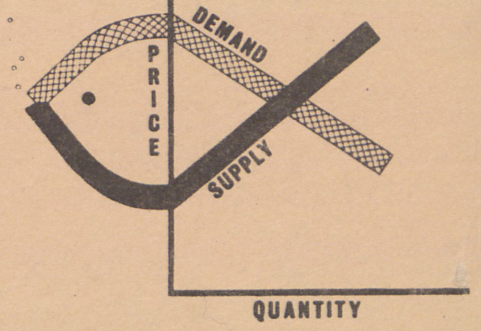


BASIC ECONOMIC INDICATORS

ATLANTIC GROUNDFISH

COD	FLOUNDER
CUSK	OCEAN PERCH
HADDOCK	POLLOCK
HAKE	WHITING

Master Plan Fishery 50 10 03

Working Paper No. 51

April 1970

2 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.

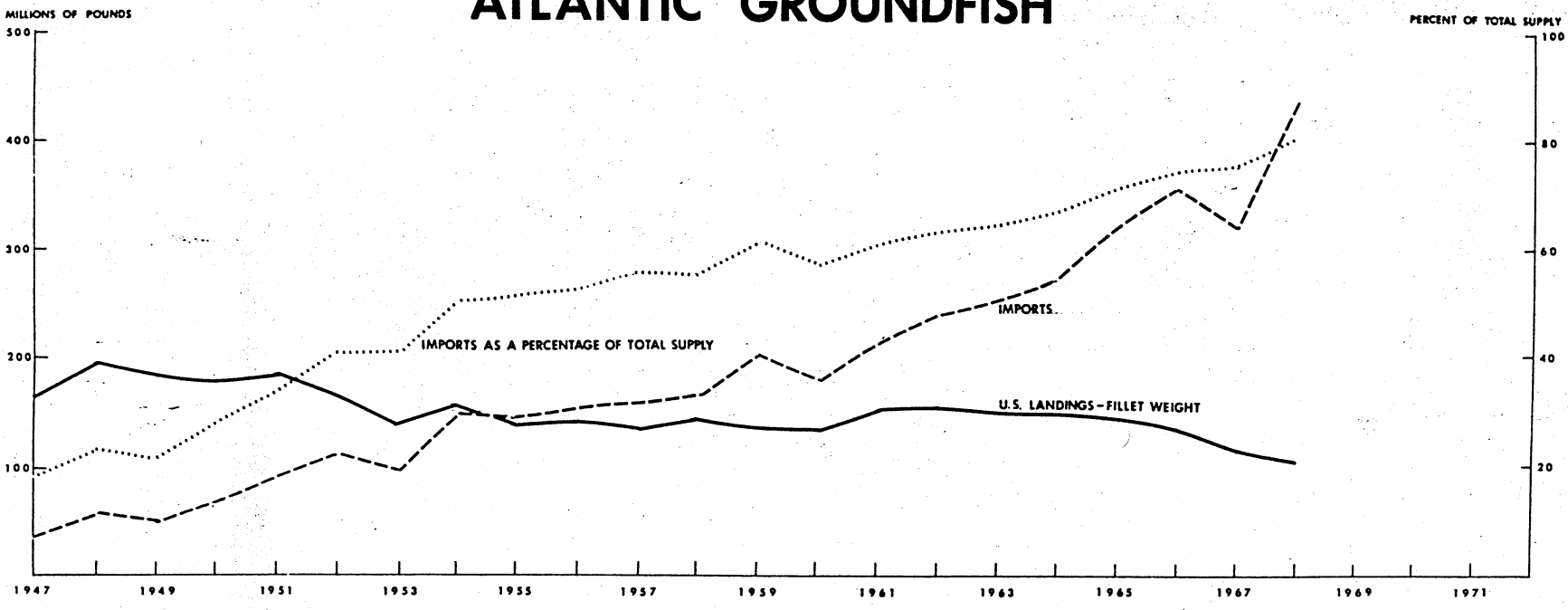
It should be noted that data for 1967 and 1968 are preliminary. Some figures are approximations and are subject to revision. Comments and suggestions may be directed to the Division of Economic Research, 7338 Baltimore Avenue, College Park, Maryland 20740.

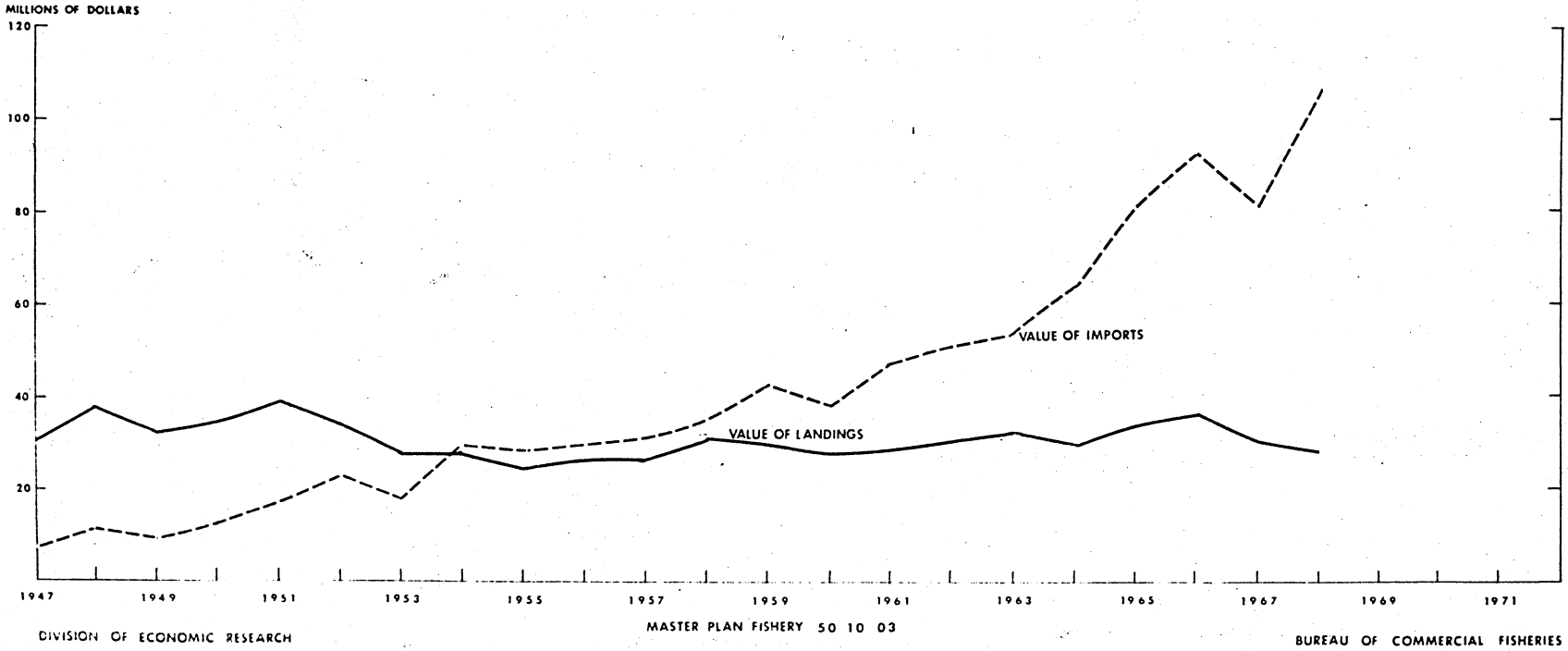
The "Basic Economic Indicators" were compiled and reviewed by the staff of the Division of Economic Research under the supervision of Richard K. Kinoshita with major contributions from Bruno G. Noetzel and Kenneth E. Koller.

Frederick W. Bell

Frederick W. Bell, Chief
Division of Economic Research

ATLANTIC GROUNDFISH





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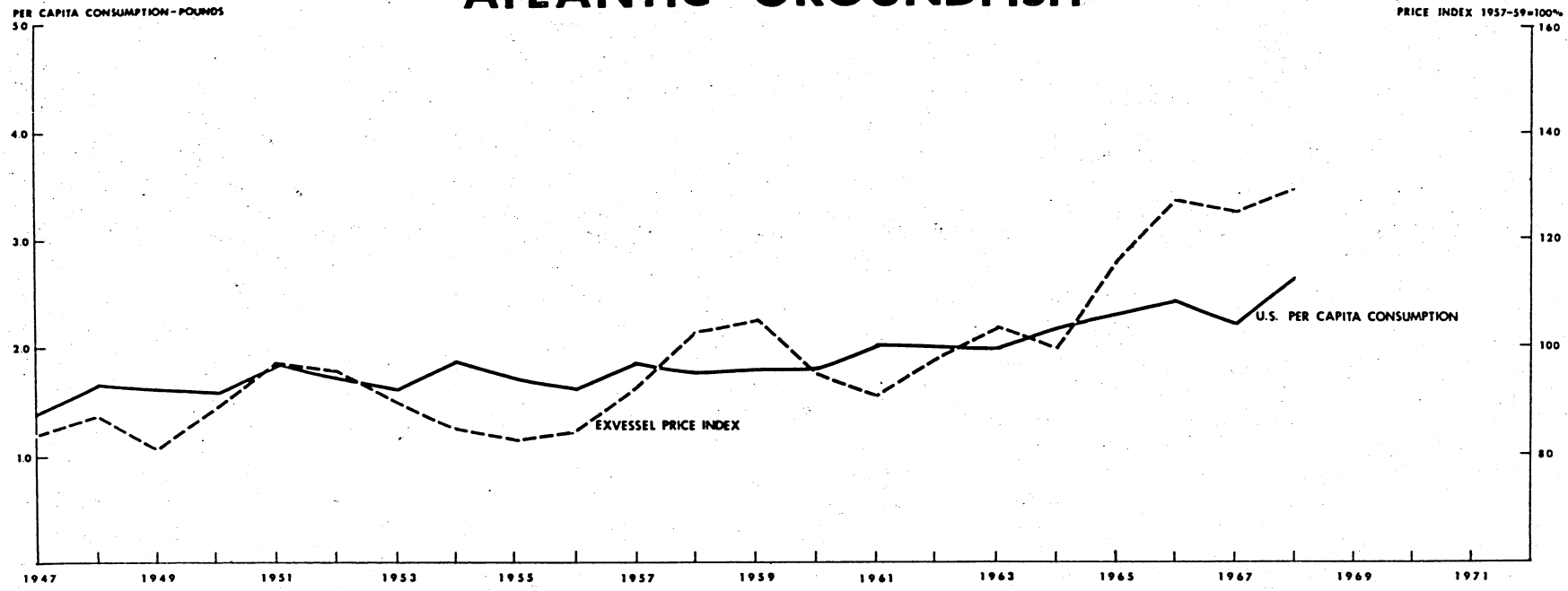
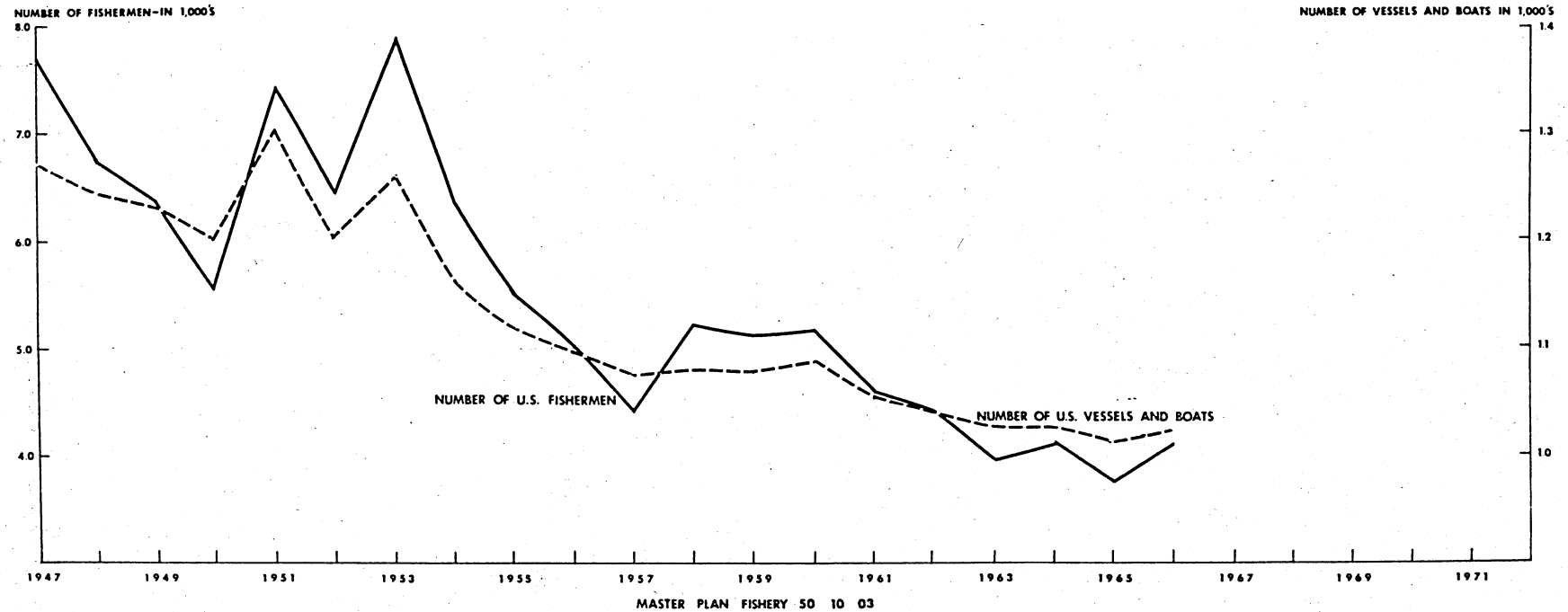
MASTER PLAN FISHERY 50 10 03

BUREAU OF COMMERCIAL FISHERIES

ATLANTIC GROUNDFISH



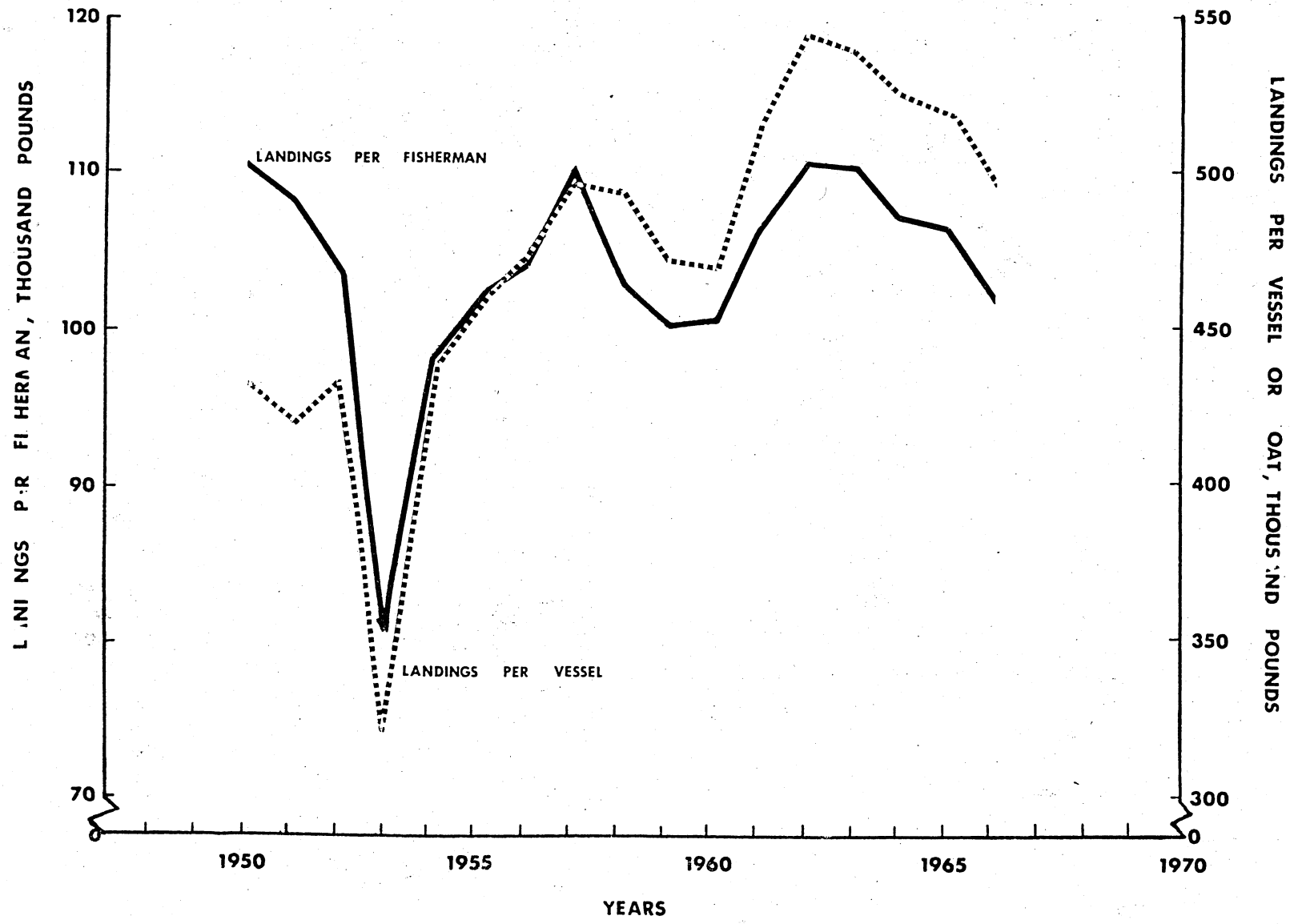


MASTER PLAN FISHERY 50 10 03

DIVISION OF ECONOMIC RESEARCH

BUREAU OF COMMERCIAL FISHERIES

PRODUCTIVITY OF ATLANTIC GROUNDFISH FISHERMEN AND VESSEL OR BOAT



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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(a).--Average cost and earnings of Boston large trawlers, 1964-66.

Item	1964	1965	1966
No. of vessels	23	23	15
Av. length of vessels	109	109	114
No. of trips	27.2	26.1	28.6
Av. length of trip(days)	9.3	9.1	9.0
Crew size	15.7	15.7	16.3
Days at sea	253	238	258
Landings (pounds)	2,524,000	2,348,000	2,556,000
Av. price (cents per pound)	9.5	10.8	11.5
Gross receipts (dollars)	239,884	253,279	294,502
	----------Dollars per vessel----------		
Trip expenditure			
Food	14,668	13,897	15,717
Fuel & lube	21,141	19,863	22,939
Ice & icing	6,499	6,409	6,827
Other	9,192	8,810	8,245
Subtotal	51,500	48,979	53,728
Repair & maintenance			
Gear	13,965	13,965	14,653
Hull & engine	17,518	17,518	18,100
Subtotal	31,483	31,483	32,753
Fixed charges			
Interest	-	-	-
Insurance	15,403	15,403	16,351
Taxes (employee)	7,446	7,446	7,804
Administrative	8,915	8,915	9,284
Subtotal	31,764	31,764	33,439
TOTAL CASH EXPENDITURES	114,747	112,226	119,920
TOTAL SHARE EXPENDITURES	125,137	141,053	174,582
Including:			
Wages	100,329	111,180	130,466
Captain's commission	9,100	9,624	11,240
Owner's share	15,708	20,249	32,876
Depreciation	11,364	11,364	12,280
Net return before taxes	4,344	8,885	20,596

Source: Based on a study by Noetzel and Norton: "Cost and Earnings in the Boston Large Trawler Fleet", Division of Economic Research, Working Paper No. 7, June 1969. Included in the samples are vessels of 150 GRT and over, fishing primarily for haddock. Some of the smaller vessels ceased fishing in 1966. Repair and maintenance cost, fixed charges, and depreciation are estimates based on limited information. All other figures reflect actual values.

Table I-1(b).--Average cost and earnings of New Bedford draggers, 1967-68

Item	1967	1968
No. of vessels	33	37
Av. length of vessels	69.9	71.1
No. of trips	26.2	27.0
Av. length of trip(days)	8.2	8.3
Crew size	5.8	5.8
Days at sea	215	224
Landings (pounds)	706,900	818,300
Av. price (cents per pound)	12.69	12.87
Gross receipts (dollars)	89,690	105,309
	----Dollars per vessel----	
Trip expenditure		
Food	5,787	6,269
Fuel & lube	7,715	8,227
Ice & icing	2,981	3,722
Other	1,052	1,371
Subtotal	17,535	19,589
Repair & maintenance		
Gear	3,996	4,235
Hull & engine	8,374	8,128
Subtotal	12,370	12,363
Fixed charges		
Interest	1,246	1,509
Insurance	5,497	6,839
Taxes (employee)	3,550	3,833
Administrative	1,110	1,130
Subtotal	11,403	13,311
TOTAL CASH EXPENDITURES	41,308	45,263
TOTAL SHARE EXPENDITURES	48,382	60,046
Including:		
Wages	44,063	51,408
Captain's commission	2,868	3,443
Owner's share	1,451	5,195
Depreciation	4,677	5,077
Net return before taxes	-3,226	118

Source: Division of Economic Research, BCF. Data collected from individual vessel owners. The sample is representative of the New Bedford draggers fishing mainly for flounders. Landings in pounds are estimates based on average prices for flounders.

Table I-1(c).--Average cost and earnings of Rhode Island Small Trawlers

Item	1964
No. of vessels	46
Av. length of vessels	55
No. of trips	70
Av. length of trip(days)	2.2
Crew size	3
Days at sea	153
Landings (pounds)	n.a.
Av. price (cents per pound)	n.a.
Gross receipts (dollars)	44,434
	Dollars per vessel
Trip expenditure	
Food	1,500
Fuel & lube	3,833
Ice & icing	967
Other	859
Subtotal	7,159
Repair & maintenance	
Gear	3,419
Hull & engine	3,268
Subtotal	6,687
Fixed charges	
Interest	408
Insurance	1,849
Taxes (employee)	531
Administrative	,744
Subtotal	3,532
TOTAL CASH EXPENDITURES	17,378
TOTAL SHARE EXPENDITURES	27,056
Including:	
Wages	21,597
Captain's commission	1,568
Owner's share	3,891
Depreciation	2,273
Net return before taxes	1,618

Source: "The Economics of the Small Trawler Fleet", by Andreas A. Holmsen, University of Rhode Island. Published in: Recent Developments and Research in Fisheries Economics, by The New England Economic Research Foundation, 1967. The Sample is representative for small trawlers fishing for food fish and trash fish out of Point Judith and Newport, Rhode Island, and Stonington, Connecticut.

Table I-2(a).--Earnings of fishermen in the Boston large trawler fleet, 1964-66 [1/]

Item	1964	1965	1966
No. of vessels	23	23	15
Ave. crew size	15.7	15.7	16.3
		Dollars	
Gross receipts	239,884	253,279	294,502
Share to labor	109,429	120,804	141,706
Ave. share per man	6,970	7,694	8,694
Food expenditures per man	934	885	964
Ave. share per man including food	7,904	8,579	9,658
Real share [2/]	7,312	7,806	8,539
Wage in U.S. manufacturing	5,354	5,592	5,842
Real wage in U.S. manufacturing [2/]	4,953	5,088	5,165

Source: Based on data from Table I-1(a).

1/ Earnings per full-time fisherman (or earnings per job site).

2/ Deflated by CPI.

Table I-2(b).--Earnings of fishermen in the New Bedford dragger fleet, 1967-68 1/

Item	1967	1968
No. of vessels	33	37
Ave. crew size	5.8	5.8
	----------Dollars----------	
Gross receipts	89,690	105,309
Share to labor	46,931	54,851
Ave. share per man	8,092	9,457
Food expenditures per man	998	1,081
Ave. share per man including food	9,090	10,538
Real share 2/	7,816	8,695
Wage in U.S. manufacturing	5,975	6,371
Real wage in U.S. manufacturing 2/	5,137	5,257

Source: Based on data from Table I-1(b).

1/ Earnings per full time fishermen (or earnings per job site).

2/ Deflated by CPI.

Table I-2(c).--Earnings of fishermen in the Rhode Island small trawler fleet, 1964[1/]

Item	1964
No. of vessels	46
Ave. crew size	3
	Dollars
Gross receipts	44,434
Share to labor	23,165
Ave. share per man	7,722
Food expenditures per man	500
Ave. share per man including food	8,222
Real share[2/]	7,606
Wage in U.S. manufacturing	5,354
Real wage in U.S. manufacturing[2/]	4,953

Source: Based on data from Table I-1(c).

1/ Earnings per full-time fisherman or earnings per job site.

2/ Deflated by CPI.

Table I-3. -- Productivity of Atlantic groundfish fishermen, vessels and catch per day at sea

Year	Landings per fisherman 1/	Landings per vessel and boat 1/	Landings per day at sea 2/
	Pounds		
1947	81,234	398,634	12,800
1948	101,358	512,680	12,100
1949	75,056	383,173	11,400
1950	96,410	503,508	14,500
1951	94,192	492,967	14,100
1952	96,535	468,022	14,100
1953	74,105	352,118	10,700
1954	97,255	441,025	15,400
1955	101,736	457,766	15,600
1956	104,542	472,193	13,900
1957	109,370	500,144	11,400
1958	108,696	466,048	8,800
1959	104,767	450,199	7,300
1960	103,889	452,878	10,400
1961	113,003	484,072	12,600
1962	118,776	503,831	12,200
1963	117,568	502,400	8,400
1964	114,659	484,557	10,200
1965	113,884	481,880	10,900
1966	109,317	459,305	8,700
1967			
1968			
1969			
1970			
1971			
1972			

Source: Original data from Fishery Statistics of the U. S.

1/ Landings of cod, cusk, haddock, hake, ocean perch, pollock and whiting by otter trawlers.

2/ landings of haddock from Georges Bank. Source: Biological Laboratory, Woods Hole, Massachusetts, BCF.

Table I-4(a).--Costs per pound of fish landed for Boston large trawlers, 1964-66

Item	1964	1965	1966
Landings (pounds)	2,524,000	2,348,000	2,556,000
Gross receipts (dollars)	239,884	253,279	294,502
Average price (cents per pound)	9.50	10.79	11.52
	----------	Cents per pound	----------
Trip expenditures	2.04	2.08	2.10
Repair & maintenance	1.25	1.34	1.28
Fixed charges	1.26	1.35	1.31
Share to labor	4.34	5.14	5.54
Depreciation	.45	.48	.48
Cost per unit of output	9.34	10.39	10.71

Source: Based on data from Table I-1(a).

Table I-4(b).--Costs per pound of fish landed for New Bedford draggers, 1967-68

Item	1967	1968
Landings (pounds)	706,900	818,300
Gross receipts (dollars)	89,690	105,309
Average price (cents per pound)	12.69	12.87
	------Cents per pound------	
Trip expenditures	2.48	2.39
Repair & maintenance	1.75	1.51
Fixed charges	1.61	1.63
Share to labor	6.64	6.70
Depreciation	.66	.62
Cost per unit of output	13.14	12.85

Source: Based on data from Table I-1(b).

Table I-4(c).--Costs of fish landed per one dollar of gross receipts of Rhode Island small trawlers, 1964

Item	1964
Landings	n.a.
Gross receipts	$44,434
Average price	n.a.
	Cents
Trip expenditures	16.11
Repair & maintenance	15.05
Fixed charges	7.95
Share to labor	52.13
Depreciation	5.11
Total	96.35

Source: Based on data from Table I-1(c).

Table I-5.--Financial structure of fishing firms: Atlantic groundfish vessels[1/]

Item	All Assets Sizes		Under $50,000		50,000 to 100,000	
	Thou. dollars	Percent of total	Thou. dollars	%	Thou. dollars	%
Assets						
Current assets	56.3	46.8	12.8	45.9	27.8	38.8
Net value of vessel	53.2	44.2	8.4	30.1	34.9	48.7
Other non-current assets	10.8	9.0	6.7	24.0	9.0	12.5
Total assets	120.3	100	27.9	100	71.7	100
Liabilities						
Total current liabilities	41.5	34.5	67.8	242.1	31.6	44.1
Total long term liabilities	28.2	23.4	5.0	17.9	19.8	27.6
Capital stock and earned surplus	50.6	42.1	-44.8	-160.0	20.3	28.3
Total liabilities and capital	120.3	100	28.0	100	71.7	100

Source: Data Bank, Division of Economic Research, BCF

1/ A sample of 43 firms, for which data for 1966-68 were available (fairly representative of firms engaged in groundfish fishing in the New England region).

Table I-5.--Financial structure of fishing firms:
Atlantic groundfish vessels (continued)

Item	100,000 to 200,000		200,000 to 300,000		Over 300,000	
	Thou. dollars	%	Thou. dollars	%	Thou. dollars	%
Assets						
Current assets	49.9	38.5	115.2	47.0	202.5	56.0
Net value of vessel	73.9	57.1	106.6	43.5	142.8	39.5
Other non-current assets	5.7	4.4	23.1	9.5	16.1	4.5
Total assets	129.5	100	244.9	100	361.4	100
Liabilities						
Total current liabilities	27.2	21.0	32.8	13.4	24.2	6.7
Total long term liabilities	38.5	29.7	46.8	19.1	87.8	24.3
Capital stock and earned surplus	63.8	49.3	165.3	67.5	249.4	69.0
Total liabilities and capital	129.5	100	244.9	100	361.4	100

Table I-6(a).--Estimated market value of a Boston large trawler, based on present value of future returns

Mean returns to vessel[1/]: $26,562

Discount rate [2/]	Expected useful life - Years			
	5	10	15	20
Percent:	Market value in dollars:			
12	95,800	150,100	180,900	198,400
18	83,100	119,400	135,300	142,200
24	72,900	97,800	106,300	109,200

[1/] Based on data from Table I-1(b). Net return before taxes, plus depreciation, plus interest paid; average value for 1965-1966.

[2/] Arbitrarily chosen.

Table I-6(b).--Estimated market value of a New Bedford dragger, based on present value of future returns

Mean returns to vessel[1/]: $4,700

Discount rate [2/]	Expected useful life - Years			
	5	10	15	20
Percent:	Market value in dollars:			
12	17,000	26,600	32,000	35,100
18	14,700	21,100	24,000	25,200
24	12,900	17,300	18,800	19,300

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

2/ Arbitrarily chosen.

Table I-6(c).--Estimated market value of a Rhode Island small trawler, based on present value of future returns

Mean returns to vessel[1/] : $4300

Discount rate [2/]	Expected useful life - Years			
	5	10	15	20
Percent:	Market value in dollars:			
12	15,500	24,300	29,300	32,100
18	13,500	19,300	21,900	23,000
24	11,800	15,800	17,200	17,700

1/ Based on data from Table I-1(c). Net return before taxes, plus depreciation, plus interest paid, year 1964.

2/ Arbitrarily chosen.

Table I-7.--Historical growth rate of Atlantic groundfish landings, fisherman and vessels, 1950-66

Landings[1/]	-1.22 percent per year
Fishermen[2/]	+1.60 percent per year
Vessels[3/]	-1.16 percent per year

1/ Log of landings (thou. lbs.) = 5.7706 - .0057 time
(4.77)

2/ Log of number of fishermen = 4.9527 + .0071 time
(4.20)

3/ Log of number of vessels = 3.1162 - .0074 time
(6.15)

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 -- Total U.S. consumption of Atlantic groundfish aggregate and per capita 1/ 2/

(Edible weight)

	Aggregate	Per Capita
	Thousand pounds	Pounds
1947	198,881	1.395
1948	240,848	1.659
1949	239,752	1.624
1950	239,748	1.596
1951	277,699	1.839
1952	262,230	1.710
1953	250,935	1.608
1954	295,946	1.860
1955	276,174	1.702
1956	281,167	1.700
1957	310,419	1.843
1958	300,273	1.751
1959	314,434	1.802
1960	316,840	1.778
1961	362,859	2.002
1962	379,894	2.067
1963	386,261	2.069
1964	414,467	2.188
1965	446,062	2.324
1966	469,072	2.420
1967	441,629	2.257
1968	525,458	2.656
1969		
1970		
1971		
1972		

Source: Division of Economic Research

1/ Haddock, cod, ocean perch, flounder, hake, cusk, pollock
2/ Flounder Fillet imports not available 1947-1953

Table II-2(a).--U.S. Consumption of Cod 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	.104	.108	.308	.235	.755
White	.174	.120	.133	.126	.553
Other	.666	.182	.000	.000	.848
Not specified	.060	.100	.100	.000	.260
RELIGION					
Catholic	.200	.144	.225	.150	.719
Jewish	.248	.274	.201	.268	.991
Protestant	.162	.107	.114	.118	.501
Other	.190	.184	.321	.324	1.019
Not specified	.000	.000	.075	.035	.110
INCOME PER CAPITA					
Under 1,000	.154	.067	.099	.052	.372
1,000-1,999	.176	.112	.154	.156	.598
2,000-2,499	.160	.075	.112	.132	.479
2,500-2,999	.147	.126	.135	.142	.550
3,000-3,499	.192	.096	.154	.140	.582
3,500 & over	.244	.181	.151	.122	.698
OCCUPATION					
Prof. & semiprofessional	.129	.109	.104	.128	.471
Proprietors, managerial	.144	.100	.121	.100	.465
Clerical & sales	.160	.100	.151	.140	.551
Craftsmen, foremen	.197	.116	.137	.177	.627
Head operative	.142	.103	.191	.124	.560
Service workers, & laborers	.238	.183	.157	.114	.692
EDUCATION					
Less than 4 yr. high school	.158	.101	.113	.135	.507
Less than 4 yr. college	.202	.122	.172	.133	.629
College grad	.124	.158	.117	.115	.514
Head, not spec.	.046	.047	.020	.088	.201
REGION					
New England	.157	.122	.318	.119	.716
Middle Atlantic	.242	.185	.155	.170	.752
E. North Cent.	.173	.116	.133	.099	.521
W. North Cent.	.092	.037	.045	.089	.263
South Atlantic	.178	.134	.174	.132	.618
E. South Cent.	.152	.139	.135	.148	.574
W. South Cent.	.080	.063	.141	.149	.433
Mountain	.266	.098	.123	.045	.532
Pacific	.198	.107	.027	.124	.456

Source: Division of Economic Research, Bureau of Commercial Fisheries

1/Purchases by households for home use.

Table II-2(b).--U.S. Consumption of Flounder Sole 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	.232	.167	.086	.206	.691
White	.164	.135	.127	.115	.541
Other	.258	.136	.167	.000	.561
Not specified	.020	.120	.044	.057	.241
RELIGION					
Catholic	.207	.176	.153	.140	.676
Jewish	.615	.686	.773	.661	2.735
Protestant	.140	.104	.094	.091	.429
Other	.142	.189	.162	.233	.726
Not specified	.000	.000	.000	.000	.000
INCOME PER CAPITA					
Under 1,000	.135	.061	.039	.077	.312
1,000-1,999	.144	.132	.123	.083	.482
2,000-2,499	.082	.063	.067	.083	.295
2,500-2,999	.195	.131	.191	.175	.692
3,000-3,499	.164	.163	.122	.162	.611
3,500 & over	.304	.198	.166	.159	.827
OCCUPATION					
Prof. & semiprofessional	.136	.109	.093	.130	.468
Proprietors, managerial	.120	.127	.107	.120	.474
Clerical & sales	.264	.186	.199	.176	.825
Craftsmen, foremen	.154	.125	.092	.091	.462
Head operative	.061	.106	.119	.079	.365
Service workers, & laborers	.291	.161	.154	.118	.724
EDUCATION					
Less than 4 yr. high school	.172	.136	.124	.109	.541
Less than 4 yr. college	.168	.139	.136	.128	.571
College grad.	.162	.134	.101	.121	.518
Head, not spec.	.024	.019	.080	.020	.143
REGION					
New England	.168	.199	.121	.080	.935
Middle Atlantic	.336	.286	.309	.282	1.213
E. North Cent.	.055	.044	.046	.046	.191
W. North Cent.	.024	.010	.002	.009	.045
South Atlantic	.228	.271	.168	.143	.810
E. South Cent.	.088	.103	.096	.147	.434
W. South Cent.	.166	.057	.030	.056	.309
Mountain	.149	.020	.058	.120	.347
Pacific	.202	.100	.148	.084	.534

Source: Division of Economic Research, Bureau of Commercial Fisheries

1/Purchases by households for home use.

Table II-2(c).--U.S. Consumption of Haddock 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	.240	.113	.208	.091	.652
White	.194	.169	.123	.109	.595
Other	.050	.000	.333	.344	.727
Not specified	.000	.030	.056	.000	.086
RELIGION					
Catholic	.224	.166	.171	.131	.692
Jewish	.229	.176	.148	.241	.794
Protestant	.180	.160	.112	.097	.549
Other	.558	.703	390	.083	1.734
Not specified	.058	.000	.000	.000	058
INCOME PER CAPITA					
Under 1,000	.166	.162	.150	.147	.625
1,000-1,999	.198	.139	.121	.088	.546
2,000-2,499	.099	.306	.055	.066	.526
2,500-2,999	.192	.101	.086	.099	.478
3,000-3,499	.201	.139	.122	.108	.570
3,500 & over	.298	.177	.172	.142	.789
OCCUPATION					
Prof. & semiprofessional	.139	.069	.090	.080	.378
Proprietors, managerial	.190	.132	.129	.102	.553
Clerical & sales	.138	.278	.086	.088	.590
Craftsmen, foremen	.178	.114	.096	.086	.474
Head operative	.158	.182	.205	.112	.657
Service workers, & laborers	.334	.240	.169	.178	.921
EDUCATION					
Less than 4 yr. high school	.229	.153	.124	.101	.607
Less than 4 yr. college	.184	.198	.140	.113	.635
College grad.	.150	.099	.083	.076	.408
Head, not spec.	.478	.202	.300	.696	1.676
REGION					
New England	.644	.510	457	.105	1.716
Middle Atlantic	.340	.312	.168	.170	.990
E. North Cent.	.174	.114	.130	.087	.505
W. North Cent.	.160	.142	.109	.085	.496
South Atlantic	.170	.152	.115	.134	.571
E. South Cent.	.096	.080	.087	.074	.337
W. South Cent.	.016	.007	.007	.012	.042
Mountain	.050	.028	.042	.013	.133
Pacific	.064	.102	.061	.077	.304

Source: Division of Economic Research, Bureau of Commercial Fisheries
1/Purchases by households for home use.

Table II-2(d).--U.S. Consumption of Ocean Perch 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	.701	.193	.436	.405	1.735
White	.202	.115	.132	.127	.526
Other	.000	.000	.000	.000	.000
Not specified	.066	.000	.167	.286	.519
RELIGION					
Catholic	.194	.073	.136	.135	.538
Jewish	.070	.011	.030	.075	.186
Protestant	.238	.136	.153	.144	.671
Other	.075	.053	.143	.095	.366
Not specified	.263	.000	.000	.000	.263
INCOME PER CAPITA					
Under 1,000	.223	.123	.115	.143	.604
1,000-1,999	.258	.110	.144	.141	.653
2,000-2,499	.214	.124	.132	.153	.623
2,500-2,999	.244	.160	.186	.199	.789
3,000-3,499	.242	.070	.160	.122	.594
3,500 & over	.218	.125	.145	.114	.602
OCCUPATION					
Prof. & semiprofessional	.168	.076	.158	.094	.496
Proprietors, managerial	.196	.097	.099	.106	.498
Clerical & sales	.245	.109	.136	.191	.681
Craftsmen, foremen	.245	.117	157	.113	.632
Head operative	.140	.195	.211	.206	.752
Service workers, & laborers	.324	..32	.140	.161	.757
EDUCATION					
Less than 4 yr. high school	.308	.159	.176	.188	.831
Less than 4 yr. college	.166	.090	.110	.121	.487
College grad.	.204	.114	.189	.105	.612
Head, not spec.	.660	.000	.000	.020	.680
REGION					
New England	.024	.025	/041	.021	.111
Middle Atlantic	.100	.073	.079	.071	.323
E. North Cent.	.272	.166	.189	.199	.826
W. North Cent.	.265	.109	.087	.090	.551
South Atlantic	.342	.196	.226	.234	.998
E. South Cent.	.521	.309	.454	.302	1.586
W. South Cent.	.336	.087	.144	.137	.704
Mountain	.220	.014	.123	059	.416
Pacific	.075	.029	.027	.059	.190

Source: Division of Economic Research, Bureau of Commercial Fisheries

1/Purchases by households for home use.

Table II-2(e).--U.S. Consumption of Pollock 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	.000	.000	.000	.000	.000
White	.004	.005	.002	.005	.016
Other	.000	.000	.000	.000	.000
Not specified	.000	.000	.000	.000	.000
RELIGION					
Catholic	.007	.070	.002	.009	.088
Jewish	.000	.000	.000	.000	.000
Protestant	.002	.005	.002	.003	.012
Other	.000	.000	.000	.000	.000
Not specified	.000	.000	.000	.000	.000
INCOME PER CAPITA					
Under 1,000	.000	.000	.002	.001	.003
1,000-1,999	.003	.010	.003	.008	.024
2,000-2,499	.000	.000	.000	.000	.000
2,500-2,999	.001	.000	.003	.002	.006
3,000-3,499	.008	.006	.000	.003	.017
3,500 & over	.008	.005	.000	.005	.018
OCCUPATION					
Prof. & semiprofessional	.000	.001	.000	.002	.003
Proprietors, managerial	.002	.004	.000	.000	.006
Clerical & sales	.000	.003	.000	.015	.018
Craftsmen, foremen	.012	.006	.001	.003	.022
Head operative	.000	.000	.000	.000	.000
Service workers, & laborers	.004	.014	.008	.008	.034
EDUCATION					
Less than 4 yr. high school	.000	.007	.004	.004	.015
Less than 4 yr. college	.006	.006	.001	.005	.018
College grad.	.000	.000	.000	.005	.005
Head, not spec.	.000	.000	.000	.000	.000
REGION					
New England	.003	.022	.000	.021	.046
Middle Atlantic	.006	.002	.001	.003	.012
E. North Cent.	.000	.000	.005	.001	.006
W. North Cent.	.012	.000	.000	.000	.012
South Atlantic	.003	.017	.000	.002	.022
E. South Cent.	.000	.000	.000	.002	.002
W. South Cent.	.000	.000	.000	.013	.013
Mountain	.000	.004	.000	.000	.004
Pacific	.000	.009	.003	.006	.018

Source: Division of Economic Research, Bureau of Commercial Fisheries

1/ Purchases by households for home use.

Table II-2(f).--U.S. Consumption of Whiting 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	.828	.167	.282	.137	1.414
White	.042	.031	.029	.032	.134
Other	.000	.000	.000	.000	.000
Not specified	.000	.000	.000	.000	.000
RELIGION					
Catholic	.037	.024	.039	.046	.146
Jewish	.008	.000	.006	.010	.024
Protestant	.092	.042	.042	.036	.212
Other	.062	.105	.000	.000	.167
Not specified	.000	.000	.000	.000	.000
INCOME PER CAPITA					
Under 1,000	.365	.128	.156	.088	.737
1,000-1,999	.056	.015	.022	.028	.121
2,000-2,499	.006	.009	.007	.014	.036
2,500-2,999	.061	.105	.055	.092	.313
3,000-3,499	.084	.021	.063	.032	.200
3,500 & over	.016	.017	.013	.020	.066
OCCUPATION					
Prof. & semiprofessional	.016	.004	.031	.015	.066
Proprietors, managerial	.043	.024	.018	.022	.107
Clerical & sales	.011	.009	.013	.023	.056
Craftsmen, foremen	.050	.017	.022	.039	.128
Head operative	.037	.070	.037	.050	.194
Service workers, & laborers	.308	.106	.117	.076	.607
EDUCATION					
Less than 4 yr. high school	.120	.071	.068	.064	.323
Less than 4 yr. college	.070	.025	.025	.024	.144
College grad.	.015	.005	.027	.015	.062
Head, not spec.	.146	.015	.000	.102	.263
REGION					
New England	.076	.000	.044	.019	.139
Middle Atlantic	.054	.035	.030	.052	.171
E. North Cent.	.027	.022	.013	.012	.074
W. North Cent.	.066	.012	.009	.061	.148
South Atlantic	.104	.083	.091	.050	.328
E. South Cent.	.200	.183	.227	.148	.758
W. South Cent.	.220	.020	.012	.010	.262
Mountain	.132	.022	.024	.032	.210
Pacific	.010	.001	.004	.002	.017

Source: Division of Economic Research, Bureau of Commercial Fisheries

1/ Purchases by households for home use.

Table II-3(a).--Prices of Atlantic groundfish: Exvessel wholesale and retail

Year	Exvessel 1/	Wholesale 2/		
		Flounder	Haddock	Ocean perch
	Cents per pound			
1947	5.56	N.A.	N.A.	N.A.
1948	5.77	N.A.	N.A.	N.A.
1949	5.02	N.A.	N.A.	N.A.
1950	5.90	34.5	25.8	22.2
1951	6.09	40.0	25.0	25.3
1952	6.02	37.0	26.4	23.8
1953	5.72	32.1	23.2	22.3
1954	5.38	38.3	31.4	28.3
1955	5.02	39.4	27.5	27.2
1956	5.28	39.3	28.3	27.8
1957	5.52	39.2	30.1	27.9
1958	6.40	40.3	37.4	29.4
1959	6.35	38.9	34.9	28.3
1960	5.84	38.4	28.9	27.9
1961	5.75	38.6	33.4	29.5
1962	6.15	39.5	34.3	32.1
1963	6.62	39.1	36.5	33.6
1964	6.38	37.2	37.4	30.8
1965	7.51	38.5	38.4	30.9
1966	8.48	42.7	39.4	31.8
1967	8.14	39.7	36.9	28.4
1968		39.4	42.7	27.1
1969				
1970				
1971				
1972				

Table II-3(a).--Prices of Atlantic groundfish: Exvessel, wholesale and retail (continued)

Year	Retail				
	Cod 3/	Flounder 3/	Haddock 2/	Ocean perch 2/	Whiting 3/
	Cents per pound				
1947	n.a.	n.a.	n.a.	n.a.	n.a.
1948	n.a.	n.a.	n.a.	n.a.	n.a.
1949	43.7	66.5	n.a.	n.a.	n.a.
1950	46.6	71.5	n.a.	n.a.	n.a.
1951	49.3	80.3	n.a.	n.a.	26
1952	51.7	80.4	50.7	45.9	25
1953	50.2	83.1	49.1	44.0	27
1954	49.4	81.6	49.5	43.9	27
1955	49.0	82.1	46.7	42.8	27
1956	51.1	85.1	45.4	42.0	27
1957	51.7	87.2	46.4	42.9	27
1958	52.6	87.4	55.5	45.6	29
1959	54.3	88.9	58.4	47.5	31
1960	54.0	90.8	55.7	47.4	29
1961	55.0	89.8	54.8	47.5	30
1962	55.7	88.2	55.4	50.0	32
1963	56.0	86.3	57.5	52.6	33
1964	58.3	90.1	60.4	52.8	33
1965	61.0	95.0	62.1	52.7	38
1966	64.0	99.5	66.2	54.1	38
1967	71.6	96.9	67.5	54.1	42
1968	70.0	101.8	67.5	53.9	47
1969					
1970					
1971					
1972					

1/ Weighted average price of all groundfish; see Table II-3(b) for prices by species.
2/ For frozen fillets U.S. Department of Labor, Bureau of Labor Statistics.
3/ For cod steaks, flounder fillets, and headed and gutted whiting. New York State Market Information Service, Department of Agriculture and Markets, Division of Markets, Consumer Information.

Table II-3(b). -- Prices for Atlantic groundfish by species: Exvessel

Year	Cod	Cusk	Flounder	Haddock
	Cents per pound			
1947	5.93	4.30	9.45	6.93
1948	6.65	4.51	10.85	7.96
1949	5.98	4.08	10.25	6.85
1950	6.30	3.80	11.11	7.46
1951	7.27	5.53	13.45	7.77
1952	7.23	5.27	13.50	7.74
1953	6.75	4.81	12.56	7.54
1954	5.93	4.92	12.33	6.46
1955	6.06	5.17	12.75	6.00
1956	6.33	5.45	12.57	6.30
1957	6.39	5.33	12.47	7.64
1958	7.36	5.60	12.10	9.81
1959	7.13	5.30	12.88	9.71
1960	6.68	5.14	12.40	9.73
1961	6.43	5.30	11.06	7.42
1962	7.02	5.44	10.32	8.13
1963	7.36	5.76	9.07	9.44
1964	6.89	5.09	8.70	8.87
1965	7.98	6.02	10.43	10.10
1966	8.51	6.00	12.57	10.54
1967	8.06	6.17	11.73	11.27
1968	7.20	6.27	12.31	13.04
1969				
1970				
1971				
1972				

Table II-3(b). -- Prices for Atlantic groundfish by species: Exvessel (continued)

Year	Red and white hake	Ocean perch	Pollock	Whiting
	Cents per pound			
1947	3.08	4.04	3.58	2.31
1948	3.46	4.05	3.65	2.33
1949	1.69	4.14	2.80	2.18
1950	3.35	4.40	3.64	2.15
1951	3.87	4.88	4.41	2.42
1952	4.00	4.36	3.70	2.18
1953	4.19	3.89	3.03	2.02
1954	3.56	4.06	3.09	2.14
1955	2.80	3.84	3.18	1.79
1956	2.56	3.79	3.05	1.79
1957	3.65	3.83	3.52	1.86
1958	3.30	4.22	4.29	2.30
1959	3.25	4.18	4.01	2.03
1960	2.57	3.90	3.35	2.27
1961	2.43	3.95	3.71	2.23
1962	2.53	4.29	4.19	2.23
1963	2.75	4.79	4.59	2.35
1964	3.40	4.34	4.95	2.19
1965	3.63	4.22	6.10	2.67
1966	4.70	4.38	5.67	4.38
1967	5.46	3.92	5.62	3.10
1968	3.33	3.90	4.69	3.47
1969				
1970				
1971				
1972				

Source: Original data from Fishery Statistics of the U.S.

Table II-4--Total value of groundfish: Ex vessel, wholesale and retail, 1947-67.

Year	Ex vessel	Wholesale 1/	Retail 1/
	- - - - - - Thousand dollars - - - - - -		
1947	32,459	62,970	104,929
1948	40,193	83,342	139,443
1949	34,974	73,258	123,712
1950	36,393	77,313	129,109
1951	42,422	95,984	161,571
1952	37,167	89,261	147,332
1953	29,571	70,390	115,959
1954	30,370	85,565	139,845
1955	27,540	78,747	127,759
1956	28,385	80,676	130,778
1957	29,557	84,594	136,994
1958	34,626	96,762	156,750
1959	33,042	102,039	163,610
1960	30,867	93,965	151,315
1961	30,624	103,052	164,468
1962	33,343	112,298	178,924
1963	34,308	116,991	186,272
1964	32,419	121,466	191,633
1965	36,610	145,550	228,114
1966	40,764	164,950	258,612
1967	32,855	135,578	210,610
1968		159,905	246,626
1969			
1970			
1971			
1972			

Source: Fishery Statistics of the United States and the Division of Economic Research, Bureau of Commercial Fisheries

1/ Estimated value of the total supply of groundfish, be applying marketing margins in 1967 to the ex vessel level and adding imports.

Table II-5.--Retail price of selected groundfish relative to the consumer price index and the consumer price index for meat, poultry and fish

Year	Cod			Flounder		
	Retail price, actual	Actual divided by CPI	Actual divided by CPImpf	Retail price, actual	Actual divided by CPI	Actual divided by CPImpf
	Cents per pound					
1950	46.6	55.6	49.0	71.5	85.3	75.2
1951	49.3	54.5	46.4	80.3	88.7	75.5
1952	51.7	55.9	49.1	80.4	86.9	76.3
1953	50.2	53.9	50.4	83.1	89.2	83.4
1954	49.4	52.8	50.5	81.6	87.2	83.4
1955	49.0	52.5	53.2	82.1	88.0	89.3
1956	51.1	54.0	58.1	85.1	89.9	96.7
1957	51.7	52.8	54.2	87.2	89.0	91.4
1958	52.6	52.2	50.4	87.4	86.8	83.7
1959	54.3	53.5	54.1	88.9	87.6	88.5
1960	54.0	52.4	54.5	90.8	88.1	91.6
1961	55.0	52.8	55.4	89.8	86.2	90.4
1962	55.7	52.8	54.8	88.2	83.7	86.7
1963	56.0	52.5	55.9	86.3	80.9	86.1
1964	58.3	53.9	59.1	90.1	83.3	91.4
1965	61.0	55.5	58.0	95.0	86.4	90.4
1966	64.0	56.6	56.1	99.5	88.0	87.2
1967	71.6	61.6	64.4	96.9	83.3	87.1
1968	70.0	57.8	61.6	101.8	84.0	89.5
1969						
1970						
1971						
1972						

Table II-5.--Retail price of selected groundfish relative to the consumer price index and the consumer price index for meet, poultry and fish (continued)

Year	Haddock			Ocean Perch		
	Retail price, actual	Actual divided by CPI	Actual divided by CPImpf	Retail price, actual	Actual divided by CPI	Actual divided by CPImpf
	Cents per pound					
1950	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1951	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1952	50.7	54.8	48.1	45.9	49.6	43.6
1953	49.1	52.7	49.3	44.0	47.2	44.2
1954	49.5	52.9	50.6	43.9	46.9	44.8
1955	46.7	50.1	50.7	42.8	45.9	46.5
1956	45.4	47.9	51.6	42.0	44.4	47.7
1957	46.4	47.3	48.6	42.9	43.8	45.0
1958	55.5	55.1	53.2	45.6	45.3	43.7
1959	58.4	57.5	58.2	47.5	46.8	47.3
1960	55.7	54.0	56.2	47.4	46.0	47.8
1961	54.8	52.6	55.0	47.5	45.6	47.8
1962	55.4	52.6	54.5	50.0	47.4	49.2
1963	57.5	53.9	57.4	52.6	49.3	52.5
1964	60.4	55.9	61.3	52.8	48.8	53.5
1965	62.1	56.5	59.1	52.7	48.0	50.1
1966	66.2	58.5	58.0	54.1	47.8	47.4
1967	67.5	58.0	60.7	54.1	46.5	48.7
1968	67.5	55.7	59.4	53.9	44.5	47.4
1969						
1970						
1971						
1972						

Table II-5.--Retail price of selected groundfish relative to the consumer price index and the consumer price index for meat, poultry and fish (continued)

Year	Whiting		
	Retail price, actual	Actual divided by CPI	Actual divided by CPImpf
	------- Cents per pound ---------		
1950	n.a.	n.a.	n.a.
1951	26	28.7	24.5
1952	25	27.0	23.7
1953	27	29.0	27.1
1954	27	28.8	27.6
1955	27	28.9	29.3
1956	27	28.5	30.7
1957	27	27.6	28.3
1958	29	28.8	27.8
1959	31	30.5	30.9
1960	29	28.1	29.3
1961	30	28.8	30.2
1962	32	30.4	31.5
1963	33	30.9	32.9
1964	33	30.5	33.5
1965	38	34.6	36.2
1966	38	33.6	33.3
1967	42	36.1	37.8
1968	47	38.8	41.3
1969			
1970			
1971			
1972			

1/ From Table II-3
2/ Consumer Price Index (1957-59=100)
3/ Consumer price index for meat, poultry and fish (1957-59=100)

Table II-6(a).--Index of seasonal demand for cod by market area[1/]

Month	Boston Fish Pier		Fulton Fish Market	
	Large cod	Market cod	Market cod	Steak cod
January	123.8	113.2	125.1	116.0
February	115.4	105.0	120.0	115.6
March	103.2	96.0	109.2	110.8
April	91.0	88.6	96.6	103.1
May	82.0	84.2	86.0	94.8
June	77.6	83.8	79.3	88.5
July	78.4	87.0	78.2	85.0
August	84.0	93.7	80.8	85.2
September	94.1	102.6	88.8	89.0
October	106.6	111.2	100.4	95.8
November	118.4	116.9	112.8	104.0
December	125.0	117.6	122.3	111.6

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

1/ 100 equals average monthly demand.

Table II-6(b).--Index of seasonal demand for flounder by market area[1/]

Month	New Bedford			
	Blackback and Lemon sole	Gray sole	Sea dab	Yellowtail
January	97.0	123.2	114.8	115.0
February	91.0	111.0	110.2	113.7
March	87.6	97.0	103.1	108.4
April	87.2	85.2	95.9	101.0
May	89.8	68.4	89.4	93.8
June	95.2	76.0	86.1	88.4
July	102.2	79.6	86.2	86.0
August	108.8	88.3	89.8	86.9
September	113.2	101.1	96.8	91.2
October	113.6	115.0	103.8	97.8
November	110.2	125.8	110.8	105.4
December	103.9	129.0	115.0	111.9

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

1/ 100 equals average monthly demand.

Table II-6(c).--Index of seasonal demand for haddock by market area[1/]

Month	Boston Fish Pier		Fulton Fish Market
	Large haddock	Scrod haddock	
January	111.6	111.5	121.4
February	106.4	105.7	113.7
March	99.6	98.6	102.4
April	93.2	92.4	91.4
May	88.9	88.2	83.2
June	87.3	87.2	79.3
July	88.8	89.2	80.0
August	93.2	94.2	85.6
September	99.4	100.8	95.2
October	106.2	107.7	106.4
November	111.5	112.7	118.2
December	113.5	111.6	122.7

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

1/ 100 equals average monthly demand.

Table II-6(d).--Index of seasonal demand for whiting by market area[1/]

Month	Fulton Fish Market
January	121.6
February	130.2
March	129.4
April	119.2
May	104.2
June	89.6
July	78.8
August	73.5
September	74.0
October	80.4
November	92.0
December	107.0

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

1/ 100 equals average monthly demand.

Table II-7.--Price and income elasticities for groundfish 1/

Price elasticity = -1.000

Income elasticity = 1.211

Demand Equation for United States

$$C/N = -1.9922 - 1.000 \text{ Log } \left[\frac{P}{CPI}\right] + 1.211 \text{ Log } \left[\frac{Y/CPI}{N}\right]$$

C/N = Groundfish consumption per capita

P/CPI = Exvessel price of groundfish 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

1/ Includes cod, cusk, flounder, haddock, hake, ocean perch, pollock, and whiting.

III DEMAND PROJECTIONS

- U.S. Consumption
  - Aggregate
  - Per capita

Table III-1.--Demand projections for groundfish, 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/]	
1968 (actual)	5.32	199.8	1,062	10,212[3/]
1970	6.31	206.0	1,300	11,400
1975	6.84	219.4	1,500	13,000
1980	7.23	235.2	1,700	14,200
1985	7.51	252.9	1,900	15,200
1990	7.39	270.8	2,000	15,600
2000	6.82	307.8	2,100	15,800

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.

3/ Figure for 1967.

IV DOMESTIC PRODUCTION

—Landings

—Value

Table IV-1.--U. S. Landings of Atlantic Groundfish[1/]

Year	Landings	Value
	Thousand Pounds	Thousand Dollars
1947	583,656	32,459
1948	696,067	40,193
1949	696,200	34,974
1950	617,248	36,393
1951	696,909	42,422
1952	616,975	37,167
1953	516,862	29,571
1954	564,201	30,370
1955	548,741	27,540
1956	537,401	28,385
1957	535,618	29,557
1958	541,288	34,626
1959	520,553	33,042
1960	528,520	30,867
1961	532,785	30,624
1962	542,360	33,343
1963	518,187	34,308
1964	507,984	32,419
1965	487,425	36,610
1966	480,709	40,764
1967	403,761	32,855
1968		
1969		
1970		
1971		
1972		

Source: Fishery Statistics of the U.S., 1947-1966 and Fisheries of the U.S., 1968, CFS 500Q

1/ Includes cod, cusk, flounder, haddock, red and white hake, ocean perch, pollock and whiting.

Table IV-2. -- Landings and value of Atlantic groundfish by species

Year	Cod		Cusk	
	Landings	Value	Landings	Value
	Thousand Pounds	Thousand Dollars	Thousand Pounds	Thousand Dollars
1947	66,879	3,968	1,861	80
1948	71,347	4,742	3,213	145
1949	62,576	3,744	3,260	133
1950	57,490	3,623	3,818	145
1951	50,023	3,635	3,293	182
1952	43,686	3,158	3,700	195
1953	32,660	2,206	3,055	147
1954	36,824	2,183	2,112	104
1955	35,582	2,156	2,147	111
1956	35,127	2,225	2,056	112
1957	34,068	2,178	1,969	105
1958	41,362	3,042	1,643	92
1959	46,481	3,312	2,246	119
1960	40,381	2,696	1,927	99
1961	46,591	2,995	1,905	101
1962	46,910	3,294	1,858	101
1963	42,177	3,106	1,909	110
1964	38,746	2,669	2,319	118
1965	36,048	2,877	2,177	131
1966	37,576	3,196	2,218	133
1967	44,400	3,578	1,717	106
1968	48,600	3,500	1,500	94
1969				
1970				
1971				
1972				

Table IV-2. -- U. S. Landings and value of Atlantic groundfish by species (continued)

Year	Flounder		Haddock	
	Landings	Value	Landings	Value
	Thousand Pounds	Thousand Dollars	Thousand Pounds	Thousand Dollars
1947	81,459	7,700	166,371	11,536
1948	84,171	9,129	156,375	12,448
1949	80,635	8,262	134,971	9,250
1950	79,135	8,793	158,559	11,834
1951	70,343	9,462	154,103	11,968
1952	67,277	9,083	161,497	12,506
1953	60,944	7,655	139,603	10,528
1954	61,766	7,616	154,934	10,010
1955	61,491	7,838	135,035	8,101
1956	62,983	7,918	152,246	9,587
1957	67,156	8,375	133,571	10,198
1958	75,721	9,162	119,554	11,732
1959	72,646	9,360	112,629	10,939
1960	77,362	9,592	118,697	9,398
1961	82,511	9,127	133,597	9,907
1962	101,484	10,472	134,250	10,913
1963	121,627	11,036	123,972	11,705
1964	125,330	10,897	133,498	11,845
1965	127,364	13,288	133,892	13,630
1966	121,955	15,325	132,288	13,943
1967	106,508	12,495	98,464	11,094
1968	112,900	13,900	71,300	9,300
1969				
1970				
1971				
1972				

Table IV-2. -- U. S. landings and value of Atlantic groundfish by species (continued)

Year	Hake (Red and White) Landings	Hake (Red and White) Value	Ocean Perch Landings	Ocean Perch Value
	Thousand Pounds	Thousand Dollars	Thousand Pounds	Thousand Dollars
1947	25,811	794	146,587	5,925
1948	22,847	791	238,096	9,647
1949	56,963	964	236,987	9,820
1950	17,492	586	207,793	9,137
1951	17,404	673	260,176	12,690
1952	16,380	655	195,475	8,521
1953	12,565	526	159,856	6,213
1954	11,445	408	192,623	7,821
1955	15,465	433	163,497	6,279
1956	16,930	435	161,379	6,114
1957	9,848	359	142,968	5,471
1958	10,650	351	154,931	6,537
1959	10,110	329	144,433	6,042
1960	14,784	380	150,275	5,843
1961	13,987	340	144,504	5,708
1962	12,454	315	141,310	6,055
1963	12,961	356	131,870	6,319
1964	11,303	384	110,141	4,780
1965	10,052	365	111,960	4,728
1966	5,961	280	103,416	4,530
1967	2,800	153	71,409	2,799
1968	3,000	100	61,500	2,400
1969				
1970				
1971				
1972				

Table IV-2. -- U. S. landings and value of Atlantic groundfish by species (continued)

Year	Pollock		Whiting	
	Landings	Value	Landings	Value
	Thousand Pounds	Thousand Dollars	Thousand Pounds	Thousand Dollars
1947	20,991	752	73,704	1,705
1948	37,858	1,383	82,164	1,918
1949	28,832	808	91,620	1,994
1950	25,648	830	67,332	1,447
1951	22,717	1,007	120,076	2,903
1952	26,956	996	108,437	2,364
1953	23,912	724	89,625	1,813
1954	20,411	631	95,257	2,042
1955	23,160	736	118,876	2,126
1956	23,023	702	93,923	1,683
1957	22,034	775	133,041	2,479
1958	32,894	1,410	111,404	2,562
1959	24,545	983	115,192	2,335
1960	22,334	747	111,602	2,535
1961	21,406	795	100,729	2,245
1962	16,333	685	105,088	2,340
1963	14,607	670	92,643	2,178
1964	13,287	658	94,233	2,067
1965	11,856	723	82,574	2,204
1966	9,018	511	90,408	3,955
1967	7,297	410	69,543	2,156
1968	6,400	300	77,900	2,700
1969				
1970				
1971				
1972				

Source: Fisheries Statistics of the U. S., 1947-66 and Fisheries of the U. S., 1968

Table IV-3.--Sources and disposition of Atlantic groundfish in the U.S. 1/

Year	Beginning Stocks	Landings	Imports	Total Supply	Ending Stocks	Exports	Apparent Total Consumption
	Million pounds, round weight						
1947	119.6	583.7	110.7	814.0	76.9	39.8	697.3
1948	76.9	696.1	172.4	945.4	114.5	8.9	822.0
1949	114.5	696.2	150.6	961.3	103.0	3.2	855.1
1950	103.0	617.2	206.7	926.9	93.3	1.5	832.1
1951	93.3	696.9	280.0	1,070.2	121.2	1.1	947.9
1952	121.2	617.0	340.3	1,078.5	170.1	1.2	907.2
1953	170.1	516.9	284.8	971.8	120.3	1.2	850.3
1954	120.3	564.2	455.9	1,140.4	201.7	0.9	937.8
1955	201.7	548.7	455.5	1,205.9	186.1	1.4	1,018.4
1956	186.1	537.4	474.1	1,197.6	221.4	1.0	975.2
1957	221.4	535.6	501.0	1,258.0	169.4	1.0	1,087.6
1958	169.4	651.3	524.8	1,235.5	228.1	1.4	1,006.0
1959	228.1	520.6	654.0	1,402.7	251.3	1.6	1,149.8
1960	251.3	528.5	575.3	1,355.1	229.7	1.7	1,123.7
1961	229.7	532.8	709.1	1,471.6	201.5	1.4	1,268.7
1962	201.5	542.4	802.8	1,546.7	220.7	1.4	1,324.6
1963	220.7	518.2	835.0	1,573.9	234.1	1.7	1,338.1
1964	234.1	508.0	901.4	1,643.5	211.1	1.6	1,430.8
1965	211.1	487.4	1,082.4	1,780.9	250.2	2.0	1,528.7
1966	250.2	480.7	1,173.3	1,904.2	305.8	2.8	1,595.6
1967	305.8	403.8	1,063.6	1,773.2	271.0	3.1	1,499.1
1968	271.0		1,446.9		307.1	2.0	
1969	307.1				306.9		
1970							
1971							
1972							

Source: Fishery Statistics of the U.S.

1/ Includes cod, cusk, flounder, haddock, red and white hake, ocean perch, pollock, and whiting.

V DOMESTIC EMPLOYMENT, VESSELS AND EFFORT

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

Table V-1. -- Number of Atlantic groundfish fishermen and vessels, and fishing effort

Year	Fishermen	Vessels and boats	Fishing effort 1/
	Number	Number	Days Fishing
1947	6,718	1,369	8,369
1948	6,444	1,274	7,966
1949	6,310	1,236	6,866
1950	6,032	1,155	5,548
1951	7,034	1,344	6,450
1952	6,036	1,245	5,991
1953	6,600	1,389	6,350
1954	5,614	1,238	6,490
1955	5,188	1,153	5,012
1956	4,973	1,101	6,794
1957	4,765	1,042	8,028
1958	4,815	1,123	9,115
1959	4,787	1,114	9,663
1960	4,878	1,119	7,767
1961	4,545	1,061	7,625
1962	4,420	1,042	7,844
1963	4,269	999	10,134
1964	4,281	1,013	8,766
1965	4,134	977	10,089
1966	4,252	1,012	12,059
1967			9,806
1968			
1969			
1970			
1971			
1972			

Source: Fishery Statistics of the U.S.

1/ For haddock or Georges Bank, Woods Hole Biological Laboratory, BCF.

Table V-2.--Fishermen in the North Atlantic groundfish otter trawl fishery

Year	On Vessels			
	New England	Middle Atlantic	Chesapeake	Total 1/
	Number			
1947	4,897	747	332	5,976
1948	4,812	792	291	5,895
1949	4,745	691	322	5,758
1950	4,502	666	365	5,532
1951	5,298	928	281	6,507
1952	4,185	1,029	390	5,604
1953	4,714	1,074	377	5,165
1954	3,816	1,021	386	5,223
1955	3,588	912	332	4,832
1956	3,468	904	334	4,706
1957	3,316	884	319	4,519
1958	3,307	987	240	4,534
1959	3,215	947	394	4,556
1960	3,142	1,098	422	4,662
1961	2,961	984	391	5,336
1962	2,944	938	348	4,230
1963	2,928	892	286	4,106
1964	2,847	963	300	4,110
1965	2,819	831	318	3,968
1966	2,912	826	328	4,066

Source: Fishery Statistics of the U.S.

1/ Exclusive of duplication

Table V-2.--Fishermen in the North Atlantic groundfish otter trawl fishery (Continued)

Year	On Boats and Shore								Total Fishermen 1/
	New England		Middle Atlantic		Chesapeake		Total 1/		
	Reg.	Cas.	Reg.	Cas.	Reg.	Cas.	Reg.	Cas.	
	Number								
1947	348	221	104	55	14	-	466	276	6,718
1948	274	125	93	48	9	-	376	173	6,444
1949	311	89	95	51	6	-	412	140	6,310
1950	314	47	85	48	6	-	405	95	6,032
1951	259	91	108	69	-	-	367	160	7,034
1952	179	94	100	59	-	-	279	153	6,036
1953	138	100	118	79	-	-	256	179	6,600
1954	142	60	124	65	-	-	266	125	5,614
1955	128	55	124	49	-	-	252	104	5,188
1956	110	74	72	11	-	-	182	85	4,973
1957	118	45	62	11	10	-	190	56	4,765
1958	101	95	56	10	15	4	172	109	4,815
1959	91	58	51	8	19	4	161	70	4,787
1960	74	67	49	6	16	4	139	77	4,878
1961	82	69	42	6	9	1	133	76	4,545
1962	94	59	33	-	4	-	131	59	4,420
1963	77	53	23	4	6	-	106	57	4,269
1964	74	42	43	3	9	-	126	45	4,281
1965	81	49	30	2	4	-	115	51	4,134
1966	81	72	26	3	4	-	111	75	4,252

Source: Fishery Statistics of the U.S.

1/ Exclusive of duplication

Table V-3.--Vessels and boats in the North Atlantic groundfish otter trawl fishery

Year	Vessels				Boats			
					Motor			
	N.E.	M.A.	Chesa.	Total 1/	N.E.	M.A.	Chesa.	Total
	Number							
1947	742	241	65	1,048	236	79	6	321
1948	727	240	55	1,022	184	65	3	252
1949	719	205	62	986	181	67	2	250
1950	672	196	65	933	160	60	2	222
1951	795	232	54	1,081	182	81	-	263
1952	675	282	78	1,035	134	76	-	210
1953	776	307	74	1,157	139	93	-	232
1954	636	296	84	1,016	132	90	-	222
1955	603	285	81	969	116	68	-	184
1956	598	266	76	940	118	43	-	161
1957	568	259	78	905	95	37	5	137
1958	579	309	74	962	116	36	9	161
1959	567	297	113	977	95	31	11	137
1960	562	314	121	997	84	28	10	122
1961	539	292	108	939	92	25	5	122
1962	535	293	98	926	97	17	2	116
1963	530	290	90	900	83	13	3	99
1964	514	315	79	908	79	22	4	105
1965	514	284	84	882	76	17	2	95
1966	531	287	83	901	93	16	2	111

Source: Fishery Statistics of the U.S.

1/ Exclusive of duplication

Table V-3.--Vessels and boats in the North Atlantic groundfish otter trawl fishery (Continued)

Year	N.E.	.M.A.	Chesa.	Total	Total Boats	Total Vessels & Boats 1/
	Number					
1947	-	-	-	-	321	1,369
1948	-	-	-	-	252	1,274
1949	-	-	-	-	250	1,236
1950	-	-	-	-	222	1,155
1951	-	-	-	-	263	1,344
1952	-	-	-	-	210	1,245
1953	-	-	-	-	232	1,389
1954	-	-	-	-	222	1,238
1955	-	-	-	-	184	1,153
1956	-	-	-	-	161	1,101
1957	-	-	-	-	137	1,042
1958	-	-	-	-	161	1,123
1959	-	-	-	-	137	1,114
1960	-	-	-	-	122	1,119
1961	-	-	-	-	122	1,061
1962	-	-	-	-	116	1,042
1963	-	-	-	-	99	999
1964	-	-	-	-	105	1,013
1965	-	-	-	-	95	977
1966	-	-	-	-	111	1,012

Source: Fishery Statistics of the U.S.

1/ Exclusive of duplication

Table V-4.--Gear in the North Atlantic groundfish otter trawl fishery

Year	Otter Trawls			
	New England	Middle Atlantic	Chesapeake	Total
	Number			
1947	978	320	71	1,369
1948	911	305	58	1,274
1949	900	272	64	1,236
1950	832	256	67	1,155
1951	977	313	54	1,344
1952	809	358	78	1,245
1953	915	400	74	1,389
1954	768	386	84	1,238
1955	719	353	81	1,153
1956	716	309	76	1,101
1957	663	296	83	1,042
1958	695	345	83	1,123
1959	662	328	124	1,114
1960	646	342	131	1,119
1961	631	317	113	1,061
1962	632	310	100	1,042
1963	613	303	83	999
1964	593	337	83	1,013
1965	590	301	86	977
1966	624	303	85	1,012
1967				
1968				
1969				
1970				
1971				
1972				

Source: Fishery Statistics of the U.S.

VI BIOLOGICAL STOCK ASSESSMENT

Table VI-1.--Estimate of maximum sustainable yield from world stocks of groundfish by species

Species	MSY Thousand metric tons
Cod	3,440.2
Flounder	794.4
Haddock	625.0
Hake	1,580.0
Ocean perch	767.3
Pollock	878.6
Other[1/]	900.0
Total	8,985.5

Source: FAO indicative world plan for agriculture development, Area Review on Living Resources of the World Oceans.

1/ Flatfish other than flounder and halibut.

Table VI-2.--Estimate of maximum sustainable yield from world stocks of cod

Region	MSY (Thousand metric tons)
I. Northeast Atlantic	2,000.0
II. Northwest Atlantic	
1) ICNAF Subarea 1	430.0 1/
2) ICNAF Subarea 2	298.0 1/
3) ICNAF Subarea 3	400.0
4) ICNAF Subarea 4	250.0
5) ICNAF Subarea 5	25.0
6) ICNAF Subarea 6	.4 1/
III. Northeast Pacific	36.8 2/
World Total	3,440.2

Source: FAO Indicative World Plan for Agricultural Development, Area Reviews on Living Resources of the World's Oceans. Gulland, J. A., Graham, Herbert W., "The Offshore Resources of the Northwest Atlantic," in Recent Developments and Research in Fisheries Economics. Alverson, Dayton L., "Fishery Resources in the Northeastern Pacific Ocean," in The Future of the Fishing Industry of the United States, University of Washington, publication in Fisheries, New Series, volume IV, 1968.

1/ MSY estimate for this subarea is not available. However, the landings figure for 1967 was used based upon the assumption that the level of landings is at or near MSY.

2/ Represents mid-point of band 24.5-49.0.

Table VI-3.--Estimate of maximum sustainable yield from world stocks of flounder

Region	MSY (Thousand metric tons)
I. Northeast Atlantic	400.0[1]
II. Northwest Atlantic	
1) ICNAF Subarea 1	2.2[2]
2) ICNAF Subarea 2	4.8[2]
3) ICNAF Subarea 3	150.8[2]
4) ICNAF Subarea 4	45.8[3]
5) ICNAF Subarea 5	48.1[3]
6) ICNAF Subarea 6	12.1[2]
III. Northeast Pacific	
A. Arrowtooth flounder	112.5[4]
B. Starry Flounder[5]	18.1
World Total	794.4

Source: FAO Indicative World Plan for Agricultural Development, Area Reviews on Living Resources of the World's Oceans. Gulland, J. A., U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries, An Accelerated Program for the Development and Management of Important Aquatic Resources in and Adjacent to the U. S., June, 1969.

1/ This represents the MSY estimate of "Long Rough Dab".
2/ This is the landings estimate for 1967. Includes the following species: Greenland Halibut, Witch, Yellowtail Flounder, American Plaice, Winter Flounder, Summer Flounder, and other flounder. The assumption is that landings are not far from MSY.
3/ Derived in the following way: MSY estimates for Yellowtail Flounder are available for subareas 4 and 5 (Graham, p. 161). The total MSY estimates for these two areas were then derived by adding the landings figure of 1956 for all other species to the MSY estimate of Yellowtail Flounder.
4/ Represents mit-point of band 75-150.
5/ Waters overlying Continental Shelf off Alaska.

Table VI-4.--Estimate of maximum sustainable yield from world stocks of haddock

	Region	MSY
		Thousand metric tons
I.	Northeast Atlantic	465.
II.	Northwest Atlantic	160. 1/
	World Total	625.0

Source: FAO Indicative World Plan for Agricultural Development, Area Reviews on Living Resources of the World's Oceans, Gulland, J. A., Graham, Herbert W., "The Offshore Resources of the Northwest Atlantic," in Recent Developments and Research in Fisheries Economics.

1/ This represents the sum of MSY estimates of ICNAF subareas 3, 4, and 5. There are no reported landings or MSY estimates for subareas 1 and 2.

Table VI-5.--Estimate of maximum sustainable yield from world stocks of hake

Region	MSY (Thousand metric tons)
I. Northeast Atlantic	
A. Whiting	200.0
B. Other Hake	150.0
Total	350.0
II. Northwest Atlantic	
A. Silver Hake[1/]	
1) ICNAF Subarea 4	100.0
2) ICNAF Subarea 5	200.0
B. Red Hake[2/]	
1) ICNAF Subarea 5	100.0
III. Southeast Atlantic	620.0
IV. Northeast Pacific	210.0[3/]
World Total	1,580.0

Source: FAO Indicative World Plan for Agricultural Development, Area Reviews on Living Resources of the World's Oceans, Gulland, J. A., Graham, Herbert W., "The Offshore Resources of the Northwest Atlantic," in Recent Developments and Research in Fisheries Economics.

1/ Silver Hake is caught in ICNAF Subarea 6, as well as in Subarea 4 and 5. However, no MSY estimates are available for this subarea.

2/ Red Hake is caught in ICNAF Subareas 6 and 4, as well as in 5. However, no estimates are as yet available for these two subareas.

3/ Represents mid-point of band 150-270.

Table VI-6.--Estimate of maximum sustainable yield from world stocks of ocean perch

Region	MSY (Thousand metric tons)
I. Northeast Atlantic	300.0
II. Northwest Atlantic	
1) ICNAF Subarea 1	19.0 1/
2) ICNAF Subarea 2	24.0 1/
3) ICNAF Subarea 3	112.5 2/
4) ICNAF Subarea 4	67.5 3/
5) ICNAF Subarea 5	17.5 4/
III. Northeast Pacific 5/	226.8
World Total	767.3

Source: FAO Indicative World Plan for Agricultural Development, Area Reviews on Living Resources of the World's Oceans, Gulland, J. A., Graham, Herbert W., "The Offshore Resources of the Northwest Atlantic," in Recent Developments and Research in Fisheries Economics. U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries, An Accelerated Program for the Development and Management of Important Aquatic Resources in and Adjacent to the U. S., June, 1969.

1/ MSY estimate for this subarea not available. This figure represents landings for that subarea in 1965.
2/ Represents mid-point of band 75-150.
3/ Represents mid-point of band 65-70.
4/ Represents mid-point of band 15-20.
5/ Waters overlying Continental Shelf of Alaska.

Table VI-7.--Estimate of maximum sustainable yield from world stocks of pollock

	Region	MSY (Thousand metric tons)
I.	Northeast Atlantic	425.0[1/]
II.	Waters Contiguous to New England and Middle Atlantic States	90.7
III.	Northeast Pacific[2/]	362.9
	World Total	878.6

Source: FAO Indicative World Plan for Agricultural Development, Area Reviews on Living Resources of the World's Oceans, Gulland, J. A., U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries, An Accelerated Program for the Development and Management of Important Aquatic Resources in and Adjacent to the U. S., June, 1969.

1/ Represents MSY of "Saithe".
2/ Waters overlying the Continental Shelf off Alaska.

Table VI-8.--Estimate of maximum sustainable yield from world stocks of flatfish other than flounder and halibut

Region		MSY
		Thousand metric tons
I. Northeast Atlantic		
A. Plaice		170.0
B. Others		200.0
	Total	370.0
II. Northeast Pacific		
A. Yellowfin sole		275.0 1/
B. Rock sole		182.5 2/
C. Flathead sole		45.0 3/
D. Dove sole		27.5 4/
	Total	530.0
	World Total	900.0

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

1/ Represents mid-point of band 183-367.
2/ Represents mid-point of band 120-245.
3/ Represents mid-point of band 30-60.
4/ Represents mid-point of band 20-35.

VI-9 -- Estimate of maximum sustainable yield for groundfish in waters fished by U. S. fishermen

	Region	MSY
		Thousand Metric Tons
I.	Northwest Atlantic	2,454.7
II.	North Pacific	2,216.1
	Total	4,670.8

Source: Bureau of Commercial Fisheries, Division of Economic Research. International Commission for the Northwest Atlantic Fisheries, Statistical Bulletin, (for the year 1967), Vol. 17, Dartmouth N.S., Canada, 1969.

VII INTERNATIONAL TRADE

- Imports
  - Quantity
  - Value
  - Price

Table VII-1 -- Quantity and value of groundfish imports to the U. S.[1/]

Year	Quantity [2/] Thousand Pounds	Value Thousand Dollars
1947	36,959	6,392
1948	58,450	11,254
1949	50,871	9,117
1950	69,934	12,313
1951	94,975	17,530
1952	114,306	22,871
1953	95,894	17,979
1954	151,003	30,221
1955	143,145	28,821
1956	151,271	30,092
1957	159,158	32,122
1958	167,120	35,422
1959	203,287	43,577
1960	176,198	38,983
1961	214,769	48,207
1962	241,550	52,869
1963	250,214	55,590
1964	270,079	64,712
1965	321,361	81,953
1966	352,258	94,357
1967	319,811	81,370
1968	433,779	106,242
1969		
1970		
1971		
1972		

Source: Fishery Statistics of the U. S., and Imports and Exports of Fishery Products.

1/ Flounder fillet imports not available from 1947-1953. Includes cod, cusk, flounder, haddock, hake, ocean perch, and pollock.
2/ Fillet weight.

Table VII-2.--Imports of groundfish to the United States by country of origin 1/

Year	Canada	Iceland	Norway	Denmark	Other	Total
	Million pounds, edible weight					
1947	78.2	4.1	2.0	--	.9	85.2
1948	112.6	4.0	1.4	.01	--	118.0
1949	97.3	5.1	1.5	.10	--	104.0
1950	56.4	15.8	3.3	.5	2.0	78.0
1951	70.2	27.6	8.9	1.8	3.1	111.6
1952	72.9	39.1	13.3	4.7	10.5	140.5
1953	77.6	27.4	6.1	1.4	5.8	118.3
1954	91.1	42.1	5.5	3.1	5.2	147.8
1955	105.7	20.8	4.5	4.1	6.0	141.1
1956	111.1	24.4	4.3	3.6	5.1	148.5
1957	118.7	22.8	4.9	4.2	4.6	155.2
1958	117.2	22.6	5.5	10.1	6.0	161.4
1959	114.7	43.3	17.8	17.2	6.3	199.3
1960	122.7	32.4	5.6	7.1	8.7	176.5
1961	138.1	44.7	9.8	10.7	11.7	215.0
1962	147.2	45.1	20.1	11.6	17.8	241.8
1963	145.0	49.0	19.3	14.4	22.8	250.5
1964	175.6	57.0	10.8	6.4	20.6	270.4
1965	203.3	62.8	12.2	13.8	17.7	309.8
1966	216.3	52.8	13.7	21.6	48.3	352.7
1967	204.9	41.1	18.1	14.4	41.8	320.3
1968	241.7	79.8	42.0	25.7	45.3	434.5
1969						
1970						
1971						
1972						

Source: U.S. Bureau of the Census, United States Import Statistics

1/ Differs from Table VII-1; as table includes dried, salted and pickled or cured groundfish.

Table VII-3.--Exports of Atlantic groundfish[1/]

	Quantity	Value
	Thou. pounds	Thou. dollars
1947[2/]	1,246	278
1948[2/]	978	220
1949	344	66
1950	131	30
1951	183	53
1952	393	68
1953	322	56
1954	199	45
1955	468	81
1956	363	106
1957	161	45
1958	628	108
1959	572	114
1960	568	117
1961	600	131
1962	612	127
1963	543	113
1964	563	140
1965	764	187
1966	1,196	327
1967	1,242	296
1968	519	150
1969		
1970		
1971		
1972		

Source: Imports and Exports of Fishery Products 1947-1967, Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries.

1/ Cod, haddock, hake pollock and cusk.
2/ Preliminary data - Bureau of the Census, Department of Commerce.

Table VII-4.--Extent of U.S. involvement in imports of groundfish to the United States, 1968.

U. S. investment abroad by country	Amount of investment	Quantity of total U.S. imports	Quantity of imports based on U.S.involvement	Percentage of quantity
	Mil. dol.	Million pounds		Percent
		390.2 1/		
Canada	15.0		75.0	19

U.S. investment abroad by country	Value of total U.S. imports	Value of imports based on U.S. involvement	Percentage of value
	Million dollars		Percent
	92.4 1/		
Canada		23.7	26

Source: Division of Current Economic Analysis, BCF

1/ Groundfish and ocean perch fillets and steaks; and frozen groundfish blocks.

VIII FOREIGN PRODUCTION

—Landings

Table VIII-1.--World groundfish landings by country 1/

	Canada	United States			Japan	South Korea
		Atlantic	Pacific	Total		
	Million pounds, round weight					
1947	806	584	73	657	n.a.	n.a.
1948	795	696	106	802	n.a.	n.a.
1949	797	696	95	791	n.a.	n.a.
1950	749	617	98	715	n.a.	n.a.
1951	726	697	103	800	n.a.	n.a.
1952	735	617	103	720	84	28
1953	642	517	83	600	178	27
1954	805	564	112	676	169	27
1955	803	549	106	655	197	31
1956	897	537	114	651	195	33
1957	879	536	115	651	269	30
1958	879	541	108	649	249	34
1959	852	521	112	633	252	31
1960	822	529	108	637	239	36
1961	911	533	103	636	267	27
1962	982	542	115	657	294	29
1963	1,034	518	118	635	337	35
1964	1,048	508	107	615	365	34
1965	1,124	487	121	608	348	43
1966	1,218	481	119	600	345	41
1967	1,123	404	109	513	432	55
1968						
1969						
1970						
1971						
1972						

Table VIII-1.--World groundfish landings by country (continued) 1/

	Denmark	Netherlands	Iceland	U.K.
	Million pounds, round weight			
1947	258	69	393	1213
1948	247	62	424	1190
1949	240	67	486	1295
1950	201	64	534	1136
1951	211	61	577	1233
1952	216	63	579	1225
1953	199	71	560	1198
1954	190	70	689	1213
1955	200	73	735	1304
1956	192	78	687	1328
1957	213	80	635	1238
1958	225	85	749	1416
1969	234	76	775	1166
1960	262	83	742	1145
1961	297	104	739	1269
1962	302	116	675	1363
1963	352	105	732	1456
1964	481	143	819	1349
1965	453	201	731	1429
1966	422	223	659	1396
1967	389	207	613	1419
1968				
1969				
1970				
1971				
1972				

Table VIII-1.--World groundfish landings by country (continued) 1/

	France	Other	Total
	Million pounds, round weight		
1947	78	n.a.	4,395
1948	124	n.a.	4,810
1949	140	n.a.	4,899
1950	139	n.a.	4,934
1951	133	n.a.	5,076
1952	164	1,486	5,300
1953	154	1,379	5,008
1954	180	1,299	5,318
1955	203	1,828	6,029
1956	192	2,184	6,437
1957	172	1,997	6,164
1958	190	4,317	8,793
1959	182	2,522	6,471
1960	195	2,228	6,389
1961	443	4,793	9,486
1962	456	4,862	9,736
1963	433	4,611	9,731
1964	477	4,111	9,442
1965	422	4,680	10,039
1966	517	4,822	10,243
1967	504	4,957	10,212
1968			
1969			
1970			
1971			
1972			

Source: FAO Yearbook of Fishery Statistics and Bureau of Commercial Fisheries

1/ Includes cod, haddock, poutassou, redfish, bastard halibut, brill and all flatfish except halibut.

Table VIII-2.--World groundfish landings, international trade and consumption, 1967

Country	Landings	Imports	Exports	Aggregate Consumption
	--------Million pounds, round weight----------			
United Kingdom	1,420	186.9	122.5	1,484.4
Canada	1,123	2.3	1,076.9	48.4
Iceland	613	26.5	151.8	487.7
United States				
Atlantic	404			
Pacific	109			
Total	513	1,099.0	3.9	1,608.1
France	504	36.4	142.2	398.2
Japan	432	---	.4	431.6
Denmark	389	8.6	56.9	340.7
Netherlands	207	2.4	.5	208.9
South Korea	55	---	--	55.1
Other	4,956	1,778.7	1,585.7	5,148.9
Total	10,212	3,140.8	3,140.8	10,212.0

Source: Original data from FAO 1967 Yearbook; Import and Export Yearbooks, 1967, Bureau of the Census; Fishery Statistics of the United States; Division of Economic Research, BCF.

IX FOREIGN CONSUMPTION

—Consumption
  Aggregate
  Per capita

—Prices

Table IX-1. -- World aggregate groundfish consumption by selected countries 1/

Year	United States		
	Atlantic	Pacific	Total
	Million pounds, round weight		
1947	697	73	770
1948	822	106	928
1949	855	95	950
1950	832	98	930
1951	948	103	1,051
1952	907	103	1,010
1953	850	83	933
1954	938	112	1,050
1955	1,018	106	1,124
1956	975	114	1,089
1957	1,088	115	1,203
1958	1,006	108	1,114
1959	1,150	112	1,262
1960	1,124	108	1,232
1961	1,269	103	1,372
1962	1,325	115	1,440
1963	1,338	118	1,456
1964	1,431	107	1,538
1965	1,529	121	1,650
1966	1,596	119	1,715
1967	1,499	109	1,608
1968			
1969			
1970			
1971			
1972			

Table IX-1. -- World aggregate groundfish consumption by selected countries (continued) 1/

Year	Canada	Japan	Denmark	France
	Million pounds, round weight			
1947	n.a.	n.a.	n.a.	n.a.
1948	n.a.	n.a.	n.a.	n.a.
1949	n.a.	n.a.	n.a.	n.a.
1950	n.a.	n.a.	n.a.	n.a.
1951	n.a.	n.a.	n.a.	n.a.
1952	n.a.	84	n.a.	n.a.
1953	130	178	n.a.	n.a.
1954	224	170	n.a.	n.a.
1955	125	197	n.a.	n.a.
1956	241	195	168	199
1957	151	269	183	178
1958	71	250	202	7
1959	210	252	191	186
1960	156	239	213	199
1961	89	266	239	446
1962	181	295	289	294
1963	127	337	321	289
1964	12	365	447	356
1965	82	348	414	385
1966	118	345	395	400
1967	48	432	341	399
1968				
1969				
1970				
1971				
1972				

Table IX-1. -- World aggregate groundfish consumption by selected countries (continued)1/

	United Kingdom	South Korea	Netherlands	Other	Total
	Million pounds, round weight				
1947	n.a.	n.a.	n.a.	n.a.	4,395
1948	1,190	49	n.a.	n.a.	4,810
1949	1,295	n.a.	n.a.	n.a.	4,899
1950	1,136	n.a.	n.a.	n.a.	4,934
1951	1,233	n.a.	n.a.	n.a.	5,076
1952	1,225	28	n.a.	n.a.	5,300
1953	1,197	27	n.a.	n.a.	5,008
1954	1,213	27	n.a.	n.a.	5,318
1955	1,304	31	n.a.	n.a.	6,029
1956	1,328	33	79	3,105	6,437
1957	1,238	30	83	2,829	6,164
1958	1,416	34	86	5,613	8,793
1959	1,166	31	79	3,094	6,471
1960	1,145	36	85	3,084	6,389
1961	1,270	27	107	5,670	9,486
1962	1,363	29	117	5,728	9,736
1963	1,337	35	107	5,722	9,731
1964	1,349	34	146	5,195	9,442
1965	1,429	43	205	5,483	10,039
1966	1,397	41	225	5,607	10,243
1967	1,184	55	209	5,636	10,212
1968					
1969					
1970					
1971					
1972					

Source: FAO Yearbooks of Fishery Statistics, Canadian Fishermen (Canada), and Fishery Statistics of the U.S.

1/ Includes cod, haddock, poutassou, redfish, bastard halibut, brill and all flatfish except halibut.

Table IX-2. -- World per capita groundfish consumption by selected countries 1/

Year	Netherlands	United Kingdom	Canada	Japan	Denmark
	Pounds, round weight				
1947	n.a.	n.a.	n.a.	n.a.	n.a.
1948	n.a.	n.a.	n.a.	n.a.	n.a.
1949	n.a.	n.a.	n.a.	n.a.	n.a.
1950	n.a.	22.57	n.a.	n.a.	n.a.
1951	n.a.	24.40	n.a.	n.a.	n.a.
1952	n.a.	24.15	n.a.	0.98	n.a.
1953	n.a.	23.54	8.74	2.06	n.a.
1954	n.a.	23.76	14.62	1.93	n.a.
1955	n.a.	25.47	7.98	2.22	n.a.
1956	7.27	25.82	14.95	2.17	37.57
1957	7.52	23.98	9.50	2.96	40.88
1958	7.67	27.30	4.14	2.73	44.69
1959	6.98	22.36	11.98	2.73	41.95
1960	7.37	21.79	8.73	2.57	46.45
1961	9.19	23.99	4.87	2.83	51.92
1962	9.92	25.51	9.74	3.10	62.11
1963	8.96	24.86	6.88	3.51	68.59
1964	12.00	24.90	0.66	3.76	74.79
1965	16.68	26.18	4.31	3.55	87.08
1966	18.04	25.45	5.86	3.49	82.37
1967	16.59	25.67		4.33	70.39
1968					
1969					
1970					
1971					
1972					

Table IX-2. -- World per capita groundfish consumption by selected countries (continued)1/

Year	France	South Korea	United States		
			Atlantic	Pacific	Total
	Pounds, round weight				
1947	n.a.	n.a.	4.84	0.51	5.34
1948	n.a.	n.a.	5.60	0.72	6.33
1949	n.a.	n.a.	5.73	0.64	6.36
1950	n.a.	n.a.	5.48	0.65	6.12
1951	n.a.	n.a.	6.16	0.67	6.82
1952	n.a.	1.35	5.80	0.66	6.46
1953	n.a.	1.29	5.35	0.52	5.87
1954	n.a.	1.27	5.79	0.69	6.49
1955	n.a.	1.42	6.17	0.64	6.81
1956	4.54	1.49	5.80	0.68	6.48
1957	4.02	1.30	6.36	0.67	7.03
1958	1.50	1.46	5.78	0.62	6.40
1959	4.11	1.29	6.49	0.63	7.13
1960	4.36	1.46	6.24	0.60	6.84
1961	9.67	1.06	6.93	0.56	7.49
1962	6.25	1.11	7.13	0.62	7.75
1963	6.05	1.30	7.09	0.63	7.72
1964	7.37	1.21	7.48	0.56	8.04
1965	9.08	1.50	7.89	0.62	8.51
1966	8.10	1.40	8.15	0.61	8.75
1967	7.99	1.85	7.57	0.55	8.13
1968					
1969					
1970					
1971					
1972					

Source: Original data from FAO Yearbook of Fishery Statistics, Canadian Fisherman (Canada), and Fishery Statistics of the U.S.

1/ Includes cod, haddock, poutassou, redfish, bastard halibut, brill and all flatfish except halibut.

Table IX-3. -- World prices for groundfish by selected countries

Year	Canada	Denmark	Japan	Netherlands	United Kingdom	United States
	Cents per pound 1/					
1950	n.a.	n.a.	n.a.	n.a.	n.a.	7.04
1951	n.a.	n.a.	n.a.	n.a.	n.a.	6.73
1952	n.a.	n.a.	n.a.	n.a.	n.a.	6.51
1953	3.02	n.a.	n.a.	n.a.	n.a.	6.14
1954	3.11	n.a.	n.a.	n.a.	n.a.	5.75
1955	3.01	n.a.	n.a.	n.a.	7.41	5.38
1956	2.99	5.50	6.30	8.32	7.56	5.58
1957	2.84	5.35	5.90	7.92	7.70	5.63
1958	3.00	5.94	5.21	8.97	7.96	6.36
1959	3.20	5.66	5.36	8.85	8.37	6.26
1960	3.15	5.67	6.03	10.10	8.84	5.66
1961	3.13	5.05	6.01	11.64	8.45	5.52
1962	3.20	3.88	5.65	14.63	8.70	5.83
1963	3.35	3.60	5.80	12.03	9.22	6.20
1964	3.66	7.45	5.64	13.18	9.81	5.90
1965	3.72	5.28	5.91	11.82	9.55	6.38
1966	3.84	4.26	5.95	14.70	9.13	7.50
1967	3.87	2.55		13.47		7.00
1968						
1969						
1970						
1971						
1972						

Source: Canada; Canadian Fisherman, U.S.: Fish. Statistics of the U.S.: and others from FAO Yearbook of Fishery Statistics

1/ Exvessel price (U.S. dollars) deflated by each country's consumer price index.

X U.S. TRADE BARRIERS

Table X-1.--Present U.S. tariff structure for groundfish, North Atlantic and Pacific

Item	Stat. Suffix	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 - 1968: Quantity (Thou. lbs.)	U.S. Imports - 1968: Value (Thou. dollars)
110.15	90	Fish, Fresh, Chilled, or Frozen: Other: Whole; or processed by removal of heads, viscera, fins, or any combination thereof, but not otherwise processed: Cod, cusk, eels, haddock, hake, pollock, and shad	.5¢ per lb.	.3¢ per lb.	Free	4,708	646
110.40	00	Fish, Fresh, Chilled, or Frozen: Other: In bulk or in immediate containers weighing with their contents over 15 pounds each.	1¢ per lb.	.5¢ per lb.	Free	454	177
110.45	00	Other.....	12.5¢ ad val.	10% ad. val.	6% ad val.	14	4
110.47		Fish, Fresh, Chilled, or Frozen: Other: Skinned and boned, whether or not divided into pieces, and frozen into blocks each weighing over 10 pounds, imported to be minced, ground, or cut into pieces of uniform weights and dimensions.....	1¢ per lb.	.5¢ per lb.	Free		
	10	cod.....				176,370	37,542
	20	flatfish...				14,098	3,676
	30	haddock...				23,460	5,927
	40	pollock...				8,454	1,438
	50	other...				38,705	8,235

Table X-1.--Present U.S. tariff structure for groundfish, North Atlantic and Pacific (Continued)

Item	Stat. Suf-fix	Product Description	Rates of Duty			U.S. Imports-1968	
			June 30, 1967	Jan. 1, 1969	K-R Concession (Jan. 1, 1972)	Quantity	Value
						Thou. lbs.	Thou. dollars
		Otherwise processed (whether or not heads, viscera, fins, scales or any combination thereof have been removed):					
		Cod, cusk, haddock, hake, pollock, and Atlantic ocean perch (Rosefish):					
110.50		For an aggregate quantity entered in any calendar yr. of 15,000,000 pounds, or not more than a quantity equal to 15% of the average aggregate apparent annual consumption of such fish during the 3 calendar yrs. immediately preceding the yr. in which the imported fish are entered, whichever quantity is greater, of which total quantity not over ¼ shall be entered during the first 3 months, not over ½ during the first 6 months, and not over 3/4 during the first 9 mon. of that year.	1.875¢ per lb.	1.875¢ per lb.	1.875¢ per lb.		
	20	Atlantic Ocean Perch (Rosefish)...				1,174	354
	40	Cod....				14,527	4,228
	60	Cusk, haddock hake, and pollock....				3,793	1,514

Table X-1.--Present U.S. tariff structure for groundfish, North Atlantic and Pacific (Continued)

Item	Stat. Suffix	Product Description	Rates of Duty			U.S. Imports-1968	
			June 30, 1967	Jan. 1, 1969	K-R Concession	Quantity	Value
						Thou. lbs.	Thou. dollars
110.55		Other...	2.5¢ per lb.	2.5¢ per lb.	2.5¢ per lb.		
	20	Atlantic Ocean Perch (Rosefish)...				49,262	11,465
	40	Cod...				32,119	9,185
	60	Cusk, haddock, hake, and pollock...				28,276	8,811
		Fish, dried, whether or not whole, but not otherwise prepared or preserved and not in airtight containers:					
111.10	00	Cod, cusk, haddock, hake, and pollock...	0.2¢ per lb.	.1¢ per lb.	0.1¢ per lb.	1,142	651
		Fish, salted or pickled, whether or not whole, but not otherwise prepared or preserved, and not in airtight containers:					
		Cod, cusk, haddock, hake and pollock:					
111.22	00	Whole; or processed by removal of heads, fins, viscera, scales, vertebral columns, or any combination thereof, but not otherwise processed...	0.2¢ per lb.	.1¢ per lb.	Free	30,626	7,724
111.28	00	Otherwise processed (whether or not heads, fins, viscera, scales vertebral columns, or any combination thereof have been removed...	0.75¢ per lb.	.4¢ per lb.	Free	8,582	3,263

Table X-1.--Present U.S. tariff structure for groundfish, North Atlantic and Pacific (Continued)

Item	Stat. Suffix	Product Description	Rates of Duty			U.S. Imports - 1968	
			June 30, 1967	Jan. 1, 1969	K-R Concession (Jan. 1, 1972)	Quantity Thou. lbs.	Value Thou. dollars
		Fish, smoked, or kippered, whether or not whole, but not otherwise prepared or preserved, and not in airtight containers:					
		Cod, cusk, haddock, hake, and pollock:					
		Whole; or processed by removal of heads, viscera, vertebral columns, or any combination thereof, but not otherwise processed....	0.5¢ per lb.	.3¢ per lb.	Free	216	66
	00	Otherwise processed (whether or not heads, viscera, vertebral columns, or any combination thereof have been removed)...	1.0¢ per lb.	.5¢ per lb.	Free	1,994	645
		Fish, prepared or preserved in any manner, not in oil, in airtight containers:					
	00	Pollock...	12.5% ad. val.	10% ad. val.	6% ad. val.		
		Fish, prepared or preserved in any manner, in oil, in airtight containers:					
		Pollock:					
	00	Smoked...	15% ad. val.	12% ad. val.	7.5% ad. val.	8	7
	00	Not smoked...	25.5% ad. val.	20% ad. val.	12.5% ad. val.	1/	1

1/ Less than one thousand pounds.

Table X-2.--Historical synopsis of trade investigations for groundfish

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

Requested by: Atlantic Fishermen's Union, Boston; Otter Trawl Commission of Oregon; United Industrial Workers of North America, San Francisco; Federated Fishing Boats, Boston; New Bedford Fishermen's Union, New Bedford; and other organizations.

Report: "Report of the Secretary of the Interior to the President and the Congress on The Effects of Imports on the U.S. Groundfish Industry." May 1969.

Table X-2.--Historical synopsis of trade investigations for groundfish (Continued)

2. Escape Clause under Executive Orders and the T.E.A. of 1951, as amended (T.C.)				
Fresh or frozen groundfish fillets (1st investigation). (Investigation No. 5; sec. 7)	Origin of investigation: Application by Massachusetts Fisheries Association, Inc., Boston, Mass., and others. Application received: Sept. 10, 1951. Investigation instituted: Sept. 17, 1951. Hearing held: Nov. 26-29, 1951. Investigation completed: Sept. 4, 1952. Recommendation of the Commission: No modification of concession. Vote of the Commission: 3-2. Reference: U.S. Tariff Commission, Groundfish Fillets: Rept. on the Escape-Clause Investigation, Rept. No. 102, 2d ser., 1953.	--Escape-clause investigations in which the U.S. Tariff Commission has recommended the establishment or continuation of absolute or tariff quotas.		
Fresh or frozen groundfish fillets (2d investigation). (Investigation No. 25; sec. 7)	Origin of investigation: Application by Massachusetts Fisheries Association, Inc., Boston, Mass., and others. Application received: May 27, 1953 Investigation instituted: June 16, 1953. Hearing held: Oct. 2-26, 1953. Investigation completed: May 7, 1954. Recommendation of the Commission: Modification of concession. Vote of the Commission: 3-2. Action of the President: Recommendation rejected by the President July 2, 1954. Reference: U.S. Tariff Commission, Groundfish Fillets (1954): Rept. to the President on Escape-Clause Investigation No. 25..., 1954 (processed).	Groundfish fillets (2d investigation). (Investigation No. 25; sec. 7) (3-2) (May 7, 1954).	Imposition of an absolute quota and increased duty (the quota in each calendar year to be equal to 37 percent of average aggregate annual consumption in the 5 immediately preceding calendar yrs, such consumption to be determined as specified in the Commission's recommendation) for an indefinite period, the quota to be allocated among supplying countries as specified in the Commission's recommendation.	On July 2, 1954, the President announced that he had decided not to accept the recommendation of the Commission for an increase in the duty on groundfish fillets and for establishment of a quota on imports in any one year.

Table X-2.--Historical synopsis of trade investigatio ns for groundfish (Continued)

Fresh or frozen groundfish fillets (3d investigation). (Investigation No. 47; sec. 7)	Origin of investigation: Application by Massachusetts Fisheries Association, Inc., Boston, Mass., and others. Application received: Jan. 12, 1956. Investigation instituted: Jan 16, 1956. Hearing held: June 5-8, 1956. Investigation completed: Oct. 12, 1956. Recommendation of the Commission: Modification of concession. Vote of the Commission: 6-0. Action of the President: Recommendation rejected by the President Dec. 10, 1956. Reference: U.S. Tariff Commission, Groundfish Fillets (1956): Rept. to the President on Escape-Clause Investigation No. 47..., 1956 (processed).	Groundfish fillets (3d investigation). (Investigation No. 47: sec. 7) (6-0) (Oct. 12, 1956).	Continuation of the tariff quota provided for in U.S. concession in General Agreement on Tariffs and Trade, but with a duty of 2.8125 cents per pound on imports within the quota and 3.75 cents per pound on over-quota imports.	On Dec. 10, 1956, the President announced that he had decided not to increase the import duties on groundfish filets.

Table X-2.--Historical synopsis of trade investigations for groundfish (Continued)

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)

	Product	Requested by	First Filing Date	TC Determination
(a)	Haddock fillets (frozen in 5 lb. packages)	Mr. James Ackert, President, Atlantic Labor Union	October 31, 1967	Negative 1/ Tentative Determination, January 9, 1969 (no complaint)
(b)	Cod fillets (frozen in 5 lb. packages)	Mr. James Ackert, President, Atlantic Labor Union	June 23, 1967	Negative, Tentative Determination, May 6, 1969 (complaint filed) Preliminary Hearings July 16, 1969

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

None

Source: Division of Economic Research, BCF

1/ Some dumping was acknowledged but too far in the past to apply sanctions.

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 Atlantic groundfish, 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	-	-	5	1	4
b) Total Government Subsidies to Vessels Constructed (dollars)	-	-	494,436	55,371	397,629
Mortgage Insurance Program					
a) Number of Vessels	-	2	2	3	-
b) Value of Mortgages (dollars)	-	120,000	111,250	378,365	-
Fisheries Loan Fund					
a) Number of Vessels Receiving Loans	5	11	7	5	8
b) Total Value of Loans (dollars)	224,400	275,322	127,600	126,913	208,392
Other BCF Programs[1/] (dollars)	n.a.	n.a.	n.a.	n.a.	n.a.

Table XI-1.--Bureau of Commercial Fisheries programs and expenditures on Atlantic groundfish, 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	-	2	3	1	-
b) Total Government Subsidies to Vessels Constructed (dollars)	-	254,883	3,541,929	457,769	-
Mortgage Insurance Program					
a) Number of Vessels	1	-	1	1	-
b) Value of Mortgages (dollars)	259,563	-	140,000	355,000	-
Fisheries Loan Fund					
a) Number of Vessels Receiving Loans	3	7	4	7	10
b) Total Value of Loans (dollars)	111,270	231,670	234,300	401,525	393,788
Other BCF Programs (dollars)1/	n.a.	n.a.	2,800,000	2,600,000	2,600,000

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 expenditures on groundfish -- North Atlantic, by program, May 1961 - May 1969[1/]

Program/Project	Amount
Public Works Grants and Loans:	
New Bedford, Massachusetts - Harbor and other facilities	$ 778,000
New Bedford, Massachusetts - Harbor improvement for construction of freezer and cold storage	100,000
Total Public Works	$ 878,000
Business Loans	0
Technical Assistance Grants:	
Gloucester, Massachusetts - Extension Service	$ 11,000
New Bedford, Massachusetts - Scallop and Flounder Study	51,000
Total Technical Assistance	$ 62,000
Grand Total	$ 940,000

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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Division of Economic Research
Bureau of Commercial Fisheries

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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.