

—Loans

—EDA projects

—BCF expenditures

—Federal aid to states

Table XI-1.--Bureau of Commercial Fisheries programs and expenditures on halibut, fiscal years 1960-69.

Bureau of Commercial Fisheries programs	1960	1961	1962	1963	1964
1960 and 1964 Fishing Fleet Improvement Act					
a) Number of Vessels Constructed	-	-	-	-	-
b) Total Government Subsidies to Vessels Constructed (dollars)	-	-	-	-	-
Mortgage Insurance Program					
a) Number of Vessels	-	-	-	-	-
b) Value of Mortgages (dollars)	-	-	-	-	-
Fisheries Loan Fund					
a) Number of Vessels Receiving Loans	6	1	5	3	7
b) Total Value of Loans (dollars)	127,000	15,000	64,250	45,600	87,686
Other BCF Programs 1/	n.a.	n.a.	n.a.	n.a.	n.a.

Table XI-1.-- Bureau of Commercial Fisheries programs and expenditures on halibut, fiscal years 1960-69 (Continued)

Bureau of Commercial Fisheries programs	1965	1966	1967	1968	1969
1960 and 1964 Fishing Fleet Improvement Act					
a) Number of Vessels Constructed	-	-	-	-	-
b) Total Government Subsidies to Vessels Constructed (dollars)	-	-	-	-	-
Mortgage Insurance Program					
a) Number of Vessels	-	-	-	-	-
b) Value of Mortgages (dollars)	-	-	-	-	-
Fisheries Loan Fund					
a) Number of Vessels Receiving Loans	8	4	4	5	2
b) Total Value of Loans (dollars)	174,460	72,167	98,000	104,112	60,500
Other BCF Programs 1/	n.a.	n.a.	200,000	100,000	100,000

Source: Division of Financial Assistance, Bureau of Commercial Fisheries

1/ 1971 Program Memorandum, U.S. Department of the Interior, Living Aquatic Resources.

Table XI-2.--Estimated Economic Development Administration Halibut Expenditures by Program, May 1961 - May 1969[1/]

Program/Project	Amount
Public Work Grants and Loans:	
Crescent City, California Industrial Park, Fish Processing Plants	$40,000
Homer, Alaska - extension of water main to industrial park	72,000
Total Public Works	$112,000
Business Loans:	---
Technical Assistance Grants:	
Seward, Alaska - Feasibility of estimated multi-purpose cold storage plant	1,000
Total Technical Assistance	$1,000
Grand Total	$113,000

1/ Includes available information on expenditures under the predecessor agency, the Area Redevelopment Administration. Estimates represent an attempt to prorate the total amount of EDA funding applicable to the fishing industry in multi-industry projects and to a particular fishery in multi-fishery projects.

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51. Basic Economic Indicators-Atlantic Groundfish.

52. Basic Economic Indicators-Halibut.

53. Basic Economic Indicators-Northern Lobsters.

54. Basic Economic Indicators-Sea Scallops.

55. Basic Economic Indicators-Clams.

56. Basic Economic Indicators-Oysters.

57. Basic Economic Indicators-Shrimp.

58. Basic Economic Indicators-Blue Crabs.

59. Basic Economic Indicators-King and Dungeness Crabs.

60. Basic Economic Indicators-Menhaden.

61. Basic Economic Indicators-Tuna.

62. Basic Economic Indicators-Salmon.

The goal of the Division of Economic Research is to engage in economic studies which will provide industry and government with costs, production and earnings analyses; furnish projections and forecasts of food fish and industrial fish needs for the U. S.; develop an overall plan to develop each U. S. fishery to its maximum economic potential and serve as an advisory service in evaluating alternative programs within the Bureau of Commercial Fisheries.

In the process of working towards these goals an array of written materials has been generated representing items ranging from interim discussion papers to contract reports. These items are available to interested professionals in limited quantities of offset reproduction. These "Working Papers" are not to be construed as official BCF publications and the analytical techniques used and conclusions reached in no way represent a final policy determination endorsed by the U. S. Bureau of Commercial Fisheries.