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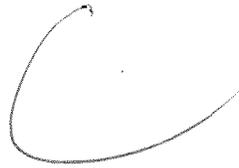
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REPORT TO THE JOINT  
STANDING COMMITTEE  
ON MARINE RESOURCES

SEAFOOD MARKETING AND  
PROMOTION: A COMPARISON  
OF ACTIVITIES IN MAINE  
WITH OTHER COASTAL STATES

by

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SEAFOOD MARKETING AND PROMOTION:  
A COMPARISON OF ACTIVITIES IN MAINE  
WITH OTHER COASTAL STATES

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## Findings

For the most part, the seafood industry (shellfish and finfish) comprises a small part of most coastal states' economies. Compared to the total value of food and kindred products manufactured in each state, processed seafood, on the average, comprised less than 5 percent. With the exception of the South Atlantic and Chesapeake Bay states (Maryland-Florida) and Rhode Island, the seafood industry in most coastal states receives very little marketing and promotion assistance from the state. Although it is not possible to specify unequivocally the reason or reasons for the relative inaction of the states in the area of seafood marketing, there is some evidence to indicate that many states do not perceive that state marketing assistance can significantly help the industry. In the Gulf states for example, a prosperous seafood industry with strong national demand for its product does not require state marketing assistance.

On the other hand, the seafood industry in many other states suffers from a number of problems, the least of which, in some cases, appears to be seafood marketing. In addition, some states believe that seafood marketing assistance is of little value in cases where an insufficient or unreliable supply of seafood exists.

The seafood industry may also be comparatively unimportant to other industries in some states. The status of the industry as well as other economic problems may rank marketing assistance to the industry as low priority.

The states which do undertake significant seafood marketing and promotion activities are states in which the potential of the industry is not only substantial but also feasibly attainable. In addition, these states are located in or near major market areas where demand for seafood is either increasing as a result of an immigration of people or is accepting different species as the supply of traditional species becomes inadequate.

In order to understand the basis of different state policies towards seafood marketing, it is necessary to look at the fishing industry of several states which represent various policies. Often times, the nature of the fishing industry of a state determines the state policy that is adopted.

## New England States

The seafood industry of the New England states relies primarily upon shellfish for the greatest source of income. While finfish comprises 86.4 percent of the total volume of seafood harvested, shellfish accounts for 53 percent of the total value of seafood at dockside. In Maine and Connecticut, shellfish

constitutes 70 and 85 percent respectively of the total value of landed seafood. Whereas, in Massachusetts, finfish comprises 65 percent of the total value of seafood landed. Massachusetts leads the New England states with respect to volume of landed seafood and accounts for 51 percent of the total volume. Maine is the region's second largest supplier of seafood and provides 28 percent of the total volume.

With the exception of Rhode Island, the New England States do not provide substantive marketing assistance to the seafood industry. The Massachusetts General Court budgets roughly \$100,000 annually for seafood promotion of which \$57,000 is reimbursed by the federal government. The state develops and distributes recipes for common and underutilized species of seafood, tests consumers' reaction to certain species, and participates in trade shows. The state does not actively engage in seafood marketing and state efforts are directed to promotion.

Maine, through the Department of Marine Resources, Division of Marketing and Promotion, assists the state's seafood industry. Most of the Division's efforts appear to be promotional in nature. Trade shows, seafood festivals, and information services appear to be the most common types of assistance. The Department of Marine Resources recently contracted with a consulting firm to determine feasible markets for Maine seafood.

The State of Rhode Island, through the University of Rhode Island, actively participates in market development for the seafood industry. For example, the University's Division of Marine Resources developed a program to promote and market ocean pout, an underutilized specie. The Division tested markets as far west as Chicago and succeeded in marketing over 3 million pounds of ocean pout in 1977. The Division is presently involved in a project to market another underutilized specie known as porgie or scup.

In addition to developing markets for underutilized species, the Division of Marine Resources (URI), developed the Rhode Island Seafood Council. The Seafood Council is composed of representatives of the seafood industry and serves as a marketing and promotion organization for Rhode Island seafood. The Council has developed recipes and recipe books, and it has participated in trade shows and seafood demonstration.

According to Rhode Island officials in the Department of Natural Resources, the U.S. Department of Commerce discourages the use of federal funds to promote and market seafood. As a result, this activity must be conducted largely by the states. Since the University of Rhode Island provides a curriculum and conducts extensive research in oceanography, the University is the logical state agency to assist the seafood industry. The University has not only assisted the industry in marketing, it has also conducted research in areas of harvesting of seafood, processing, and technology in harvesting and processing.

The policies of the New England states toward the fishing industry are, in part, determined by the structure, needs, and problems of the industry. Except for Rhode Island, these states do not provide substantive marketing assistance to the seafood industry for the following reason or reasons:

1. the industry is fractionalized and cannot agree to a specific marketing program
2. marketing is not necessarily the most critical problem of the industry
3. seafood marketing assistance is not a priority of the state
4. the state does not know the type of marketing assistance that will be effective and the most efficient for the capital invested
5. state marketing assistance would disrupt the existing marketing structure and thereby threaten some influential groups in the industry.

The Maine seafood industry is severely fractionalized. Not only is there very little cooperation among fishermen, wholesalers, and processors, there is very little cooperation among fishermen who are scattered along 3000 miles of coast forming numerous bays and inlets.

A very large proportion of Maine fishermen fish for lobster as their main source of income. Lobster is highly saleable, and commands a good price, but the supply of lobster is limited. The annual catch does not vary significantly, despite the increased number of traps.

There are very few deep water fishermen who fish in the George's bank region and other areas now protected by the 200 mile limit. One reason for the small number of deep water fishermen is the type and cost of the vessel required to navigate the waters. Not only is it difficult for fishermen to obtain loans, the cost of loans and the cost of vessels are prohibitive. Maine fishing vessels, for the most part, tend to be small and relatively old.

In addition to aged equipment, the unwillingness of Maine fishermen to spend several days at sea limits the territory and resource available to the fisherman. Gloucester, New Bedford, and Point Judith (R.I.) fishermen, however, are willing to fish in distant waters.

Another problem to diversifying and increasing seafood production is the lack of sufficient storage facilities, processing facilities, and docking and moorage facilities. In order for the seafood industry to develop, the facilities must be improved and adapted to handle larger volumes of different species.

Problems are also posed by the limited supply of popular species of seafood. Not only is the lobster catch limited by the available supply, haddock, halibut, and cod do not exist in sufficient quantity to provide a continuous year-round supply for the market.

While there are a number of impediments to the growth of the Maine seafood industry, the method of marketing Maine seafood may be responsible for the relatively low rate of return that fishermen earn. Maine fishermen, in general, are dependent upon a very small number of wholesalers and processors for disposal of their catch. The price paid to fishermen is often determined by the "Boston market" price which is the major out-of-state market for Maine seafood (except herring). The Boston market is controlled by a small number of wholesalers and processors who determine seafood prices by collusion.

The major fish processors in Maine are almost exclusively processors of herring. A tightly knit group, herring processors have imposed an industrial tax upon themselves to fund a quality control system and to promote the sale of herring. Their venture has been very successful.

The marketing strategy proposed by different representatives of the seafood industry would eliminate the Department of Marine Resources from active seafood marketing. According to this approach, Maine processors and wholesalers in addition to marketing lobsters and herring, would develop markets for fresh fish fillets which would bring a greater return than the sale of raw whole fish. These firms would bypass the Boston market and use their own marketing structure to sell "processed" fish.

The Massachusetts seafood industry, unlike the Maine industry, depends primarily upon 3 fishing fleets for its seafood supply. These fleets operate out of Boston, Gloucester, and New Bedford; and their catch is 90 percent finfish by volume. The seafood is sold at auction in these ports to wholesalers and processors. Wholesalers and processors, however, often agree to a set price or maximum price prior to the auction. Consequently, returns to fishermen are often lower than they would be in a free market. One result of the auction system has been to drive Massachusetts trawlers to Newport, Rhode Island to market fish.

Like the Maine fisherman, the Massachusetts fisherman tends to be older, and, for the most part, his boat is relatively old. The cost of new boats, the cost of capital, and the difficulty of fishermen to obtain loans has not only seemed to discourage younger people from becoming fishermen, it has also discouraged capital investment in the fishing fleet.

The finfish industry accounts for the greater volume and value of the total Massachusetts catch. Comprising nearly 91 percent of the catch, finfish constitutes 65 percent of the total value of the catch. Flounder, in particular, is an important specie to processors.

Massachusetts processors have not accommodated the state's fishermen. As a result, an increasing number of fishermen from New Bedford and Gloucester are landing their catches in Newport, Rhode Island. In addition, the Point Judith Fishermen's Cooperative in Rhode Island is purchasing large quantities of seafood from Massachusetts fishermen.

Unlike the fishing industry of New England which experienced a 39 percent decline in the volume of seafood and a 51 percent increase in the total value of seafood landed between 1964 and 1973, the Rhode Island fishing industry is thriving. During the same period, total fish landings in Rhode Island increased 185 percent and total value increased 304 percent. One of the reasons for the significant increase in the volume and value of fish landings is the substantial increase in the finfish catch which comprises nearly 95 percent of the total volume.

Another factor in the growth of the Rhode Island fishing industry is the success of the Point Judith Fishermen's Cooperative. The Cooperative's membership consists of crewmen and boat and vessel owners.

"The Co-op has developed a system of marketing that is tailored to the needs of its fishermen," which accounts for its success. The Co-op has cold storage and processing facilities, a filleting room, and a large section to handle lobsters. In 1973, the Co-op had 129 members, employed 82 people, and had gross sales in excess of \$7,250,000.

Nearly all of the fish purchased by the Co-op is sold outside the State in New York, Philadelphia, Baltimore, and South Carolina. The Rhode Island fishing industry therefore, has been able to take advantage of the additional value generated by manufacturing and to avoid the Boston market.

Newport and Point Judith are the major ports for Rhode Island fishermen. In 1973, all of the finfish and 95 percent of the lobster were landed at these ports. Galilee and Jerusalem also serve as bases for part of Rhode Islands' fishing fleet.

For the most part, Rhode Island fishermen, particularly Point Judith fishermen, earn a good living. Crew earnings vary widely from one vessel to another, but average earnings were \$14,000 a year in 1973. "On some vessels the annual crew share was twice that figure."

Unlike Maine, Massachusetts and a number of other states, Rhode Island does not have any problem recruiting young people into the fishing fleet. Many are graduates of the University of Rhode Island program in Commercial Fisheries which provides a background in commercial fishing.

In addition to a training program that encourages and develops manpower for the fishing fleet, the feasible expectation of a crewman to own his own boat also attracts young people to the fishing fleet.

Although the Rhode Island fishing industry is thriving, there are problems that need attention. According to the Coastal Resources Center of the University of Rhode Island, a masterplan for the development of port facilities, regulation of trawlers, management of ocean quahaugs, a shellfish depuration plant, and additional fish processing plants are required for the future health of the industry.

#### Chesapeake Bay & South Atlantic States

The regions in which state seafood marketing and promotion assistance is most widely implemented are the Chesapeake Bay and South Atlantic regions. Within these regions, Maryland, Virginia, North Carolina and Florida conduct the most intense marketing and promotion programs.

In these regions, there is considerable economic growth and development, particularly as the nation's industry and population migrate into the area. As a result, these states provide the seafood industry with marketing and promotion assistance to increase demand for seafood. In 1975, Florida appropriated \$369,000, Maryland appropriated \$238,000, North Carolina provided \$167,000, and Virginia expended in excess of \$40,000 on seafood marketing and promotion.

The seafood industry is an important sector of each state's economy or is significant to the coastal region of the state. For example, in Maryland, the seafood industry is estimated to employ 25,000 people and contribute roughly \$125,000 to the Maryland economy. According to Virginia officials, "Commercial fishing and recreation industries contribute over \$250 million to the economy each year and provide over 100,000 jobs." In North Carolina, commercial and recreational fishing are significant factors in a multi million dollar coastal industry. In Florida, processed seafood in 1975 was valued at \$156,000,000.

The four states in the two regions provide similar seafood promotional and marketing assistance. Some of these activities include market development in selected target areas, educational projects, trade shows and seafood demonstrations, development of recipes and the publication of seafood cookbooks and recipe brochures, assistance to retailers, development of trade associations and task forces, and research.

In North Carolina, seafood marketing is the responsibility of the Division of Economic Development of the Department of Natural and Economic Resources. Six professional marketing specialists are situated in Raleigh and 3 district officers along the coast. In 1975, the program was funded exclusively with state funds.

The Virginia seafood marketing program is the responsibility of the Virginia Marine Resources Commission. In addition, the Virginia Polytechnic Institute and State University provides marketing and promotion assistance. The Marine Resources Commission (MRC) often contracts funds to the Virginia Seafood Council, a trade association of fishermen and processors to conduct marketing and promotional activities. In addition, the MRC contracts

with an advertising agency for promotion of Virginia seafood. The Virginia Polytechnic Institute and State University seafood technology program utilizes extension specialists for seafood product development, packaging, sanitation, and marketing. In addition, a seafood processing laboratory has been developed for testing, etc..

In Florida, the Bureau of Marketing Aid Extension of the Department of Natural Resources is responsible for seafood promotion and marketing assistance. The Bureau is staffed by 20 persons, including eight home economists, one marketing specialist, and one merchandising specialist. In 1975, roughly 16 percent of the seafood program funds of the Bureau was derived from wholesale dealers' license fees and 26 percent of the funds was federal monies.

Unlike the seafood industry in many of the other states in the two regions, the seafood industry of Maryland experienced serious economic problems in the late 1960's and early 1970's. Employment in processing and wholesaling plants fell 15 percent between 1966 and 1972, and commercial landings of fish and shellfish fell 17 percent between 1970 and 1973. Hurricane Agnes seriously hurt clam beds in 1972 which has caused a decline in the clam harvest.

Approximately 80 percent of the total value of Maryland seafood production is derived from oysters, crabs, and clams. Menhaden, an industrial fish, produces most of the remaining value.

Although Maryland is located near the southeastern region of the nation which is experiencing considerable economic and population growth, the state's seafood industry may not be able to take advantage of the opportunities that this growth affords. According to an evaluation of the seafood industry by the state's Department of Economic and Community Development, the seafood industry is antiquated as described below:

Due to the small size of most operations, the fact that the entrepreneurs are individuals instead of corporations, the seasonal nature of the business and the sentimental attachment to the water, seafood [production and harvesting] is more a way of life than the average business. Thus the capitalization structure and general lack of resources all tend to lead to the absence of sales forces or the failure to allocate part of the profit to promotion. Generally the harvester is a fiercely independent individual, and the packer and processor are former harvesters who have come ashore. All of these factors tend to perpetuate an antiquated set of business practices which are often poorly adapted to modern conditions.

Although an antiquated business structure and an out-dated set of business practices adversely affect the industry, acute labor shortages, transportation problems, environmental issues, the image of certain types of seafood, technical problems, and institutional problems also confront the seafood industry. Processors of seafood, particularly crabs, lack an adequate labor supply. In addition, processors must truck their product from their own plants which are often located in "out-of-the-way" places to central pick up points. Often times the output is less than a full load and incurs high common carrier rates. In addition, some carriers refuse to transport seafood because of the smell, etc.. Other problems facing the industry concern environmental laws governing activities in Chesapeake Bay, the image of oysters as purely gourmet foods, the need for increased mechanization and for seafood farms, and regulations governing the harvesting, packing, and handling of seafood also affect the seafood industry.

Considering the problems that affect the seafood industry, a seafood marketing and promotions agency is faced with a very difficult task. According to the evaluation report of the state's Department of Economic and Community Development, the marketing and promotional activities of the State are successful and effective. According to the report, the new markets delineated by the agency offer significant potential. In addition, the activities of the Seafood Marketing Authority prevented a substantial decline in the sales of Maryland [seafood] products.

Unlike Maryland, the Virginia seafood industry is a relatively healthy industry. Virginia ranks third in the nation with respect to volume of seafood landings and in the leading 10 states with respect to value of seafood landings. In addition, the value of seafood landings increased 85 percent between 1970 and 1976. Between 1966 and 1972, average annual employment in seafood processing and wholesaling plants increased 27%.

Shellfish comprise the largest percentage of total value of seafood landings in Virginia. In 1976, shellfish accounted for 58 percent and finfish comprised 42 percent of the total value of landings. Clams, oysters and crabs produced 46.5 percent of the value while menhaden comprised 25.6 percent of the value.

The Virginia fishing fleet consists of large old vessels and smaller modern vessels. The older vessels tend to be of World War II vintage and are used for offshore fishing. The smaller vessels tend to be less than 15 years old and are used primarily for in-bay oystering, blue crabbing, and gill netting. Many of the larger vessels, particularly vessels used to catch menhaden, are owned by processors. The draggers used in off-shore fishing which are 20-40 years old are gradually being replaced by newer steel hulled 90 to 120 foot draggers.

While the Virginia fleet is gradually modernizing, there may be fewer individual commercial fishermen operating within the fleet in the long run. According to the Virginia Marine Resources Commission, few people are entering the harvesting sector

of the fishing industry. In the past, sons followed their fathers into fishing, but increasing industrialization in rural areas has significantly stopped this trend. In addition, "few outsiders are entering the business."

The unattractiveness of the fishing industry, particularly oystering and crabbing, to young people is difficult to explain. The cost of entry is relatively low and annual incomes average \$15,000 to \$40,000.

Although in-bay fishermen are organized in a union, the union is not as successful as it could be. The members are very independent and management has often been poor.

There is no real competition between fish buyers for the catch. According to the Commission,

Most fishermen deal continually with the same dealer, trip after trip. A great deal of that may be due to the generally identical prices offered by the dealers and you can draw your own conclusions on that, the dealers being better organized than the fishermen.

An additional leverage that dealers and processors possess with respect to fishermen is control of wharves and unloading facilities. "Small fish buyers/shippers....generally have their own wharves and unloading facilities....Again, each buyer/processors(of offshore catch) has his own wharf and facilities."

One of the major undertakings of the Marine Resources Commission pertains to a feasibility study of seafood industrial parks. "Under this concept, the industry would be consolidated into several parks, each featuring common unloading, sewerage treatment, ice, and warehouse/cold storage facilities. Preliminary plans are underway to construct a 35 to 45 acre park capable of handling vessels up to 300 feet long and drawing 18 feet of water."

Another project of the Virginia Marine Resources Commission is the development of new markets for Virginia seafood. One of the target areas is the midwest. A \$100,000 grant from the Department of Commerce has helped fund the project.

The Virginia Marine Resources Commission therefore is pursuing a policy that is aimed to make the industry more efficient via seafood industrial parks and the development of new markets for Virginia seafood.

By encouraging greater efficiency of operation, the State will better ensure a supply of seafood in the future. By developing new markets, the state will provide outlets for increased production.

The North Carolina fishing industry, similar to the Virginia fishing industry, is experiencing steady growth. According to the Executive Director of the North Carolina Fisheries Association, the steady growth in the State's fisheries is evident by the number of young men engaged in fishing, the large number of modern vessels composing the fishing fleet, the development of new markets, and the willingness of the industry to adopt new methods.

Growth of North Carolina's fishing industry is due, in part, to increased demand for the species of seafood that are available to North Carolina fishermen. Shrimp, blue crab, oysters, trout, bass, and menhaden (for industrial purposes) are not difficult to market. A large proportion of landed fin fish is shipped to Fulton's Fish Market in New York City. In addition, there do not appear to be any serious supply restraints. Parts of the North Carolina seacoast experience rough waters that limit access to coastal inlets and other seafood habitats. By promoting the construction of breakwaters, the fishing industry envisions gaining access to these "lightly" fished areas.

The North Carolina fishing industry is composed primarily of two groups, processors and fishermen. There are only two dealers in the industry which act exclusively as brokers. North Carolina fish processors are well organized in a trade association which also includes a good number of fishermen.

Fishermen, on the other hand, are located in roughly 200 ports along the coast which makes organization of fishermen very difficult. The average number of fishermen in each port is six. There are only 2 ports which harbor 35 or more fishermen.

North Carolina had a seafood marketing and promotion program, funded exclusively with state funds. The state attempted to develop foreign markets for North Carolina seafood, particularly underutilized species for markets in Japan and Europe. As a result of personnel problems and other problems, the marketing and promotion program has been terminated.

In lieu of a state seafood marketing program, the State depends upon a non-profit corporation, the Gulf and South Atlantic Fisheries Development Foundation, composed of coastal states from Virginia to Texas, to conduct seafood marketing and promotion. The foundation's marketing and promotion activities are funded almost exclusively with federal funds.

The Gulf and South Atlantic Fisheries Development Foundation has been active in developing midwestern markets for Gulf and South Atlantic seafood. The Foundation has been active in Chicago, St. Louis, Cleveland, and many midwestern cities, particularly with respect to establishing markets for underutilized species. By means of television advertising, in-store demonstrations, working with food editors, etc., the regional organization hopes to establish new markets for the seafood products of its membership.

The Executive Director of the North Carolina Fisheries Association (NCFA) is not optimistic about the regional foundation's midwest marketing project. According to the NCFA, the midwestern population is a traditional meat consuming population. In order to attract or change the eating habits of this population to seafood, it is necessary among many other activities; to establish seafood prices that are comparable to or lower than meat prices. In addition, it is necessary to introduce to midwestern markets, new species of seafood with an adequate supply to meet demand on a full-time basis.

At the present time, the most popular seafood species, namely shellfish, are retailing in excess of \$3.00 per pound which limits the midwestern seafood market to upper income groups. Efforts to attract the midwest population to finfish have failed in the past for many reasons. One of the most significant reasons is the cost and the inability to supply on a full-time basis such species as haddock, halibut, and cod. Species which exist in sufficient quantity to meet current and potential finfish demand at reasonable prices are considered trash fish among midwesterners.

The North Carolina seafood marketing program, therefore, no longer exists. A private, non-profit regional organization, operating with federal funds, promotes and markets seafood of the Gulf and South Atlantic states.

The Florida Department of Natural Resources appropriates the most monies of any state for seafood marketing and promotion. Seafood from the Atlantic and Gulf of Mexico are landed in Florida and marketed throughout the South Atlantic and Gulf regions.

The Florida seafood marketing and promotion program is implemented by 8 professional home economics extension agents. The extension agents work with retailers in and out-of state, develop and test recipes, conduct seafood demonstrations and trade shows, work with food editors, and promote the consumption of seafood through television programs and commercials. The Florida Department of Natural Resources has also developed special recipe brochures for overweight people, heart patients, and people with low sodium or other special diets. The Department has also developed information with respect to seasonal availability, seasonal species usage, abundant supplies, and recipes which have been sent to 470 agricultural extension home economics agents in Florida, Georgia, Alabama, and South Carolina.

The Department of Natural Resources also plans to conduct four seasonal campaigns (Fall, Holiday, Lent, Summer) with emphasis on seasonal species availability and underutilized species. Approximately \$9,000 is allocated for each program. The campaigns will be conducted in Florida, South Georgia, and Southeast Alabama.

Florida will also contract with the Gulf and South Atlantic Fisheries Development Foundation, Inc., to promote underutilized species in the Midwestern United States. The Foundation will promote these species in 22 major market cities. In addition, a Merchandising Specialist, funded by the State of Florida, will be based in Little Rock, Arkansas to help spearhead the program in 8 midwestern states.

## Gulf States.

The Gulf States, with the exception of Texas, do not financially support seafood marketing programs. The seafood industry in these states, for the most part, is healthy, and marketing is not a problem.

Seafood landings in Alabama, Mississippi, and Louisiana consist primarily of finfish, but shellfish accounts for a comparatively greater value than finfish. In 1974, 92.2 percent of the volume of the total catch in these states consisted of finfish. Finfish, however, comprised only 49.8 percent of the total value of the catch. While finfish comprises the largest part of the total catch in the Gulf states region, it constitutes a much larger share of the Mississippi and Louisiana fish landings than the Alabama landing.

The Alabama seafood industry serves as an example of the Gulf region's seafood industry. Between 1966 and 1970, the Alabama catch rose 45 percent and total value increased 50 percent. Between 1970 and 1974, the Alabama catch increased only 15 percent, but the value rose 62.5 percent.

The shrimp industry is by far the most important seafood specie to the industry. Shrimp comprises 41 percent of the Alabama catch and 85 percent of the value of the catch. Finfish, however has substantially increased in volume. Between 1970 and 1974, the finfish catch rose 100 percent.

While the Alabama fish catch has increased, processed seafood has increased in value at a more rapid rate. Between 1964 and 1971, the value of processed seafood rose 200 percent, and employment in seafood processing rose 100 percent.

The Alabama fishing fleet, according to the Alabama Department of Conservation and Natural Resources, is one of the most modern fishing fleets in the nation. Not only has the fleet experienced substantial capital investment, it also experienced a 30 percent increase in the number of fishermen between 1964 and 1971.

The greatest impact of the Alabama seafood industry is on the State's two coastal counties, Mobile and Baldwin Counties. Most of the seafood is landed at Bayou La Batre in Mobile County which ranked as the 10th port in the nation with respect to value of seafood landed in 1974.

## Pacific Coast states

Unlike the seafood industry in most other regions of the nation, the most significant sector of the seafood industry in the Pacific Coast states is the finfish industry. Finfish comprises between 75 and 95 percent of the total volume and between 80 and 99 percent of the total value of seafood landed in these states.

One of the characteristics of the seafood industry in the Pacific Coast states is the dominance of one or two species of fish. In Oregon, for example, salmon comprises 50 percent of the total value of seafood, and tuna and shrimp constitute 28 percent of the total value. In California, tuna is the major specie with respect to value.

For the most part, the seafood industry in these states is conducted by a relatively small group of people and firms. While there are roughly 28,000 fishermen and 20,000 fishing vessels and boats engaged in fishing, these figures reflect sport fishing and holders of dual licenses (fishing licenses issued by more than one state). The number of processors, wholesalers, and brokers is much smaller than one or two wholesalers or processors for markets for their catch.

In California, for example, the fresh fish trade is tied to specific port areas, and fishermen are confronted with a very limited market. In addition, wholesalers and processors often times maintain small fishing fleets which places the independent fisherman at a disadvantage in some cases.

The seafood industry tends to be much less significant compared to other industries with respect to total value of output of the Pacific coast states. Processed seafood in these states ranges between 4 and 9 percent of the total value of processed food produced in each state. Shoe apparel, furniture, lumber, etc., greatly exceed seafood processing in value of output, employment, and wages paid. Nevertheless, the seafood industry is a major industry in the geographical areas where they are located. In addition, the multiplier effect of the seafood industry is very high.

In Oregon, for example, 3 counties account for 66.7 percent of the total value of seafood landed and processed in the state. The multiplier effect of the seafood industry in the three counties ranges between 2.7 and 3.0.

In the Pacific Coast states, the fishing fleet and the supply of the resource are the most critical sectors which require attention. In California, the fishing fleet consists of older fishermen with old boats. Profits for fishermen are described by the State's department to be low. As a result, younger men are not attracted to the fishing sector.

While the fishing fleet is experiencing manpower problems, there are significant resource problems. A number of important species have begun to decline rapidly. Several shortages have caused a great drop in the number of primary wholesaling firms.

On the other hand, the processing sector has grown rapidly, and profits are described as excellent. Most of the large processors are tuna processors which handle a number of different species. In addition, processors are vertically integrating, and have established their own fleets as well as retail outlets.

The Oregon fishing fleet is characterized by a relatively young and transient labor force. The average age of the fisherman is 41 years. Roughly 45 percent of the commercial fishermen have fished for 5 years or less. The turnover rate is approximately 12.5 percent per year for fishermen and 32 percent for vessel owners. Of the total number of fishermen, 54 percent derive only part of their income from fishing. Fluctuating supplies of seafood, daily changes in fish prices, the lack of markets for groundfish, etc., have been responsible for the turnover rate among fishermen.

The fishing fleet consists of many competing groups of fishermen. According to the Agricultural Extension Service at the University of Oregon, there is "much cooperation within certain groups of fishermen and within certain geographical areas, but much fighting [exists] among these [groups]."

While the fishing fleet is characterized by fractionalism and a rapid turnover rate, the processing sector is a small unified group. Comprised of 15 firms with 62 plants in Oregon, seafood processors negotiate prices with fishermen's associations and individual fishermen. Competition among fish wholesalers and processors for salmon is keen, but much more limited with respect to crab, shrimp, and tuna.

In order to assure a stable supply at reasonable prices, several large processors in Oregon and Washington have established "salmon-ranching hatcheries." Not only will the hatcheries provide a more reliable and less costly resource within close proximity to the processor, it will reduce the length of time from 16 months to 6 months for salmon to mature to processing size.

The Pacific Coast states do very little with respect to seafood marketing assistance and seafood promotion. The State of Washington will assist a seafood firm or any other type of firm to find markets overseas, but the assistance is not designed specifically for the seafood industry.

Marketing assistance, according to officials in these states is not the most critical problem of the seafood industry. In addition, assistance to other economic sectors has greater priority than the seafood industry.

TABLE I  
AN OVERVIEW OF THE SEAFOOD INDUSTRY IN THE NATION

STATE AND REGION	TOTAL VOLUME OF SEAFOOD IN 000'S OF LB	TOTAL VALUE SEAFOOD AT DOCKSIDE IN 000'S OF \$	TOTAL PROCESSED VALUE SEAFOOD IN 000'S OF \$	% BY VOLUME AND VALUE - SHELLFISH	% BY VOLUME AND VALUE - FINFISH	# OF FISHERMEN	# OF FISHING VESSELS	PREDOMINANT SPECIES BY VOLUME
NEW ENGLAND								
MAINE	148,000	\$41,000	\$88,067	Volume 26% Value 85%	Volume 74% Value 15%	455 F.T. on Vessels 5,666 F.T. on Boats 11,587 P.T. on Boats	176 Motor Vessels 8,083 Motor Boats	Lobsters Shrimp Sea Herring Perch Menhaden Cod
NEW HAMPSHIRE	3,000	\$1,077	\$17,712	Volume 33.4% Value 25%	Volume 66.6% Value 75%	93 F.T. on Boats 443 P.T. on Boats Total=536	311 Motor Boats	Lobsters Pollock Cod
MASSACHUSETTS	270,000	\$62,000	\$247,931	Volume 9.3% Value 35.5%	Volume 90.7% Value 64.5%	2,162 F.T. on Vessels 1,508 P.T. on Boats 4,355 P.T. on Boats	425 Motor Vessels 3,945 Motor Boats	Flounder Cod Menhaden Pollock Sea Herring Lobsters, Scallops
CONNECTICUT	5,000	\$3,000	See R.I.	Volume 40% Value 70%	Volume 60% Value 30%	76 F.T. on Vessels 157 F.T. on Boats 741 P.T. on Boats	32 Motor Vessels 621 Motor Boats	Menhaden Shad Lobsters Oysters
RHODE ISLAND	97,000	\$17,000	\$5,795 (R.I.&CONN.)	Volume 5.2% Value 47%	Volume 94.8% Value 53%	793 F.T. on Vessels 484 P.T. on Boats 1,293 P.T. on Boats		Flounder Menhaden Whiting Cod Lobsters Clams
MIDDLE ATLANTIC								
NEW YORK	34,791	\$25,227	\$77,279	Volume 47% Value 84%	Volume 53% Value 16%	410 F.T. on Vessels 2,669 F.T. on Boats 8,995 P.T. on Boats	160 Motor Vessels 9,201 Motor Boats	Clams Flounder Porgy Whiting



TABLE I  
AN OVERVIEW OF THE SEAFOOD INDUSTRY IN THE NATION

STATE AND REGION	TOTAL VOLUME OF SEAFOOD IN 000'S OF LBS	TOTAL VALUE SEAFOOD AT DOCKSIDE IN 000'S OF \$	TOTAL PROCESSED VALUE SEAFOOD IN 000'S OF \$	% BY VOLUME AND VALUE - SHELLFISH	% BY VOLUME AND VALUE - FINFISH	# OF FISHERMEN	# OF FISHING VESSELS	PREDOMINANT SPECIES BY VOLUME
DELAWARE	1974 9,214	\$1,728	\$81,531 (Del. & Pa.)	Volume 91.3% 90% Value	Volume 8.7% 10% Value	65 F.T. on Vessels 63 F.T. on Boats Total=548	20 Motor Vessels 246 Motor Boats	Clams Crabs Menhaden Flounder
CHESAPEAKE BAY	1974			Volume 80%	Volume 20%			
MARYLAND	66,859	\$22,379	\$125,000	92% Value	8% Value	1,553 F.T. on Vessels 3,101 F.T. on Boats 10,808 P.T. on Boats	993 Motor Vessels 11,120 Motor Boats	Crabs Oysters Clams Menhaden Bass
VIRGINIA	1976 520,000	\$43,000	\$66,694	Volume 20.8% 58% Value	Volume 79.2% 42% Value	2,266 F.T. on Vessels 2,382 F.T. on Boats 2,931 P.T. on Boats	894 Motor Vessels 4,213 Motor Boats	Oysters-1% of catch 20% of value Menhaden-84% of catch 28% of value Crabs
SOUTH ATLANTIC	1974			Volume 11%	Volume 89%			
NORTH CAROLINA	206,691	\$17,484	\$23,045	41.2% Value	58.8% Value	1,499 F.T. on Vessels 1,108 F.T. on Boats 1,948 P.T. on Boats	547 Motor Vessels 2,644 Motor Boats	Shrimp Trout Blue crabs Menhaden Clams Oysters Bass Crooker
SOUTH CAROLINA	1974 19,000	\$7,118	\$13,426	Volume 82% 95% Value	Volume 18% 5% Value	1,020 F.T. on Vessels 191 F.T. on Boats 414 P.T. on Boats	451 Motor Vessels 525 Motor Boats	Shrimp-44.5% volume Blue crab Oysters Catfish Menhaden Mullet
GEORGIA	1973 17.1	\$10,623	\$34,457	Volume 95% 98% Value	Volume 5% 2% Value	4,835 Commercial Fishing Licenses	1,539	Shrimp-82% of total value of all seafood Blue crab-9% - total value



TABLE I  
AN OVERVIEW OF THE SEAFOOD INDUSTRY IN THE NATION

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STATE AND REGION	TOTAL VOLUME OF SEAFOOD IN 000'S OF LBS	TOTAL VALUE OF SEAFOOD AT DOCKSIDE IN 000'S OF \$	TOTAL PROCESSED VALUE OF SEAFOOD IN 000'S OF \$	% BY VOLUME AND VALUE - SHELLFISH	% BY VOLUME AND VALUE - FINFISH	# OF FISHERMEN	# OF FISHING VESSELS	PREDOMINANT SPECIES BY VOLUME
FLORIDA	162,700	\$73,700	\$135,200	Volume 38.8% Value 60%	Volume 61.2% Value 40%	5,295 F.T. on Vessels 3,357 F.T. on Boats 2,029 P.T. on Boats	1,901 Motor Vessels 4,041 Motor Boats	Shrimp Clams Mullet Menhaden Sp. Mackerel Groupers
GULF								
ALABAMA	33,944	\$16,900	\$120,000	Volume 48.3% Value 85%	Volume 51.7% Value 15%	1,958		Shrimp-41.2% of volume Croaker Seatrout Mullet Flounder Red Snapper
MISSISSIPPI	300,977	\$15,734	\$63,075	Volume 2.6% Value 20%	Volume 97.4% Value 80%	1,201 F.T. on Vessels 328 F.T. on Boats 390 P.T. on Boats	319 Motor Vessels 799 Motor Boats	
LOUISIANA	1,223,444	\$85,841	\$156,526	Volume 8% Value 49%	Volume 92% Value 51%	5,704 F.T. on Vessels 624 F.T. on Boats 259 P.T. on Boats	1,724 Motor Vessels 4,849 Motor Boats	Shrimp Crabs Oysters Menhaden
PACIFIC COAST								
CALIFORNIA	938,100	\$223,992	\$530,001	Volume 5% Value 1.1%	Volume 95% Value 98.9%	14,555	6,932	Tuna-28% No. Anchovy Squid Mackerel Rockfish Sole
OREGON	93,360	\$37,207	\$86,251	Volume 25% Value 21%	Volume 75% Value 79%	2,933 F.T. on Vessels 1,722 F.T. on Boats		Tuna Salmon Flounder



## AN OVERVIEW OF THE SEAFOOD INDUSTRY IN THE NATION

STATE AND REGION	TOTAL VOLUME OF SEAFOOD IN 000'S OF LBS	TOTAL VALUE OF SEAFOOD AT DOCKSIDE IN 000'S OF \$	TOTAL PROCESSED VALUE OF SEAFOOD IN 000'S OF \$	% BY VOLUME AND VALUE - SHELLFISH	% BY VOLUME AND VALUE - FINFISH	# OF FISHERMEN	# OF FISHING VESSELS	PREDOMONANT SPECIES BY SPECIES
WASHINGTON	1975 149,600 of which 45,180 -salmon	\$62,685	\$153,036	Volume 18%  21% Value	Volume 82%  79% Value	7,800 # of licenses	9,740	Salmon Cod Sole Rockfish Oysters