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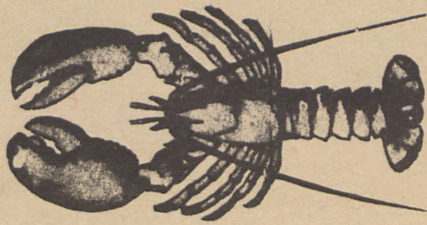
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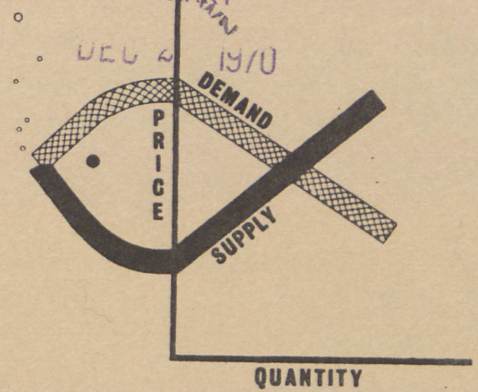
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## BASIC ECONOMIC INDICATORS

### NORTHERN LOBSTERS

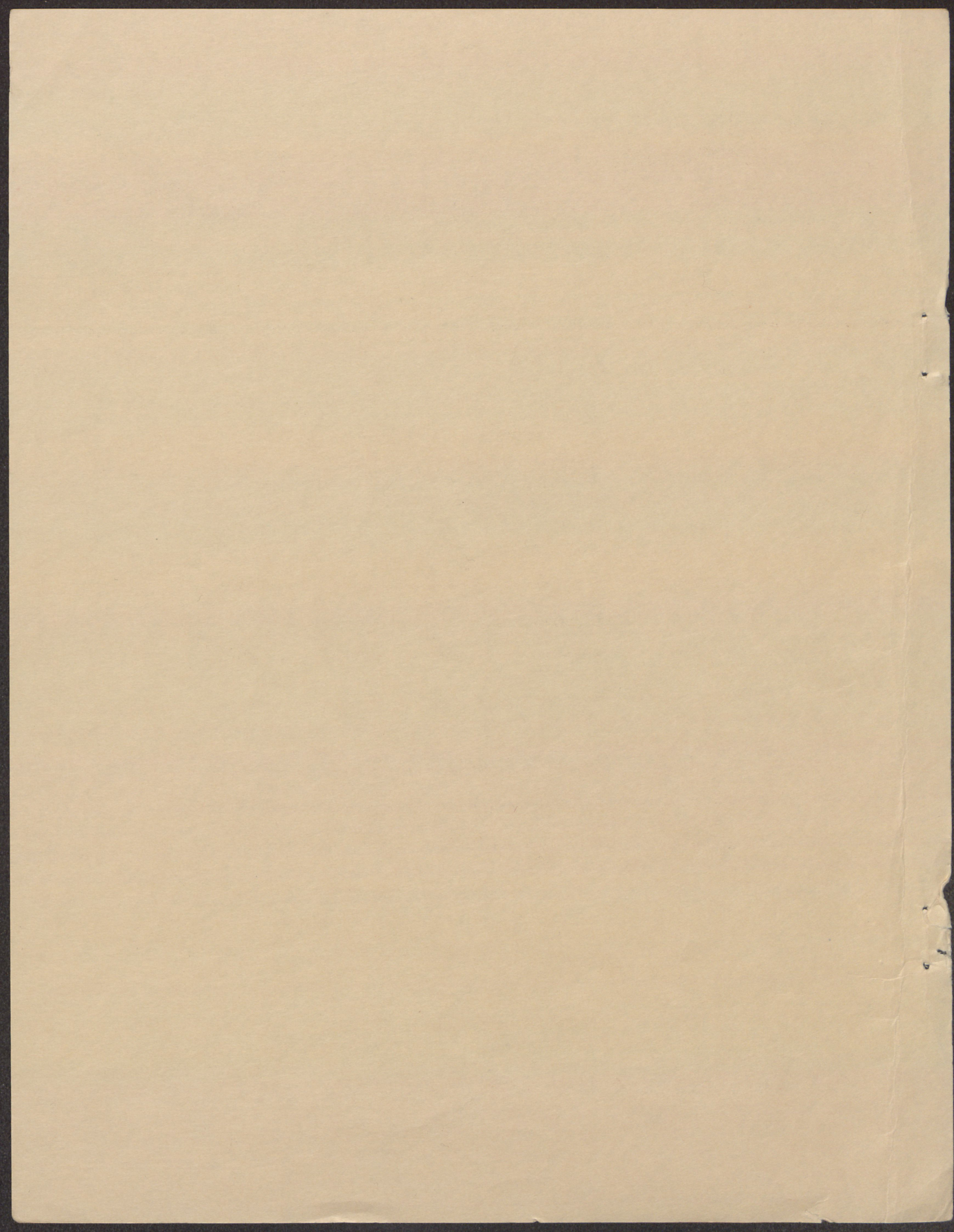
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Working Paper No. 53

April 1970

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DIVISION OF ECONOMIC RESEARCH



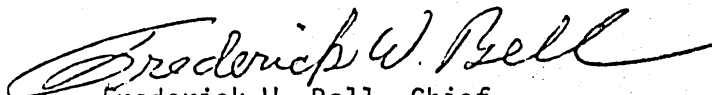


## Foreward

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.

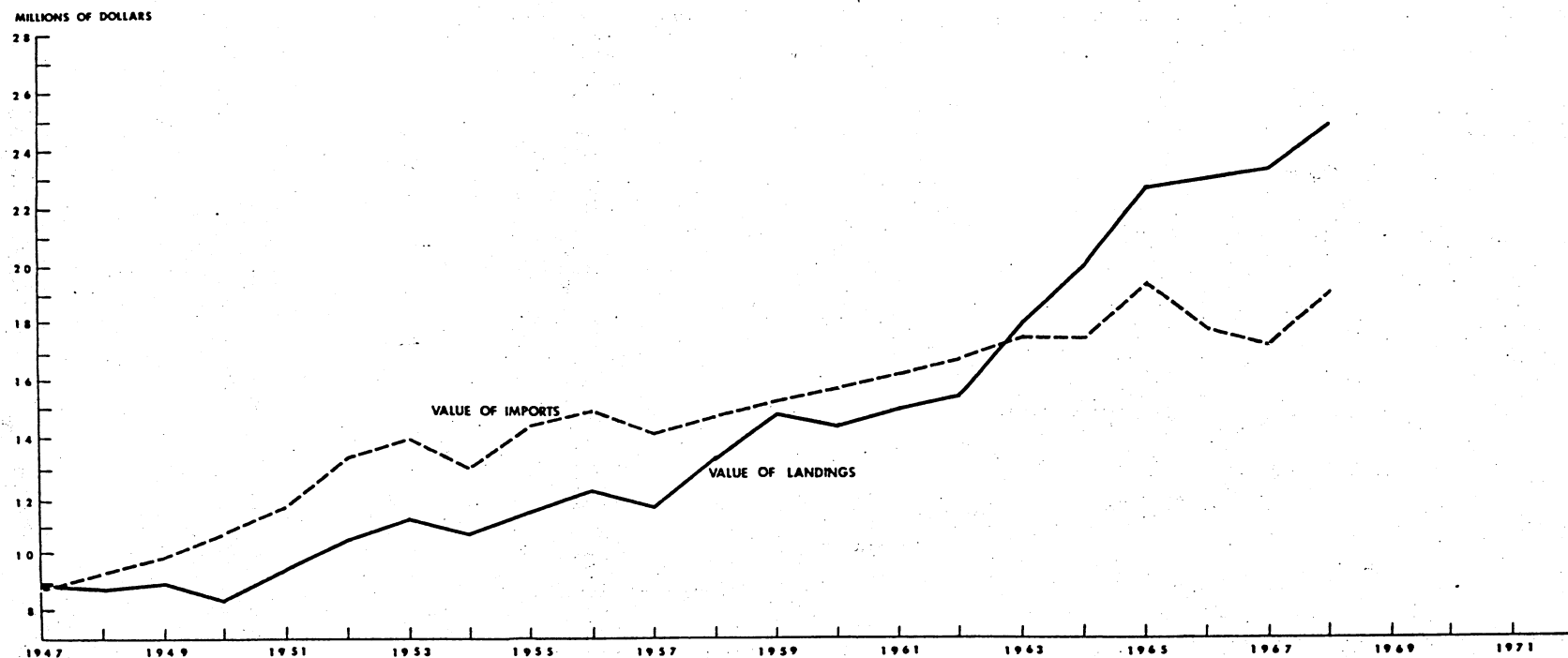
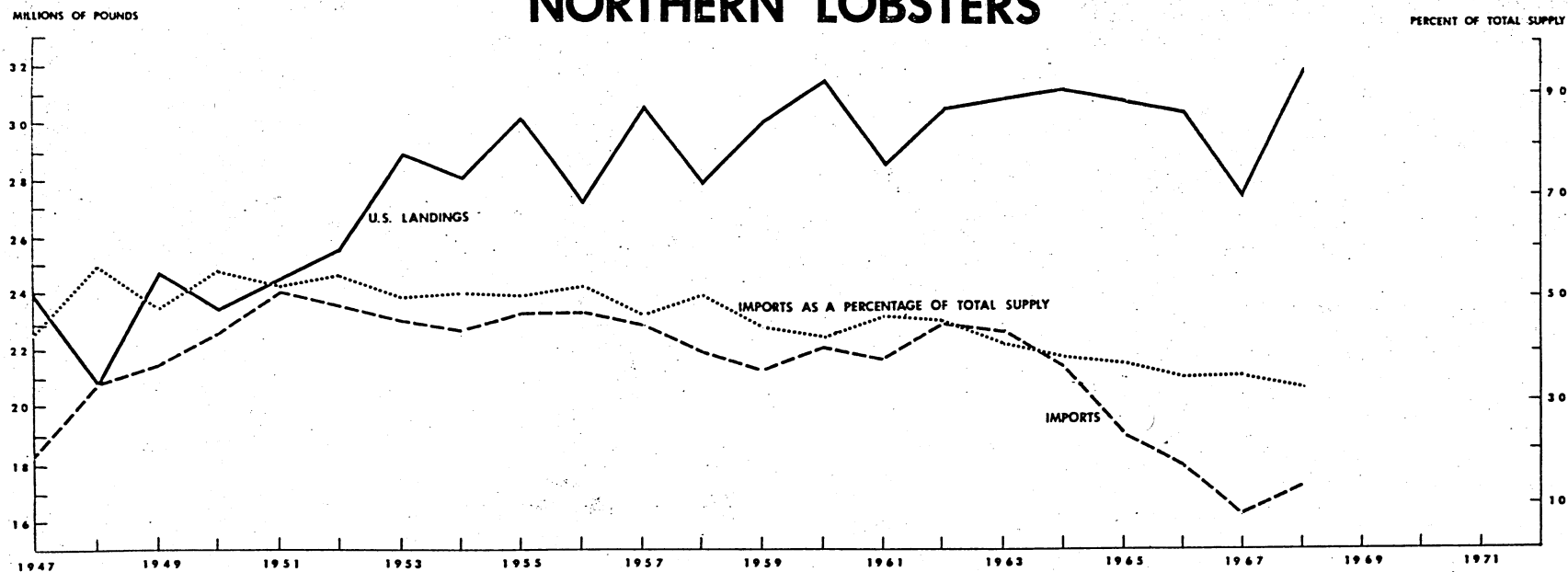
It should be noted that data for 1967 and 1968 are preliminary. Some figures are approximations and are subject to revision. Comments and suggestions may be directed to the Division of Economic Research, 7338 Baltimore Avenue, College Park, Maryland 20740.

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, Chief  
Division of Economic Research



# NORTHERN LOBSTERS



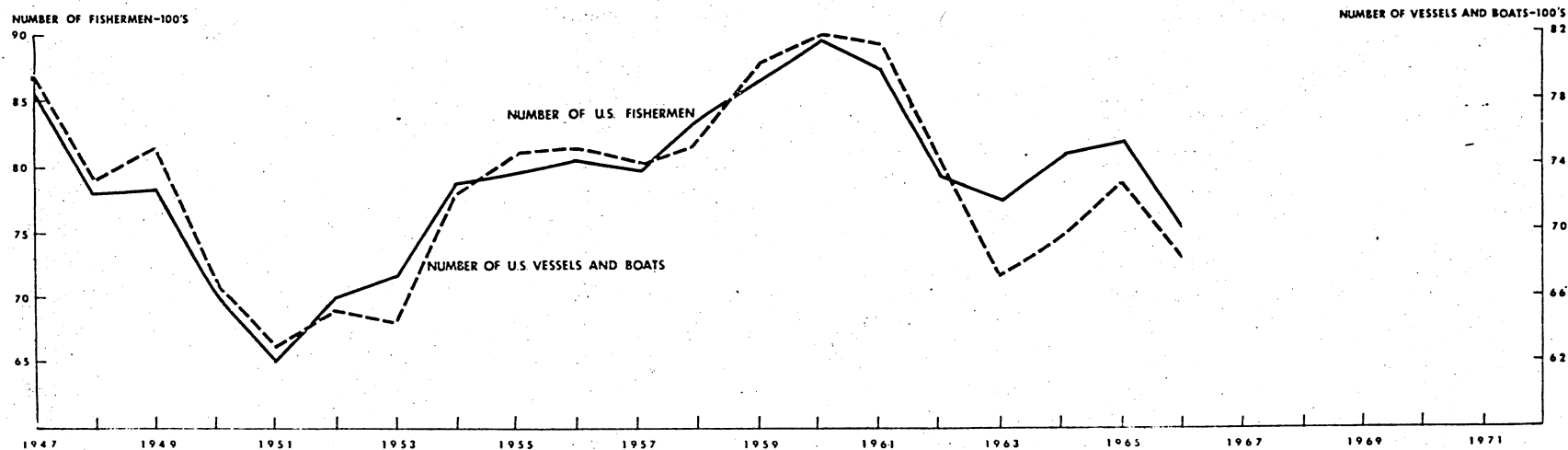
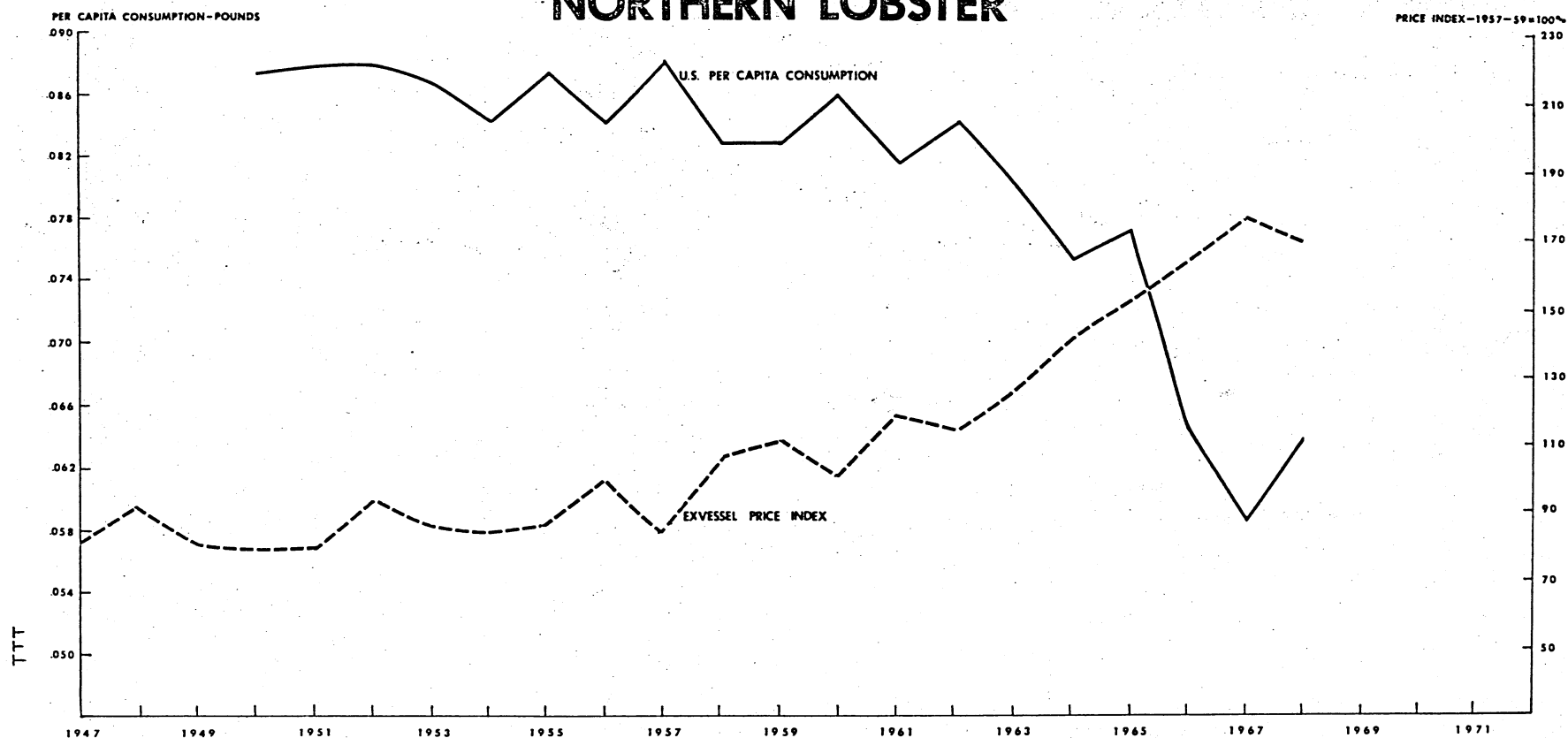
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BUREAU OF COMMERCIAL FISHERIES

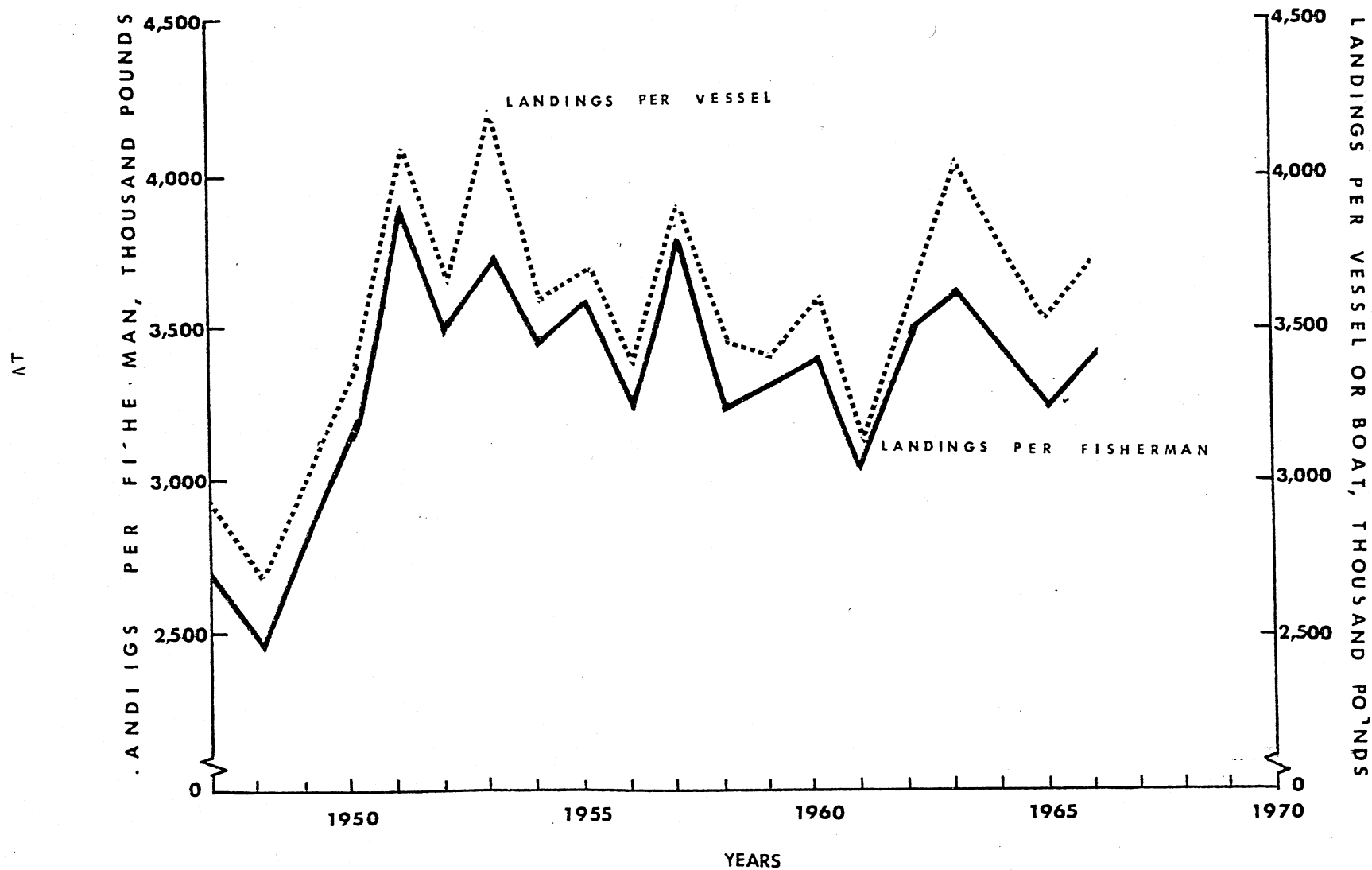


# NORTHERN LOBSTER





# PRODUCTIVITY OF NORTHERN LOBSTER FISHERMEN AND VESSELS AND BOATS (INSHORE)





## List of Tables

### I Industry Performance Indicators

- Table I-1(a): Average cost and earnings of inshore lobster boats
- Table I-1(b): Average cost and earnings of offshore lobster boats
- Table I-2(a): Earnings of fishermen of inshore lobster boats
- Table I-2(b): Earnings of fishermen of offshore lobster boats
- Table I-3: Productivity of northern lobster fishermen and vessels: Landings per fisherman, landings per vessel, and landings per trap
- Table I-4(a): Costs per pound of fish landed for inshore lobster
- Table I-4(b): Cost as percentage of gross receipts for offshore lobster boats
- Table I-5: Historical growth rate of northern lobster landings, fishermen and vessels
- Table I-6(a): Estimated market value of an inshore lobster boat based on present value of future returns
- Table I-6(b): Estimated market value of an offshore lobster vessel, based on present value of future returns

### II Demand Indicators

- Table II-1: U.S. aggregate and per capita consumption of lobster
- Table II-2(a): U.S. consumption of fresh and frozen lobster by socio-economic characteristics, 1969
- Table II-2(b): U.S. consumption of fresh and frozen lobster tails by socio-economic characteristics, 1969



Table II-2(c): U.S. consumption of fresh and frozen lobsters and lobster tails by socio-economic characteristics, 1969

Table II-3: Northern lobster prices: Exvessel, wholesale and retail

Table II-4: Value of northern lobster at exvessel, wholesale, and retail levels.

Table II-5: Retail price of northern lobsters relative to the consumer price index and the consumer price index for meat, poultry, and fish

Table II-6: Index of seasonal demand for northern lobster by market area

Table II-7: Price and income elasticities for lobster

### III Demand Projections

Table III-1: Demand projections for lobster, U.S. and world, to year 2000

### IV Domestic Production

Table IV-1: U.S. landings and value of northern lobster

Table IV-2: Landings of northern lobster by major states

### V Domestic Employment, Vessels and Effort

Table V-1: Number of fishermen and vessels in lobster fishery, 1947-66

Table V-2: Fishermen in the northern lobster pot fishery by region, 1947-66

- Table V-3: Vessels and boats in the northern lobster fleet
- Table V-4: Gear in the northern lobster pot fishery, 1947-66
- Table V-5: Fishermen in the northern lobster otter trawl fishery  
1961-66
- Table V-6: Vessels and boats in the northern lobster otter trawl  
fishery, 1961-66
- Table V-7: Gear in the northern lobster otter trawl fishery,  
1961-66

#### VI Biological Stock Assessment

- Table VI-1: Estimates of maximum sustainable yield from world  
stocks of lobster
- Table VI-2: Estimate of maximum sustainable yield of lobsters  
in waters fished by U.S. fishermen

#### VII International Trade

- Table VII-1(a): U.S. imports of fresh and frozen lobster
- Table VII-1(b): U.S. imports of canned lobster meat

#### VIII Foreign Production

- Table VIII-1: World landings of all lobster, by major countries
- Table VIII-2: World lobster landings: International trade and  
consumption

#### IX Foreign Consumption

- Table IX-1: World aggregate lobster consumption by country
- Table IX-2: Lobster per capita consumption by country
- Table IX-3: World lobster prices by selected countries



X U.S. Trade Barriers

Table X-1: Present U.S. tariff structure for lobster

Table X-2: Historical synopsis of trade investigations for lobster

XI Government Programs

Table XI-1: Bureau of Commercial Fisheries programs and expenditures on  
northern lobster, fiscal years 1960-69

Table XI-2: Estimated Economic Development Administration  
expenditures, by program, May 1961-May 1969, lobster

## 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 costs and earnings of inshore lobster boats<sup>1/</sup>

Item	1967
No. of boats in sample	27
Av. length of boats	34
No. of trips	146
Av. length of trip(days)	1
Crew size	1.5
No. of traps per boat	394
Landings (lbs.)	15,841
Av. price (¢/lb.)	86.48
Gross receipts	\$ 13,700
Trip expenditure	
Food (est.)	948
Fuel & lube	n.a.
Ice & icing	n.a.
Other	n.a.
Subtotal	n.a.
Repair & maintenance	
Gear	n.a.
Hull & engine	n.a.
Subtotal	n.a.
Fixed charges	
Interest	n.a.
Insurance	n.a.
Taxes (employee)	n.a.
Subtotal	n.a.
TOTAL CASH EXPENDITURES	6,223
Share to labor & capital	
Wages <sup>2/</sup>	6,383
Captain's commission	-
Owner's share <sup>2/</sup>	1,094
TOTAL SHARE EXPENDITURES	7,477
Depreciation	516
Net return before taxes <sup>3/</sup>	578

Source: University of Rhode Island, unpublished data.

<sup>1/</sup> Included in the sample are 27 boats from Stonington, Maine, fishing with traps.

<sup>2/</sup> 50 percent of the boats are manned by the owner only (1 man crew), and 50 percent of the boats have a second crewman (family member). The split of share expenditures has been estimated, with 6 percent of invested capital plus depreciation going to the owner, and with the balance assigned to labor.

<sup>3/</sup> Interest on loan included.

Table I-1(b).--Average costs and earnings of offshore lobster boats<sup>1/</sup>

Item	1967
No. of vessels in sample	17
Av. length of vessels	71
No. of trips <sup>2/</sup>	11.9/11.8
Av. length of trip(days)	8.7
Crew size	5.4
Days at sea	207
Landings	n.a.
Av. price <sup>3/</sup> (cents/lb.)	83.7
Gross receipts	\$ 99,355
Trip expenditure	
Food	4,841
Fuel & lube	6,880
Ice & icing	n.a.
Other	5,130
Subtotal	16,851
Repair & maintenance	
Gear & supplies	5,203
Hull & engine	7,992
Subtotal	13,195
Fixed charges	
Interest	n.a.
Insurance	5,315
Taxes (employee)	n.a.
Administrative	5,687
Subtotal	11,002
TOTAL CASH EXPENDITURES	41,048
Share to labor and capital	
Wages	47,564
Captain's commission	3,494
Owner's share	7,249
TOTAL SHARE EXPENDITURES	58,307
Depreciation	3,139
Net return before taxes <sup>4/</sup>	4,110

Source: University of Rhode Island, unpublished data.

<sup>1/</sup> The sample is representative of the northern lobster otter trawl fishery in New England. It comprises about 32 percent of all vessels in this fishery.

<sup>2/</sup> Lobster trips/flounder trips.

<sup>3/</sup> Lobster only.

<sup>4/</sup> Interest on loan included.

Table I-2(a).--Earnings of fishermen of inshore lobster boats<sup>1/</sup>

Item	1967
No. of boats in sample	27
Av. crew size	1.5
Gross receipts per vessel	\$ 13,700
Share to labor	6,383
Av. share per man	4,255
Food expenditures per man	632
Av. share per man including food	4,887
Real share including food <sup>2/</sup>	4,202
Wage in manufacturing	5,975
Real wage in manufacturing <sup>2/</sup>	5,137

Source: University of Rhode Island, unpublished data.

<sup>1/</sup> Included in the sample are 27 boats from Stonington, Maine, fishing with traps. It is representative of boats fishing whole year round (about 44 weeks). The majority, however, of Maine lobster boats fish only during the main season, i.e., 15-20 weeks a year. In 1966 the average gross revenue per boat was \$2800-2900, for all lobster boats in Maine.

<sup>2/</sup> Deflated by CPI.



Table I-2(b).--Earnings of fishermen of offshore lobster boats<sup>1/</sup>

Item	1967
No. of vessels in sample	17
Av. crew size	5.4
Gross receipts per vessel	\$ 99,355
Share to labor	51,058
Av. share per man	9,455
Food expenditures per man	896
Av. share per man including food	10,351
Real share including food <sup>2/</sup>	9,273
Wage in manufacturing	5,975
Real wage in manufacturing <sup>2/</sup>	5,137

Source: University of Rhode Island, unpublished data.

<sup>1/</sup> The sample is representative of the northern lobster otter trawl fishery in New England. It comprises about 32 percent of all vessels in this fishery.

<sup>2/</sup> Deflated by CPI.

Table I-3.--Productivity of northern lobster fishermen and vessels:  
landings per fisherman, landings per vessel and landings per trap.

	Landings per fisherman		Landings per vessel & boat		Landings per lobster pot
	Pot fishery	Trawl fishery	Pot fishery	Trawl fishery	
	-----Pounds-----				
1947	2,746	n.a.	2,937	n.a.	35.5
1948	2,622	n.a.	2,835	n.a.	34.0
1949	3,038	n.a.	3,237	n.a.	40.3
1950	3,172	n.a.	3,341	n.a.	39.6
1951	3,900	n.a.	4,087	n.a.	50.2
1952	3,462	n.a.	3,686	n.a.	45.3
1953	3,711	n.a.	4,192	n.a.	48.3
1954	3,440	n.a.	3,580	n.a.	42.4
1955	3,584	n.a.	3,701	n.a.	41.7
1956	3,206	n.a.	3,352	n.a.	38.1
1957	3,775	n.a.	3,937	n.a.	42.6
1958	3,221	n.a.	3,452	n.a.	34.7
1959	3,294	n.a.	3,406	n.a.	32.4
1960	3,385	n.a.	3,584	n.a.	34.8
1961	3,142	13,053	3,260	54,439	28.6
1962	3,465	19,869	3,625	77,771	29.4
1963	3,619	21,971	4,028	86,000	31.4
1964	3,410	11,208	3,820	54,547	29.7
1965	3,100	12,868	3,379	62,148	26.1
1966	3,387	9,454	3,704	44,988	27.0
1967					
1968					
1969					
1970					
1971					
1972					

Source: Division of Economic Research

Table I-4(a).--Costs per pound of fish landed for inshore lobster boats<sup>1/</sup>

Item	1967
Landings (lbs.)	15,841
Gross receipts per boat	\$ 13,700
Average price (cents/lb.)	86.48
Total expenditure	\$ 13,122
	<u>cents per pound</u>
Trip expenditures	
Repair & maintenance	39.28
Fixed charges	
Share to labor	40.29
Depreciation	3.26
Cost per unit of output	82.84

Source: Table I-1

<sup>1/</sup> Included in the sample are 27 boats from Stonington, Maine, fishing with traps.



Table I-4(b).--Costs as percentage of gross receipts for offshore lobster boats, 1967

Item	1967	<u>Percent</u>
Landings	n.a.	
Gross receipts	\$99,355	100.0
Average price <sup>1/</sup>	83.7	
Total expenditure <sup>2/</sup>	95,245	95.9
Trip expenditures	16,851	17.0
Repair & maintenance	13,195	13.3
Fixed charges	11,002	11.1
Share to labor	51,058	51.4
Depreciation	3,139	3.1
Cost per unit of output	n.a.	

Source: Table I-1

<sup>1/</sup> Lobsters only (does not include flounders and other groundfish)

<sup>2/</sup> Interest on loan not included.

Table I-5.--Historical growth rate of northern lobster landings,  
fishermen and vessels, 1947-66

---

Landings <u>1</u> /	+ 1.60 percent per year
Fishermen <u>2</u> /	+ .50 percent per year
Vessels <u>3</u> / and boats	+ .40 percent per year

---

<u>1</u> / Log of landings (million lbs.)	= 4.3677 + .7211 time (6.70)
<u>2</u> / Log of number of fishermen (1,000's)	= 3.8914 + .00038 time (0.27)
<u>3</u> / Log of number of vessels (1,000's) and boats	= 3.8623 + .00026 time (0.20)

Table I-6(a).--Estimated market value of an inshore lobster boat,  
based on present value of future returns

Mean returns to vessel<sup>1/</sup>: \$1,094

Discount rate <sup>2/</sup>	Expected useful life - Years			
	5	10	15	20
Percent:	Market value in dollars:			
12	3,900	6,200	7,500	8,200
18	3,400	4,900	5,600	5,900
24	3,000	4,000	4,400	4,500

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

<sup>2/</sup> Arbitrarily chosen.

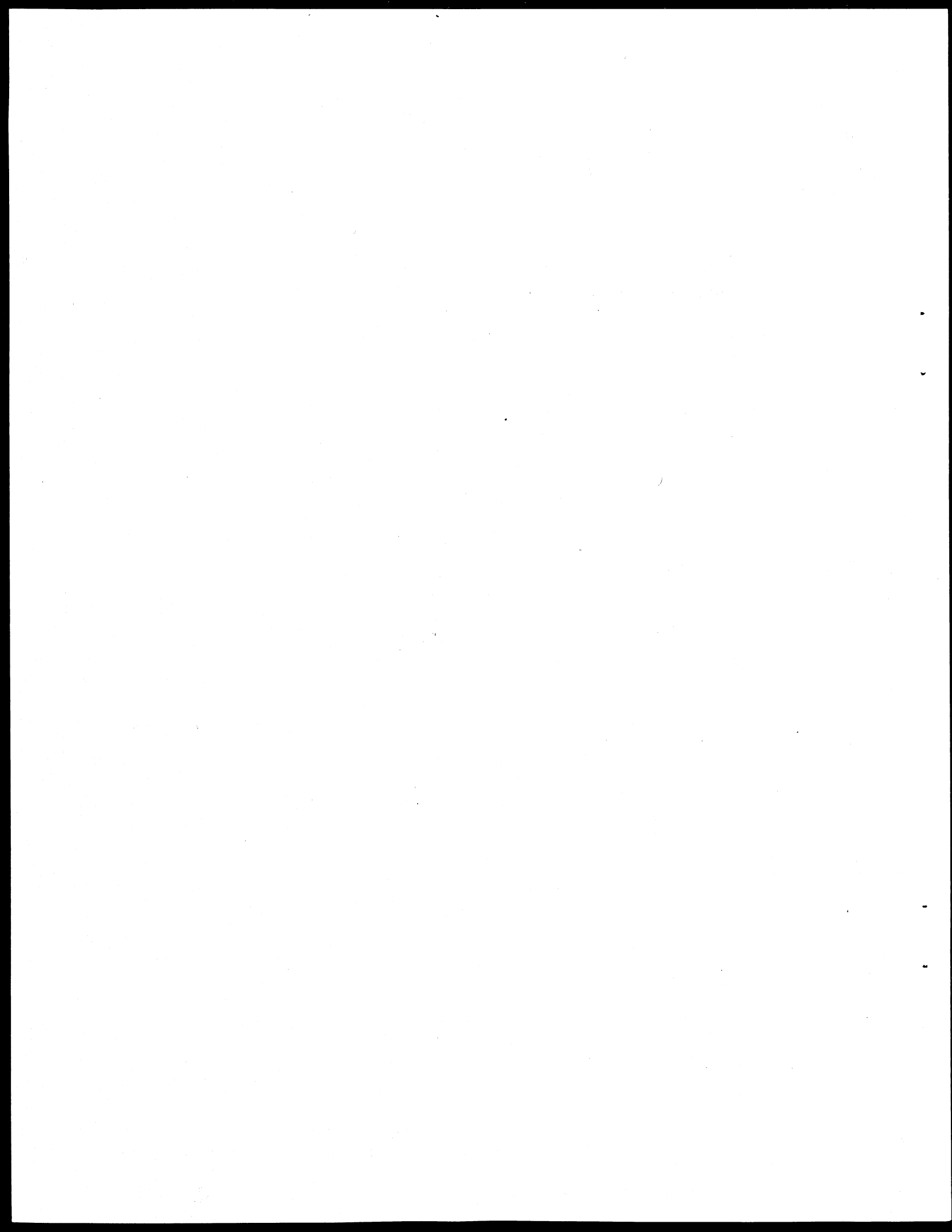
Table I-6(b).--Estimated market value of an offshore lobster vessel, based on present value of future returns

Mean returns to vessel<sup>1/</sup>: \$7,249

Discount rate <sup>2/</sup>	Expected useful life - Years			
	5	10	15	20
Percent:	Market value in dollars:			
12	26,100	41,000	49,400	54,100
18	22,700	32,600	36,900	38,800
24,	19,900	26,700	29,000	29,800

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

<sup>2/</sup> Arbitrarily chosen.





## 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. aggregate and per capita consumption of lobster.

(Edible Weight)						
	Aggregate			Per Capita		
	Northern	Spiny	Total	Northern	Spiny	Total
	Thou.	pounds			Pounds	
1947	10,891	3,400	14,291	.0755	.0236	.0991
1948	11,028	4,108	15,136	.0751	.0280	.1031
1949	12,015	5,181	17,196	.0804	.0347	.1151
1950	11,956	6,895	18,851	.0787	.0454	.1241
1951	13,069	8,161	21,230	.0848	.0530	.1378
1952	12,794	8,336	21,130	.0818	.0533	.1351
1953	13,326	10,459	23,785	.0838	.0658	.1496
1954	13,179	10,377	23,556	.0814	.0641	.1455
1955	13,699	11,786	25,485	.0829	.0714	.1543
1956	13,047	11,800	24,847	.0776	.0702	.1478
1957	13,963	14,910	28,873	.0815	.0871	.1686
1958	13,225	13,601	26,826	.0759	.0781	.1540
1959	13,599	14,684	28,283	.0767	.0829	.1596
1960	14,447	16,739	31,186	.0802	.0930	.1732
1961	14,042	16,878	30,920	.0767	.0922	.1689
1962	14,498	18,608	33,106	.0779	.1001	.1780
1963	14,494	22,224	36,718	.0768	.1178	.1946
1964	13,711	23,309	37,020	.0716	.1218	.1934
1965	13,310	22,172	35,482	.0686	.1144	.1830
1966	12,576	22,766	35,342	.0641	.1162	.1803
1967	11,714	24,258	35,972	.0592	.1226	.1818
1968	13,061	26,480	39,541	.0653	.1325	.1978
1969						
1970						
1971						
1972						

Source: Division of Economic Research

Table II-2(a).--U.S. consumption of lobsters (fresh and frozen) by socio,  
economic characteristics, 1969<sup>1/</sup>

Socio-Economic Characteristics	(Retail weight)				
	1969				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Total
<u>RACE</u>	-----Pounds per capita-----				
Negro	.030	.020	.012	.002	.064
White	.018	.084	.038	.034	.174
Other	.000	.000	.517	.000	.517
Not specified	.000	.000	.000	.000	.000
<u>RELIGION</u>					
Catholic	.034	.081	.041	.076	.232
Jewish	.008	.042	.000	.000	.050
Protestant	.014	.084	.039	.022	.159
Other	.000	.000	.000	.000	.000
Not specified	.000	.000	.000	.000	.000
<u>INCOME PER CAPITA</u>					
Under 1,000	.003	.000	.000	.000	.003
1,000-1,999	.030	.128	.069	.001	.228
2,000-2,499	.000	.017	.013	.006	.036
2,500-2,999	.021	.034	.031	.027	.113
3,000-3,499	.008	.127	.005	.031	.171
3,500 & over	.026	.086	.042	.100	.254
<u>OCCUPATION</u>					
Prof. & semiprofessional	.024	.039	.043	.006	.112
Proprietors, managerial	.024	.074	.009	.019	.126
Clerical & sales	.020	.074	.069	.156	.319
Craftsmen, foremen	.015	.181	.079	.010	.285
Head operative	.006	.005	.000	.000	.011
Service workers, & laborers	.018	.068	.022	.015	.123
<u>EDUCATION</u>					
Less than 4 yr. high school	.032	.150	.069	.069	.320
Less than 4 yr. college	.010	.035	.020		.078
College grad.	.014	.072	.026	.017	.129
Head, not specified	.000	.000	.000	.000	.000
<u>REGION</u>					
New England	.109	.841	.539	.189	1.678
Middle Atlantic	.038	.048	.007	.019	.112
E. North Cent.	.000	.002	.007	.011	.020
W. North Cent.	.000	.000	.000	.005	.005
South Atlantic	.012	.111	.006	.011	.140
E. South Cent.	.010	.082	.017	.007	.116
W. South Cent.	.001	.000	.003	.000	.004
Mountain	.000	.020	.000	.000	.020
Pacific	.013	.004	.002	.001	.020

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

Table II-2(b).--U.S. consumption of lobster tails (fresh and frozen) by  
socio-economic characteristics, 1969<sup>1/</sup>

(Retail weight)

Socio-Economic Characteristics	1969				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Total
<u>RACE</u>	-----Pounds per capita-----				
Negro	.062	.037	.038	.074	.211
White	.048	.021	.030	.032	.131
Other	.000	.000	.000	.000	.000
Not specified	.000	.000	.000	.000	.000
<u>RELIGION</u>					
Catholic	.100	.023	.057	.052	.232
Jewish	.078	.000	.008	.074	.160
Protestant	.033	.022	.025	.028	.108
Other	.000	.000	.000	.000	.000
Not specified	.178	.000	.000	.000	.178
<u>INCOME PER CAPITA</u>					
Under 1,000	.012	.003	.000	.001	.016
1,000-1,999	.048	.030	.045	.038	.161
2,000-2,499	.000	.006	.008	.044	.058
2,500-2,999	.144	.018	.058	.034	.254
3,000-3,499	.006	.012	.013	.040	.071
3,500 & over	.082	.030	.033	.035	.180
<u>OCCUPATION</u>					
Prof. & semiprofessional	.020	.011	.012	.025	.068
Proprietors, managerial	.027	.007	.014	.047	.095
Clerical & sales	.018	.027	.052	.034	.131
Craftsmen, foremen	.038	.018	.013	.025	.094
Head operative	.081	.009	.010	.024	.124
Service workers, & laborers	.100	.053	.081	.044	.278
<u>EDUCATION</u>					
Less than 4 yr. high school	.026	.032	.043	.031	.132
Less than 4 yr. college	.066	.015	.027	.033	.141
College grad.	.042	.018	.014	.036	.110
Head, not specified	.041	.011	.050	.133	.235
<u>REGION</u>					
New England	.006	.004	.027	.010	.047
Middle Atlantic	.108	.025	.029	.049	.211
E. North Cent.	.077	.032	.039	.035	.183
W. North Cent.	.018	.000	.002	.004	.024
South Atlantic	.012	.023	.020	.030	.085
E. South Cent.	.034	.047	.178	.083	.342
W. South Cent.	.000	.000	.001	.003	.004
Mountain	.127	.021	.012	.071	.231
Pacific	.022	.021	.008	.030	.081

Source: Division of Economic Research, BCF

<sup>1/</sup> Purchases by households for home use.

Table II-2(c).--U.S. consumption of lobsters and lobster tails (fresh and frozen) by socio-economic characteristics, 1969<sup>1/</sup>

Socio-Economic Characteristics	(Retail weight)				
	1969				
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Total
<u>RACE</u>	-----Pounds per capita-----				
Negro	.092	.057	.074	.076	.299
White	.066	.105	.068	.068	.307
Other	.000	.000	.517	.000	.517
Not specified	.000	.000	.000	.000	.000
<u>RELIGION</u>					
Catholic	.134	.104	.098	.128	.464
Jewish	.086	.042	.008	.074	.210
Protestant	.047	.106	.064	.050	.267
Other	.000	.000	.000	.000	.000
Not specified	.178	.000	.000	.000	.178
<u>INCOME PER CAPITA</u>					
Under 1,000	.015	.003	.000	.001	.019
1,000-1,999	.078	.158	.114	.039	.389
2,000-2,499	.000	.023	.021	.050	.094
2,500-2,999	.165	.052	.089	.061	.367
3,000-3,499	.014	.139	.075	.071	.299
3,500 & over	.108	.116	.018	.135	.377
<u>OCCUPATION</u>					
Prof. & semiprofessional	.044	.050	.055	.031	.180
Proprietors, managerial	.051	.081	.023	.066	.221
Clerical & sales	.038	.101	.021	.190	.350
Craftsmen, foremen	.053	.199	.092	.035	.379
Head operative	.087	.014	.010	.024	.135
Service workers, & laborers	.118	.121	.103	.059	.401
<u>EDUCATION</u>					
Less than 4 yr. high school	.058	.182	.112	.100	.452
Less than 4 yr. college	.076	.050	.047	.046	.219
College grad.	.056	.090	.040	.053	.239
Head, not specified	.041	.011	.050	.133	.235
<u>REGION</u>					
New England	.115	.845	.566	.199	1.725
Middle Atlantic	.146	.073	.036	.068	.323
E. North Cent.	.077	.034	.046	.046	.203
W. North Cent.	.018	.000	.002	.009	.029
South Atlantic	.024	.134	.026	.035	.219
E. South Cent.	.044	.129	.195	.090	.458
W. South Cent.	.001	.000	.004	.003	.008
Mountain	.127	.041	.012	.071	.251
Pacific	.035	.025	.010	.031	.101

Source: Division of Economic Research, BCF.  
<sup>1/</sup> Purchases by households for home use.



Table II-3.--Northern lobster prices: Exvessel, Wholesale and Retail, 1947-68

	Exvessel <sup>1/</sup>	Wholesale <sup>2/</sup>	Retail <sup>3/</sup>
	-----Dollars per pound-----		
1947	.373	n.a.	n.a.
1948	.404	n.a.	n.a.
1949	.348	n.a.	n.a.
1950	.349	n.a.	n.a.
1951	.348	n.a.	n.a.
1952	.425	n.a.	n.a.
1953	.377	n.a.	n.a.
1954	.373	n.a.	n.a.
1955	.384	n.a.	n.a.
1956	.443	n.a.	n.a.
1957	.367	n.a.	n.a.
1958	.490	n.a.	n.a.
1959	.504	.99	1.43
1960	.457	.89	1.28
1961	.532	1.02	1.47
1962	.507	.95	1.37
1963	.554	.98	1.41
1964	.662	1.14	1.64
1965	.752	1.36	1.96
1966	.784	1.32	1.90
1967	.809	1.42	2.04
1968	.848	1.47	2.12
1969			
1970			
1971			
1972			

<sup>1/</sup> Weighted average price paid to Maine fishermen. Historical Statistics No. 12 and, Shellfish Situation and Outlook

<sup>2/</sup> Fishery Statistics of the U.S. and Shellfish Situation and Outlook, Average price for 1 $\frac{1}{4}$  pound live lobsters at New York.

<sup>3/</sup> Estimated from the wholesale price of lobsters by applying margins in 1967.

Table II-4.--Value of northern lobster at exvessel, wholesale, and retail levels.

	Exvessel <sup>1/</sup>	Wholesale <sup>2/</sup>	Retail <sup>2/ 3/</sup>
	-----Thousand dollars-----		
1947	8,992	n.a.	n.a.
1948	8,728	n.a.	n.a.
1949	8,904	n.a.	n.a.
1950	8,346	n.a.	n.a.
1951	9,379	n.a.	n.a.
1952	10,556	n.a.	n.a.
1953	10,870	n.a.	n.a.
1954	10,486	n.a.	n.a.
1955	11,302	n.a.	n.a.
1956	11,908	n.a.	n.a.
1957	11,512	n.a.	n.a.
1958	13,218	n.a.	n.a.
1959	14,468	61,195	88,392
1960	14,251	58,442	84,052
1961	14,572	65,104	93,827
1962	14,953	62,605	90,283
1963	16,769	64,563	92,892
1964	19,856	71,048	102,210
1965	21,957	82,211	118,480
1966	22,266	75,454	108,607
1967	22,389	75,606	108,618
1968	25,200	82,271	125,860
1969			
1970			
1971			
1972			

<sup>1/</sup> Fishery Statistics of the United States.

<sup>2/</sup> Includes imports.

<sup>3/</sup> Estimated.

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

	Retail	Retail/CPI <sup>1/</sup>	Retail/CPI <sub>mpf</sub> <sup>2/</sup>
	-----Dollars per pound-----		
1947	n.a.	n.a.	n.a.
1948	n.a.	n.a.	n.a.
1949	n.a.	n.a.	n.a.
1950	n.a.	n.a.	n.a.
1951	n.a.	n.a.	n.a.
1952	n.a.	n.a.	n.a.
1953	n.a.	n.a.	n.a.
1954	n.a.	n.a.	n.a.
1955	n.a.	n.a.	n.a.
1956	n.a.	n.a.	n.a.
1957	n.a.	n.a.	n.a.
1958	n.a.	n.a.	n.a.
1959	1.43	1.41	1.42
1960	1.28	1.24	1.29
1961	1.47	1.41	1.48
1962	1.37	1.30	1.35
1963	1.41	1.32	1.41
1964	1.64	1.52	1.66
1965	1.96	1.78	1.86
1966	1.90	1.68	1.67
1967	2.04	1.75	1.83
1968	2.12	1.75	1.86
1969			
1970			
1971			
1972			

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

<sup>1/</sup> Consumer Price Index, 1957-59 = 100

<sup>2/</sup> Consumer Price Index for meat, poultry and fish 1957-59 = 100

Table II-6.--Index of seasonal demand for northern lobster  
by market area

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SEASONAL DEMAND INFORMATION FOR NORTHERN LOBSTER

NOT AVAILABLE AT THIS TIME

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

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Price Elasticity = -0.5995

Income Elasticity = 2.0688

Demand Equation for United States

$$C/N = -5.9374 - 0.5995 \log \left[ \frac{P}{CPI} \right] + 2.0688 \log \left[ \frac{Y/CPI}{N} \right]$$

C/N = Lobster consumption per capita

P/CPI = Price of lobster divided by Consumer Price

Index (CPI)

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

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Source: Division of Economic Research, Bureau of Commercial Fisheries

### III DEMAND PROJECTIONS

-U.S. Consumption  
Aggregate  
Per capita



Table III-1.--Demand projections for lobsters,<sup>1/</sup>  
U.S. and world, to the year 2000<sup>2/</sup>

Year	U.S. per cap. consumption	U.S. population	U.S. aggregate consumption	World aggregate consumption
	Pounds <sup>2/</sup>	Millions	-----Million pounds <sup>2/</sup> -----	
1967 (actual)	.82	197.9	163	309
1970	1.10	206.0	227	349
1975	1.21	219.4	266	394
1980	1.25	235.2	295	424*
1985	1.19	252.9	302	424
1990	1.13	270.8	307	424
2000	1.02	307.8	315	424

- 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.

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

<sup>2/</sup> Round weight

\* Reaches MSY

#### IV DOMESTIC PRODUCTION

—Landings

—Value

#### IV DOMESTIC PRODUCTION

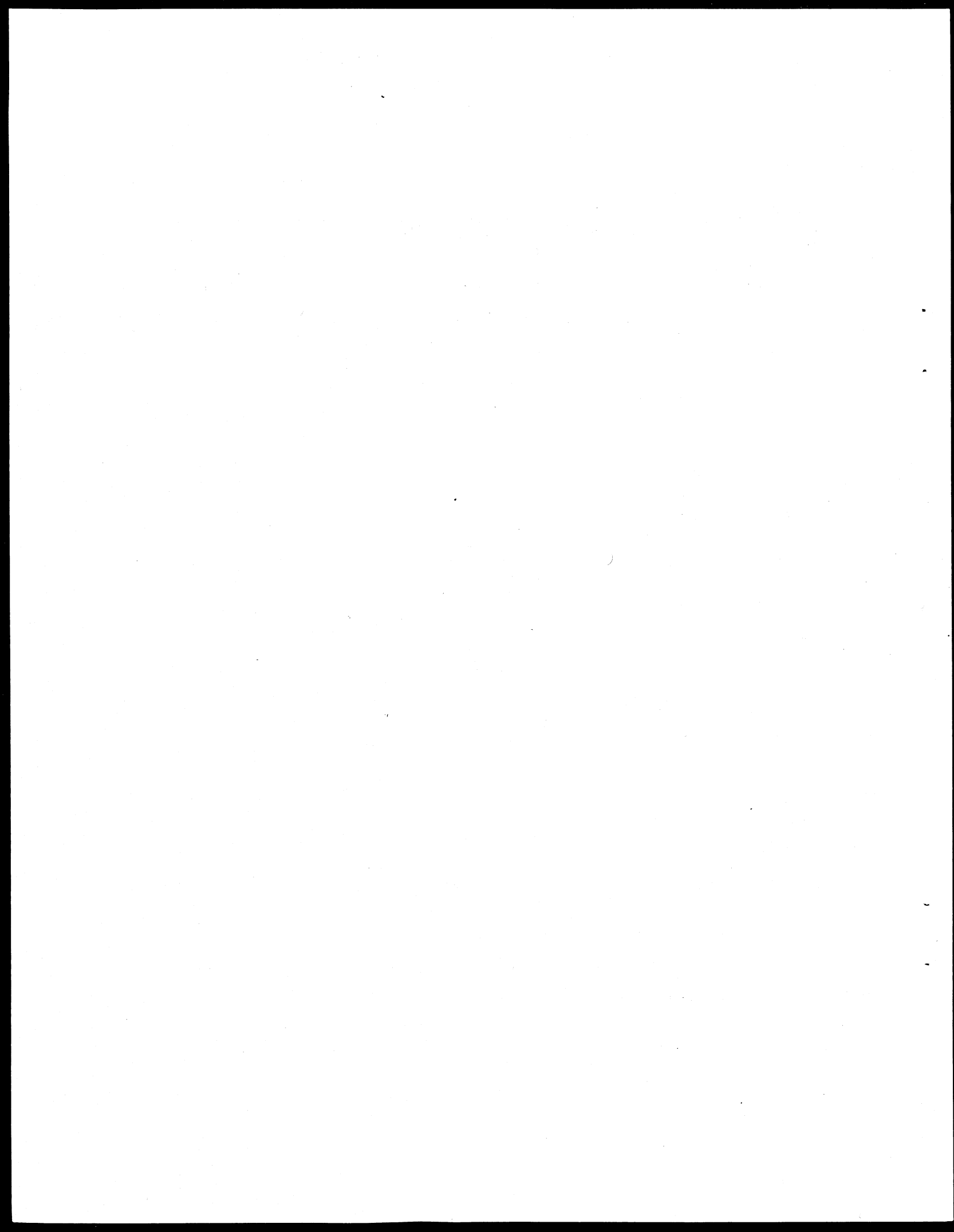
—Landings

—Value

Table IV-2.--U.S. landings of northern lobster by major states

	Maine	Mass.	Other	Total
	-----Thou. pounds-----			
1947	18,277	3,671	1,979	23,927
1948	15,923	3,212	1,843	20,987
1949	19,273	3,563	1,820	24,656
1950	18,353	3,113	1,732	23,198
1951	20,759	3,719	1,468	25,946
1952	20,036	3,496	1,500	25,032
1953	22,300	3,775	2,040	28,115
1954	21,688	3,459	2,334	27,481
1955	22,718	3,540	2,696	28,954
1956	20,572	3,411	2,537	26,520
1957	24,403	3,332	2,420	30,155
1958	21,312	3,213	2,752	27,277
1959	22,329	3,528	3,228	29,085
1960	24,014	3,505	3,649	31,168
1961	20,918	3,303	3,767	27,988
1962	22,075	4,282	3,140	29,497
1963	22,804	4,506	2,964	30,274
1964	21,413	5,488	4,057	30,958
1965	18,862	6,360	5,024	30,246
1966	19,916	4,828	4,797	29,541
1967	16,489	4,706	5,550	26,745
1968	20,600	n.a.	n.a.	32,300
1969				
1970				
1971				
1972				

Source: Fishery Statistics of the U.S.



## V DOMESTIC EMPLOYMENT, VESSELS AND EFFORT

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



Table V-1.--Number of fishermen and vessels in the lobster fishery,  
1947-66

Fishermen				:	Vessels and Boats		
Pot	Trawl	Total	:	Pot	Trawl	Total	
-----Number-----							
1947	8,712	n.a.	8,712	8,146	n.a.	8,146	
1948	8,003	n.a.	8,003	7,404	n.a.	7,404	
1949	8,117	n.a.	8,117	7,618	n.a.	7,618	
1950	7,224	n.a.	7,224	6,858	n.a.	6,858	
1951	6,608	n.a.	6,608	6,300	n.a.	6,300	
1952	7,130	n.a.	7,130	6,695	n.a.	6,695	
1953	7,413	n.a. <sup>1</sup>	7,413	6,563	n.a.	6,563	
1954	7,740	n.a.	7,740	7,437	n.a.	7,437	
1955	7,781	n.a.	7,781	7,534	n.a.	7,534	
1956	7,917	n.a.	7,917	7,573	n.a.	7,573	
1957	7,777	n.a.	7,777	7,457	n.a.	7,457	
1958	8,117	n.a.	8,117	7,574	n.a.	7,574	
1959	8,426	n.a.	8,426	8,148	n.a.	8,148	
1960	8,668	n.a.	8,668	8,188	n.a.	8,188	
1961	8,472	171	8,643	8,165	41	8,206	
1962	7,713	137	7,850	7,374	35	7,409	
1963	7,518	137	7,655	6,756	35	6,791	
1964	7,871	365	8,236	7,028	75	7,103	
1965	7,980	425	8,405	7,321	88	7,409	
1966	7,560	414	7,974	6,914	87	7,001	
1967							
1968							
1969							
1970							
1971							
1972							

Source: Fishery Statistics of the United States.

Table V-2.--Fishermen in the northern lobster pot fishery by region,  
1947-66

Year	On Vessels				Total 1/
	New	Middle			
	England	Atlantic	Chesapeake		
	Number				
1947	52	-	-	-	52
1948	66	-	-	-	66
1949	77	4	-	-	81
1950	61	6	-	-	67
1951	66	4	-	-	70
1952	65	4	-	-	69
1953	69	4	-	-	73
1954	90	11	-	-	101
1955	62	-	-	-	62
1956	44	19	-	-	63
1957	37	25	-	-	62
1958	40	23	-	-	63
1959	35	24	-	-	59
1960	37	32	-	-	69
1961	51	32	-	-	83
1962	44	31	-	-	75
1963	49	35	-	-	84
1964	59	33	-	-	92
1965	60	36	-	-	96
1966	45	32	-	-	77

1/ Exclusive of duplication

Source: Fishery Statistics of the U.S.

Table V-2.--Fishermen in the northern lobster pot fishery by region,  
1947-66

Year	On Vessels				Total 1/
	New	Middle			
	England	Atlantic	Chesapeake		
	Number				
1947	52	-	-	-	52
1948	66	-	-	-	66
1949	77	4	-	-	81
1950	61	6	-	-	67
1951	66	4	-	-	70
1952	65	4	-	-	69
1953	69	4	-	-	73
1954	90	11	-	-	101
1955	62	-	-	-	62
1956	44	19	-	-	63
1957	37	25	-	-	62
1958	40	23	-	-	63
1959	35	24	-	-	59
1960	37	32	-	-	69
1961	51	32	-	-	83
1962	44	31	-	-	75
1963	49	35	-	-	84
1964	59	33	-	-	92
1965	60	36	-	-	96
1966	45	32	-	-	77

1/ Exclusive of duplication

Source: Fishery Statistics of the U.S.

Table V-3.--Vessels and boats in the northern lobster fleet

Year	Vessels				Boats			
					Motor			
	N.E.	M.A.	Chesa.	Total 1/	N.E.	M.A.	Chesa.	Total
	-----Number-----							
1947	37	-	-	37	5,933	70	-	6,003
1948	51	-	-	51	5,906	132	-	6,038
1949	59	2	-	61	6,192	167	-	6,359
1950	53	3	-	56	5,869	103	-	5,972
1951	44	2	-	46	5,444	67	-	5,511
1952	49	2	-	51	5,678	92	-	5,770
1953	57	2	-	59	5,993	109	-	6,102
1954	69	5	-	74	6,641	45	-	6,686
1955	53	-	-	53	6,820	32	-	6,852
1956	35	9	-	44	6,863	38	-	6,901
1957	32	12	-	44	6,938	44	-	6,982
1958	36	11	-	47	7,025	42	-	7,067
1959	31	12	-	43	7,765	40	-	7,805
1960	31	16	-	47	7,803	35	-	7,838
1961	43	16	-	59	7,732	33	-	7,765
1962	39	16	-	55	6,989	42	-	7,031
1963	40	18	-	58	6,451	43	-	6,494
1964	46	17	-	63	6,808	48	-	6,856
1965	51	18	-	69	7,125	52	-	7,177
1966	40	16	-	56	6,733	96	-	6,829

1/ Exclusive of Duplication

Source: Fishery Statistics of the U.S.

Table V-3.--Vessels and boats in the northern lobster fleet (Continued)

Year	Boats				Total	
	Other			Total	Vessels	
	N.E.	M.A.	Chesa.	Total	Boats <u>1/</u>	& Boats <u>1/</u>
	<u>Number</u>					
1947	2,100	6	-	2,106	8,109	8,146
1948	1,303	12	-	1,315	7,353	7,404
1949	1,179	19	-	1,198	7,557	7,618
1950	815	15	-	830	6,802	6,858
1951	743	-	-	743	6,254	6,300
1952	874	-	-	874	6,644	6,695
1953	402	-	-	402	6,504	6,563
1954	657	20	-	677	7,363	7,437
1955	629	-	-	629	7,481	7,534
1956	608	20	-	628	7,529	7,573
1957	411	20	-	431	7,413	7,457
1958	440	20	-	460	7,527	7,574
1959	290	10	-	300	8,105	8,148
1960	293	10	-	303	8,141	8,188
1961	331	10	-	341	8,106	8,165
1962	288	-	-	288	7,319	7,374
1963	204	-	-	204	6,698	6,756
1964	109	-	-	109	6,965	7,028
1965	75	-	-	75	7,252	7,321
1966	29	-	-	29	6,858	6,914

1/ Exclusive of duplication

Source: Fishery Statistics of the U.S.

Table V-4.--Gear in the northern lobster pot fishery, 1947-66

Northern Lobster Pots				
Year	New England	Middle Atlantic	Chesapeake	Total
-----Number-----				
1947	660,961	13,329		674,290
1948	598,425	18,913	-	617,338
1949	601,786	9,786	-	611,572
1950	570,635	8,295	-	578,930
1951	507,927	4,885	-	512,812
1952	540,216	4,514	-	544,730
1953	564,665	4,416	-	569,081
1954	618,279	9,930	-	628,209
1955	665,269	3,960	-	669,229
1956	654,872	12,015	-	666,887
1957	677,155	11,660	-	688,815
1958	742,091	11,412	-	753,503
1959	845,832	10,962	-	856,794
1960	833,874	10,236	-	844,110
1961	884,535	10,563	-	895,098
1962	899,453	9,865	-	909,318
1963	857,100	9,800	-	866,900
1964	894,653	9,580	-	904,233
1965	937,575	11,470	-	949,045
1966	932,208	14,905	-	947,113

Source: Fishery Statistics of the U.S.

Table V-5.--Fishermen in the northern lobster otter trawl fishery,  
1961-66

On Vessels				
	New	Middle		
Year	England	Atlantic	Chesapeake	Total 1/
-----Number-----				
1961	-	168	-	168
1962	-	134	-	134
1963	-	134	-	134
1964	212	150	-	362
1965	296	153	-	425
1966	287	141	-	414

On Boats and Shore								
Year	New England		Middle Atlantic		Chesapeake		Total 1/	
	Reg.:	Cas.:	Reg.:	Cas.:	Reg.:	Cas.:	Reg.:	Cas.:
-----Number-----								
1961	-	-	3	-	-	-	3	-
1962	-	-	3	-	-	-	3	-
1963	-	-	3	-	-	-	3	-
1964	-	-	3	-	-	-	3	-
1965	-	-	-	-	-	-	-	-
1966	-	-	-	-	-	-	-	-

	Total
Year	Fishermen 1/
-----Number-----	
1961	171
1962	137
1963	137
1964	365
1965	425
1966	414

<sup>1/</sup> Exclusive of duplication

Source: Fishery Statistics of the U.S.

Table V-6.--Vessels and boats in the northern lobster otter trawl fishery, 1961-66

: Vessels				
: New : Middle :				
Year	: England	: Atlantic	: Chesapeake	: Total <sup>1/</sup>
-----Number-----				
1961	-	40	-	40
1962	-	34	-	34
1963	-	34	-	34
1964	36	38	-	74
1965	54	39	-	88
1966	53	37	-	87

: Boats				
: Motor				
: New Middle				
Year	: England	: Atlantic	: Chesapeake	: Total <sup>1/</sup>
-----Number-----				
1961	-	1	-	1
1962	-	1	-	1
1963	-	1	-	1
1964	-	1	-	1
1965	-	-	-	-
1966	-	-	-	-

: Total	
Year	: Vessels
: and	
: Boats <sup>1/</sup>	
-----Number-----	
1961	41
1962	35
1963	35
1964	75
1965	88
1966	87

<sup>1/</sup> Exclusive of duplication

Source: Fishery Statistics of the U.S.



Table V-7.--Gear in the northern lobster otter trawl fishery,  
1961-66

Year	Otter Trawls			
	New	Middle		
	England	Atlantic	Chesapeake	Total Gear <sup>1/</sup>
	<u>Number</u>			
1961	-	41	-	41
1962	-	35	-	35
1963	-	35	-	35
1964	36	39	-	75
1965	54	39	-	88
1966	53	37	-	87

<sup>1/</sup> Exclusive of duplication

Source: Fishery Statistics of the U.S.

## VI BIOLOGICAL STOCK ASSESSMENT

Table VI-1.--Estimates of maximum sustainable yield from world stocks of lobster.

<u>Region</u>	<u>MSY</u> <u>Thou. metric tons</u>
I. Atlantic Northwest	
A. <u>Homarus americanus</u>	32.0
II. Atlantic Northeast	
A. <u>Homarus vulgaris</u>	3.3
B. <u>Palinurus vulgaris</u>	2.0
C. <u>Nephrops norvegicus</u>	<u>60.0</u>
Total	65.3
III. Mediterranean	
A. <u>Homarus vulgaris</u>	1.0
B. <u>Nephrops norvegicus</u>	<u>3.0</u>
Total	4.0
IV. North Pacific	---
V. Atlantic West-Central	
A. <u>Palinurus</u> spp.	21.0
VI. Atlantic East-Central	
A. <u>Palinurus mauretanicus</u>	2.0
B. <u>Palinurus charlestoni</u>	1.0
C. <u>Palinurus rissonii</u>	<u>1.0</u>
Total	4.0
VII. Indian West	
A. Spiny lobsters <sup>1</sup>	3.1
VIII. Indian East	
A. Spiny lobsters <sup>2</sup>	10.0

Table VI-1.--Estimates of maximum sustainable yield from world stocks of lobster (Continued)

<u>Region</u>	<u>MSY</u> <u>Thou. metric tons</u>
IX. Pacific West-Central	
A. Spiny lobsters	5.0
X. Pacific East-Central	
A. Spiny lobsters <sup>3</sup>	5.0
XI. Atlantic Southwest	
A. <u>Panulirus argus</u>	4.0
XII. Atlantic Southeast	
A. <u>Jasus lalandii</u>	10.5
B. <u>Palinurus</u> spp.	<u>1.0</u>
Total	11.5
XIII. Pacific Southwest	
A. <u>Jasus lalandii</u>	14.5
XIV. Pacific Southeast	
A. <u>Jasus frontalis</u>	<u>0.1</u>
World Total	179.5

Source: Longhurst, Alan R. "Survey of Crustacean Resources," Area Reviews on Living Resources of the Ocean, FAO Indicative World Plan for Agricultural Development, Bureau of Commercial Fisheries, La Jolla, California, 1969.

1/ Includes Jasus lalandii, Palinurus gilchristi, Palinurus homarus, Palinurus longipes, Palinurus ornatus, Palinurus penicillatus, Palinurus versicolor.

2/ Includes Jasus lalandii, Panulirus cygnus, Panulirus versicolor.

3/ Includes Panulirus inflatus, Panulirus interruptus.

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

Region	Species	MSY
		<u>Thou. metric tons</u>
I. Northwest Atlantic	Northern	45.0
II. West-Central Atlantic	Spiny	21.0
	Total	<u>66.0</u>

Source: Bureau of Commercial Fisheries, Division of Economic Research. Longhurst, Alan R. "Survey of Crustacean Resources", Area Reviews on Living Resources of the World's Oceans, FAO Indicative World Plan for Agricultural Development, Bureau of Commercial Fisheries, La Jolla, California, 1969.

## VII INTERNATIONAL TRADE

— Imports  
Quantity  
Value  
Price

Table VII-1(a).--U.S. imports of fresh and frozen lobsters

(Product weight)

	Northern 1/			Spiny 2/	
	Quantity	Value		Quantity	Value
	Thou.	Thou.		Thou.	Thou.
	pounds	dollars		pounds	dollars
1947	18,401	8,902		6,314	2,691
1948	20,850	9,289		7,757	3,971
1949	21,323	9,804		9,356	5,109
1950	22,046	10,693		12,927	6,484
1951	23,558	11,144		14,758	8,613
1952	23,197	12,966		15,813	10,751
1953	22,610	13,279		19,942	14,426
1954	22,468	12,271		19,760	14,329
1955	22,962	13,430		22,479	16,674
1956	22,484	13,722		25,258	20,563
1957	22,218	13,073		28,236	23,754
1958	21,413	13,474		25,938	22,187
1959	20,635	13,802		28,092	24,833
1960	21,403	14,018		32,346	30,750
1961	21,299	14,571		32,610	34,468
1962	22,101	15,000		35,947	42,182
1963	21,847	16,259		34,048	38,214
1964	20,386	16,041		35,104	43,547
1965	18,597	7,421		37,814	61,280
1966	17,047	15,521		36,923	61,054
1967	15,568	15,070		35,340	56,449
1968	16,753	16,388		43,062	82,648
1969					
1970					
1971					
1972					

Source: Imports and Exports of Fishery Products, 1947-68, BCF

1/ Includes fresh cooked meat.

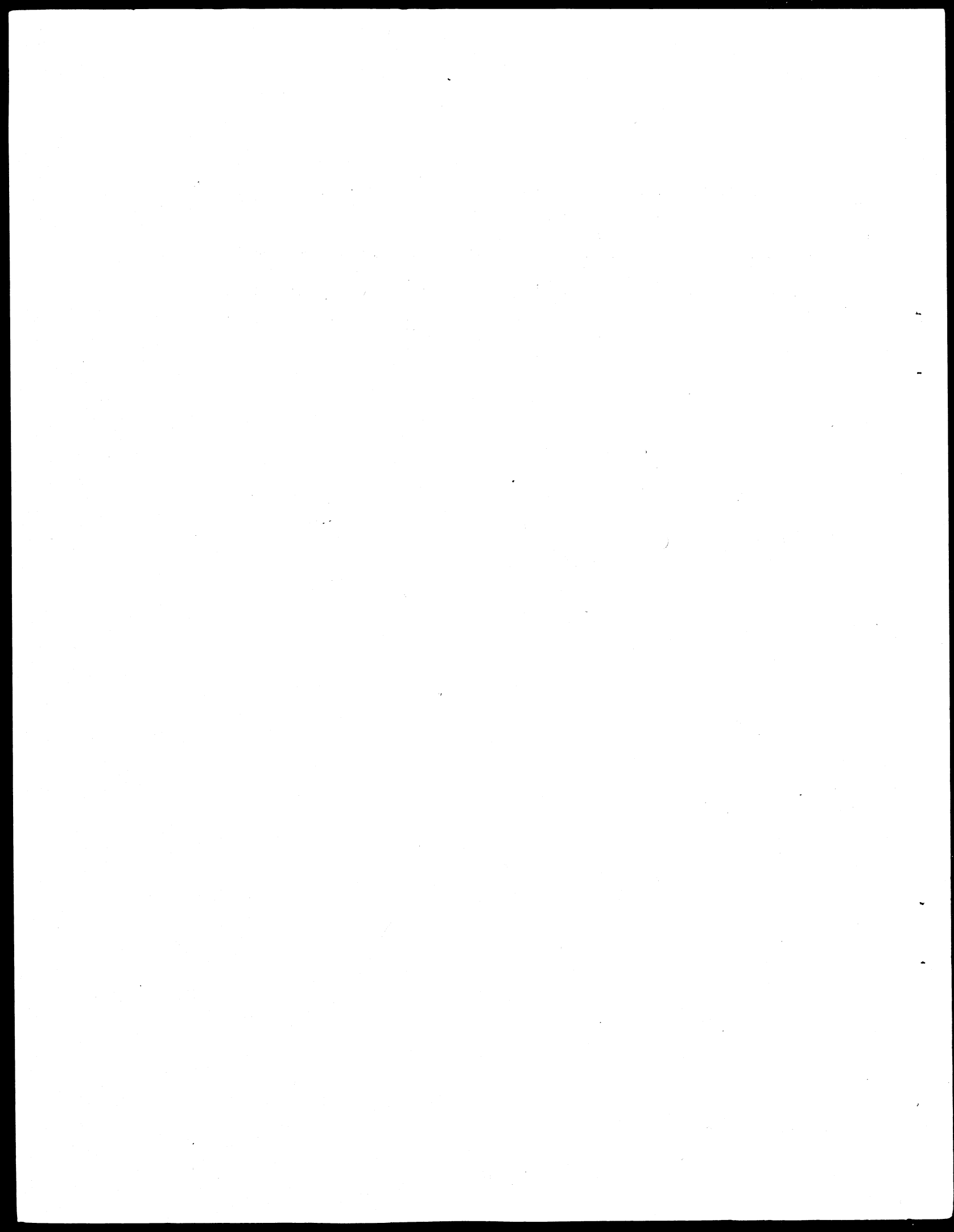
2/ Import weight, consisting largely of tails.

Table VII-1(b).--U.S. imports of canned lobster meat

	Northern		Spiny	
	Quantity	Value	Quantity	Value
	Thou. pounds	Thou. dollars	Thou. pounds	Thou. dollars
1947	1,072	1,310	142	136
1948	1,639	2,477	1,073	754
1949	1,410	2,089	696	521
1950	2,010	2,631	2,610	1,564
1951	1,499	1,996	1,966	1,401
1952	1,982	2,792	2,621	1,905
1953	1,186	2,178	2,978	2,550
1954	1,439	2,413	1,172	1,124
1955	2,114	3,595	1,661	1,478
1956	2,139	3,804	1,285	1,227
1957	2,204	3,867	1,067	1,150
1958	2,383	3,494	378	458
1959	2,338	4,099	2,105	2,342
1960	2,406	4,382	533	857
1961	2,772	4,682	56	97
1962	3,111	5,507	198	304
1963	2,362	4,331	281	487
1964	2,817	6,631	193	332
1965	2,851	7,128	129	208
1966	2,861	6,747	157	317
1967	2,715	6,996	149	299
1968	2,451	6,280	213	307
1969				
1970				
1971				
1972				

Source: Imports and Exports of Fishery Products, 1947-68, BCF.





## VIII FOREIGN PRODUCTION

—Landings

Table VIII-1.--World landings of all lobster, by major countries.

	Canada	U.S.	France	U.K.	Chile	Australia
	<u>-----Millions of pounds-----</u>					
1947	36.4	25.6	11.2	2.9	n.a.	n.a.
1948	40.3	22.3	8.6	3.3	n.a.	n.a.
1949	43.2	27.6	11.5	3.1	n.a.	n.a.
1950	49.8	25.6	11.7	2.9	n.a.	n.a.
1951	50.0	30.0	11.2	2.4	n.a.	n.a.
1952	47.8	27.6	13.2	2.2	n.a.	14.6
1953	46.5	30.6	13.9	2.9	2.0	15.7
1954	46.7	30.0	13.7	4.6	5.7	17.4
1955	48.5	32.2	14.3	6.6	4.4	19.8
1956	51.8	30.2	14.6	6.6	12.6	18.3
1957	44.5	34.8	19.2	7.7	n.a.	19.0
1958	43.0	30.9	19.6	7.7	28.4	22.1
1959	45.6	32.6	22.7	10.4	14.1	26.5
1960	50.0	34.4	23.8	9.5	17.9	28.0
1961	47.6	31.3	29.3	12.4	17.9	27.6
1962	46.5	33.1	27.1	13.2	17.6	28.9
1963	44.3	34.4	26.2	14.8	20.3	31.5
1964	41.9	34.8	26.5	17.6	23.8	27.6
1965	40.6	36.4	22.1	16.8	34.2	26.5
1966	37.5	35.3	24.0	19.6	29.8	30.0
1967	35.1	31.5	20.7	23.2	44.3	31.8
1968						
1969						
1970						
1971						
1972						

Table VIII-1.--World landings of all lobster, by major countries  
(Continued)

Year	: South : : Africa :	: South : : Africa :	: West : : Africa :	: New : : Zealand :	: : : Cuba :	: : : Other :	: : Total :
-----Millions of pounds-----							
1947	22.9	3.3	2.0	n.a.	10.4		114.6
1948	24.0	10.6	3.0	n.a.	11.2		123.5
1949	24.9	13.0	4.2	n.a.	11.5		138.9
1950	28.0	14.3	6.0	n.a.	11.7		149.9
1951	30.0	16.1	6.4	n.a.	10.4		156.5
1952	30.0	28.9	7.5	n.a.	13.5		185.2
1953	30.0	22.7	9.0	n.a.	29.5		202.8
1954	27.1	20.1	12.1	n.a.	29.8		207.2
1955	27.1	20.3	13.0	n.a.	40.8		227.1
1956	24.0	14.1	14.6	6.2	40.8		233.7
1957	28.0	17.0	11.0	13.2	19.4		213.9
1958	28.0	8.8	9.7	n.a.	46.5		244.7
1959	20.1	11.5	8.8	n.a.	52.5		244.7
1960	20.5	8.4	8.4	n.a.	61.5		262.4
1961	19.6	12.8	8.8	18.1	42.3		269.0
1962	19.2	15.9	10.1	16.5	47.4		275.6
1963	18.3	13.0	9.9	16.3	53.1		282.2
1964	18.5	16.8	10.1	14.6	58.9		291.0
1965	18.5	17.6	11.0	20.1	54.0		297.6
1966	17.6	19.6	14.6	19.8	54.2		302.0
1967	18.3	13.0		18.3	72.5		308.6
1968							
1969							
1970							
1971							
1972							

Source: FAO Yearbooks

Table VIII-2.--World lobster landings: International trade and consumption

Country	Landings	Exports	Imports	Consumption
	<u>-----Million pounds-----</u>			
France	20.7	-	-	20.7
United Kingdom	23.2	-	-	23.2
Canada	35.1	30.4	-	4.7
South and South Africa	31.3	30.4	-	.9
Australia	31.8	31.1	-	.7
Chile	44.3	5.1	-	39.2
U.S.	31.5	-	143.0	174.5
New Zealand	14.6 <sup>1/</sup>	14.0	-	.6
Other	76.1	36.3	4.3	44.1
Total	308.6	147.3	147.3	308.6

Source: FAO Yearbook vol. 25, 1967. Bureau of Census 1967 annual.

<sup>1/</sup> 1966 data were used for New Zealand

## IX FOREIGN CONSUMPTION

—Consumption  
Aggregate  
Per capita

—Prices

Table IX-1.--World aggregate lobster consumption by country

(Round weight)						
	France	U.K.	Canada	U.S.	Other	Total
	-----Million pounds-----					
1947	11.2	2.4	-	66.5	34.5	114.6
1948	8.6	3.3	-	70.7	40.9	123.5
1949	11.5	3.1	5.9	80.5	37.9	138.9
1950	11.7	2.9	7.9	88.8	38.6	149.9
1951	11.2	2.4	10.1	100.2	32.6	156.5
1952	13.2	2.2	5.7	99.8	64.3	185.2
1953	13.9	2.9	12.8	112.9	60.3	202.8
1954	13.7	4.6	12.8	111.8	64.3	207.2
1955	14.3	6.6	9.5	121.2	75.5	227.1
1956	14.6	6.6	15.7	118.3	77.9	233.1
1957	19.2	7.7	7.1	138.0	41.9	213.9
1958	19.6	7.7	6.8	128.1	85.5	244.7
1959	22.7	10.4	10.6	135.2	65.8	244.7
1960	23.8	9.5	11.9	149.4	67.8	262.4
1961	29.3	12.4	6.9	148.2	72.2	269.0
1962	27.1	13.2	4.0	158.9	72.4	275.6
1963	26.2	14.8	7.5	177.0	56.7	282.2
1964	26.5	17.6	9.3	178.9	58.7	291.0
1965	22.1	16.8	8.6	171.3	78.8	297.6
1966	24.0	19.6	11.3	171.0	76.1	302.0
1967	20.7	23.2	6.4	174.5	83.8	308.6
1968						
1969						
1970						
1971						
1972						

Source: Original data from FAO Yearbook of Fishery Statistics.

Table IX-2.--Lobster per capita consumption by country

	Canada	U.S.	France	U.K.
	-----Pounds-----			
1947	n.a.	0.462	n.a.	n.a.
1948	n.a.	.482	.225	.066
1949	.438	.539	.298	.062
1950	.632	.585	.300	.057
1951	.716	.651	.287	.049
1952	.397	.638	.333	.044
1953	.861	.710	.351	.057
1954	.829	.690	.337	.090
1955	.597	.734	.351	.130
1956	.973	.704	.353	.128
1957	.418	.806	.463	.150
1958	.387	.736	.395	.148
1959	.599	.763	.503	.198
1960	.668	.830	.520	.181
1961	.368	.810	.558	.234
1962	.213	.855	.512	.247
1963	.406	.938	.498	.276
1964	.493	.935	.547	.326
1965	.451	.884	.450	.306
1966	.562	.873	.487	.357
1967	.314	.883	.415	.419
1968		.960		
1969				
1970				
1971				
1972				

Source: Original data from FAO Yearbook of Fishery Statistics.



Table IX-3.--World lobster prices by selected countries

	Canada	U.S.	France	U.K.
	-----Cents per pound <sup>1/</sup> -----			
1947	n.a.	n.a.	n.a.	n.a.
1948	n.a.	49.6	n.a.	65.4
1949	35.1	43.5	n.a.	86.9
1950	35.3	42.9	n.a.	67.7
1951	31.5	39.9	n.a.	79.5
1952	34.1	45.6	n.a.	54.2
1953	38.9	41.5	n.a.	42.2
1954	37.9	40.8	n.a.	34.4
1955	38.5	41.8	47.9	30.3
1956	39.0	47.4	50.0	30.5
1957	35.5	39.0	44.7	30.0
1958	38.1	48.2	50.1	31.9
1959	40.0	49.0	42.7	30.2
1960	36.5	44.3	51.4	35.3
1961	39.2	49.9	n.a.	34.4
1962	43.5	48.1	60.5	31.5
1963	48.0	51.9	62.3	29.5
1964	56.8	59.3	54.8	29.1
1965	63.2	66.5	66.8	25.2
1966	54.6	66.6	61.0	31.0
1967	55.4	72.0	68.2	27.3
1968				
1969				
1970				
1971				
1972				

Source: FAO Yearbooks

<sup>1/</sup> Price Exvessel, deflated.

## X U.S. TRADE BARRIERS

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

56

Item	Product Description	Rates of Duty			U.S. Imports	
		June 30, 1967	Jan. 1, 1969	K-R Concession	Quantity	Value
				(Jan. 1, 1972)	Thou. lbs.	Thou. dollars
114.45	Other shellfish lobster Lobsters:	Free	Free	Free		
15	In airtight containers: Other:				2,663	6,588
20	Live	Free	Free	Free	16,105	14,507
25	Rock Lobsters tails	Free	Free	Free	35,800	72,318
30	Other	Free	Free	Free	7,909	12,211

Source: Division of Economic Research

Table X-2.--Historical synopsis of trade investigations for lobster<sup>1/</sup>

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1. 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

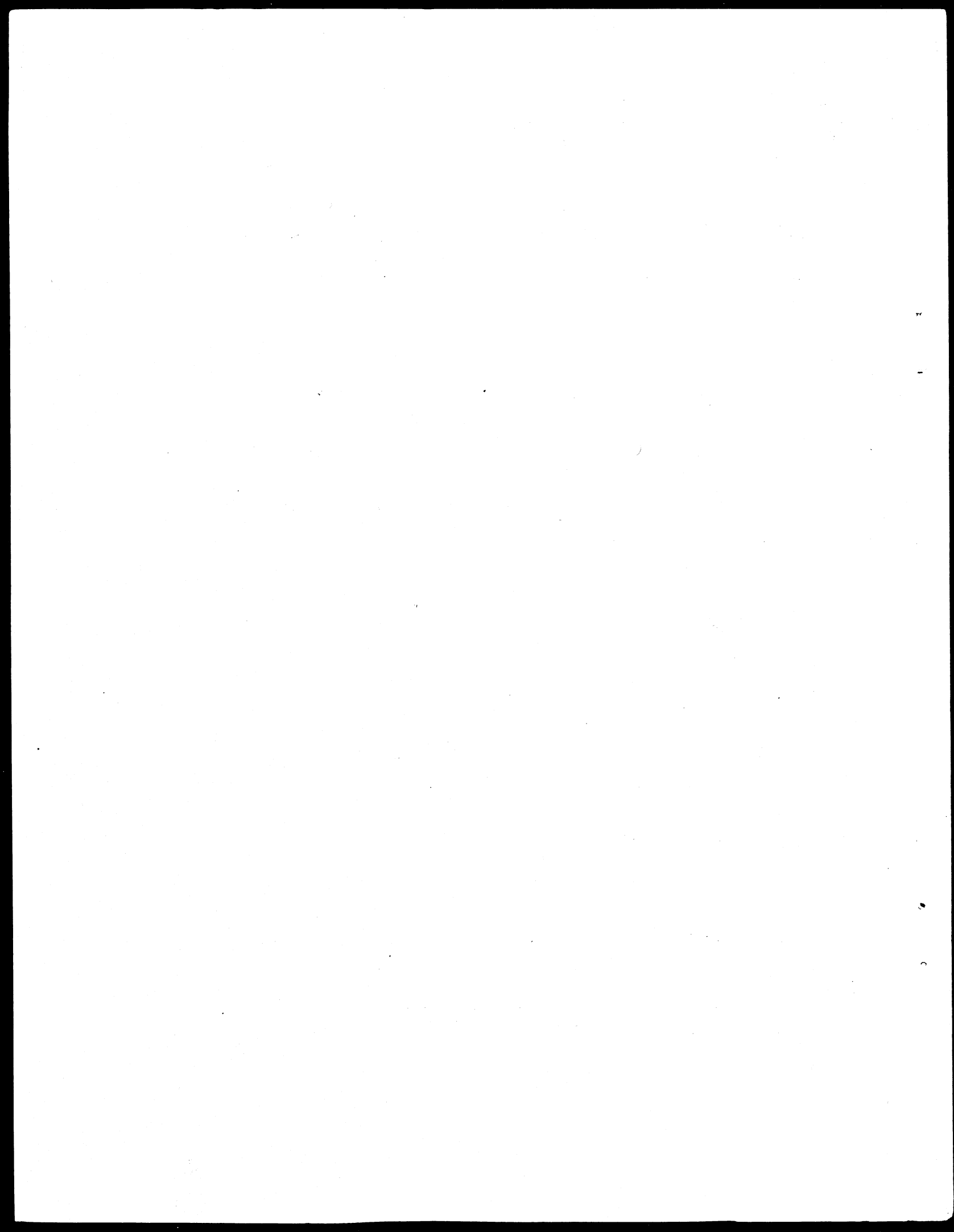
6. Countervailing (Section 303 of T.E.A. of 1930 Customs Bureau)

None

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Source: Division of Economic Research

<sup>1/</sup> Antidumping information checked since 1954; for Section 332 and countervailing 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 northern lobster, fiscal years 1960-69

Bureau of Commercial Fisheries Programs	1960	1961	1962	1963	1964
<u>1960 and 1964 Fishing Fleet Improvement Act</u>					
a) Number of Vessels Constructed	-	-	-	-	-
b) Total Government Subsidies to Vessels Constructed (dollars)	-	-	-	-	-
<u>Mortgage Insurance Program</u>					
a) Number of Vessels	-	-	-	-	-
b) Value of Mortgage (dollars)	-	-	-	-	-
<u>Fisheries Loan Fund</u>					
a) Number of Vessels Receiving Loans	2	-	4	6	7
b) Total Value of Loans (dollars)	5,500	-	9,950	27,600	26,048
Other BCF Programs <sup>1/</sup>	n.a.	na.	n.a.	n.a.	n.a.

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

<u>Bureau of Commercial Fisheries Programs</u>		1965	1966	1967	1968	1969
<u>1960 and 1964 Fishing Fleet Improvement Act</u>						
a)	Number of Vessels Constructed	-	-	-	-	1
b)	Total Government Subsidies to Vessels Constructed (dollars)	-	-	-	-	64,373
<u>Mortgage Insurance Program</u>						
a)	Number of Vessels	-	-	-	-	-
b)	Value of Mortgage (dollars)	-	-	-	-	-
<u>Fisheries Loan Fund</u>						
a)	Number of Vessels Receiving Loans	9	2	5	-	1
b)	Total Value of Loans (dollars)	31,042	8,600	25,573	-	3,500
Other BCF Programs <sup>1/</sup>		n.a.	n.a.	300,000	300,000	300,000

Source: Division of Financial Assistance, Bureau of Commercial Fisheries.

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



Table XI-2.--Estimated Economic Development Administration expenditures,  
by program, May 1961-May 1969<sup>1/</sup> lobster

Program/Project	Amount
Public Works Grants and Loans:	0
Business Loans:	0
Technical Assistance Grants:	
Gloucester, Massachusetts Extension Service	<u>\$11,000</u>
Grand Total	\$11,000

<sup>1/</sup> 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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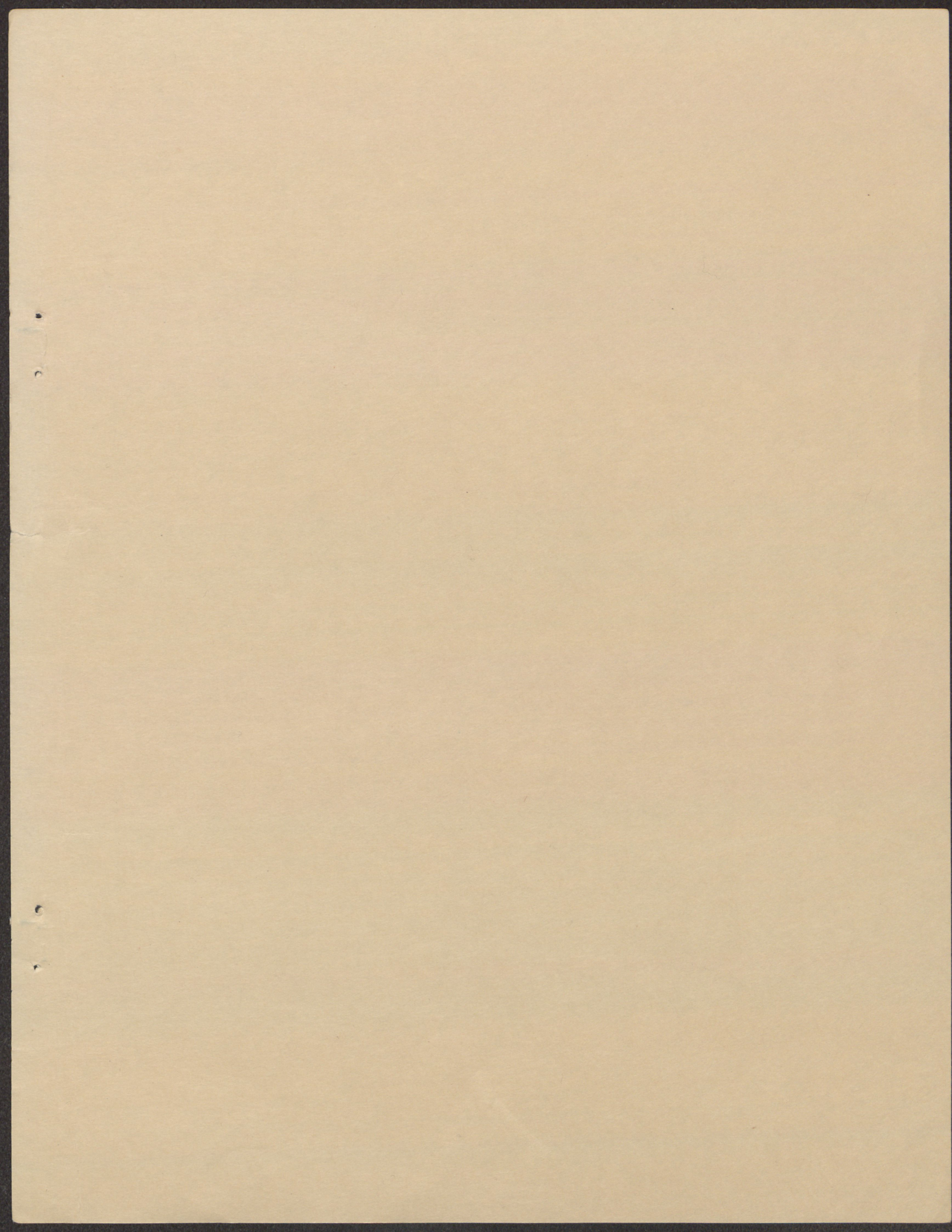
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59. Basic Economic Indicators-King and Dungeness Crabs.
60. Basic Economic Indicators-Menhaden.
61. Basic Economic Indicators-Tuna.
62. Basic Economic Indicators-Salmon.







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.