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A STUDY OF THE
MARKETING ACTIVITIES
OF THE DEPARTMENT OF
MARINE RESOURCES

FINAL REPORT
OF THE
JOINT STANDING
COMMITTEE ON MARINE
RESOURCES

January 25, 1979

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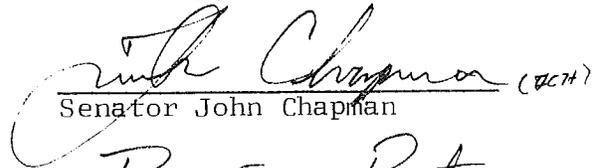
January 25, 1979

Senator Richard Pierce
Chairman
Legislative Council
State House
Augusta, Maine 04333

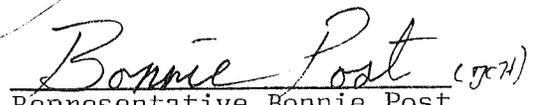
Dear Senator Pierce:

In accordance with H.P. 1806, an Order directing the Committee on Marine Resources to study marketing of Maine seafood, we enclose the final report of the Committee.

Sincerely,



Senator John Chapman (JC77)



Representative Bonnie Post (JP77)

JC:BP:JH/lk

INTRODUCTION

Under Study Order H.P. 1806, the Joint Standing Committee on Marine Resources of the 108th Legislature undertook an extensive study of the marketing activities of the Department of Marine Resources. This study was undertaken in conjunction with the Program Review in Education and Social Services Project of the Eagleton Institute of Politics at Rutgers University.

The Study Order established an ambitious scope for the study and the initial plans of the Committee were to review the entire marketing structure of Maine's commercial fisheries, as well as to review the operations of the Department of Marine Resources Marketing Division. While a large amount of information was gathered on Maine's commercial fisheries and the marketing and distribution system, it soon became obvious that this task was both too large and inappropriate for the Committee's study. Further, two large studies under the direction of the Department, on the subject were undertaken at the same time: Towards A Fisheries Development Strategy for Maine, and National Investigation of Market Opportunities for Maine Seafood.

Thus, the Committee instead concentrated on the Department's activities in marketing.

The Committee used several different approaches to gain an insight into the Department activities and their effectiveness. Naturally, the Committee reviewed the activities with the Department. The Committee also conducted interviews of and sent out questionnaires to industry members so that their opinions and recommendations could be ascertained. To gain some perspective on what could be done by state government, the Committee also reviewed fisheries marketing activities in other states and other marketing programs in Maine. When the

Committee encountered difficulties in securing detailed information on the Department's activities, it requested and received a program evaluation of them by the Legislative Finance Office.

From these various sources, the Committee gained a thorough understanding of the Department's marketing activities, and the areas of marketing that might prove the most appropriate for state "investment." Unfortunately, the Committee also reached the conclusion that the present marketing activities are entirely unsatisfactory.

MARKETING ACTIVITIES

Commercial fisheries in Maine are a 130 million dollar business, representing 2.1% of the state's gross production. The Department is planning to spend \$145,600 on marketing activities during FY 1978, which is not an unusual amount compared to other state marketing activities. It also is not a significantly disproportionate figure in relation to other states' expenditures on marketing of seafood. However, the Committee's research and that of others indicates that these expenditures are not producing an adequate return in market improvements or increased production or sale of seafood.

As indicated in the report of the Legislative Finance Office, there are difficulties in establishing objective standards for judging the need for public marketing assistance. Nonetheless, the Committee firmly believes that the state should fund public marketing assistance for fisheries. This is particularly important because of the present state of Maine's fisheries and its great potential for significantly adding to the state economy if it is fully developed. In addition, because of the fragmented and small scale nature of the industry, the state is the only effective agent for providing many marketing assistance programs to the industry. As most of the funds expended for these programs are in fact received from the industry in

licensing fees (even through they are channeled through the General Fund), it seems appropriate to expend them to improve the industry's ability to sell its product. Thus, the Committee believes that state expenditures for assistance to the marketing and promotion of Maine seafoods is a sound investment.

However, the Committee is not so sanguine about the present activities of the Department. Though it is difficult to establish objective criteria for judging the effectiveness of these activities, it is still possible to identify when programs are ineffective or inappropriate. In reviewing the Department's marketing activities, the Committee found certain critical indications of basic problems in the program.

In discussing and reviewing the programs for marketing, it became clear that the Department's policy for marketing is vague and poorly developed. The Department has no specific long-range or short-range goals or objectives incorporated into a comprehensive marketing policy or plan. Such a basic marketing policy is essential to provide the guidance necessary to establish a priority of programs and expenditures. Thus, over the last four years the Department has shifted programs almost annually. It dropped the entire in-store demonstration of prepared seafoods in 1975, despite strong objections from several persons. In 1980, it plans to reinstate that project. In 1977, the Department began a large project to assist in developing mid-west markets, which now seems to have diminished in importance after only a preliminary study. At the beginning of this study, the Department began a series of radio "spots" to promote seafood, at a cost of almost \$15,000. This project was developed and implemented in a matter of months, under the mistaken impression that the Committee thought it was important. It now seems to be diminishing in importance. Where there

has been a continuity in a program, it appears that the continuity is not based on a comprehensive marketing policy, but on other considerations. Thus, the Department's presence at summer festivals seems motivated more by a desire to promote the Department rather than as implementation of a policy to effectively promote seafood.

All of these instances clearly indicate that the Department is not developing marketing strategy or choices of projects in the context of a long-range policy on its role in marketing. The absence of this policy makes it extremely difficult to articulate the nature of activities that may prove helpful to the industry. Also, it is difficult to identify specific goals for these projects, other than vague generalities about improving markets or demand. The entire discussion and review of the Department's activities was continually plagued by the lack of an articulated policy or long-range plan for marketing activities.

Coupled with this lack of a basic marketing policy, is an absence of any evaluation of the programs. There seems to be no attempt to evaluate if the programs are meeting the needs of the industry, or even to discover the industry's perceptions of the activities. As is indicated by both the Committee's interviews and questionnaire and the Legislative Finance Office's questionnaire, the fishermen, wholesalers' and processors' perceptions of marketing activities, when they know about them, are not highly favorable. If unfavorable comment reflected disagreement with a deliberate policy choice by the Department to move in a certain direction on marketing activities, then it would not necessarily imply that the choice was wrong. The fragmented nature of the industry, and its numerous competing objectives, would probably make that disagreement inevitable. However, the absence of the policy and the widespread lack of enthusiasm indicate that the industry's

evaluation of marketing activities is based on a realistic assessment of the Department's activities. The Department could provide a basic assessment of its marketing activities by seeking industry opinions, even if no objective evaluative standards or goals were developed. This rough, and perhaps contradictory, assessment would at least give an indication of both program priority and effectiveness.

Even though the Department does not have a specific policy on marketing, and also has not fully evaluated its activities, the expenditures it has made do indicate a "de facto" marketing policy. The "de facto" policy seems confused, as the contradictory rankings of the marketing activities in the Legislative Finance Office report by the Division Director, staff effort and actual expenditures indicates. The Committee believes that the "de facto" plan, as measured by expenditures, is distorted, emphasizing promotion of fully-utilized species and not sufficiently emphasizing marketing assistance on an industry-wide basis. Though it should be the responsibility of the Department to develop a policy on marketing, the Committee believes that that policy should concentrate assistance on basic problems in marketing in Maine that apply to many segments of the industry. Of particular importance is a thorough understanding of the present transportation, processing and distribution system, and the critical points in that system that are creating problems. Experience in Maine and other states has clearly shown that unless there is available a stable amount of a quality, processed product, there is no point in stimulating demand or expanding markets. Even in the State, there seems to be a large unmet demand for seafood, which could support a significant increase in harvesting of many types of seafood, even some underutilized species. The present "de facto" marketing policy seems to be focused

on promotion of consumer demand for already fully-utilized species and possibly unnecessary development of new markets in other parts of the country. This seems inappropriate. The need for marketing activities should be focused on under-utilized species and for increasing the value added to seafood in Maine, the processing sector. Any policy on marketing developed by the Department should focus heavily on the weaknesses in the present marketing system, rather than increasing its strengths; and should seek to eliminate those weaknesses and improve the economic return from the limited resources available.

CONCLUSION

The findings of the Committee during its study, as presented here, make clear that the most pressing problem of the Department's marketing activities is the need for a clearly developed marketing policy, that provides specific goals and objectives. Without this policy, the Department can neither establish a priority for its programs nor effectively improve the marketing of Maine's seafood. The Department's present activities do not seem to be effective, and the "de facto" policy seems focused in the wrong direction or totally unfocused. Thus, the Committee recommends that a clear and specific marketing policy be immediately developed before any other marketing activities are undertaken. In the absence of that marketing policy, all expenditures, of both state and federal funds, for marketing should be discontinued, and all Department marketing activities should stop. In addition, the Department should examine its current marketing personnel and organization. The Committee recommends discontinuing all marketing expenditures and activities only to provide the time and impetus to develop a well thought out marketing policy. If that policy can be developed prior to the beginning of FY 80, then the Committee would support continuation

of funding. But without that policy, there is insufficient reason to continue the present programs.

Thus, the Committee's only recommendation is:

RECOMMENDATION:

That the Department's entire marketing program be discontinued in FY 1980 unless a marketing policy with clear and specific objectives and goals is developed immediately.

Appendices to report.

- I. Report of Legislative Finance Office (including DMR reply)
- II. Summary of other states' activities
- III. Summary of Committee interviews and questionnaires
- IV. Study Order

THE DEPARTMENT OF MARINE RESOURCES '

SEAFOOD MARKETING PROGRAM

- AN EVALUATION -

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SUMMARY

This report describes the Department of Marine Resources' (DMR) marketing program and provides information from several perspectives about the effectiveness of this program. The report is divided into three sections.

The Background section reviews the reason for the study, some of the pros and cons of public funding for marketing activities, and how the information presented in the study was gathered.

Part I discusses the setting - a fragmented industry, a variety of federal programs and funding sources, and the decision-making and budgetary process within DMR - in which the Marketing Division operates. Specific marketing activities are described in detail and expenditures by activity and source of funds are estimated for fiscal years 1977 and 1978. Two recommendations for improving planning and accountability within the Marketing Division are discussed.

Part II reviews some reasons why it's difficult to evaluate marketing programs. Some indirect measures are then used to estimate how effective DMR's activities have been. First, a special effort to promote mussels is described. Next, the activities which make up marketing programs for other products in Maine and for seafood in other states are compared with Maine's program. Finally, results of a survey of industry opinion about the usefulness of the current program is described. Four recommendations are made for improving marketing effectiveness. This section concludes by noting some of the difficult issues of evaluation and accountability which have been raised in the course of this study.

The study recommends:

- that the Marketing Division develop an informal annual work plan which would identify strengths and weaknesses in current activities and define longer-range marketing plans and priorities; (p. 19)
- that internal accounting and reporting procedures be reviewed to insure that they provide information which the Division director can use in developing a work plan; (p. 19)
- that the Marketing Division increase its efforts to inform dealers and processors about its activities; (p. 29)

- that the Marketing Division increase its efforts to discuss marketing priorities with the industry: (p. 30)
- that the Marketing Division evaluate the impact of both its consumer events exhibit schedule and its promotional program for volume buyers; (p. 33)
- that the Marketing Division consider: expanding the types of recipe leaflets it distributes; and testing the benefits of "educational" promotional efforts. (p. 33)

BACKGROUND

ORIGINS OF THIS STUDY

The Joint Standing Committee on Marine Resources, under the direction of the Legislative Council, has undertaken an extensive study of the marketing possibilities for Maine seafood. As part of its research, the Committee has been concerned with marketing activities carried on by the Department of Marine Resources (DMR). When the Committee began to study the marketing program in detail, it found that readily available accounting and other reporting data did not provide the meaningful information which it felt it needed.

Consequently, the Marine Resources Committee requested, through the Joint Standing Committee on Appropriations and Financial Affairs, that the Legislative Finance Office conduct a program evaluation of DMR's marketing program. Specifically, the Marine Resources Committee was concerned with the cost of various activities which DMR undertakes, and how effectively and efficiently these activities are carried out. This report summarizes the Legislative Finance Office's findings.

A cautionary note is necessary. In discussing the Committee's concerns with people in the industry and with those involved in researching the industry's problems, it is apparent that the term "marketing" means many things to many people. Many of the "marketing problems" which people note (i.e. government subsidies which keep the price of Canadian fish lower than Maine fish) are not areas which relate in any direct way to activities which have been undertaken by DMR's Marketing Division. This study describes and evaluates the Marketing Division in terms of the promotional programs and industry marketing assistance which DMR has undertaken or could reasonably be expected to undertake. Such activities are not likely by themselves to solve all the marketing problems which the industry faces.

WHY A PUBLIC MARKETING PROGRAM?

Public funding of marketing programs must be acceptable in principle before the usefulness of such activities can be questioned. Because the Legislature has funded DMR's program, and because the Committee did not raise this issue specifically, the question of whether it is appropriate to use public funds in this way is discussed only briefly below. As noted on page 22, however, the

state is also involved in marketing other important Maine products and there is public funding for seafood marketing in other states. A thoughtful review of the rationale for such programs would be especially useful now because state marketing programs for agricultural products will be reviewed next year under the Sunset Act.

Public Assistance to Agricultural and Related Industries.

States often provide financial and other assistance to important state industries. Such assistance can include, for example, special tax incentives, state-funded research, inspection and disease control programs and marketing assistance or product promotion. Such help has been an especially longstanding tradition in Maine (and other states) in the area of agricultural and related food products. This is probably because agriculture (and fishing) is characterized by many small producers and a relatively homogeneous product. In such a competitive environment, no individual producer can afford a research or marketing investment which others will then benefit from. Also, these industries are difficult to relocate (it's hard to produce Vermont maple syrup in Kansas) so that public investments can have long-term benefits. Finally, agricultural interests have been well organized politically for a long time.

In addition to programs financed directly from the General Fund, Maine has sometimes opted for indirect aid. In some instances, the Legislature has established taxes on production and directed that these tax revenues support activities, including marketing, which benefit the taxed industry.

The Pros and Cons. One can argue that public support of selected industries is desirable because:

- The industry is a major element in the state's total economy. Advances and declines in that industry will have widespread impact throughout the state;
- The industry is strongly associated with the state in the public's mind. A positive image of the product will reflect well on the state as a whole.

Arguments against such support stress that:

- Such assistance interferes with the functioning of the market and thus results in economic inefficiencies.

- Since there is no consistent aid to all the state's industries, such programs are inequitable. Some industries are being helped at the expense of others.
- There are substantial "free rider" problems. Apple growers in Vermont and Massachusetts fishermen, for example, will benefit almost as much from a new harvesting technique or a promotion program as the Maine industries.

Certain aspects of the above arguments can be measured - such as the place of a particular industry in Maine's total economy. It would be hard, however, to make a clear case for or against a particular program on the basis of numbers alone. The final decision for or against public involvement is more likely to reflect underlying judgments about the proper relationship between government and private industry.

METHODOLOGY

The information presented in this report reflects several different perspectives. First, in order to provide background against which to ask specific questions we reviewed many reports and talked with a number of individuals about problems facing the fishing industry in Maine. We were concerned about the relationship between these industry problems and DMR's marketing activities. Background research also sought to define a "yardstick" against which the DMR program could be measured. This involved gathering information on similar marketing efforts both for other Maine products and for seafood marketing programs in other states. We also searched (unsuccessfully) for meaningful evaluations of such programs.

Second, we collected information about the Marketing Division's work. This was done through extensive interviews with DMR personnel and a detailed examination of various financial records. Finally, as one measure of evaluating the Division's effectiveness, we surveyed 351 licensed wholesale seafood dealers regarding their marketing priorities and their assessment of the Division's work.

Much of the detailed back-up information which was collected is not included in this report. This information is available from the Legislative Finance Office.

PART I

DMR'S MARKETING PROGRAM

THE SETTING

DMR's Marketing Division does not operate in a vacuum. Both the special characteristics of Maine's seafood industry, and various federal agencies play a role in determining what kind of marketing activities are undertaken.

Maine's Seafood Industry. Very briefly, the fragmented nature of the industry means that with limited funds it is extremely difficult to develop a marketing program which satisfies all parties. For example, our survey of wholesale dealers indicates that of those who responded, almost half felt that some portion of any marketing program should be devoted to lobsters. DMR, on the other hand, feels that there is presently no need to promote lobsters.

These differences of opinion are reflected in the absence of strong industry organizations which could conduct their own marketing programs. Such groups could also provide valuable coordination between the industry and the state program. Though there is widespread agreement that such associations would be extremely useful, the industry itself must take the responsibility for their creation.

The prospects for such associations may be indicated by the fact that a third of the dealers responding to our questionnaire would not support the idea of an industry-run marketing program. Of the two-thirds who do support that idea, 41% felt that it should be financed by voluntary dues. (One-quarter favored financing through a mandatory landing tax, and 20% favored increased license fees.) Dependence on voluntary contributions is probably not a very substantial basis on which to form a strong industry organization.

Federal Programs. Though DMR is the only state agency concerned with seafood marketing, various federal agencies have interests in this area. Federal funds which might be used for marketing are distributed through the following programs:

NMFS. As the federal agency most directly concerned with commercial fisheries, the National Marine Fisheries Service conducts its own promotional and marketing assistance activities, as well as administering grants which can be used for marketing.

The Fisheries Development Division of NMFS coordinates a small marketing staff in each NMFS regional office. It has also

administered special national projects, the most recent being the \$1,000,000 Emergency Marketing Program in 1975-76. Under this program, the New England states formed the New England Fresh Fish Committee which received \$100,000 for a variety of promotional activities.

The National Fishery Education Center is also a part of NMFS. The Center prepares consumer education material and has developed a four season (Lent, Summer Season, October Seafood Month, and Winter Holidays) promotional campaign which is implemented nationally through periodic news releases to 700 newspapers.

Despite the marketing activities outlined above, NMFS is constrained by federal policy which prohibits "advertising". In addition, it appears that the current activity level reflects little commitment to marketing within the executive branch. Instead, special marketing efforts are generally a result of Congressional interest in marketing.

New England Fisheries Development Program. Funded and staffed by the Department of Commerce through NMFS, this is a regional program of research and development activities which are of special interest to the fishing industry. Projects are recommended by a Taskforce of the New England Fisheries Steering Committee which is an industry organization.

The Development Program's activities are limited to under-utilized species. The Taskforce has chosen to focus primarily on assessment, harvesting and processing projects, although it does spend a small part of its \$400,000 budget on marketing projects. ^① DMR has not received any marketing funds from this source.

Commercial Fisheries Research and Development Grant Program. (PL 88-309). Administered by the Department of Commerce through NMFS, grants are awarded to states for a variety of research and development projects including marketing. Distribution of the total appropriation is based on average value of raw fish landed and manufactured fishery products, but each state must submit project

① *The Development Program is New England's counterpart to the Gulf and South Atlantic Fisheries Development Foundation which has conducted extensive marketing programs in the midwest.*

proposals for specific projects. Altogether, Maine has received about \$160,000 annually, though this amount is expected to increase to \$210,500 for fiscal year 1980. Two restrictions on this money are (1) that not over 25% of the state's total 88-309 allocation may be used for marketing and (2) that it cannot be used to cover printing costs of brochures, recipe leaflets, etc.

About \$25,000 of Maine's annual 88-309 money is allocated for marketing activities. Marketing has been rather broadly defined by NMFS as "activities designed to reach the consumer to encourage consumption or use of fishery products." During FY 1977 and 1978 the grant has been used to finance 50% of: the salary of the Division's marketing specialist; film distribution costs; publishing costs for the Marketing Memorandum; the Harbridge House study; and miscellaneous other expenses.

Sea Grant. Administered by the Department of Commerce, the National Sea Grant Program is designed to encourage the development of major university centers for marine research, education, training, and advisory services. Though Sea Grant funds have been used for marketing (mussel promotion, for example) the primary focus of this program has been technical assistance in areas like gear development. Both the University of New Hampshire and the University of Maine receive Sea Grant monies which have benefited Maine's fisheries.

In 1974-1975 the Marketing Division received \$29,900 in Sea Grant funds from the University of New Hampshire as part of a major project to expand the mussel industry. DMR used these funds to provide free samples of mussel products at summer festivals, trade shows, and grocery stores.

New England Regional Commission. A mostly federally-funded body governed by the six New England states, NERCOM's function is to promote economic development in New England. Though not currently funding seafood marketing programs in Maine, DMR received \$50,000 from NERCOM in 1977 to promote underdeveloped species at summer festivals throughout the state.

THE MARKETING DIVISION

Before describing in detail the various activities undertaken by the Marketing Division, a brief description of the Division's operation may be helpful.

Statutory Authority. MRSA 12 §3502-A provides that DMR shall

serve "as the primary state agency for providing promotional and marketing assistance for the commercial fisheries."^② The Department feels its statutory mandate encourages the development of its marketing program.

Staffing. The Marketing Division is one of five administrative units within DMR. The Division has three full-time professional staff (the division director, a publicity representative, and a marketing specialist) and one clerk typist III. A clerk typist II was also assigned to the Division during fiscal year 1977.

The period 1977-79, on which this study is based, has been a time of considerable staff disruption for the Marketing Division. The marketing specialist position was vacant from November 1976 to August 1977 and the individuals in the other two professional positions have together had to take nearly two-thirds of a year in sick leave so far.

Decision-making. The Commissioner of Marine Resources is responsible for administering all DMR's programs including marketing. DMR's Advisory Council has the authority to advise the Commissioner on all administrative matters, but alternative marketing strategies and activities have not been discussed by the Advisory Council.

Proposals for marketing projects originate within the Marketing Division and are submitted to the Commissioner's Office for approval. This approval depends almost entirely on availability of funds - decisions about marketing strategy and the mix of marketing activities are made by the Marketing Division. Initiative for developing grant proposals for federal or other funds for marketing projects also rests with the Marketing Division.

The Commissioner, on the other hand, has had fairly wide discretion in distributing funds between the divisions within DMR. Money to support marketing activities, for example, can come from various federal grants described above, the General Fund appropriation, or gas tax revenues dedicated to DMR under 36 MRSA §2903-A.

State Funds for Marketing. The General Fund appropriation has not, in the past, been program specific. The three major DMR

② *Effective January 1, 1979, the relevant section will be 12 MRSA Section 6052 subparagraph 3 which provides that the Department may "Serve as the primary state agency providing promotional and marketing assistance to the commercial fishing industry, including assisting in marketing seafood, stimulating of consumer interest in and consumption of seafood, increasing the sales of seafood domestically and abroad, supporting and expanding existing markets and developing new markets for traditional and underutilized species."*

accounts have been:

- Administration which includes research, marketing, extension and overall administration;
- Enforcement Division (the Warden Service); and
- Federal-State Matching Fund which is a general purpose account to provide state matching funds for any projects for which federal grants have been received.

Marketing, therefore, has competed with the rest of the Department (with the exception of the Enforcement Division) for funds in the Administration and Federal-State matching accounts.

A similar situation exists with respect to dedicated revenue from the gasoline tax which is available to DMR for "the purpose of conducting research, development and propagation activitiesthat will be most beneficial to the commercial fisheries of the state." This fund, which provides about \$96,000 annually, is generally used for research projects, however.

In discussing DMR funding and decision-making, the Deputy Commissioner reported that marketing is a relatively important priority and that the Department is "not doing enough" in this area. If reductions in DMR's overall budget were to be necessary, he felt that other areas should be curtailed before marketing funds would be reduced.

MARKETING ACTIVITIES

Marketing Division programs in fiscal years 1977 through 1979 are summarized below. Species promoted and self-evaluation efforts in each program area are noted. Costs and staff time in each area are estimated in Tables 1 and 2. The Division has not prepared detailed staff time or cost estimates for fiscal year 1979.

The costs shown in Tables 1 and 2 are estimates of total DMR cost whether or not this cost appears in a Marketing Division account.^③ It should also be noted that 40% to 50% of all expenditures are for staff salaries. Staff time for each activity has been reconstructed based on a variety of information provided by DMR, but the costs shown are only as accurate as this reconstruction. Much more accurate cost estimates could be made if better records of staff time on various projects were maintained.

③ For example, the estimates include wardens' salaries for time spent staffing DMR's exhibits at fairs and festivals, even though these salaries are paid from the enforcement appropriation.

TABLE I

1977 ESTIMATED EXPENDITURES AND STAFF TIME BY MARKETING ACTIVITY

| Activity | % Staff Time | EXPENDITURES (Expenditure percentages shown in parenthesis) | | | | | |
|--|-----------------|---|---------------|------------------|--------------|-----------------------------|-----|
| | | General Fund | (%) | Federal Funds | (%) | Total Cost | (%) |
| PROMOTIONAL WORK GENERAL PUBLIC | | | | | | | |
| Fairs and festivals | 15% | \$ 16,800 | (19) | \$ 46,400 | (88) | \$ 63,200 (44) | |
| Media Campaigns | 7% | 13,000 | (14) | 1,800 | (3) | 14,800 (10) | |
| Prep. & dist. of brochures & misc. | <u>10%</u> | <u>8,300</u> | (<u>9</u>) | <u>400</u> | (<u>1</u>) | <u>8,700</u> (<u>6</u>) | |
| SUBTOTAL | 32% | 38,100 | (42) | 48,600 | (92) | 86,700 (60) | |
| PROMOTIONAL WORK TRADE SHOWS | | | | | | | |
| | 7% | 14,300 | (16) | 500 | (1) | 14,800 (10) | |
| INDUSTRY INFORMATION AND ASSISTANCE | | | | | | | |
| Market Leads | 3% | 2,200 | (2) | 300 | (1) | 2,500 (2) | |
| Market expansion in new geographic areas | 9% | 5,600 | (6) | 600 | (1) | 6,200 (4) | |
| Assistance to individ- ual firms, trouble- shooting & research and coordination | 13% | 6,800 | (7) | 900 | (2) | 7,700 (5) | |
| Active species marketing | 5% | 3,700 | (4) | 200 | | 3,900 (3) | |
| Industry development (non-marketing) | <u>4%</u> | <u>2,100</u> | (<u>2</u>) | <u>400</u> | (<u>1</u>) | <u>2,500</u> (<u>2</u>) | |
| SUBTOTAL | 34% | 20,400 | (22) | 2,400 | (5) | 22,800 (16) | |
| COORDINATION WITH OTHER GOVT AGENCIES | | | | | | | |
| | 6% | 3,800 | (4) | 300 | (1) | 4,100 (3) | |
| DEPARTMENT INFORMATION AND EDUCATION | | | | | | | |
| | <u>20%</u> | <u>14,200</u> | (<u>16</u>) | <u>900</u> | (<u>2</u>) | <u>15,100</u> (<u>11</u>) | |
| TOTAL | 99% | \$ 90,800 | (100) | \$ 52,700 | (100) | \$143,500 (100) | |

TABLE 2

1978 ESTIMATED EXPENDITURES AND STAFF TIME BY MARKETING ACTIVITY

| Activity | % Staff Time | EXPENDITURES (Expenditure percentages shown in parenthesis) | | | | | |
|--|-----------------|--|---------------|------------------|--------------|---------------|---------------|
| | | General Fund | (%) | Federal Funds | (%) | Total Cost | (%) |
| PROMOTIONAL WORK | | | | | | | |
| GENERAL PUBLIC | | | | | | | |
| Fairs and festivals | 11% | \$ 13,300 | (12) | \$ 1,400 | (4) | \$ 14,700 | (10) |
| Media Campaigns | 4% | 15,100 | (14) | 3,100 | (9) | 18,200 | (13) |
| Prep. & dist. of brochures & misc. | <u>6%</u> | <u>4,500</u> | (<u>4</u>) | <u>300</u> | (<u>1</u>) | <u>4,800</u> | (<u>3</u>) |
| SUBTOTAL | 21% | 32,900 | (30) | 4,800 | (13) | 37,700 | (26) |
| PROMOTIONAL WORK | | | | | | | |
| TRADE SHOWS | | | | | | | |
| | 6% | 6,300 | (6) | 900 | (3) | 7,200 | (5) |
| INDUSTRY INFORMATION AND ASSISTANCE | | | | | | | |
| Market Leads | 4% | 2,400 | (2) | 500 | (1) | 2,900 | (2) |
| Market expansion in new geographic areas | 12% | 29,800 | (27) | 23,600 | (66) | 53,400 | (37) |
| Assistance to indi- vidual firms, trouble- shooting & research and coordination | 16% | 9,100 | (8) | 2,300 | (6) | 11,400 | (8) |
| Active species marketing | 6% | 4,100 | (4) | 300 | (1) | 4,400 | (3) |
| Industry development (non-marketing) | <u>7%</u> | <u>3,900</u> | (<u>4</u>) | <u>1,500</u> | (<u>4</u>) | <u>5,400</u> | (<u>4</u>) |
| SUBTOTAL | 45% | 49,300 | (45) | 28,200 | (78) | 77,500 | (53) |
| COORDINATION WITH OTHER GOVT AGENCIES | | | | | | | |
| | 7% | 4,800 | (4) | 600 | (2) | 5,400 | (4) |
| DEPARTMENT INFORMATION AND EDUCATION | | | | | | | |
| | <u>21%</u> | <u>16,600</u> | (<u>15</u>) | <u>1,200</u> | (<u>3</u>) | <u>17,800</u> | (<u>12</u>) |
| TOTAL | 100% | \$ 109,900 | (100) | \$ 35,700 | (100) | \$ 145,600 | (100) |

The work of the Marketing Division overall can be divided into three major categories - promotion, industry assistance, and other departmental duties. Promotion activities are described first.

Seafood promotion at consumer events. In 1977, the Marketing Division staffed ten exhibits designed to promote seafood to the general public. These included the Jonesport July 4th Celebration, the Belfast Broiler Festival, the Potato Blossom Festival, the Yarmouth Clam Festival, Windjammer Days, the Bangor State Fair, the Rockland Seafood Festival, the Ellsworth Shopping Center, the Brunswick Naval Air Station Open House and the Eastern States Exposition in Springfield, Mass. In 1978 DMR participated in Windjammer Days, the Yarmouth Clam Festival, the Rockland Seafood Festival, the Eastern States Exposition and the Old Port Festival. These consumer events represent about 20% of all staff time and 45% of all marketing expenditures in 1977 and about 10% of staff and budgetary effort in 1978.

The larger event schedule in 1977 was financed with the \$50,000 NERCOM grant noted on page 8. In that year a rented van equipped with cooking facilities was staffed by temporary personnel who prepared and distributed more than 19,200 samples of mussels, dogfish, hake and pollock at summer fairs and festivals throughout the state. In FY 1978 (and at the Eastern States Exhibit in 1977) the Marketing Division generally used the Department's 20-foot portable exhibit which depicts a variety of fish and shellfish and displays seafood products manufactured in Maine. Marketing staff and coastal wardens were available to answer questions and distribute recipe leaflets. At the Old Port Festival in Portland the Division provided equipment and assisted the Fishermen's Wives Association in preparing and distributing "Portland Pollock Burgers."

In fiscal year 1979, the Department followed the 1978 summer event schedule, but added the Taste of Maine exhibit at the Maine Mall in November.

Media Promotion. In the last two years, the marketing program has funded both film distribution activities and a radio promotion campaign. The film distribution program, which is ongoing, provides three films to TV stations and to various community groups throughout the country. Some distribution statistics are shown in Table 3.

TABLE 3

SOME ESTIMATED FILM AUDIENCES

| FILM | FY 1977 | | FY 1978 | |
|-----------------------------|---------|--------|---------|--------|
| | TV | LIVE | TV | LIVE |
| Maine Harvesters of the Sea | 249,500 | 12,940 | 69,900 | 9,026 |
| Two Faces of the Sea | 829,600 | 44,678 | 554,200 | 59,155 |
| Fresh is Best | --- | --- | 204,162 | 4,391 |

All of these films were produced by DMR before fiscal year 1977. "Two Faces of the Sea" is a documentary about fishermen from Port Clyde. "Maine Harvesters of the Sea" is a more hard-sell film which features well-known Maine finfish and shellfish. "Fresh is Best", the newest film, was funded under the NMFS Emergency Marketing Project in 1976. Of the three, it is the most hard-sell - discussing how to buy and prepare a variety of seafoods. Included are well-known species like clams and lobsters, and other less familiar varieties like mussels, hake and pollock.

Distribution is done both through a contract with a national distribution center and through placement of prints with regional lending libraries. It requires a minimum of staff time, and contract costs (\$2800 in 1977 and \$4500 in 1978) are no more than 3% of total marketing expenditures. This activity is 50% federally funded.

The major item in the media promotional costs shown in Tables 1 and 2 (\$9000 in FY 1977 and \$9970 in FY 1978) was a radio advertising campaign in the summer of 1977. About 14,000 30-second radio ads were broadcast on 23 radio stations throughout the state over an eight week period. This ad campaign promoted "Maine seafood" in general. All of the state's wholesale and retail seafood dealers were notified in advance about the campaign with the suggestion that they "piggy-back" ads for their stores or restaurants onto DMR's ad.

After the campaign, the contractor surveyed the stations involved plus a sample of 50 dealers to get reactions. Six stations sold tie-in ads and two more already had heavy seafood advertising. Some coordination problems were reported. A number of stations were not aware that dealers had been encouraged to buy related ads. Others suggested that there had not been sufficient lead time for them to seek out tie-in ads.

Although all dealers had been notified about the campaign, 62% of those sampled reported that they were unfamiliar with the project. The dealers felt it was impossible to measure the effect of such a program, but about two-thirds of those who had an opinion thought there should be similar campaigns in the future. They also offered many suggestions which might be useful if similar projects are considered in the future.

Preparation and Distribution of Recipe Brochures. Preparation and distribution of recipe brochures accounts for only a small part (3% to 6%) of the total marketing budget. At present, this activity consists primarily of reprinting and mailing items which were developed several years ago. Appendix A lists currently available pamphlets.

These leaflets are distributed free at some consumer events and at trade shows. They are also provided to information centers and Chambers of Commerce in Maine, and supplied at cost (\$3.20 per hundred) to private firms in quantities of no more than 500. Firms which have recently ordered leaflets from DMR are also listed in Appendix A. Firms who want more than 500 copies can request them directly from the printer. In 1978 DMR distributed about 117,000 pamphlets altogether. An additional 71,000 items were ordered directly from the printer.

The only new leaflet prepared during this period was a mussel recipe brochure financed with Sea Grant funds as part of the mussel marketing project. Development costs for this leaflet were less than \$2000.

Seafood Promotion to Volume Buyers. Volume buyers purchase seafood for chain stores, retail outlets, restaurants, hospitals, schools, military, etc. Exhibits at restaurant and hotel trade shows were DMR's only promotional effort aimed at this market during the 1977-1979 period. Shows included the International Hotel-Restaurant Show in New York in 1977, where seafood samples (mostly mussels and dogfish) were served, and the New England Hotel-Restaurant Show in Boston in both fiscal year 1977 and 1978. In addition to these two shows, an exhibit at the New England Food Show in Hartford is also planned in fiscal year 1979.

The Department's traveling exhibit is used at these shows. Recipe pamphlets are distributed and the marketing staff uses contacts made at these shows to provide market leads for the marketing newsletter discussed below. There is normally a substantial increase in the number of leads after most shows.

The promotional activities discussed above represent 39% and 27% of total staff effort and 70% and 31% of total marketing expenditures in fiscal year 1977 and fiscal year 1978 respectively. Again, the larger expenditures in 1977 reflect the high cost of preparing product samples at consumer events and at a trade show.

The second major kind of Marketing Division activity relates to provision of industry information and assistance. As shown in Tables 1 and 2, these activities represent about 34% and 45% of staff time, and 16% and 53% of expenditures for the two years under review.

Market Leads. DMR's Marketing Memorandum represents a very small part of overall marketing expenditures, but it is one of the few quantifiable elements in the Division's industry assistance program.

This newsletter was mailed about nine times each year to about 200 individuals throughout the state. The newsletter contained general industry information and the names of buyers who contacted the marketing staff either at DMR or at trade shows to express interest in Maine seafood products.

The Memorandum listed 414 leads (82% domestic) in 1977, and 117 leads (63% domestic) in 1978. Lobster was the most sought-after species (13% and 18% of all leads). Over the two-year period, however, leads for 40 different species were listed and at least 5% of the leads in one or the other year were for the following varieties: clams, cod, dogfish, eels, lobster, mussels, scallops and squid.

Because individuals must ask to receive the newsletter each year, the mailing list itself represents some measure of effectiveness. Of the 196 names on the current mailing list 73 are licensed wholesale dealers or processors, and the additional 47 are what DMR describes as "bona fide industry members."

Development of Markets in New Geographic Areas. About 10% of staff time in both years was devoted to developing markets in new geographic areas. Most of this time was spent on an analysis of market potential in the mid and far west (the Harbridge House Study). The greater expenditure in fiscal year 1978 reflects contractual cost (\$40,000) for the preparation of this report.

As a follow-up to this study, the Marketing Division interviewed fourteen industry people to get their reactions. A summary of these interviews prepared by DMR notes that all but one of those interviewed "expressed overall favorable comments on the execution of the study and contents." Many industry people felt, however,

that the regional development concept was not practical at the present time. The summary notes that twelve of those interviewed commented on the "lack of existing processing capability to enable Maine to take advantage of any of the data in the study." The summary also noted that there were "many" comments about the need for DMR to develop and maintain an active promotion program in any area where Maine products are sold.

In the current fiscal year the Marketing Division has also worked to expand overseas markets for Maine products. In July DMR sponsored a seminar on various aspects of exporting in Rockland. Representatives from the U. S. Department of Commerce's export assistance program and from private firms which provide export-related services spoke to the twenty industry people who attended.

Other Industry Assistance. In response to our request for estimates of staff time in various areas, the Marketing Division reported that an average of 19% of total staff time was spent in assistance to individual firms, in general trouble shooting, and in research and coordination of marketing problems and efforts.

Promotion of Particular Species. The marketing staff reported that it spends about 5% of its time on marketing and promotion of specific species. This involved a number of different species (cusk, hake, mussels, pollock, whiting, etc.) rather than a concentrated campaign on any particular variety.

The marketing staff feels that a concentrated effort on one species is not very effective (at least in the short run) because there is no assurance that supply can keep up with whatever demand is developed. The mussel promotion was cited as an example in which the demand that was developed fell off because retailers could not secure a regular supply of mussels.

The marketing director expressed caution about taking this approach again without adequate stock assessment and some assurance of a steady supply. Hake, pollock, dogfish (in the short run) and perhaps whiting were cited as species for which data is now sufficient to make them potential targets of promotional campaigns in the future.

Non-marketing Development Assistance. The final industry assistance activity noted by marketing staff is non-marketing industry development work which accounted for about 5% of total staff time. An example would be work on the Portland fish pier concept.

About a quarter of the marketing staff's time and about 15% of the budget goes for activities which contribute to the overall operation of DMR. Since these activities are not necessarily related to marketing they are only summarized briefly.

Coordination with Other Government Agencies. Expenditures in this category reflect marketing staff time and associated costs of coordinating DMR's work with other state, federal and regional efforts to assist the fishing industry. The Division Director, for example, serves as chief liaison between DMR and the Army Corps of Engineers for rivers and harbors improvement projects.

Department Information and Education. The marketing staff, and particularly the Publicity Representative, is responsible for information, education and public relations for all of DMR. This includes maintaining photographic files which are available to the rest of the Department, the press and the industry; providing information about Department and industry activities; preparing and distributing departmental press releases; and attendance at some industry trade shows like Fish Expo.

PLANNING AND BUDGETING: Comments and Recommendations

The three General Fund accounts which have been appropriated to DMR in the past have not supplied the Department with much legislative direction about the relative importance of various departmental activities including marketing. As part of a departmental reorganization, however, DMR's budget request for the next biennium will be much more closely tied to its programs.

The request for the federal-state match appropriation will be eliminated. Instead, requests for each of four new bureaus (administration, marine development which includes marketing and industry services, marine sciences and marine patrol) will include whatever matching funds will be needed by that bureau. This revised format is a major improvement in program budgeting for DMR and will give the Legislature considerably more insight into DMR operations. It will also provide an opportunity for more legislative direction about the desirable level of marketing expenditures.

Comments and suggestions about the effectiveness of various aspects of the marketing program are found in Part II of this report. Comments about the planning and budgeting of marketing activities are appropriate here, however.

In discussing the marketing program with DMR staff and in reviewing departmental financial records, it was noted that:

1. the Division director did not maintain records of staff time or financial resources which could be used to measure the overall cost of various Division activities; and

2. there did not appear to be any regular evaluation of overall Division success in meeting specific measurable objectives.

Both these observations reflect a lack of project planning and budgeting at the Division level which is probably not uncommon in state government.

An annual statement of specific objectives and estimated expenditures for various marketing activities would improve public accountability with regard to the direction and focus of the marketing program. A comparison of actual achievements with the objectives for the previous year would also provide a useful indicator of how well the Division actually operates. To oversimplify somewhat -- it's hard to know when you've gotten there if you don't know where you're going.

RECOMMENDATION: The Marketing Division should develop an informal annual work plan which would identify strengths and weaknesses in current activities and define longer-range marketing plans and priorities.

Given the size of the Marketing Division, this work plan need not be extensive or require a great deal of time to develop. An annual review of progress in the past year and program objectives for the coming year would, however, identify Division priorities, clarify budget needs for specific activities, and facilitate coordination between these activities and related work within the rest of DMR and with various industry marketing efforts. It would also facilitate oversight of the marketing program.

To make such an annual review as easy and informative as possible, the marketing director needs certain administrative information which does not exist at present.

RECOMMENDATION: Internal accounting and reporting procedures should be reviewed to insure that they provide information which the Division director can use in developing a work plan.

Currently, Marketing Division expenditures are attributed to one of four General Fund categories and one category which is 50% federal (88-309) and 50% General Fund. These categories, called activity codes, are internal management tools which are defined by the Department to suit its own needs. The current breakdowns were not very useful in determining the costs shown in Tables 1 and 2.

Since the director doesn't use the current system, and since marketing program decisions are made within the Division, the current categories don't appear to be very useful. We suggest that the Business Office and the Division director review and revise the current system for coding expenses to make it more meaningful.

Activity codes are most useful in accounting for expenses other than personal services. To estimate salary costs for various activities, the director must know how much time each employee is devoting to each activity. Currently, each employee keeps a diary of daily activities. These records are generally hard to decipher and do not give a good picture of staff activity on a day-to-day basis. In addition, there is no way to cumulate staff effort over a period of time or across several employees.

The Division should consider replacing the current daily report with a check sheet which could provide better management information about staff workload. A carefully designed form would not require much more time to complete than the current report and could be much more useful.

PART II

EVALUATION OF MARKETING ACTIVITIES

A FRAMEWORK FOR EVALUATION

Three questions are helpful in assessing the appropriateness and usefulness of DMR's marketing program:

- Are marketing programs an acceptable use of public funds?
- Is it possible for industry-oriented (rather than producer) marketing to be effective?
- Is DMR's marketing program effective?

Ideally these questions should be answered in order. If marketing is not an acceptable use of public funds, then it doesn't matter that such programs can increase seafood sales.

We have touched on some aspects of the first question in the background section of this report, and noted that the answer probably depends more on judgment than "facts". The next two questions appear to be more concerned with "facts", yet direct evidence to support a yes or no answer in either case is still not easy to get. This is because (1) in dealing with the general product "seafood", data on profits - which are the ultimate measure of success - is very difficult to obtain; and (2) even if one knows that profits have increased, the role of marketing in that increase is hard to assess. For example, changes in the price of beef during a particular marketing project may have as much influence on profits as the marketing effort itself.

There are sophisticated statistical models which could help answer both the second and third question, but the cost of developing such models might easily exceed the cost of the marketing program itself. Some less precise evidence will have to be used.

Can Industry-level Marketing Programs Work? Perhaps the strongest argument in favor of industry-wide advertising and marketing assistance activities is that they exist. In other industries, such programs are felt to be helpful. In some cases, the industry itself runs these programs. Florida oranges and California prunes come to mind. In other cases, the state, working with the industry, has mandated such programs and funded them from product taxes. Table 4 lists some industry-oriented programs in

TABLE 4

PRODUCT MARKETING PROGRAMS IN MAINE ^①

The figures shown reflect industry-wide marketing expenditures. In some industries (notably broilers and sardines) individual producers may also finance substantial marketing efforts. In the case of potatoes, blueberries and sardines, the marketing expenditures reflect only promotional expenses. The costs of other marketing assistance activities were not estimated.

| PRODUCT | ADMINISTRATIVE UNIT | EST. EXPENDITURE FOR MARKETING & PROMOTION BY SOURCE OF FUNDS | EST. PRODUCT VALUE | MARKETING EXP. PER \$ OF MARKET VALUE |
|-------------------------------|---|---|-----------------------|--|
| Milk | Maine Milk Tax Committee Maine Dairy & Nutrition Council | Producer Tax \$317,000 | \$ 79,318,000 | \$.0056 |
| | | Producer Tax 130,000 | | |
| | | <u>\$447,000</u> | | |
| Potatoes | Maine Potato Commission | Producer Tax 310,250 | 262,726,000 | .0012 |
| Blueberries | Maine Blueberry Advisory Board | Processor Tax 6,200 | 15,000,000 | .0004 |
| Poultry | Maine Poultry Federation | Voluntary Con- tribution 7,500 | 265,438,000 | .0000 |
| Sardines | Maine Sardine Council | Processor Tax 40,000 | 24,703,465 | .0016 |
| Various Agric. Products | Maine Dept. of Agricul- ture - Division of Promotions | General Fund 182,150 | 638,482,000 | .0006 |
| | | Ded. Revenue 180,250 | | |
| | | Dept Total <u>362,400</u> ^② | | |
| Forest Products | Maine Dept. of Conserva- tion - Division of Utilization & Mktg. | General Fund 26,000 | 1,787,547,000 | .0000 |
| Seafood | Maine Dept of Marine Resources - Division of Marketing | General Fund 93,300 | 107,648,000 | .0012 |
| | | Federal Rev 34,500 | | |
| | | Dept Total <u>127,800</u> | | |

① The estimates shown are the most recent available data. Product value data is for the 1974-76 period and expenditures are for FY 1977 or FY 1978

② Expenditures are overstated to the extent the departmental information and education functions are excluded.

Maine, the size of the program and the marketing expenditure per dollar of product market value.

In Maine, milk is by far the most actively-promoted product on an industry-wide basis. Interestingly, it is also the only program in which staff felt there was evidence that promotional efforts resulted in increased product consumption. (Milk is the only product for which precise data on sales is available, however.) In most other cases, marketing staff felt that the benefits of promotional and marketing assistance activities were impossible to measure.

The existence of seafood marketing programs in other states indicates that public officials in those states think such programs are useful. Programs in selected East Coast states are compared in Table 5. Columns 3 and 4 indicate the relative importance of fisheries in each state's overall economy in terms of employment and dollar value. Columns 5 and 6 are measures of state marketing expenditure relative to the size of the industry.

Of the states shown, fisheries are most important to Maine's economy, by far. Maine's state marketing program, however, spends less per industry employee or per dollar of product value than Florida, North Carolina or Maryland.

The existence of these state marketing programs does not, of course, prove their effectiveness. If they do have an impact, however, a change in Maine's program will change the position of Maine seafood products relative to products from other states.

Turning to the question of whether DMR's program is effective, it is noted again that a precise measure of effectiveness would require detailed information about industry profits and other factors affecting profit levels. Since this information is not available, three less precise measures of effectiveness have been chosen to indicate how well DMR's program is working.

These include first a cursory review of harvesting and price data for one species which DMR has actively promoted. Second, a comparison is made between the scope of DMR's program and the range of activities which have been undertaken in industry programs in other states and for other Maine products. Finally, Maine's wholesale seafood dealers have been surveyed to collect industry opinion about marketing activities.

TABLE 5
A COMPARISON OF PUBLIC SEAFOOD MARKETING PROGRAMS IN SELECTED EAST COAST STATES ⁽¹⁾

| (1) | (2) | (3) | (4) | (5) | (6) |
|----------------|---|---|--|---|--|
| STATE | ESTIMATED EXPENDITURE BY SOURCE OF FUNDS FY 1978 ⁽²⁾ | FISHERIES FT EMPLOYMENT AS A % OF TOTAL STATE WORK FORCE (Rank) | LANDED PLUS PROCESSED VALUE AS A % OF TOTAL PERSONAL INCOME (Rank) | MARKETING EXPENDITURE PER FISHERIES EMPLOYEE (Rank) | MARKETING EXPENDITURE PER \$ OF LANDED PLUS PROCESSED VALUE (Rank) |
| Florida | GF 293,600 Fed 151,250 & Ded 444,850 | .38 (3) | .46 (4) | \$ 33.09 (1) | .0020 (2) |
| North Carolina | GF 80,000 Fed 15,000 95,000 | .17 (6) | .14 (6) | 21.36 (3) | .0024 (1) |
| Mass. | GF 42,000 Fed 57,000 99,000 | .30 (5) | .90 (2) | 11.92 (5) | .0003 (6) |
| Maine | GF 93,300 Fed 34,500 127,800 | 1.99 (1) | 2.47 (1) | 13.70 (4) | .0010 (4) |
| Maryland | GF 191,033 25,000 216,033 | .41 (2) | .47 (3) | 26.84 (2) | .0017 (3) |
| Virginia | GF 10,000 Fed 30,000 40,000 | .38 (3) | .39 (5) | 4.37 (6) | .0004 (5) |

(1) Because all relevant data was not available for any single year, the ratios shown in Columns 3 to 6 reflect information collected over several years. Annual variations do not greatly change the relative size of these ratios, however.

(2) Only expenditures by state agencies are shown.

ONE PROJECT'S IMPACT

One indicator of effectiveness is change in the volume and price of a particular species which DMR has actively promoted. In 1974 and 1975 the Marketing Division, using Sea Grant funds from the University of New Hampshire, promoted mussels extensively. DMR's activities (working with producers, demonstrations of mussel cooking and distribution of mussel samples at shows and in supermarkets, and production of a mussel recipe flyer) were only one part of the UNH effort, however. Sea Grant also financed research on harvesting techniques and other promotions of cultivated mussels. Overall, Sea Grant - through UNH - has provided \$394,800 for mussel-related projects since 1974.

Though details about all aspects of this program are not available, and though no attempt has been made to control for other influencing factors, the data on mussel landings and value for the 1972-1977 period is quite interesting.

TABLE 6

| MAINE MUSSEL LANDINGS AND VALUE | | | | |
|---------------------------------|-------------|---------------|-------------------|---------------|
| | Lbs. landed | Annual Change | Price/lb. (in \$) | Annual Change |
| 1972 | 280,740 | | .25 | |
| 1973 | 439,489 | + 57% | .26 | + 4% |
| 1974 | 308,328 | - 30% | .27 | + 4% |
| 1975 | 612,346 | + 99% | .32 | +19% |
| 1976 | 1,203,194 | + 96% | .29 | - 8% |
| 1977 | 2,112,718 | + 76% | .32 | +10% |

Over the entire five years, landings have increased seven and a half times, and the price has increased 28%. While such a simple review can be dangerous, the size of these increases is large enough to suggest that the Sea Grant effort must have had some impact. Note, however, that offsetting factors, such as decreases in clam landings, have not been examined.

A COMPARISON WITH OTHER INDUSTRY PROGRAMS

A comparison between DMR's marketing program and other industry programs is useful for two reasons. It will:

- (1) Indicate whether there are some major activities which other programs feel are useful and which DMR has not undertaken; and

- (2) Provide a comprehensive list of activities for our survey of industry opinion. The dealers surveyed will be asked to pick from this list the activities which they feel are most important.

This review of other programs produced the list of marketing activities in Exhibit 1. DMR's program does address many of these areas though the size of the marketing staff limits the scope of each undertaking.

The areas which are not currently a part of the DMR program include most notably: a home economist/nutritionist staff person to focus on educational activities; a program of feature-oriented news releases; and a planned approach to developing institutional markets.

On the other hand, DMR appears to place more emphasis on displays at fairs and festivals than most other programs, either in Maine or in other states. Staff from some of the other Maine programs, in fact, commented that they felt that this kind of event was "a waste of time" even though they felt obligated to participate in some of these shows.

INDUSTRY RATING OF DMR'S MARKETING PROGRAM

Industry opinion about DMR's program is another indicator of effectiveness. To find out how the industry feels, questionnaires were mailed to subscribers of DMR's Marketing Memorandum and a random sample of 172 (42%) licensed wholesale seafood dealers and processors. We focused on this group because they are easily identifiable and are concerned primarily with marketing. To date, 76 responses (22%) have been received, of which 70 (92%) identify themselves as dealers, processors, brokers, fishermen or aquaculturists.¹ Respondents deal in lobsters, shellfish and finfish and represent firms of all sizes.

The questionnaire addressed both what kind of job the industry thinks DMR is doing currently, and what industry priorities for marketing activities are. As might be expected, when given a choice between expanding or contracting DMR's program the respondents are generally supportive of maintaining or expanding the current program. Sixty-nine percent felt it should be at least somewhat expanded, and 20% felt it should be maintained at its current level.

Awareness of Current Marketing Efforts. The number of respondents who were unfamiliar with current DMR activities is indicated in Column 1 of Table 7. Awareness of different activities varied considerably. As expected, the market leads effort (the Marketing Memorandum) is the most well-known, although 27% were not familiar with it. Among dealers who do not receive the newsletter,

¹ Of the remaining six responses, three were government officials and three were unidentified. Since our concern is with industry opinion, these six responses are not included in the findings noted in this section.

EXHIBIT 1
ACTIVITIES UNDERTAKEN IN INDUSTRY MARKETING PROGRAMS

PROMOTIONAL AND EDUCATIONAL ACTIVITIES

MARKETING ASSISTANCE

Exhibits at fairs, festivals and other large public gatherings - can include distribution of product samples.

Cookery and sampling demonstrations in or near retail outlets.

Exhibits and product demonstrations at trade shows.

Product cooking contests.

Development and testing of new recipes.

Development and distribution of point of sale material (recipes, posters, signs, bumper stickers).

Installation of special point of sale exhibits (installers hired on a contract basis).

Advertising on radio, TV, billboards or in newspapers.

Creation of art work proofs for use by industry members.

Educational packets for public school distribution by trained home economists.

Educational packets for distribution to consumers through agricultural extension services, adult education classes, utility and appliance home economists and civic clubs.

Product-related feature stories and photos distributed regularly to major newspapers, general circulation magazines and trade publications.

Production and distribution of product-related films.

Appearances by home economists on radio and TV talk shows and public service time.

Seminars for retail store personnel to encourage correct product handling and advantageous product display.

Seminar/demonstrations for institutional nutritionists and buyers (schools, hospitals, military bases, prisons) focusing on their particular needs and constraints.

New product development.

Improvements in processing equipment.

Organization and coordination of quality control programs.

Research on industry-wide problems such as pollution abatement.

Development of industry logo for better product identification.

Regular newsletter to foster industry communications.

Personal contacts with buyers to encourage sales.

Coordination of marketing leads.

Efforts toward development of markets in new geographic areas.

TABLE 7

RESPONSES EVALUATING CURRENT DMR MARKETING EFFORTS

Rating of DMR's Work (percentages are shown in parentheses)

| DMR's Activities | Not familiar with Activity | Very Good Job | Fairly Good Job | Not Very Good Job | Poor Job | TOTAL |
|--|----------------------------|---------------|-----------------|-------------------|-----------|-------------|
| General Promotion at shows, festivals, etc. | 24 (38) | 17 (27) | 14 (22) | 5 (8) | 3 (5) | 63 (100) |
| Media Promotion | 31 (49) | 3 (5) | 9 (14) | 12 (19) | 8 (13) | 63 (100) |
| Promotion to Institutional and Restaurant Buyers | 42 (67) | 8 (13) | 7 (11) | 1 (2) | 5 (8) | 63 (100) |
| Coordination of Marketing Leads | 17 (27) | 18 (28) | 20 (31) | 6 (9) | 3 (5) | 64 (100) |
| Development of New Markets | 23 (37) | 17 (27) | 17 (27) | 4 (6) | 2 (3) | 63 (100) |
| Special Promotion of Underutilized Species | 18 (29) | 21 (33) | 17 (27) | 4 (6) | 3 (5) | 63 (100) |
| Trouble Shooting and Public Relations on Industry Problems | 24 (38) | 16 (25) | 15 (24) | 4 (6) | 4 (6) | 63 (100) |

more than half were not aware of this program. The second most familiar activity was the special promotion of underutilized species which 71% of the respondents knew about.

The least known activities were special promotional efforts to institutional and restaurant buyers - only a third of the respondents were aware of these efforts. In all other cases, at least half, but not more than two-thirds of those who answered were familiar with DMR's programs in a particular area.

RECOMMENDATION: The Marketing Division should increase its efforts to inform dealers and processors about its activities.

At present, DMR uses the Marketing Memorandum mailing list as its primary means of communications. Given that only about 18% of all licensed dealers are on this list, however, it does not seem to be a very effective way of keeping the whole industry informed - there were comments by respondents that they were unaware of any marketing program and that DMR was not reaching out enough to small dealers.

Because of the licensing requirement, the Marketing Division has an excellent ready-made list of "clients". At a minimum, there should be an annual mailing to inform dealers and processors about the services and activities of the Division. Such a mailing is most appropriate shortly after an annual work plan is drawn up. This timing would maximize chances for industry reaction and coordination.

Rating of Current Marketing Efforts. Table 7 also shows how respondents rated DMR's work in various areas. In general, when respondents knew about a marketing effort they were positive about the kind of job the Division was doing. The only area in which a majority felt that DMR was not doing at least a good job was in media promotion. On all other items, at least two-thirds of the respondents who were familiar with the activity though the Department was doing a good or very good job. Specifically, special promotion of underutilized species, coordination of market leads, and development of new markets, in that order, were reported to be the Marketing Division's best efforts. Review of the responses by size of business did not show any important variation in opinion from different size firms.

Industry Priorities for Marketing Activities. The questionnaire also asked respondents to rate a variety of marketing and promotion activities in terms of how helpful they felt each would be to the state's seafood industry. Since it was expected that the industry would be favorable to any assistance it might get, it was not surprising that most of the activities were considered helpful by a majority of the respondents. Our intent was to establish a priority of activities based on the relative strengths of each activity and on an overall ranking which the respondents were asked to make.

Because of the questionnaire's wording, the results of the overall ranking are not entirely satisfactory, but an interesting comparison can be made between DMR's priorities measured in terms of dollars and staff time and industry priorities as indicated from the survey.

Survey responses are summarized in Table 8. The greatest percentage of respondents felt that general promotion at fairs, festivals and other large gatherings, and media promotion was somewhat or very helpful. At the other end of the spectrum, trouble-shooting and industry public relations in problem areas, and research about marketing problems were most often rated as not very or not at all helpful. When activities are ranked in order of preference, the average rank for each item (column 4) tends to agree with the priorities noted above.

The wide variation between respondents was striking, however. More than half the activities received both the highest and the lowest ranking. This wide variation of opinion again reflects the absence of a unified industry position about what marketing approaches are most useful.

Marketing Division priorities are indicated by the actual distribution of staff time and expenditures, and by the director's ranking of the same items the dealers were asked to rank. Exhibit 2 is an effort to summarize these various priorities. The Division director and the survey respondents disagree over the importance of general promotion at shows, the promotion of under-utilized species and promotions aimed at institutional and restaurant buyers. In terms of DMR's past efforts, however, the respondents felt coordination of market leads was more important, and general research and coordination was less important than the effort the Division put into these areas. Respondents rated both seafood demonstrators in retail outlets and before consumer groups and promotion of a Maine "image" as moderately important. With the exception of the NERCOM project in the summer of 1977, DMR has done nothing in these areas during the period under review.

RECOMMENDATION: The Marketing Division should increase its efforts to discuss marketing priorities with the industry.

Complete agreement on priorities is not necessarily desirable because the industry is likely to take a more short-range view of problems than the Department ought to take. However, the Marketing Division should make some active effort to discuss program alternatives with the industry before projects are selected. For example, the Division could seek out opportunities to discuss marketing priorities when industry groups gather. General marketing strategies (emphasis on promotion vs. marketing assistance, for example) should also be reviewed by the Marine Resources Advisory Council. This effort may not only result in a different selection of projects and improved industry coordination, but could also help develop more industry consensus.

USEFULNESS OF VARIOUS MARKETING ACTIVITIES

TABLE 8

(Percentages are shown in parentheses)

| | Somewhat or very Helpful (1) | Not very or Not at all Helpful (2) | TOTAL (3) | Average Ranking (based on 23 responses) (4) |
|--|---------------------------------------|---|--------------|--|
| General Promotion at shows and large gatherings | 50 (86) | 8 (14) | 58 (100) | 5.1 |
| Media Promotion | 53 (85) | 9 (15) | 62 (100) | 3.7 |
| Coordination of Market Leads | 50 (83) | 10 (17) | 60 (100) | 5.6 |
| Research on New Markets | 50 (81) | 12 (19) | 62 (100) | 5.4 |
| Demonstrations in stores and to consumer groups | 48 (81) | 11 (19) | 59 (100) | 6.2 |
| Coordination with other Public Programs | 48 (81) | 11 (19) | 59 (100) | 7.2 |
| Promotion of Maine Image (logo, quality control, etc.) | 47 (77) | 14 (23) | 61 (100) | 7.0 |
| Promotional Materials | 45 (76) | 14 (24) | 59 (100) | 6.7 |
| Institutional Promotion | 45 (74) | 16 (26) | 61 (100) | 5.2 |
| Promotion of Under- utilized Species | 42 (74) | 15 (26) | 57 (100) | 7.5 |
| Trouble-shooting and Industry Public Rel. | 42 (68) | 20 (32) | 62 (100) | 8.3 |
| General Research | 35 (60) | 23 (40) | 58 (100) | 9.0 |

①

A rank of 1 would be most helpful and 12 would be least helpful. Only 23 respondents ranked all the activities in order of their highest to lowest priority.

EXHIBIT 2

High (H), Medium (M), and Low (L) Priorities for
Marketing Activities by Several Measures

| ACTIVITY | DEALERS RANKING | 1977-78 STAFF EFFORT | 1977-78 EXPENDI- TURE | DIVISION DIRECTOR'S RANKING |
|--|--------------------|----------------------------|-----------------------------|-----------------------------------|
| General Promotion at Shows and large gatherings | H | H | H | L |
| Media Promotion | H | M | H | H |
| Coordination of Market Leads | H | L | L | H |
| Research on New Markets | M | H | H | H |
| Demonstrations in Stores and to Consumer groups | M | L | L | H |
| Coordination with Other Public Programs | M | H | M | L |
| Promotion of Maine Image (logo, quality control, etc.) | M | L | L | L |
| Development of Promotional Materials | M | M | M | M |
| Institutional Promotion | L | M | M | H |
| Promotion of Under- utilized Species | L | M | M | H |
| Trouble shooting and Industry Public Rel. | L | L | L | L |
| General Research | L | H | H | M |

THE NEED FOR ON-GOING EVALUATION

In light of the above information, a reassessment of some of the current marketing activities might be useful. This re-evaluation is best done by DMR after taking industry opinion into account. The focus should not be so much on assessing the ultimate intended impact (improving the health of the industry) but rather be on measuring the immediate effect of various activities.

RECOMMENDATION: The Marketing Division should evaluate the impact of both its consumer events exhibit schedule and its promotional program for volume buyers.

These exhibits at both consumer events and trade shows represent a significant portion of the Division's time and expenditures, and have been a traditional part of the marketing program. Because most other industry programs have not found either kind of event particularly useful, DMR should reevaluate the effectiveness of these activities.

Such measurement does not need to be formal or expensive to give some sense of the impact of these exhibits. The staff could, for example, survey a sample of people leaving fairs and shows to measure the impression left by their display. The Division could also make a special effort to find out about sales resulting from leads developed at the trade shows. If DMR applies for additional federal funds for product demonstrations at fairs or trade shows in the future, an evaluation element should be included so that the extra benefit of these more expensive exhibits can be assessed.

In developing a marketing plan or work program, the Marketing Division should consider alternative uses for currently available funds.

RECOMMENDATION: The Marketing Division should consider: expanding the types of recipe leaflets it distributes; and testing the benefits of "educational" promotion efforts.

The current range of DMR's recipe leaflets does not reflect recent concern for promoting less popular and more abundant Maine seafood. The Division reports that funding has been a major constraint to producing new leaflets.

Costs of developing new leaflets are relatively low if existing recipes are used (about \$2000, most of which is in staff time). Furthermore, the cost of printing even 250,000 leaflets (one for every four state residents) is less than \$7000, and new costs could be further reduced if some current leaflets were discontinued as new ones are developed.

The Division should also, however, consider expanding its supply of promotional materials. Other marketing programs put substantial emphasis on various promotional items, and DMR should discuss the usefulness of this kind of material with wholesale and retail dealers.

"Educational" promotion, in general, has not been a major emphasis in the past. Yet the work of home economists and nutritionists with both general consumers and institutional buyers is a major part of some other programs. DMR should consider a small contractual effort in this direction to determine whether a shift toward this approach would be useful in the future.

CONCLUDING COMMENTS

There are some major issues which have continued to crop up throughout the preparation of this report. They raise difficult questions for which there are probably no specific answers, yet they cannot be divorced from assessments of the day-to-day operation of the Marketing program.

First, much of the work of the Marketing Division cannot be evaluated in terms of the ultimate objective of improving the health of Maine fisheries. That a marketing program "works" is, to some extent, unprovable. Legislative support of such a program must rest on assumption and analogy rather than fact.

Because it is so hard to measure results, it becomes particularly important that the actual operation of a publicly-funded marketing program be clearly defined and described. This is not to say that DMR is trying to hide its activities. Rather, an extra emphasis on public accountability and a special openness to outside input may be necessary. Concise, specific documentation of accomplishments may be the only means of evaluating program success.

Finally, however, "success" can have different meanings to different people. Who are the constituents of this kind of program? Maine citizens in general, the Legislature, the "fishing industry", fishermen, lobstermen, clam diggers, worm diggers, small-scale dealers, large processors and retailers all may have different notions of success. Yet real accountability can't be achieved without defining more specifically accountability to whom.

APPENDIX A

DMR BROCHURES AND PAMPHLETS

Buyers Guide for Maine Seafood
Fabulous Feasts with Maine Seafood
Harvesters of the Sea
How to Eat Maine Lobster
How to Prepare Maine Lobster
The Maine Dish is Mussels
Seafood Dishes from Maine

SAMPLE OF FIRMS REQUESTING LEAFLETS

Sea to Seaway
Rockland, Maine

Butch's Live Lobster Sales
Washington, Maine

Cap Morrill's, Inc.
Brewer, Maine

James Hook & Co.
Boston, Mass.

Library Restaurant
Denver, Colorado

Superior Seafoods
Grand Rapids, Michigan

Pier 6 Seafoods
Cherry Hill, New Jersey

Eastern Point Fisheries
Boston, Mass.

N. E. SEA-LICIOUS Products
Westport, Mass.

Atlantic Lobster
Boston, Mass.

Kroger Food Stores
Salem, Virginia

Albertson's
Spokane, Washington

Wakefern Food Corp.
Elizabeth, New Jersey

Dixon Fisheries
East Peoria, Illinois



STATE OF MAINE
DEPARTMENT OF MARINE RESOURCES
STATE HOUSE
AUGUSTA, MAINE 04333

December 12, 1978

Senator John D. Chapman
Day's Ferry Road
Woolwich, Maine 04579

Representative Bonnie Post
Star Route 32
Owl's Head, Maine 04854

Dear Senator Chapman and Representative Post:

As suggested by Legislative Finance Officer Ronald H. Lord, we are forwarding our comments on his office's evaluation of this Department's Marketing Division. It is my understanding that you have already been provided with copies of this study.

First, I would like to stress that this study is the result of many long hours of research by the staff of the Legislative Finance Office and the Department of Marine Resources. Frequent conferences were held among those involved, and I am confident that every effort has been made to make the report as complete and accurate as possible, considering the circumstances. Certainly I am convinced that Mr. Lord has had as his goal the production of a thorough and objective study that will be helpful to us all in our efforts to serve Maine's commercial fishing industry.

There are, we believe, four areas in which further clarification may be helpful.

(1) The time frame selected for study happens to be one of the least typical periods in the entire history of DMR's Marketing Division. As the study notes, it was during this time that the Division was without the services of a marketing specialist for almost one full year; and it was also during this time that the director and the publicity representative were each absent for many weeks because of serious illness. Considering these factors alone, it is remarkable that we were able to carry on an effective marketing program of any kind. Nevertheless, we did. But of course this has meant, as the study points out, that during this time frame there have been activities not included in the Division's work plan -- activities, it should be stressed, which have been carried out in the past

Senator John D. Chapman
Representative Bonnie Post
December 12, 1978
Page 2

and which we definitely expect to carry out in the future. An understanding of this fact is important, we believe, in any overall evaluation of the Division's work.

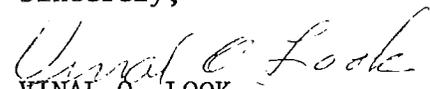
(2) Much of the study depends on the results of a questionnaire sent out to industry members. It is strongly implied, though not stated in so many words, that the responses tabulated represent the majority views of the industry on marketing needs and priorities. It is impossible for us, however, to determine how accurate or useful the results of the questionnaire may be. Two problems are identified in the study itself: Table 7, for example, is based on 70 industry responses, while Table 8 is based on only 23 responses, a very small sample from a large and diverse industry; and again according to the study itself, more than half of those responding misunderstood the questionnaire's instructions regarding how to answer some sets of questions. A third point, not covered in the study, is a lack of any breakdown of the sample responding to show the percentages of the various segments of the industry responding. Such a breakdown is essential to make certain the responses are not weighted in favor of any one group.

(3) In spite of efforts to correct it, a serious factual error persists on Page 9 of the study under "Decision-making." The statement: "alternate market strategies and activities have not been discussed by the Advisory Council" is incorrect and must presumably be based on a fundamental misunderstanding. The so-called Harbridge House market feasibility study, for example, has very definitely been discussed by the Advisory Council, as has the so-called Maguire study. Both clearly deal with "alternative marketing strategies." Documentation of these and other marketing discussions by the Council were presented, but the error was not corrected.

(4) Finally, we believe that there is a significant error of omission on Page 4 under "The Pros and Cons." A very significant "pro" has been overlooked, we believe: "Large segments of Maine's commercial fishing industry are unable, for a variety of reasons, to support either individual or group marketing activities."

Considering the scope and complexity of the study, it is inevitable that some problem areas would remain. That we have found only four of sufficient significance for comment would seem to be testimony as to the thoroughness of the work done by the staff of the Legislative Finance Office.

Sincerely,


VINIAL O. LOOK
Commissioner

VOL/bj

Copy to:

Senators Levine/Farley/Hewes
Representatives Greenlaw/Blodgett/Fowlie/Nelson/Jackson/Conners/Bunker/Tyndale
Ronald H. Lord, Legislative Finance Officer
Jon Hull, Legislative Aide

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

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 comprise 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 has become the 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 might disrupt the existing marketing structure.

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 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 price often bears little relationship to either the value of the seafood on landing in Maine or to the cost of harvesting it.

The major fish processors in Maine are almost exclusively processors of herring. A well organized 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.

One marketing strategy proposed by different representatives of the seafood industry during interviews with the committee, 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. Many fishermen believe that their return under this system is lower than it would be in any entirely free market.

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 in obtaining 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 fishermen seem to feel that local processors have not accommodated them. 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 processing 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 quahogs, 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 provide marketing and promotion assistance. The Marine Resources Commission (MRC) often contracts with 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 utilize 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 was federal.

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.

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 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 a purely gourmet food, the need for increased mechanization and for seafood farms, and regulations governing the harvesting, packing, and handling of seafood.

Considering the problems that affect the seafood industry, a seafood marketing and promotions agency in Maryland 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 are successful and effective. 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 sale 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 altered 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, Virginia 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.

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 maintain small fishing fleets which may place the independent fisherman at a disadvantage.

In the Pacific Coast States, the seafood industry tends to be much less significant with respect to total output value, compared to other industries. Processed seafood in these states ranges between 4 and 9 percent of the total value of processed food produced. 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 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 |
|------------------|--|---|---|-----------------------------------|---------------------------------|---|--|---|
| NEW ENGLAND | | | | | | | | |
| MAINE | 148,000 | \$41,000 | \$88,067 | 26% 85% Value | 74% 15% Value | 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 | 33.4% 25% Value | 66.6% 75% Value | 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 | 9.3% 35.5% Value | 90.7% 64.5% Value | 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. | 40% 70% Value | 60% 30% Value | 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.) | 5.2% 47% Value | 94.8% 53% Value | 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 | 47% 84% Value | 53% 16% Value | 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 |

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|------------------|---|---|---|-----------------------------------|---------------------------------|--|---|---|-------------------|
| DELAWARE | 9,214 | \$1,728 | \$81,531 (Del. & Pa.) | Volume 91.3% Value 90% | Volume 8.7% Value 10% | 65 F.T. on Vessels 63 F.T. on Boats Total=548 | 20 Motor Vessels 246 Motor Boats | Clams Crabs Menhaden Flounder | |
| CHESAPEAKE BAY | | | | | | | | | |
| MARYLAND | 66,859 | \$22,379 | \$125,000 | Volume 80% Value 92% | Volume 20% Value 8% | 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 | 520,000 | \$43,000 | \$66,694 | Volume 20.8% Value 58% | Volume 79.2% Value 42% | 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 | | | | | | | | | |
| NORTH CAROLINA | 206,691 | \$17,484 | \$23,045 | Volume 11% Value 41.2% | Volume 89% Value 58.8% | 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 Blue crabs Clams Oysters Bass Crooker | Trout Menhaden |
| SOUTH CAROLINA | 19,000 | \$7,118 | \$13,426 | Volume 82% Value 95% | Volume 18% Value 5% | 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 | 17.1 | \$10,623 | \$34,457 | Volume 95% Value 98% | Volume 5% Value 2% | 4,835 Commercial Fishing Licenses | 1,539 | Shrimp-82% of total value of all seafood Blue crab-9% - total value | |

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|------------------|---|---|---|-----------------------------------|---------------------------------|---|--|--|
| FLORIDA | 1975 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 | 1974 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 | 1974 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 | 1974 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 | 1974 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 | 1974 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 |

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|------------------|--|---|---|-----------------------------------|---------------------------------|---------------------|----------------------|--|
| WASHINGTON | <u>1975</u> 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 |

Summary of the Results of the Interviews Pertaining to the Marketing of Maine Seafood.

As part of the marketing study the Committee utilized questionnaires to obtain information to evaluate the department's marketing programs. One set of questionnaires was designed for each sector of the fishing industry. Several members of the Committee and the staff interviewed various representatives of the fishing industry including fishermen, fish wholesalers, fish processors and seafood retailers and used the questionnaires to obtain consistent and comparable data.

A second general questionnaire was sent to different individuals throughout the fishing industry to gain more comprehensive information and to compare the results of the personal interviews with the responses of a wider range of people in the industry. There was a very high correlation between the results of the individual interviews and the responses to the general questionnaire.

Findings as derived from the Fishing Industry

In general, the fishing industry is either unaware of the marketing and promotion activities of the Department of Marine Resources or the industry does not consider the programs to be effective. In addition, there has been very little contact and communication between the department and the various sectors of the Maine fishing industry.

The relatively ineffective marketing program of the department, in the opinion of the fishing industry, is due primarily to the fact that the program does not address the basic problems that adversely affect the marketing of Maine seafood. In their opinion, in order to successfully develop Maine's seafood marketing capability, it is necessary to utilize the species that predominate in Maine waters; develop and modernize the facilities for landing, processing, and distributing these species; establish the concept of Maine seafood as a high quality product in local, national, and foreign markets; and educate the public about the nutritional value of seafood and the appetizing preparation of seafood.

They also thought the fishing industry has developed a marketing structure that is capable of marketing any type of seafood product. They saw the greatest potential or opportunity for the fishing industry in the marketing of processed or unprocessed fresh fish fillets in national markets. To a lesser extent, they saw opportunities for the marketing of frozen underutilized species of seafood in foreign markets and for the marketing of fresh fish in Maine. The potential for marketing frozen seafood in national or international markets may be limited by the competition from foreign frozen fish. The fishing industry in a number of foreign nations is subsidized by foreign governments which enables foreign frozen seafood to sell in U.S. markets below the cost of domestic frozen seafood. Nevertheless, the marketing of frozen seafood may be necessary in order to assure a steady year-round supply to all markets.

The interviews and questionnaires indicate that the industry believes it is not necessary for the State to duplicate the marketing system of the private sector. By working closely with the fishing industry to promote the development and modernization of the industry and by serving as a research and education-information agency, the Department of Marine Resources can more effectively aid Maine's fishing industry.

Summary of the results
of personal interviews
with representatives of
the fishing industry

As part of the study, the Committee conducted personal interviews with 18 representatives of the Maine fishing industry. Four different questionnaires were used as the basis of the interviews. Included in the interviews were fishermen, fish wholesalers, fish processors, and seafood retailers.

The questionnaires used for personal interviews were designed to determine the course of action required to develop the fishing industry and to market a substantially greater volume of seafood, particularly the species that predominate Maine waters. As a result, the personal interviews dealt with the following areas:

1. The supply and demand for Maine seafood.
2. Problems that adversely affect the fishing industry and the marketing of Maine seafood.
3. The roles of the public/private sectors in the marketing of Maine seafood.

Findings - From these interviews, the Committee came to the following conclusions:

The traditional demand for Maine seafood has been primarily for cod, haddock, halibut, herring, clams, crabs, lobsters, scallops, and shrimp. Although Maine waters contain most of these species, the supply is limited. On the other hand, Maine waters contain a good supply of underutilized species such as hake, pollock, ocean perch, mussels and periwinkles.

Fish wholesalers and processors point out that there is a demand for all species of seafood and that a market can be found for each specie. The only obstacles to obtaining an adequate supply of seafood are weather, the size of Maine fishing vessels, and price.

The course of action that will produce the most beneficial effect, according to fishing industry representatives, will be to develop the fresh fillet market (underutilized species) within and outside the State. In addition, there is potential for the marketing of underutilized species of frozen seafood in foreign markets and the marketing of mussels in national markets.

By developing the fresh fish fillet sector of the fishing industry as well as frozen seafood processing facilities, alternative markets in Maine would be developed for Maine fishermen and fish wholesalers to markets in Boston, Gloucester, and New Bedford. In addition, Maine would benefit from the value added

by manufacturing in the State.

In order to develop Maine's fishing industry and to increase the volume of Maine seafood in local, national, and international markets, it will be necessary for the industry to market high quality seafood.

Furthermore, development of the fishing industry will be substantially increased by close cooperation between the Department of Marine Resources and the fishing industry. By ascertaining the resource supply and the nature of demand; by promoting the development of fillet plants and processing facilities in Maine; and by developing a skilled labor supply in the area of seafood preparation; the fishing industry and the State, together, can significantly increase the marketing of Maine seafood.

It may not be necessary, according to many of the fishing industry representatives interviewed in the survey, for the State to develop markets for Maine seafood species. Rather, it is essential to produce high quality seafood and to develop processing facilities, and the fish processors and fish wholesalers will market the output. The fishing industry has established a marketing system that may not be necessary for the State to duplicate. Nevertheless, the State may be able to survey markets with respect to the demand for seafood, the potential for marketing Maine seafood, and the location of markets that promise the greatest return for the fishing industry.

Results of Personal Interviews-Fishing Industry

1. The supply and demand for Maine seafood

In the opinion of fishing industry representatives in the survey, the greatest obstacle to the development of the Maine fishing industry is the lack of a steady year-round supply of seafood. According to spokesmen of some of the largest seafood distributing firms in Maine, the firms rely almost exclusively on foreign and Massachusetts seafood for its supply. If a firm could obtain the supply that it needs, it could increase sales 30 percent. 1/

Another large wholesaler of seafood in Maine explains that he could sell 300 bushels of clams a day, but he can only obtain 20 bushels per day. He cites the unwillingness of people to dig clams as the reason for the supply shortage. 2/

Several retailers including Hannaford Brothers (owners of Shop & Save Stores and other retail outlets) and Shaws supermarkets

retail seafood that is derived mostly from foreign sources and from Massachusetts. Both retail chain stores rely on local sources for fresh fish for each outlet, but in many cases, the supply is derived from out-of-state. For example, Willard and Dagget and Maine Shellfish wholesale fish to chain stores that is derived primarily from Massachusetts.

According to nearly all the individuals interviewed, there is a market for almost every specie of finfish and shellfish. If a steady-year-round supply could be guaranteed markets could be developed for the total supply provided. The demand for traditional species of finfish such as haddock, halibut, and cod is very substantial, but there is also significant demand for cusk and hake. The supply of pollock and ocean perch is substantial in Maine, but it is difficult to market these species in Maine. The demand for hake, pollock, and ocean perch exists primarily for fresh fillets, and the markets for these species are located out-of-state. In order to maintain a steady supply, particularly during periods when the supply of these species is scarce, frozen fish fillets can be marketed in lieu of fresh fillets.

Most of the fish processors and fish wholesalers involved in the personal interviews market seafood out-of-state. The following table describes the source of supply for and the markets of each processor and wholesaler. In their opinion, the Maine seafood market is very limited compared to the resource supply.

TABLE 1
Source of Supply and Markets of
Selected Seafood Processors and Wholesalers

| Name of Supply | Source of Supply | % Marketed out-of-state | % Marketed in Maine | % Marketed fresh | % Marketed frozen | % Marketed canned |
|---|------------------|-------------------------|---------------------|------------------|-------------------|-------------------|
| 1. Stinson Canning (Prospect Harbor) | Maine | | | | | 100% |
| 2. Stinson Canning (Rockland) | Maine | 99% - Germany, Japan | 1% | | 100% | |
| 3. North Lubec Manufacturing | Maine | 100% | | | | 100% |
| 4. Maine Fisheries | Maine* | 100% | | | | |
| 5. Port Clyde Packing Co. | | | | | | |
| 6. F.J. O'Hara (Rockland) | | | | | | |
| 7. Maine Shellfish a. finfish b. shellfish | foreign Mass | b. 75% | a. 100% b. 25% | | | |
| 8. Douglas Hardy (Deer Isle) | Maine | 90% | 10% | 100% | | |
| 9. Sewall | Maine | 95% | 100% | 100% | | |
| 10. Robert York | Maine | 90%-Mass. | 10% | 100% | | |
| 11. Stonington Lobster Coop a. finfish b. shellfish | Maine | a. 98%-Mass b. 100% | a. 2% | 100% | | |

Demand for Maine mussels, particularly in out-of-state markets is also significant. One wholesaler reports that he markets 3,000-5,000 bushels of mussels per week in Boston and Virginia. He perceives substantial markets for periwinkles, shore eggs, and quahogs which could be marketed out-of-state. ^{3/}

Marketing of underutilized species of finfish in the form of fresh fish fillets will not only make better use of Maine's resource, it will also significantly reduce transportation costs in the marketing of Maine fish. As a result, Maine fish will be more competitive on national markets. There are many uses for fish heads and tails which are separated in the fillet process including bait and fish meal which can also be processed in the State. ^{4/}

There may be significant markets for fresh whole fish (underutilized species) that the Maine fishing industry can supply. Firms that own refrigerated trucks could serve these markets very efficiently.

2. Problems that adversely affect the industry and marketing of seafood

Representatives of the fishing industry interviewed by various committee members described a number of problems that adversely affect the fishing industry and the marketing of Maine fish. In addition to the lack of a steady supply of fish, the following problems were delineated.

- A. The absence of low cost capital for modernization and expansion of the industry;
- B. Quality control;
- C. Inadequate labor supply;
- D. Price control by the Boston market;
- E. Foreign imports;
- F. "Bureaucratic red tape"; and
- G. Public ignorance of seafood.

A. Absence of low cost capital

According to one fish wholesaler, the absence of low cost capital for modernization and expansion is a serious impediment to the growth and improvement of the Maine fishing industry. Wharves, piers and other shore facilities are inadequate along with processing facilities and fishing vessels. The high cost of investment capital discourages improvements in the industry. Maine fishing vessels, for example, are smaller in size compared to Massachusetts vessels. As a result, Maine vessels are limited as far as geographical fishing areas and weather conditions are concerned. Gloucester fishing vessels operated, on the average, 323 days in 1976. Maine fishing vessels, according to several fish wholesalers, operate for a shorter period of time. The lack of low cost investment capital deters many fishermen from investing in new, larger vessels. 5/

While the absence of low cost investment capital is an impediment to the modernization and expansion of the fishing industry, it may be necessary to inventory the resource and educate the public about seafood prior to promoting the physical development of the industry. According to this approach, physical expansion of the industry should follow an analysis of the resource and markets for the resource in order to produce products for which there will be demand. 6/

B. Quality control

In the opinion of many individuals who were interviewed, it is necessary for the Maine fishing industry to develop the reputation as a provider of high quality seafood in order to gain national markets for Maine seafood. As a result, fishermen will have to be more selective about the seafood they provide wholesalers and processors and the manner in which they handle the fish. The use of a pitchfork to sort and unload fish produces a very poor quality product.

One approach is a state or federal inspection program. The Empire Fish Co., Inc. in Gloucester, Massachusetts markets fresh pollock fillets that bear a federal inspection sticker and a federal trade. The inspection certificate serves as insurance of quality to consumers.

A State of Maine or an industrial inspection and certification program could establish Maine seafood as a high quality product in national markets. Inspection and certification, however, may increase the price of Maine seafood which may reduce its competitive ability on national markets.

One representative of the industry who manages a processing plant in Maine pointed out that quality control is the key to a successful fishing industry. In his opinion, a state inspection and certification program will have a greater and better effect upon the marketing of Maine seafood than an in-

dustrial inspection program. The public will have greater faith in a state inspection program than an industrial program. 7/

C. Inadequate labor supply

An inadequate labor supply also serves to limit the growth of the Maine fishing industry. Both fish processors and wholesalers pointed out in the interviews that fish fillet processors require a labor supply skilled in filleting of fish. The number of fish filleters in Maine, however, is very limited, and a training program is necessary to produce the necessary supply.

Another labor supply problem exists in the shellfish harvesting sector, particularly clams and mussels harvesters. One wholesaler indicated that many people in the fishing industry are not willing to harvest clams and mussels. As a result, demand substantially exceeds supply. 9/

D. Price control by the Boston market

The price differential between the Boston, Gloucester, and New Bedford fish markets is very small and represents differences in transportation costs to the different markets. A significant amount of Maine seafood is marketed in these markets, but the Maine fisherman and wholesaler seem to have little influence over the price they receive.

An alternative is to establish foreign markets as well as markets in Maine for Maine seafood. By developing fish fillet processing facilities and foreign markets for underutilized species, the Maine fishing industry will be able to circumvent Boston's control of the seafood market. 10/

E. Foreign imports

Seafood imports from Canada, Iceland, Argentina, Brazil, and other foreign nations comprise 85 percent of the seafood consumed in the United States. 11/ In most foreign nations, the fishing industry is subsidized. Subsidized foreign seafood along with a decline in protectionism (tariffs) place U.S. seafood firms at a disadvantage on national markets.

Most foreign seafood distributed in U.S. markets is frozen. As a result, the Maine fishing industry should pursue the fresh fish market, particularly fresh fillets. The production of frozen fish fillets in Maine would serve to maintain a steady annual supply to national markets of particular species.

F. "Bureaucratic red tape"

In the opinion of some fishing industry spokesmen, one of the problems that impedes the development of the Maine fishing industry is "bureaucratic red tape". The phrase "bureaucratic red-tape" is intended to mean state regulation of the fishing industry. One of the industry's strongest criticisms of State regulation concerns the diversity of agencies that regulate activity on the industry and the "paperwork" that is required to undertake certain activities.

An alternative suggested by a fish wholesaler is to authorize one State agency such as the Department of Marine Resources to coordinate the regulation and paperwork of the several agencies as they relate to the fishing industry. 12/ The department would advise each sector of the fishing industry of the different regulations that affect the individual sectors and provide assistance to individuals and firms in the completion of applications, forms, and records required by the State.

G. Public ignorance of seafood

Another problem that has had an adverse effect upon the fishing industry is public ignorance of seafood. The public is only beginning to understand the advantages of a seafood diet and the ways in which seafood can be prepared in an appetizing manner. As more information concerning the high level of protein in fish, its very low cholesterol content, and its preparation is made available to the public consumption of seafood will increase.

If public seafood consumption increases, the demand for underutilized species may also increase. Traditional finfish species such as haddock and halibut and traditional shellfish species such as clams, which are in short supply may be replaced by pollock, hake, ocean perch, and mussels. Since Maine waters contain a sufficient supply of these species, the demand for Maine seafood may also increase.

3. The roles of the public/private sectors in seafood marketing

A. Role of the private sector

For the most part, representatives of the Maine fishing industry in the survey perceived the actual marketing of seafood as the primary role of the private sector. Various spokesmen of the industry place different emphasis upon the role of the private sector in marketing, but most agreed that

it is not necessary for the State to duplicate the industry's marketing system. As a means of distinguishing the role of the public and private sectors from the industry's point of view, it is possible to describe the State's role as one of education, research, and promotion, and the private role as one of marketing seafood.

B. Role of the public sector

With 2 exceptions, the fishing industry representatives in the survey were not at all aware of the marketing and promotional activities of the Department of Marine Resources.

In fact, they pointed out that the Department has never been in contact with them. Individuals knowledgeable of the activities of the Department characterized these activities as "effective as far as they go, but much more needs to be done".

While the fishing industry, represented by individuals interviewed in the Committee survey, has pointed out that quality control and the promotion of industrial modernization and expansion are critical to the industry's development, it has also delineated a very positive role for the State in the marketing of Maine seafood. In general, the marketing activities suggested by the industry as a proper role of the State do not include the development of markets for Maine seafood. Representatives of the industry consider this to be the function of the fishing industry.

The role of the State in the marketing of Maine seafood, as outlined by the fishing industry includes:

- 1) inventory of the resource,
- 2) marketing surveys,
- 3) education and information, and
- 4) promotion of underutilized species.

- 1) Inventory of the resource

One of the areas about which the industry has very limited information is the volume of seafood by specie that inhabits Maine waters. Without a reliable inventory of seafood, it is very difficult to develop a course of action for the development of the fishing industry. 13/

To overcome this problem, the Department of Marine Resources could conduct an in-depth study of the volume of the different species of seafood in Maine waters, estimate the sustainable yield for each specie, and document the volume of each specie landed in all Maine ports. The

data collected by the department would not only show the most feasible direction for the Maine fishing industry to develop, it would also provide the industry with a continuous status report of each specie. As some species were "overfished", the information would be available at the initial stage and conservation efforts could begin immediately.

2) Market surveys

While most representatives of the fishing industry in the survey pointed out that the State should not duplicate the marketing efforts of the fishing industry, surveys of demand by specie in specific markets would be very helpful to the fishing industry. Market surveys could include polls pertaining to the potential demand for a new or different species of seafood and seafood product and the form of seafood for each market including fresh, frozen, whole and fillet products. The data collected by the surveys could then be used by the fishing industry to aid the private sector in its marketing decisions.

3) Education and information

One of the principal activities of the Department of Marine Resources proposed by the industry in the survey would be education and information. Included in this activity is education of the industry in regard to quality control, education of the public about the nutritional value of fish and about the preparation of appetizing seafood dishes, and education of retail chain store managers in regard to the display and storage of seafood to promote retail sales.

Since quality control is essential for the marketing of Maine seafood on local, national, and international markets, the Department of Marine Resources, according to industry spokesmen could conduct a comprehensive education effort concerning the production of quality seafood throughout the fishing industry. ^{14/} The educational program devised by the department would include fishing, storage, and handling techniques that permit the production of high quality seafood.

Education of the public concerning the nutritional value of seafood (high protein level and low cholesterol levels) and the preparation of appetizing seafood dishes could significantly stimulate demand. One of the means of implementing a public education program is through advertising and the distribution of seafood recipes. In addition, "in store" demonstrations could increase public interest in seafood.

Another important educational activity that is required to increase local demand for seafood is the education of retail chain store managers. Many retail store managers are "meat oriented". As a result, the seafood display areas are often very limited and "spartan" in appearance. By utilizing attractive and appetizing display techniques for fish, retail stores could significantly increase the local fresh fish market, particularly underutilized species.

Nearly all of the fishing industry spokesmen in the survey pointed out that one very valuable service that the Department of Marine Resources could provide the Maine fishing industry would be reliable and current market information. A list of fishermen, fish wholesalers, and fish processors which includes average weekly volumes of seafood landed or purchased, average weekly prices paid and other financial and statistical data would not only give each sector of the industry a comprehensive picture of the entire industry, it would also provide the industry with potential suppliers and markets.

4) Promotion of underutilized species

Several spokesmen for the fishing industry pointed out that the Department of Marine Resources could promote a number of underutilized seafood species, particularly mussels, periwinkles, shore eggs, sea urchins, etc. for foreign and domestic markets. One Maine fish wholesaler pointed out that he could develop substantial national markets for all types of underutilized species if he could devote 1 week to travelling to different marketing areas. 15/

FOOTNOTES

- 1/ James Markos, General Manager of Maine Shellfish Co., in Ellsworth Maine. Maine Shellfish is a subsidiary and the parent company is located in Ipswich, Massachusetts.
- 2/ Douglas Hardy, seafood wholesaler in Deer Isle, Maine
- 3/ Ibid.
- 4/ Nicholas Sewall, fish wholesaler, Bath, Maine
- 5/ Ibid.
- 6/ Harry Pasco, General Manager, Stinson Canning Co., Rockland Maine; James Markos, General Manager, Maine Shellfish, Ellsworth, Maine
- 7/ Ibid.
- 8/ Dick Trenholm, Stinson Canning Co.; spokesman for Shaws Supermarkets and Hannaford Bros.; Sewall, fish wholesaler; Bergson, Maine Fisheries
- 9/ Doug Hardy, fish wholesaler, Deer Isle
- 10/ Nicholas Sewall, Robert York, Dick Trenholm, Aldo Cormei-North Stonington Coop
- 11/ Sewall - fish wholesaler
- 12/ Ibid.
- 13/ Harry Pasco and several other spokesmen indicated that they lacked information concerning the resource supply. In their opinion, any information pertaining to the supply and location of difference species would be very helpful.
- 14/ Harry Pasco, Nick Sewall, Dick Trenholm
- 15/ Doug Hardy, fish wholesaler

SUMMARY OF THE RESULTS OF THE
GENERAL QUESTIONNAIRE PERTAINING
TO THE MARKETING OF MAINE SEAFOOD

A general questionnaire composed of 18 multiple choice questions was sent to 75 people and firms connected with the Maine fishing industry including fishermen, fish wholesalers, fish processors, and retailers of seafood. The questionnaire was designed to ascertain the means by which Maine seafood can be marketed in substantially greater volume and produce a higher rate of return than at the present time.

Of the total number of individuals and firms surveyed, 33 1/3 percent responded to the questionnaire. A breakdown of the respondents is provided below:

| | |
|--------------------------------------|----|
| Fishermen..... | 5 |
| Fish Wholesalers ¹ | 9 |
| Fish Processors..... | 4 |
| Seafood Retailers ² | 4 |
| Other ³ | 2 |
| TOTAL | 24 |

Demand and Supply

In general, the respondents were in agreement that Maine does not have a sufficient or steady supply of the species of fin fish and shellfish that are in greatest demand. According to the results of the questionnaires, the greatest demand for fin fish consists of cod, flounder, haddock, halibut and herring. The demand for haddock, halibut, and herring is roughly 50 to 75 percent greater than the available supply.

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1. A number of fish wholesalers indicated that they are also involved in other areas of the fishing industry. Four wholesalers are involved with processing and 2 are involved in fishing (Co-op)
 2. Seafood retailers include two restaurants and two grocery stores.
 3. Other is applied to respondents who did not indicate their principle occupation.

The respondents also specified clams, crabs, lobsters, scallops, and shrimp as the species of shellfish for which demand is significant but the supply of which is inadequate. A number of fish wholesalers indicated that the demand for those shellfish species exceeds the supply by 50 to 100 percent.

With the exception of fish processors, the respondents selected dogfish, hake and pollock as the species of finfish and mussels and periwinkles as the shellfish species that exist in substantial quantities in Maine waters. Maine fish processors in the survey, for the most part, do not believe that there is a substantial supply of any type of seafood in Maine waters.

Location of Markets

While Maine does not possess an adequate supply of the species of finfish and shellfish for which there is substantial demand, the respondents indicate that markets can be developed for the "underutilized" species of seafood that inhabit Maine waters. Despite agreement among industrial groups concerning the potential for underutilized species, the fishing industry is divided in regard to the geographical location of the markets with the greatest potential for these species. Fishermen and fish processors responded that national markets offer the most opportunity for marketing of Maine seafood while fish wholesalers and retailers consider the Maine seafood market as the market with the most potential for development.

There may not be any significant difference between the respondents in regard to the location of markets that offer the greatest potential for Maine seafood. Markets for Maine fish can be developed within the State, principally processing facilities to produce fileted fish for further distribution to national markets. By promoting the production of fresh fish filets in Maine, the State will not only realize the benefits of adding greater value to fish output via manufacturing, it will also offer alternative markets for Maine fishermen and fish wholesalers to the Boston, Gloucester, and New Bedford markets where price variations are minute.

Form of Seafood

Although the survey shows that the industry is divided as far as potential markets for Maine seafood are concerned, there is general consensus concerning the general types of Maine seafood that can best be marketed. According to the survey, Maine's fishing industry should concentrate on the marketing of finfish to a much greater degree than the marketing of shellfish.

The form in which Maine seafood can best be marketed is a very controversial issue among the respondents. In general, the respondents indicated that the fresh seafood market possesses the greatest potential in Maine. In regard to the national market, according to the survey results, fishermen consider the fresh seafood market to offer the most potential while fish wholesalers estimate that fresh and frozen seafood possesses equally significant

potential. Fish processors in the survey estimate that frozen seafood offers the greatest potential for Maine seafood in National markets.

State seafood Marketing programs:
Degree of Effectiveness.

Of the total number of respondents to the survey, one-third expressed that they are aware of the marketing activities and programs of the Department of Marine Resources. Those who are knowledgeable of the marketing programs and activities of the Department of Marine Resources (DMR) indicate in general that these programs are not very effective. The following description of the department's activities characterize the industry's perception of state seafood marketing programs:

1. DMR concentrates upon highly saleable shellfish which does not experience marketing problems
2. DMR serves, to a great extent, as a central agency for the distribution of information
3. DMR is not very active in the development of markets for Maine seafood
4. The activities of DMR are not effective.

Remedial action.

In order for any seafood marketing program to be effective, it is necessary to understand the problems, if any, that affect the fishing industry. There are a number of problems that are not only directly connected with seafood marketing, but there are also a number of problems in other phases of the Maine fishing industry which affect the marketing of Maine fish.

The greatest obstacle to successful seafood marketing, according to the survey respondents, is the inadequate and inconsistent supply of fish. In order to further develop Maine's fishing industry and to significantly increase the marketing of Maine fish, it is necessary to provide a stable supply of fish for the market.

With the exception of the supply problem, the various groups in the fishing industry have different perceptions concerning the major problems that affect the industry. For example, fishermen and fish wholesalers responded in the survey that the lack of capital to develop markets for Maine fish is a major problem. Fish processors and fish retailers, on the other hand, do not perceive the lack of capital for market development as a problem. Public ignorance of seafood and seafood dishes in their estimation, is an important problem. A small percentage (30-40%) of

fishermen and fish wholesalers indicated in the survey that foreign imports are a problem, while fish processors and retailers, for the most part, didn't consider imports to be a problem.

Two people, a fisherman and fish retailer, pointed out that Maine will not be able to significantly increase the volume of Maine seafood marketed in or out-of-state because the fishing industry suffers from antiquated equipment and inadequate and deteriorating facilities. In order for the Maine fishing industry to develop, the respondents explain that additional wharves, piers, fishing vessels, and processing plants, constructed or equipped for future demand are required. In other words, the entire industry must be "renovated."

Another problem that has an adverse effect upon the fishing industry is intra-industry conflicts. Although 50 percent of the survey respondents indicate that an industrial organization composed of different groups in the fishing industry could be very effective in marketing Maine fish, nearly 60 percent of the respondents point out that the fishing industry suffers from internal conflicts.

The respondents provided a number of suggestions to improve the marketing of Maine fish and to overcome the problems plaguing the fishing industry. To overcome the seafood supply problem, the respondents suggest that Maine concentrate on underutilized species of seafood (hake, pollock, dogfish, mussels, and periwinkles) which inhabit Maine waters on a large scale. To overcome public ignorance of seafood and public eating patterns, the respondents suggest that the State develop and widely distribute appetizing seafood recipes and conduct advertising campaigns in Maine and outside the State. A logical extension of this suggestion is to promote the concept of Maine fish (underutilized) species as a high quality product in a similar manner that has been responsible, in part, for the success of the Maine poultry industry.

The respondents suggested a number of measures that the State can undertake to overcome actual marketing problems including the availability of technical assistance in marketing of fish to the industry, contracts with private organizations experienced in marketing, and active state involvement in the development of markets for underutilized species. The respondents did not suggest that the State assume the total responsibility for marketing Maine fish, but suggested that increased State assistance to the fishing industry in the area of marketing could be very beneficial.

Another important function that the State can perform, according to the results of the questionnaire, concerns the distribution of technical and statistical data relating to marketing throughout the industry. The information needed by the industry is an accurate list of fishermen, wholesalers, processors, and retailers in Maine along with the volume of fish purchased or sold and prices paid on a weekly or biweekly basis.

Conclusion.

The Maine fishing industry, according to the results of the questionnaire, perceives great potential for the industry, but a different approach will be required in regard to the type and form of fish to be marketed, the facilities for landing and processing fish, the markets for Maine fish and the State's marketing activities in order for Maine to fulfill the potential of the industry. While the State, via the Department of Marine Resources, has a seafood marketing and promotion program, the fishing industry suggests major revision of the program. For the most part, the fishing industry is not aware of the Department's marketing activities, but the suggestions of the respondents to the questionnaire would significantly change the departments activities.

In House

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D. OF R.XXXXXXXXXX
XXXXXXXXXX
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Whereas, the enactment of the 200-mile limit is likely to generate new fishing opportunities and increased landings for Maine fishermen; and

Whereas, the increased fishing activity will demand new marketing methods and procedures to take full advantage of the 200-mile limit; and

Whereas, a basic study of the present and potential markets for seafood does not now exist, and is vitally necessary to properly plan for increasing of seafood market demands; now, therefore, be it

Ordered, the Senate concurring, that the Legislative Council be authorized to study, through the Joint Standing Committee on Marine Resources, the marketing possibilities for Maine seafood; and be it further

Ordered, that the study shall analyze the present condition and location of the fishing fleet, dockside and port facilities, the present and potential landings of commercial seafood, the procedure for reporting landings, the landing, handling, processing, transporting and distribution methods currently used, the present instate and regional marketing system, potential marketing systems that could be established, including fish auctions, and the role of the State in improving Maine seafood marketing; and be it further

Ordered, that all departments of state government shall cooperate with the committee in the pursuit of its assigned task;

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and be it further

Ordered, that the committee shall complete this study no later than December 1, 1977, or no later than 90 days prior to the First Regular Session of the 109th Legislature and submit to the Legislative Council within either time period its findings and recommendations, including copies of any recommended legislation in final draft form; and be it further

Ordered, upon passage in concurrence, that a suitable copy of this Order shall be forwarded to members of the committee.

HOUSE OF REPRESENTATIVES
READ AND PASSED

JUL 7 1977 93-41 and
SENT UP FOR CONCURRENCE

Edwin Post
CLERK

HP1806

Name: (Post) *Bonnie Post*
Town: Owls Head

IN SENATE CHAMBER
Tabled by SEN. SEN. SPEERS
OF LA LINDEN

JUL 8 1977

PENDING *Passage*
RAY M. BOSS, Secretary

HOUSE OF REPRESENTATIVES
UNDER SUSPENSION OF RULES
HOUSE RECEDED & CONCURRED

JUL 11 1977

Edwin Post
CLERK

IN SENATE
TAKEN FROM TABLE ON MOTION
BY SEN. SPEERS
BY DE KENNEDY AND ON FURTHER

JUL 11 1977
MOTION BY SEN. SPEERS
INDEFINITELY POSTPONED
IN NON CONCURRENCE

SENT DOWN FOR CONCURRENCE
Ordered sent forthwith