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FISH MARKETING AND CONSUMPTION IN THE PACIFIC COAST STATES

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FISH AND WILDLIFE SERVICE

EXPLANATORY NOTE

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United States Department of the Interior, Fred A. Seaton, Secretary
Fish and Wildlife Service, Arnie J. Suomela, Commissioner

FISH MARKETING AND CONSUMPTION

IN THE PACIFIC COAST STATES

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ABSTRACT

This report is a comprehensive survey of the marketing and consumption of fresh, frozen packaged, and smoked fish and shellfish in California, Oregon, and Washington. Consumer purchases and preferences for salmon, halibut, sole, rockfish, and crab in these forms are examined in detail. For example, household purchases of fresh fish and shellfish of these species are analyzed by areas within the states, by income and factors associated with income such as occupation and education, by region of prior residence and duration of residence on the Pacific coast, by religious groups, and by retail outlet where these products were last purchased. Similar analyses are made of the household purchases of frozen packaged and smoked fish and shellfish.

The retail distribution of fresh fish and shellfish in the Pacific Coast States is examined with special emphasis on the major problems confronting the retailers handling these products. The selling practices of retailers who stock frozen packaged fish are presented in some detail because of the large percentage of retail stores involved. A limited analysis is made of the retail distribution of smoked fishery products.

The examination of the wholesale distribution of the fishery products included in the study is concerned with the type of wholesalers and type of product, the services offered to retailers, the storage facilities used by wholesalers, and their suggestions and opinions in connection with product improvement and promotion.

A series of recommendations based on the study are presented. The important areas covered include: consumer education; retailer and wholesaler education; service improvement; and product improvement.

The project was financed with funds made available by the Saltonstall-Kennedy Act, approved July 1, 1954 (68 Stat. 376).

ACKNOWLEDGEMENTS

This study conducted by the Department of Agricultural Economics at Oregon State College, was financed with funds made available under the Saltonstall-Kennedy Act, approved July 1, 1954 (68 Stat. 376).

Acknowledgement is made to Dr. G. Burton Wood who gave generously of his time and contributed many valuable suggestions. The energetic assistance of Frank Faha, who served on the research team for about one year prior to being called into the Air Force, is acknowledged. Dr. Lyle Calvin's assistance in working out the sample design for the three phases of the study, his helpful suggestions in planning the questionnaires and the IBM tabulations were important. Several members of the Fish and Wildlife Service including the late Dr. R. A. Kahn, Walter H. Stolting, and Alton T. Murray offered helpful suggestions during various stages of the work. Also Dr. James A. Crutchfield of the Department of Economics of the University of Washington served as consultant and gave valuable assistance.

John Riley, Dennis Oldenstadt, and Frank Faha served untiringly as enumerators. Mr. Oldenstadt was largely responsible for developing the graphics for the study.

Fishing industry advisory committees serving in Seattle, Portland, and San Francisco gave willingly of their time and service in helping to pinpoint problem areas, in reviewing the preliminary questionnaires, and in soliciting industry support for the study.

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INTRODUCTION

The fishing industry is an important source of income in the Pacific Coast States. The ex-vessel value (amount paid to fishermen) of the Pacific Coast landings represented about 21 percent of the total value of the United States catch in 1958.

In recent years the fishing industry of the West Coast and other sections of the United States has been faced with unsatisfactory prices for many of its products. This situation has resulted from increased operating costs, expanded competition from imported fishery products, and competition from other food products. Overinvestment in boats and gear has added to the industry's difficulties. Problems of maintaining quality control have pyramided. Fishermen have ranged farther from port in order to reach better fishing grounds. They have remained at sea for longer periods of time so as to maximize catches while operating under restrictive fishing regulations.

The growing need for research into the economic and other problems confronting the fishing industry resulted in the passage of the Saltonstall-Kennedy Act of 1954. The Act makes funds available for marketing, consumption, and production research (including biological studies) for the industry. Research funds are administered by the United States Fish and Wildlife Service of the Department of the Interior. The Service has contracted with various firms, institutions, and agencies to conduct certain phases of the research contemplated under the Act.

This study was completed under contract between the Fish and Wildlife Service and Oregon State College. Its purpose was to investigate the marketing and consumption of fresh, frozen and cured fishery products on the Pacific Coast. The West Coast was considered an appropriate area for study because of the relatively low per capita consumption of fish in that area. Estimates indicate the consumption there to be only slightly above the national average. In contrast, consumption in some coastal areas of the North Atlantic States is much greater than the national average.

The primary objective of the project was to determine the important reasons for the low per capita use of commercial fish and shellfish products in the Pacific Coast States of Washington, Oregon and California. The study was planned so as to investigate the influence upon consumption of (1) population characteristics, (2) quality of fish and fish products, and (3) availability of selected species of fish. Data relating to these factors were collected by personal interviews with 97 wholesalers, 261 retailers, and 1,843 consumers in the States of Washington, Oregon and California. Because the various segments of the population were sampled at different rates, the completed interviews were expanded to give a self-weighting sample. Thus, in the analysis, a total of 2,064 consumers, 904 retailers, and 307 wholesalers were contacted. A different questionnaire was used for each of these groups. In general the samples were drawn proportionate to the distribution of the population in each State, resulting in a high proportion of the interviews being taken in the more heavily populated coastal areas. This was particularly true of California.

The study was limited to the consumption and distribution of the fresh, frozen packaged, and smoked forms of salmon, halibut, sole, rockfish, and crab. Special studies of canned fishery products are available and consequently canned fishery products were excluded from this project. Moreover, the primary markets for Pacific Coast canned fishery products are outside the study area.

Fresh Fish and Shellfish

Seventy-three percent of the consumers in the Pacific Coast States bought some fresh, frozen packaged, or smoked fish or shellfish during the preceding year for home consumption. 1/ About 43 percent of the non-purchasers gave "don't like it" as their reason for not buying fish. Twenty percent of the non-purchasers caught their own fish. In Washington and Oregon, 38 and 31 percent of the respective non-purchasing households gave this reason for not buying fish.

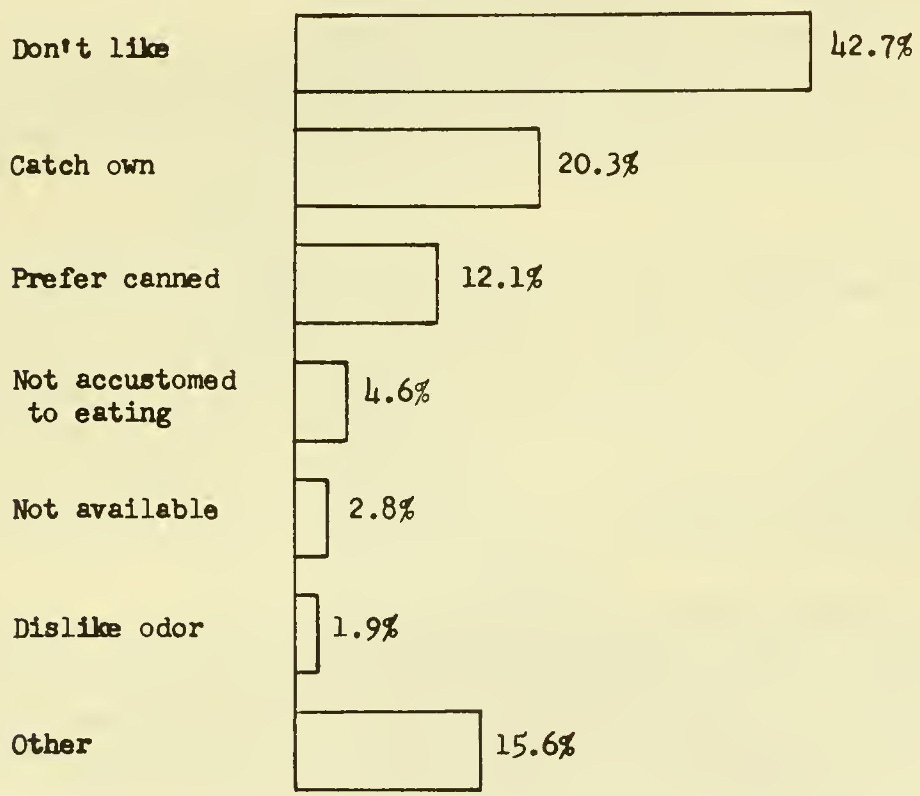

FIGURE - 1.--Reasons for not purchasing fresh, frozen packaged, or smoked fish or shellfish, Pacific Coast States, 1956

1/ Throughout this report the term "fish" includes fish and shellfish. The term "smoked" includes smoked and kippered fish.

Only 53 percent of the households contacted in California bought fresh fish as compared to 64 percent in Oregon and 69 percent in Washington. Among the households buying some kind of fish, 91 percent purchased fresh fish in Oregon and Washington as compared to only 72 percent in California. The adverse picture as shown by the figures for California is largely a reflection of very low fish consumption in the southern coast area, including the Los Angeles metropolitan area (Area II; see figure 2). Only 48 percent of the households in Area II purchased fresh fish as compared with nearly 70 percent in Area I, the remainder of the coastal area extending from Monterey to the Canadian border.

For the three states only about 33 percent of the households purchased salmon and halibut, the two most popular fresh fish. Only 19 percent purchased rockfishes, and 22 percent crab.

The consumption of fresh fish was found to be directly related to income and by several factors associated with income, such as occupation and education. The effect of income as a favorable factor in increasing consumption was considerably greater on the more expensive fish and shellfish such as crab and salmon than on sole and rockfishes.

One of the significant facts brought out by the study was the relationship of prior residence of respondents and their consumption of fresh fish. A high percentage of the consumers on the West Coast formerly lived in the North Central, South Central, and the Mountain States where fresh fish are not always readily available. About one-half of the former residents from these areas purchased fresh fish, as compared to about 65 percent of the native population. The percentage of households purchasing fresh fish increases rather sharply during the first few years of residence on the coast, but then levels off. Additional time in the State, therefore, only partly replaces formal promotional and educational programs as a stimulus to further increases in the level of the fresh fish purchasing rate.

The study supports the thesis that food consumption habits are slow to change. Unless influenced by advertising and education, the tendency is to continue eating those foods to which one is accustomed. So far very little fish promotion or educational work has been undertaken on the West Coast. The opportunity to increase fish sales through advertising and educational programs appears to be rather promising, particularly in southern California where fish consumption is now very low.

Among Protestants and Catholics, the groups accounting for the major proportion of the households in the study, there was little difference in the percentage buying fresh fish or frozen packaged fish. However, the Catholic households purchased fish much more frequently than did their Protestant counterparts. A very high percentage of the Jewish people reported the purchase of fresh fish, while a very low percentage purchased frozen packaged fish. The higher proportion of Protestant households on the West Coast as compared with the population composition of some of the North Atlantic States undoubtedly is an important factor in accounting for the relatively low fish consumption in the Pacific States Area.

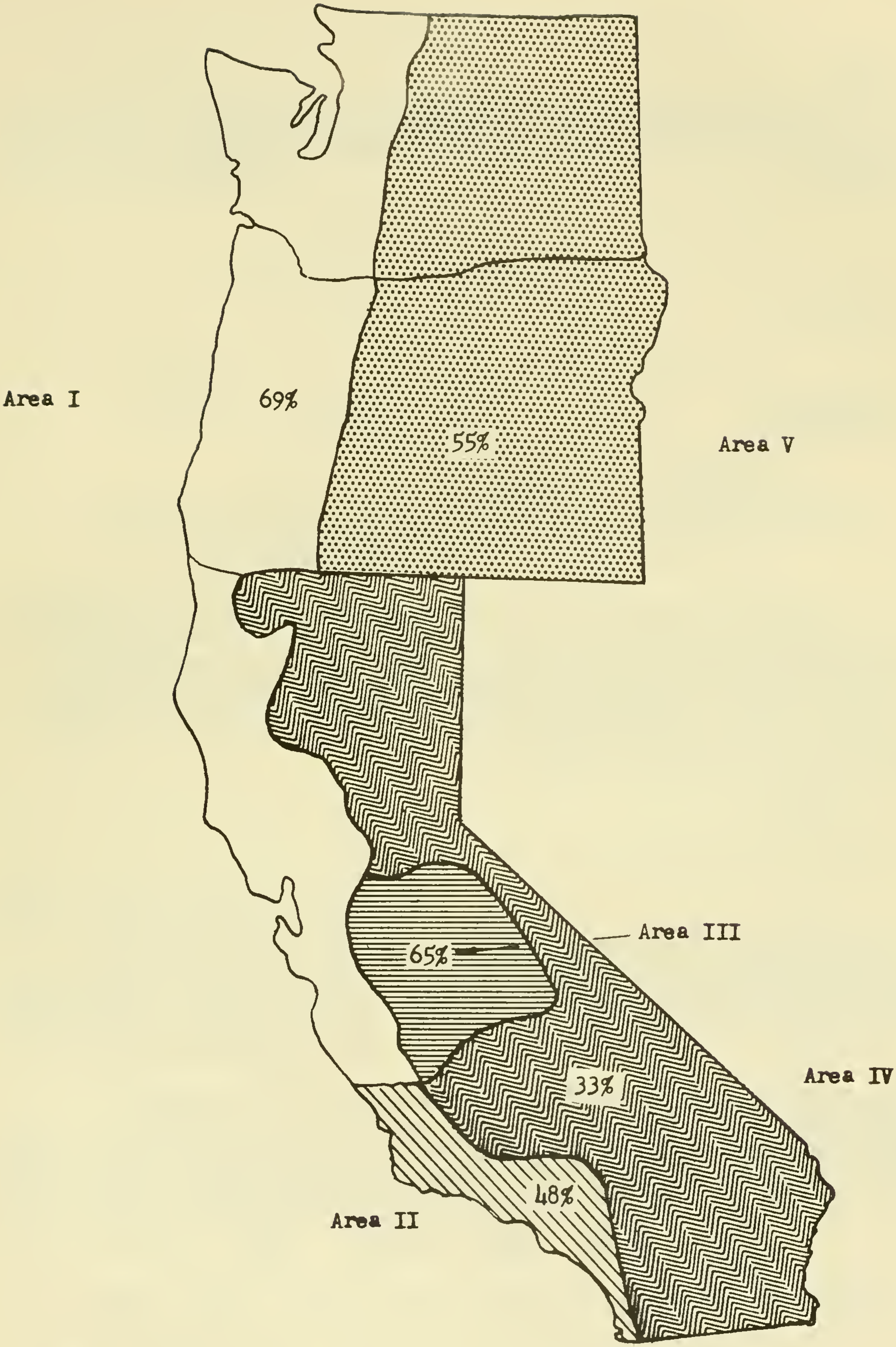

FIGURE - 2.--Percent of all households purchasing fresh fish, by geographic areas, Pacific Coast States, 1956

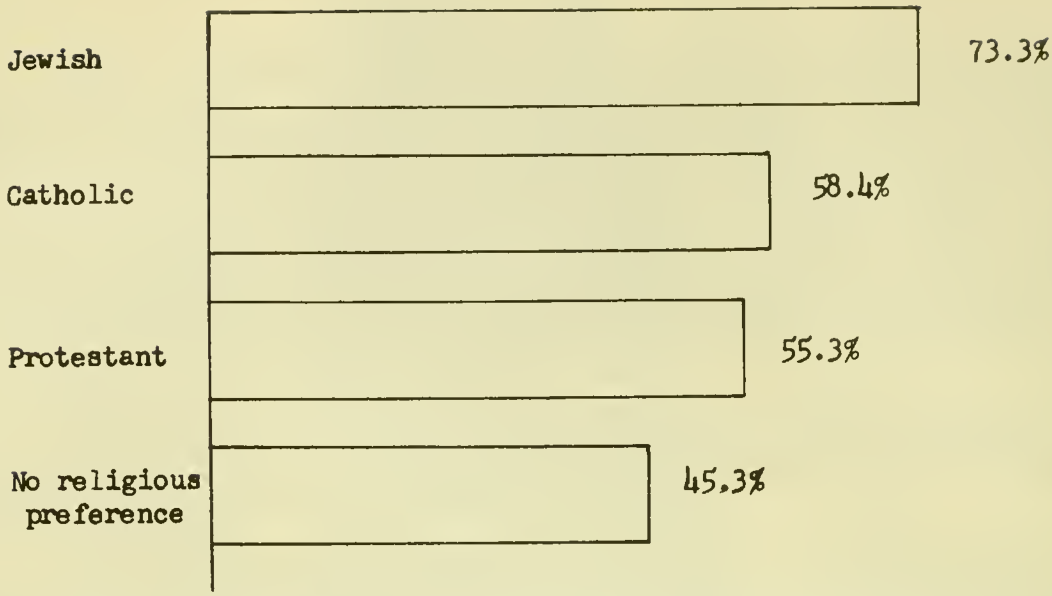

FIGURE - 3.--Percent of all households purchasing fresh fish, by religious groups, Pacific Coast States, 1956

At least 23 percent of the consumers, and as many as 33 percent, said that fresh salmon, halibut, sole, rockfishes, or crab were not available where they did their food shopping. When fish is not available on a particular shopping day consumers frequently shift to substitute products rather than to go to another store for it. About 36 percent of the households interviewed purchased fresh fish at fish markets, while the rest of the food shopping was done elsewhere.

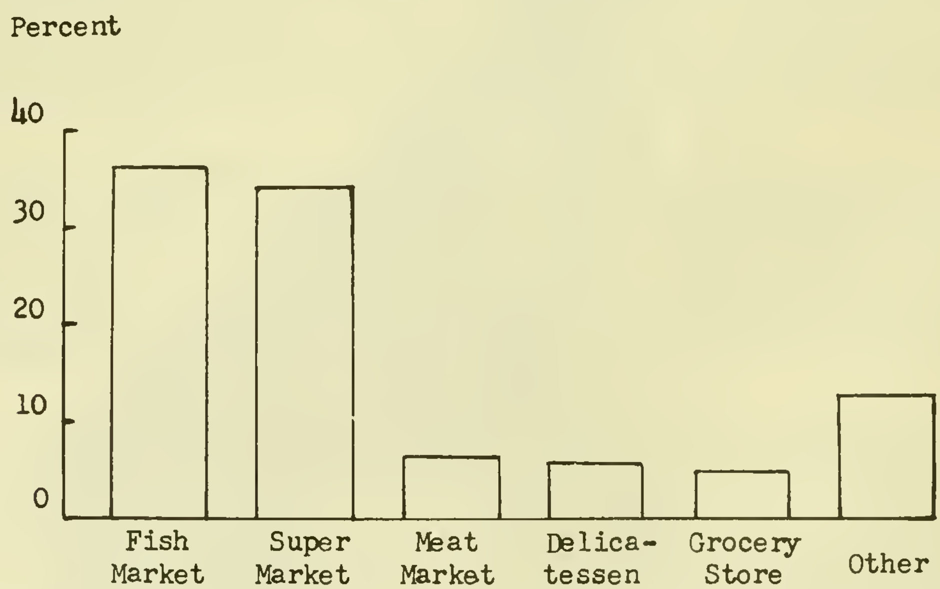

FIGURE - 4.--Fresh fish purchases, Pacific Coast States, 1956

Many consumers reported that fresh fish was frequently of poor quality. This complaint was given much more often by households buying fish in grocery stores and neighborhood markets than by those purchasing it in supermarkets.

Only 16 percent of the households buying fresh fish wanted it prepackaged; 9 percent had no preference. Those desiring prepackaged fresh fish wanted a transparent wrapper, or window-type package which would permit them to see the fish.

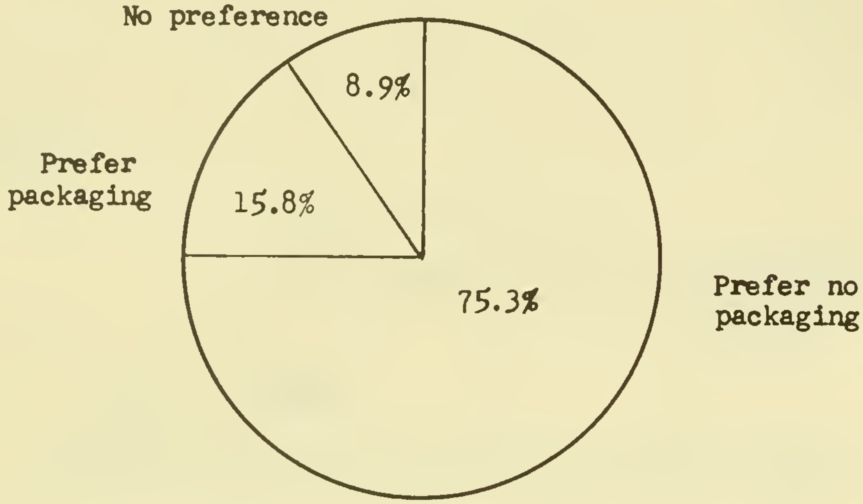

FIGURE - 5.--Consumer preference for prepackaged fresh fish, Pacific Coast States, 1956

Frozen Packaged Fish and Shellfish

About 49 percent of all households interviewed and 67 percent of the households purchasing fish in some form other than canned, bought frozen packaged fish. Nearly as many households in California used frozen packaged fish as those using fresh fish. On the other hand, in Washington and Oregon most households purchased fresh fish.

In general, the percentage of the households buying frozen packaged fish increased with income amd level of education. Sole was the most popular frozen packaged fish. It was purchased by 23 percent of all households. Twenty percent purchased frozen packaged halibut, 11 percent salmon and rockfishes, and about 4 percent purchased crab.

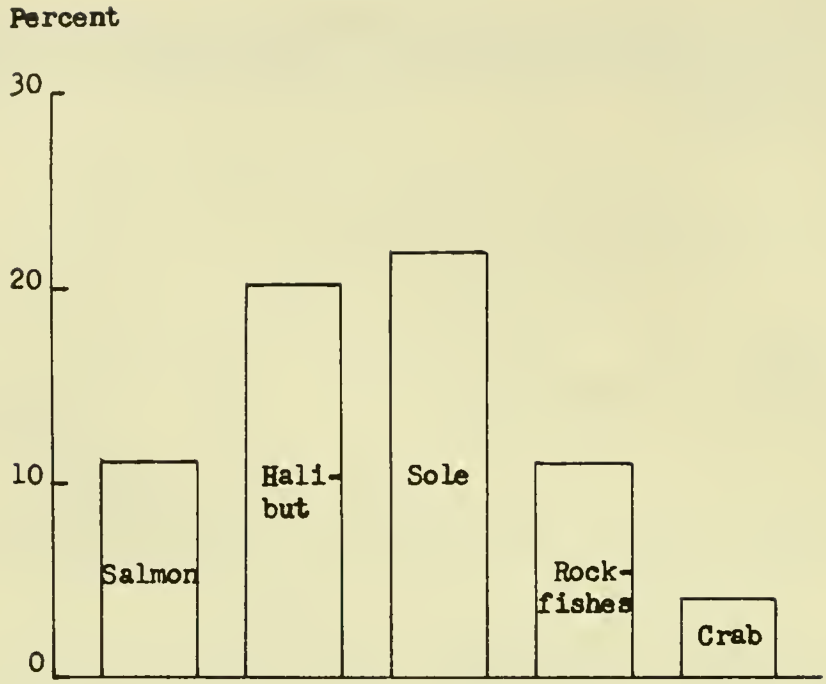

FIGURE - 6.--Percent of frozen packaged fish and shellfish purchased by all households studied, 1956

Nearly 70 percent of the households purchased their frozen packaged fish at supermarkets; most of the remainder was purchased at grocery stores. Most of the households reported that the leading kinds of frozen packaged fish were available where they did their food shopping.

About 39 percent of the consumers interviewed preferred frozen fish to be packaged in a wrapper which allowed the fish to be visible. This was particularly true of unadvertised brands. Twenty-five percent of the purchasers had no preference as to the type of package. Thirty-six percent favored a cardboard box with an over-wrapper.

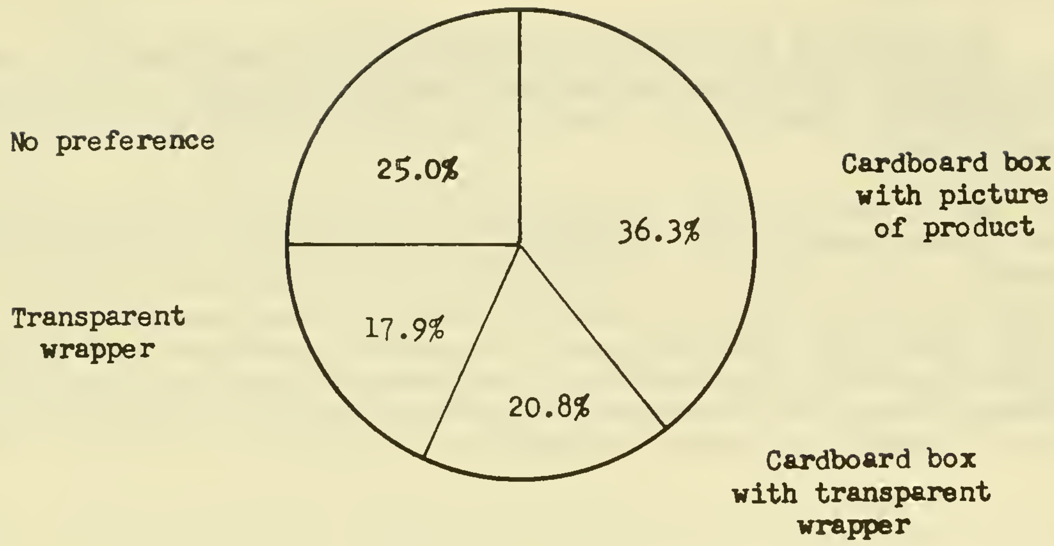

FIGURE - 7.--Consumer preference for frozen packaged fish container, Pacific Coast States, 1956

Forty-two percent of the consumers said they would want frozen fish to be cut into individual servings. Most of the households desiring individual portions did not know what size they preferred the portion to be. About 24 percent wanted a 4-ounce serving.

More than 74 percent of the households would like to have a piece of wax paper or parchment dividing the individual steaks or portions of fillets in a package. This method of packaging aids in the separation of the steaks without complete thawing, and makes possible the cooking of only part of the contents of the package.

Smoked Fish

About one out of four households in the Pacific Coast States bought smoked fish sometime during the survey year. Nearly 44 percent of the households in Washington purchased smoked fish, as compared with 21 percent in California, and 33 percent in Oregon. Salmon was by far the most popular smoked fish item.

Product Preparation

Approximately 80 percent of the households prepared sole and rockfishes by frying. Halibut and salmon were usually fried by 66 and 57 percent of the households, respectively. Most of the other households broiled or baked these items.

One of the important reasons given by consumers for not using more fish, or for not using it more frequently, was that fish cooking odors are objectionable. These odors are associated with the preparation of fish by frying. Also, fish are often over-cooked, and thus even less appealing when fried. More fish undoubtedly would be used if housewives were familiar with alternate methods of preparation. The availability of some good simple recipes would help. Many consumers reported that current recipes are too complicated except for experienced cooks, and call for too many ingredients.

Fresh Fish and Shellfish

Only stores handling fresh, frozen packaged, or smoked fish were interviewed in this study. Fifty-four percent of the retailers questioned sold fresh fish; the proportion was considerably higher in Washington and Oregon than in California. For example, 67 percent of the supermarkets in California sold fresh fish as compared to 100 percent in the other two states. The over-all percentage of each kind of store handling fresh fish in southern California was even lower. This is significant when considering the large potential market for fishery products there.

"Not properly equipped" was the reason most frequently given by retailers for not stocking fresh fish. However, about 84 percent of the stores not selling fish handled fresh meat and consequently had refrigeration equipment. If given proper encouragement and instruction by wholesalers, many of these stores might be induced to sell fresh fish and shellfish.

Of the stores stocking fresh fish and shellfish, nearly all sold salmon, most sold halibut. Crab and rockfishes were handled by 54 and 71 percent of the retailers, respectively.

Most of the retail stores purchased their fresh fish on a delivered basis from a local fish wholesaler. A large number received only one delivery per week. This results in either poor quality fish during most of the week or an inadequate over-the-week supply. Neither alternative is conducive to increased fish sales.

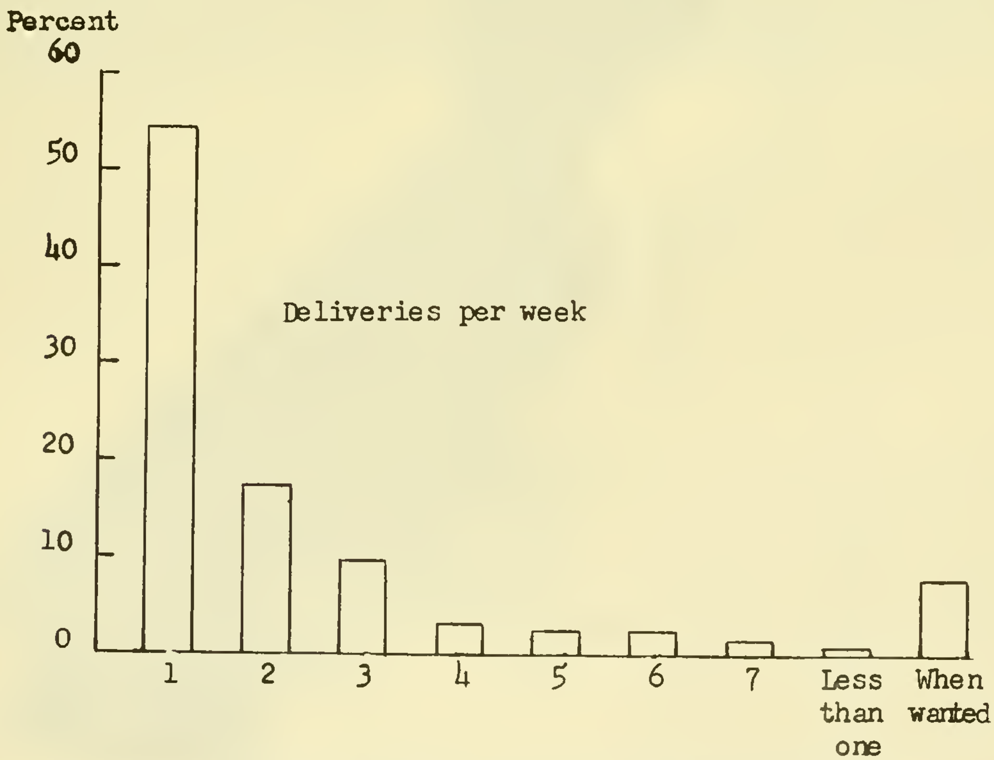

FIGURE - 8.--Percent of all stores receiving fresh fish deliveries, by number of deliveries per week, Pacific Coast States, 1955

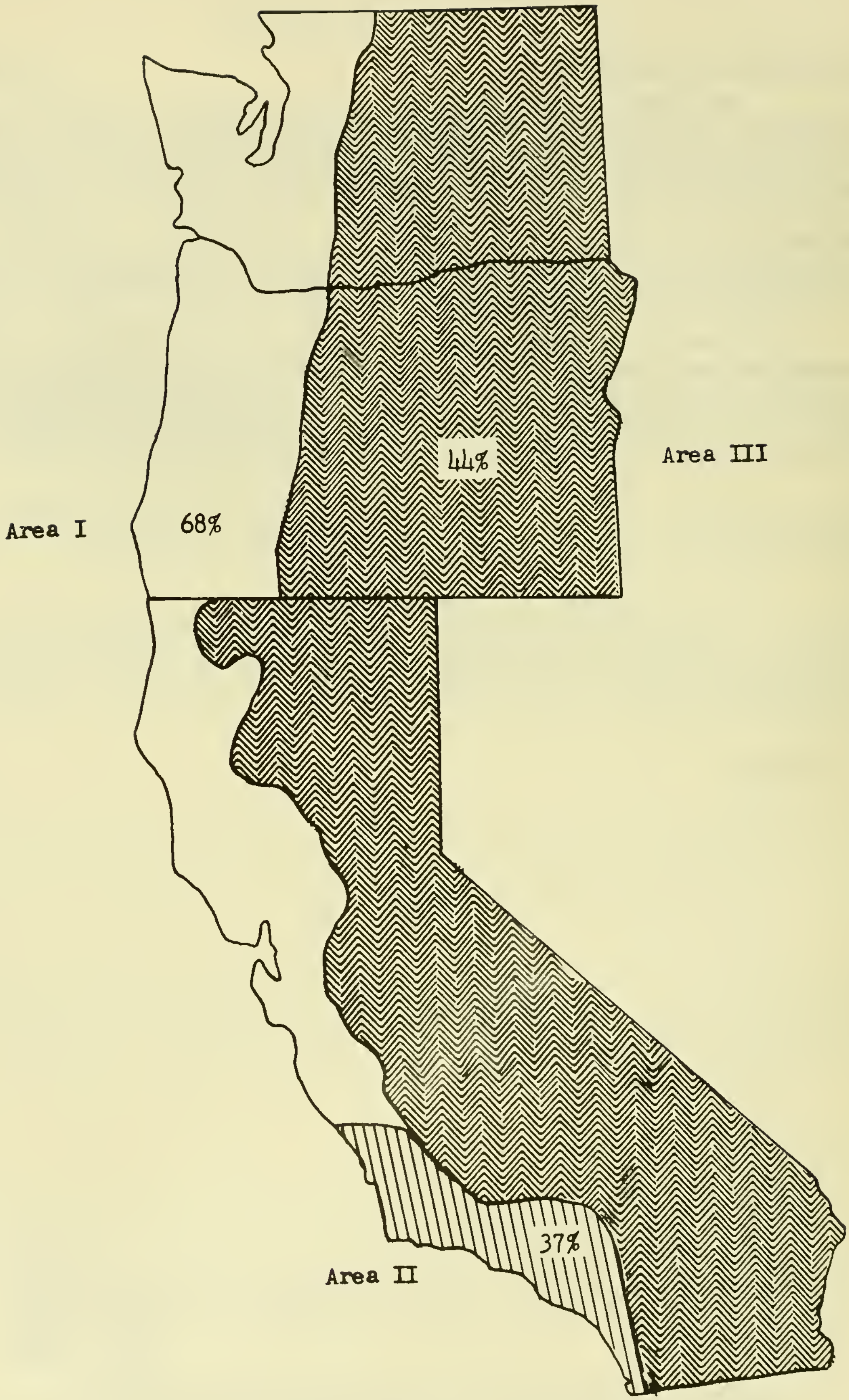

FIGURE - 9.--Percent of all retail stores handling fresh fish, by geographic areas, Pacific Coast States, 1955

Self-service for fresh fish was provided by about 69 percent of the supermarkets in Washington, 28 percent in Oregon, and 19 percent in California. The prepackaging for self-service was done primarily at the retail level. Experienced retailers prepackaged fresh fish shortly before it was sold in order to prevent wet and unattractive packages. Retailers recognized that displays should be kept relatively small in order to control the freshness and quality of the product offered to the public; and to encourage faster turnover.

Roughly 26 percent of the retailers had complaints about the quality of delivered fresh fish. About 41 percent of the complaints was that "fish are not fresh". Many other retailers reported the generally poor quality of fish. In the opinion of retailers quality is, by far, the most important factor affecting fish sales.

The chief problem in handling fresh fish was the lack of efficient display cases. Most retailers used their meat cases for fresh fish. These cabinets are not properly adapted for icing and consequently less than half the retailers utilized icing for their fresh fish while the fish were on display. Thus the quality of the fresh fish deteriorates rapidly and discourages sales. As losses occur, retailers become discouraged about handling the product.

Many retailers were of the opinion that fresh fish icing was desirable even in modern refrigerated cabinets. However, only a minority of those interviewed actually carried out the practice. Much work needs to be done by wholesalers in developing satisfactory display case utilization and in teaching retailers how to handle fresh fish properly.

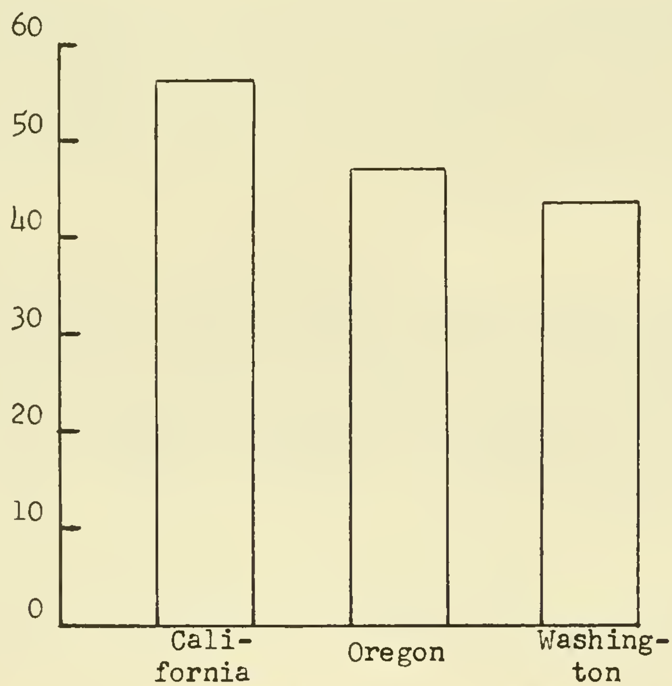

FIGURE - 10.--Percent of all stores using ice in fresh fish display cabinets, Pacific Coast States, 1955

Frozen Packaged Fish and Shellfish

Frozen packaged fishery products were handled by more than 90 percent of the stores, as compared with only 54 percent selling fresh fish. In general, only the fresh fish markets and small neighborhood groceries did not sell frozen packaged fishery products.

About 47 percent of the frozen packaged fishery products was distributed to retailers by frozen food wholesalers. Salmon, halibut, sole, rockfishes, and crab accounted for more than 60 percent of the frozen packaged fishery products sold. Halibut and sole were the two most important items.

Only 9 percent of the retailers had complaints about frozen packaged fish. Most of the criticism was concerned with poor quality. Nearly 40 percent of the adverse comments mentioned off-flavor and off-color.

About 14 percent of the retailers kept the temperature of their frozen food cabinets above 0°F., or above that recommended by the supplier. One of four retailers did not know the temperature setting at which their frozen food display cabinets were then operating, nor did they recognize the significance of 0°F.,or below temperature for frozen fishery products.

Nearly 40 percent of the retailers determined their selling prices by marking up all fishery products a fixed percentage. The amount of markup was often the one suggested by the wholesale distributors. Forty-seven percent of the retailers carried frozen packaged fish as a profit item, while only 21 percent carried fresh fish as a profit item.

More than 40 percent of the retailers said that frozen packaged fish sales were increasing. Sixty-two percent of the supermarkets reported increases in sales. Increased sales were attributed mainly to modern display cases and to the availability of a greater variety of frozen fishery products. Only 19 percent of the retailers reported increases in fresh fish sales.

Smoked Fish

Smoked salmon was sold by 62 to 68 percent of the retailers in Oregon and Washington, but by only 26 percent of the retailers in California. Only 11 percent of the retailers in the three states stocked smoked sablefish. Almost 38 percent of the retailers complained that the smoked fish received was not of uniform quality. Improved packaging was a suggestion offered by retailers when queried as to how smoked fish sales could be increased.

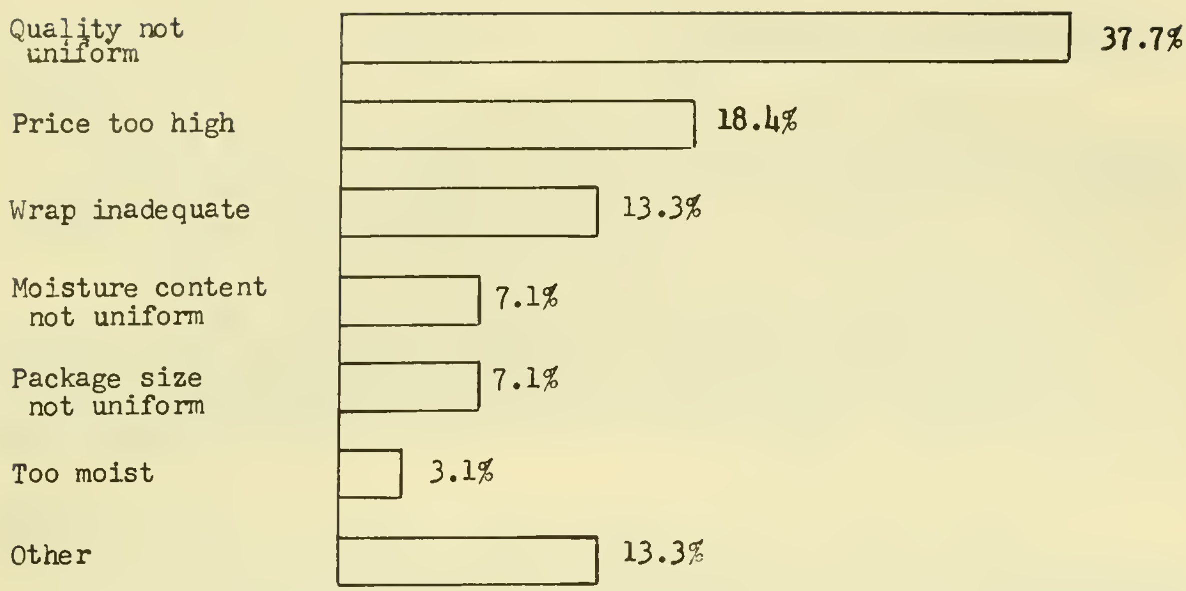

FIGURE - 11.--Complaints of retailers about smoked fish, Pacific Coast States, 1955

General Findings

Only about one out of four retailers did any promotion or advertising of fish. Advertising was more common among supermarkets. Newspapers were the most frequently used advertising medium.

Approximately 52 percent of total fish sales (value) at retail were fresh fish, 44 percent were frozen, and 4 percent were smoked. Fish sales represented 0.76 of one percent of the total store volume.

Retailer-Suggested Marketing Improvements

Marketing improvements suggested by retailers included the following:

(1) more frequent deliveries by wholesalers;

(2) improved packaging material for prepackaged fresh fish;

(3) more advertising by wholesalers; and

(4) greater standardization of packages for frozen fish.

WHOLESALE DISTRIBUTION

Type of Wholesalers and Products

Two general types of wholesalers were interviewed in this study, namely fish wholesalers and frozen food wholesalers. The latter group is composed of frozen food companies, dairies, wholesale grocers, produce companies, and ice companies. These firms distribute frozen packaged fishery products in conjunction with numerous other frozen food items. Wholesalers engaged primarily in the canned fish business were excluded.

Estimated total fish sales by Pacific Coast firms (many of which sell nationally) exceeded $169 million in 1955. Fresh fish sales accounted for about 39 percent of the total, and frozen packaged fish and shellfish for about 28 percent. Smoked fish was only about 3 percent and frozen whole fish equaled about 21 percent.

Twelve percent of the frozen packaged fishery products (by dollar volume) sold by the West Coast fish wholesalers originated in areas other than the Pacific Coast. A much larger percentage of the frozen fishery products sold by frozen food wholesalers came from other areas. It ranged from 56 percent in Washington to 37 percent in California and 31 percent in Oregon. Shrimp, scallops, and fishsticks were the most important products purchased from other areas.

"Not available locally" accounted for more than one-half of the reasons given for purchasing from other regions. One-fifth of the reasons given was that these products were cheaper. The tendency to buy from areas outside of the Pacific Coast was continuing and was expected to increase in the future.

Between 36 and 38 percent of the fresh and frozen fish sold by wholesalers went to retail stores. Twenty-one percent went to institutions such as restaurants, hotels, hospitals, etc. About 39 percent of the fresh and 29 percent of the frozen fish were sold to other wholesalers.

Services Offered

Most wholesalers offered delivery service daily or twice weekly, but not to all customers. Fresh fish deliveries were made along special routes (up to 50 miles) in noninsulated trucks but with the fish iced. Frozen packaged fish commonly was delivered in insulated trucks with mechanical refrigeration equipment. However, a substantial percentage of the local deliveries of all fish was made from trucks without any refrigeration. This practice allows some thawing of the product which is detrimental to quality--particularly when fish is refrozen prior to sale.

Cabinets for displaying frozen fish generally were owned by the retailer. Only 2 percent of the wholesalers reported that they furnished display cabinets to retailers.

Nearly 60 percent of the wholesalers in the three states furnished ice for fresh fish displays at no extra direct charge. This practice was found to be much more prevalent in Washington and Oregon than in California.

Educational work by wholesalers to teach retailers how to handle fish was conducted by 27 percent of the fresh fish wholesalers and about 10 percent of the frozen food wholesalers.

About 70 percent of the fish wholesalers and 37 percent of the frozen food wholesalers did some advertising. The amount spent on advertising, however, was extremely small. It amounted to about 0.2 of one percent of sales in California, Oregon, and Washington. Only about 22 percent of the wholesalers planned to make even moderate increases in advertising expenditures.

Facilities Used

More than one-half of the wholesalers owned or rented freezing facilities in addition to regular frozen storage space. The freezing units had an estimated average capacity of about 32,600 pounds per 24 hours. A large percentage of the wholesalers reported some inadequacies in their equipment during the peak of the season; however, sufficient supplementary public facilities were available. Eighty-five percent of the wholesalers operated frozen product storage facilities, with an estimated average capacity of more than 700,000 pounds. About 44 percent of the wholesalers in Washington and 10 percent in Oregon and California kept their frozen product storage above the recommended temperature of 0°F.

About 63 percent of the fish wholesalers had ice-making equipment with an average estimated capacity of 77,300 pounds per 24 hours. A large part of the total, however, was controlled by a few firms.

Losses due to spoilage of fish and shellfish products were reportedly very small among Pacific Coast wholesalers. Thirty-four percent of the California wholesalers, about 30 percent in Oregon, and 45 percent in Washington reported no loss due to spoilage. The remaining wholesalers had losses of 1 percent or less. Reported losses of frozen packaged products in the three States were even smaller.

Suggestions and Opinions Offered by Wholesalers

Most wholesalers were of the opinion that new products could best be introduced to retailers and institutions through salesmen. Retail stores were reported to be generally receptive to new fishery products, although in California the competition between products for frozen food space inhibited the introduction of some new items.

Several important suggestions were offered by wholesalers on how quality might be improved. Proper care of fish on the boats (including better icing and proper stowing to eliminate bruises) was mentioned most often. Another important suggestion was that boats should make trips of shorter duration in order to improve the quality of the landings.

Better in-plant methods of determining the quality of frozen fish by means of improved inspection methods and adherence to sanitary codes were proposals often made by wholesalers. About 55 percent of the fish wholesalers favored Federal grade standards for fresh fish; 74 percent wanted grade standards for frozen packaged fish products.

Wholesalers, like retailers, were of the opinion that quality is by far the most important factor affecting fish sales. Price of fish and type of store display were the two other factors most frequently mentioned as having an important bearing on fish sales.

RECOMMENDATIONS

Consumer Education

(1) Considerably more advertising, promotional and educational work should be done by the trade. This is particularly important in the light of the tremendous influx of consumers from inland areas who are not accustomed to eating fish. Specific attention should be focused on the southern California market where per capita fish consumption is extremely low. This market contains a large proportion of the population in the three West Coast States.

(2) Wholesalers should undertake educational programs to encourage consumers to use methods other than frying in preparing fish. One of the important consumer complaints about fish is objectionable cooking odors. Such odors occur mainly with fried fish, especially if the quality of the fish has deteriorated.

Retailer, Wholesaler Education

(1) The attitude and knowledge of retailers about fish is the key to successful merchandizing of the product. Organized educational programs should be undertaken to teach retailers the proper methods of handling fresh fish. In particular, the importance of icing fish on display should be stressed even where modern refrigeration cabinets are used. The icing of fish is by far the most satisfactory method yet found for keeping fresh fish from deteriorating rapidly, and at the same time providing an attractive retail display device.

(2) Retailers and wholesalers should be educated about proper storage temperatures for frozen packaged fish and about the maximum storage life for each species of frozen fish. A large proportion of the trade was uninformed on these matters.

Service Improvement

(1) Wholesalers should take the lead in developing a satisfactory display case and procedure for fresh fish; that is, one in which ice can be used properly. In terms of the demand for floor space, technical information on how a portion of the meat case might be remodeled to permit adequate and attractive icing may have greater acceptance with retailers than a separate fish case.

(2) More frequent delivery of fresh fish to retail stores should be considered. The one day a week delivery, which the majority of the stores now receive, results in either poor quality fish part of the week or fish not being available much of the time.

(3) The practice of delivering frozen, packaged fish to retailers in trucks with no refrigeration should be discouraged. Currently it is a common method of handling fishery products.

Product Improvement

(1) The development of Federal grade standards should be encouraged for both fresh and frozen packaged fish.

(2) Wholesalers should encourage the development of more satisfactory packaging material for prepackaged fresh fish. Many additional stores, mainly supermarkets, would handle fresh fish if this were to be done.

(3) Greater stress should be placed on fish quality. Better in-plant methods for determining quality of fresh fish should be established; more rigid sanitary regulations should be enforced; and fishermen should be taught the importance of proper handling, including the proper icing of fish.

Tables Nos. 1 - 77

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Consumer Purchases and Preferences

Items in the tables showing a reported number less than 14 and percentages based on a reported number less than 14 do not give reliable indications for the group to which they refer. They are shown for reference purposes only and should not be used as reliable indications for the group because of the small sample response.

Consumer households referred to in these tables are those purchasing fresh, frozen packaged, or smoked fish or shellfish, excluding canned fishery products.

Fresh, Frozen, Packaged, or Smoked Fish or Shellfish

TABLE - 1.--CONSUMER HOUSEHOLDS PURCHASING FRESH, FROZEN PACKAGED, OR SMOKED FISH OR SHELLFISH, PACIFIC COAST STATES, 1956

State	Households purchasing fish					
	Number			Percent		
	Yes	No	Total	Yes	No	Total
California	1,131	413	1,544	73.3	26.7	100.0
Washington	254	83	337	75.4	24.6	100.0
Oregon	128	55	183	70.0	30.0	100.0
Three states	1,513	551	2,064	73.3	26.7	100.0

TABLE - 2.--REASONS FOR NOT PURCHASING FRESH, FROZEN PACKAGED OR SMOKED FISH OR SHELLFISH, PACIFIC COAST STATES, 1956

Reasons for not purchasing fish	Number of answers				Percent of answers			
	Calif.	Wash.	Oreg.	Three states	Calif.	Wash.	Oreg.	Three states
Don't like	199	24	21	244	46.7	28.6	34.4	42.7
Catch own	65	32	19	116	15.3	38.0	31.2	20.3
Prefer canned	56	5	8	69	13.1	6.0	13.1	12.1
Not accustomed to eating	17	6	3	26	4.0	7.1	4.9	4.6
Not available	9	3	4	16	2.1	3.6	6.6	2.8
Don't like odor	9	1	1	11	2.1	1.2	1.6	1.9
Other	71	13	5	89	16.7	15.5	8.2	15.6
Total	426	84	61	571	100.0	100.0	100.0	100.0

Fresh Fish or Shellfish

TABLE - 3.--CONSUMER HOUSEHOLDS PURCHASING FRESH FISH, PACIFIC COAST STATES, 1956

State	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
California	1,544	1,131	817	52.9	72.2
Oregon	183	128	117	63.9	91.4
Washington	337	254	232	68.8	91.3
Three states	2,064	1,513	1,166	56.5	77.1

TABLE - 4.--CONSUMER HOUSEHOLDS PURCHASING FRESH FISH, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Area	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
I	804	623	558	69.4	89.6
II	898	649	429	47.8	66.1
III	102	79	66	64.7	83.5
IV	132	80	43	32.6	53.8
V	128	82	70	54.7	85.4
All areas	2,064	1,513	1,166	56.5	77.1

TABLE - 5.--RELATIONSHIP OF CITY SIZE TO FRESH FISH PURCHASES, PACIFIC COAST STATES, 1956

City size	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
I (2,500 or less)	207	127	103	49.8	81.1
II (2,500 - 50,000)	241	165	130	53.9	78.8
III (More than 50,000) Metro-suburban	655	499	362	55.3	72.5
IV (More than 50,000) Metro-politan	961	722	571	59.4	79.1
All cities	2,064	1,513	1,166	56.5	77.1

TABLE - 6.--RELATIONSHIP BETWEEN THE PROFESSION OF THE HEAD OF THE HOUSEHOLD AND FRESH FISH PURCHASES, PACIFIC COAST STATES, 1956

Profession	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
Professional and technical	230	202	159	69.1	78.7
Managers, officials, and proprietors	286	228	186	65.0	81.6
Farmers and ranchers	73	55	42	57.5	76.4
Clerical, sales, and kindred workers	234	168	128	54.7	76.2
Craftsmen, foremen, operatives, and kindred workers	525	400	287	54.7	71.8
Service and household workers	128	90	70	54.7	77.8
Laborers except farm and mine	216	139	115	53.2	82.7
Retired, housewives, and unemployed	323	200	155	48.0	77.5
Farm laborers and foremen	40	23	16	40.0	69.6
Others and refused	9	8	8	88.9	100.0
All professions	2,064	1,513	1,166	56.5	77.1

TABLE - 7.--RELATIONSHIP OF FAMILY INCOME TO FRESH FISH PURCHASES, PACIFIC COAST STATES, 1956

Income group	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
Under $2,000	248	155	121	48.8	78.1
$2,000 to $3,999	514	321	251	48.8	78.2
$4,000 to $5,999	599	484	367	61.3	75.8
$6,000 to $7,999	253	221	166	65.6	75.1
$8,000 to $9,999	118	95	75	63.6	78.9
$10,000 or more	82	73	57	69.5	78.1
Refused	64	38	28	43.8	73.7
Don't know	186	126	101	54.3	80.2
All income groups	2,064	1,513	1,166	56.5	77.1

TABLE - 8.--RELATIONSHIP BETWEEN YEARS OF SCHOOLING COMPLETED BY THE HOUSEWIFE AND PURCHASES OF FRESH FISH, PACIFIC COAST STATES, 1956

Years of schooling completed	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
Less than 4	32	21	16	50.0	76.2
4 to 6	79	44	38	48.1	86.4
7 to 8	330	198	151	45.8	76.3
9 to 12	1,084	818	620	57.2	75.8
13 to 16	464	380	292	62.9	76.8
More than 16	30	26	24	80.0	92.3
Other	45	26	25	55.6	96.2
All groups	2,064	1,513	1,166	56.5	77.1

TABLE - 9.--FRESH FISH PURCHASES, BY AREAS OF PRIOR RESIDENCE, PACIFIC COAST STATES, 1956

Area of prior residence	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
Pacific Coast States	668	517	427	63.9	82.6
North Atlantic States	198	162	130	65.7	80.2
South Atlantic States	39	27	13	33.3	48.1
North Central States	541	383	272	50.3	71.0
South Central States	243	158	116	47.7	73.4
Mountain States	223	153	112	50.2	73.2
Canada	30	24	22	73.3	91.7
Mexico	18	8	7	38.9	87.5
Europe	54	40	34	63.0	85.0
Other	50	41	33	66.0	80.5
All households	2,064	1,513	1,166	56.5	77.1

TABLE - 10.--PURCHASE OF FRESH FISH, BY YEARS OF RESIDENCE, PACIFIC COAST STATES, 1956

Years in State	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
1 or less	93	59	34	36.6	57.6
2 to 5	224	158	110	49.1	69.6
6 to 10	260	201	154	59.2	76.6
11 or more	1,487	1,095	868	58.4	79.3
All groups	2,064	1,513	1,166	56.5	77.1

TABLE - 11.--PURCHASE OF FRESH FISH, BY RELIGIOUS GROUPS, PACIFIC COAST STATES, 1956

Religious preference	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
Protestant	1,370	998	758	55.3	76.0
Catholic	485	364	283	58.4	77.7
Jewish	60	52	44	73.3	84.6
No preference	95	59	43	45.3	72.9
Other	54	40	38	70.4	95.0
All groups	2,064	1,513	1,166	56.5	77.1

TABLE - 12.--PURCHASE OF FRESH FISH, BY RACIAL GROUPS, PACIFIC COAST STATES, 1956

Racial groups	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
White	1,904	1,404	1,067	56.0	76.0
Negro	85	61	55	64.7	90.2
Oriental	26	23	23	88.5	100.0
Mexican	28	9	7	25.0	77.8
Other	21	16	14	66.6	88.0
All groups	2,064	1,513	1,166	56.5	77.1

TABLE - 13.--PURCHASE OF FRESH FISH, BY NONFARM AND FARM HOUSEHOLDS, PACIFIC COAST STATES, 1956

Farm or nonfarm	Number of households			Households buying fresh fish as percent of	
	Total studied	Buying fish	Buying fresh fish	Total studied	Those buying fish
Nonfarm	1,931	1,423	1,095	56.7	77.0
Farm	133	90	71	53.4	78.9
All groups	2,064	1,513	1,166	56.5	77.1

TABLE - 14.--KINDS OF FRESH FISH AND SHELLFISH PURCHASED BY CONSUMER HOUSEHOLDS, PACIFIC COAST STATES, 1956

Species	Number of households buying selected fresh fish				Households buying fresh fish as percent of							
					Those buying fish				Total studied			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
Salmon	441	83	167	691	54.0	70.9	72.0	59.3	28.6	45.4	49.6	33.5
Halibut	487	70	133	690	59.6	59.8	57.3	59.2	31.5	38.3	39.5	33.4
Sole	432	52	115	599	52.9	44.4	49.6	51.4	28.0	28.4	34.1	29.0
Rockfishes	241	47	109	397	29.5	40.2	47.0	34.0	15.6	25.7	32.3	19.2
Crab	289	63	109	461	35.4	53.8	47.0	39.5	18.7	34.4	32.3	22.3
Shrimp	226	10	41	277	27.7	8.5	17.7	23.8	14.6	5.5	12.2	13.4
Other bottomfish	105	3	12	120	12.9	2.6	5.2	10.3	6.8	1.6	3.6	5.8
Other shellfish 1/	150	29	54	233	18.4	24.8	23.3	20.0	9.7	15.8	16.0	11.3
Pelagic fish 2/	117	41	56	214	14.3	35.0	24.1	18.4	7.6	22.4	16.6	10.4
Fresh water fish	74	6	2	82	9.1	5.1	0.9	7.0	4.8	3.3	0.6	4.0
Other	17	2	2	21	2.1	1.7	0.9	1.8	1.1	1.1	0.6	1.0
All fresh fish	817	117	232	1,166	72.2	91.4	91.3	77.1	52.9	63.9	68.8	56.5

1/ Includes abalone, clams, oysters, and lobsters.

2/ This term means open ocean or free swimming. It is used in contrast to the fish spending most of their lives on the bottom of the ocean. Included in this classification are tuna, swordfish, barracuda, herring, smelt, and mackerel.

TABLE - 15.--KINDS OF FRESH FISH AND SHELLFISH PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Species	Households purchasing fresh fish					
	Number by areas					
	I	II	III	IV	V	All areas
Salmon	367	222	32	23	47	691
Halibut	301	285	36	28	40	690
Sole	343	175	37	17	27	599
Rockfishes	194	118	31	12	42	397
Crab	320	73	30	10	28	461

Species	Households purchasing fresh fish					
	Percent by areas					
	I	II	III	IV	V	All areas
Salmon	65.8	51.7	48.5	53.5	67.1	59.3
Halibut	53.9	66.4	54.5	65.1	57.1	59.2
Sole	61.5	40.8	56.1	39.5	38.6	51.4
Rockfishes	34.8	27.5	47.0	27.9	60.0	34.0
Crab	57.3	17.0	45.5	23.3	40.0	39.5

TABLE - 16.--CONSUMER HOUSEHOLD PURCHASES OF FISH AND SHELLFISH, BY CITY SIZE, PACIFIC COAST STATES, 1956

Species	City size				
	I Less than 2,500	II 2,500 to 50,000	III Over 50,000 (metro-suburban)	IV Over 50,000 (metropolitan)	Total
			Number of households purchasing		
Salmon	64	90	178	359	691
Halibut	52	76	210	352	690
Sole	42	62	196	299	599
Rockfishes	48	39	128	182	397
Crab	40	50	143	228	461
			Percent of all households interviewed		
Salmon	30.9	37.3	27.2	37.4	33.5
Halibut	25.1	31.5	32.1	36.6	33.4
Sole	20.3	25.7	29.9	31.1	29.0
Rockfishes	23.2	16.2	19.5	18.9	19.2
Crab	19.3	20.7	21.8	23.7	22.3
			Percent of those households buying fresh fish		
Salmon	62.1	69.2	49.2	62.9	59.3
Halibut	50.5	58.5	58.0	61.6	59.2
Sole	40.8	47.7	54.1	52.4	51.4
Rockfishes	46.6	30.0	35.4	31.9	34.0
Crab	38.8	38.5	39.5	39.9	39.5

TABLE - 17.--RELATIONSHIP OF INCOME TO KIND OF FRESH FISH AND SHELLFISH PURCHASED BY PACIFIC COAST CONSUMERS, 1956

Species	Households purchasing selected fresh fish by income groups						
	Under $2,000	$2,000-$3,999	$4,000-$5,999	$6,000-$7,999	$8,000-$9,999	Over $10,000	Income refused
			Number of households				
Salmon	63	146	230	97	43	41	16
Halibut	62	133	239	99	43	34	23
Sole	74	113	191	79	39	34	9
Rockfishes	44	98	122	48	18	16	9
Crab	30	77	164	76	35	27	6
			Percent of all households				
Salmon	25.4	28.4	38.4	38.3	36.4	50.0	25.0
Halibut	25.0	25.9	39.9	39.1	36.4	41.5	35.9
Sole	29.8	22.0	31.9	31.2	33.1	41.5	14.1
Rockfishes	17.7	19.1	20.4	19.0	15.3	19.5	14.1
Crab	12.1	15.0	27.4	30.0	29.7	32.9	9.4
			Percent of those households buying fresh fish				
Salmon	52.1	58.2	62.7	58.4	57.3	71.9	57.1
Halibut	51.2	53.0	65.1	59.6	57.3	59.6	82.1
Sole	61.2	45.0	52.0	47.6	52.0	59.6	32.1
Rockfishes	36.4	39.0	33.2	28.9	24.0	28.1	32.1
Crab	24.8	30.7	44.7	45.8	46.7	47.4	21.4

TABLE - 18.--RELATIONSHIP OF LENGTH OF RESIDENCE ON THE PACIFIC COAST AND KINDS OF FRESH FISH AND SHELLFISH PURCHASED, 1956

Species	Households purchasing selected fresh fish by length of residence							
	Households buying fish				All households			
	1 yr. or less	2-5 yrs.	6-10 yrs.	11 yrs. or more	1 yrs. or less	2-5 yrs.	6-10 yrs.	11 yrs. or more
	Percent				Percent			
Salmon	47.1	57.3	59.7	84.0	17.2	28.1	35.4	35.0
Halibut	44.1	57.3	55.2	85.1	16.1	28.1	32.7	35.4
Sole	29.4	49.1	48.7	74.3	10.8	24.1	28.8	30.9
Rockfishes	29.4	32.7	32.5	48.6	10.8	16.1	19.2	20.2
Crab	14.7	37.3	35.1	58.3	5.4	18.3	20.8	24.3

TABLE - 19.--CONSUMER KNOWLEDGE OF THE AVAILABILITY OF FRESH FISH AND SHELLFISH PRODUCTS, PACIFIC COAST STATES, 1956

Species	Households answering			
	Available	Not available	Don't know	Total
			Number	
Salmon	475	173	43	691
Halibut	480	165	45	690
Sole	400	158	41	599
Rockfishes	260	93	44	397
Crab	266	154	41	461
			Percent	
Salmon	68.8	25.0	6.2	100.0
Halibut	69.6	23.9	6.5	100.0
Sole	66.8	26.4	6.8	100.0
Rockfishes	65.5	23.4	11.1	100.0
Crab	57.7	33.4	8.9	100.0

TABLE - 20.--TYPE OF STORE WHERE FRESH FISH WERE PURCHASED, PACIFIC COAST STATES, 1956

Type of store	Households purchasing fresh fish							
	Calif.	Oreg.	Wash.	Three states	Calif.	Oreg.	Wash.	Three states
	Number				Percent			
Fish market	305	34	82	421	37.3	29.1	35.4	36.1
Supermarket	293	41	64	398	35.9	35.0	27.6	34.1
Meat market	50	13	11	74	6.1	11.1	4.7	6.4
Delicatessen	36	12	19	67	4.4	10.3	8.2	5.7
Grocery store	47	1	9	57	5.8	0.9	3.9	4.9
Other	86	16	47	149	10.5	13.6	20.2	12.8
All stores	817	117	232	1,166	100.0	100.0	100.0	100.0

TABLE - 21.--TYPE OF STORE WHERE FRESH FISH WERE PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Geographic area	Households purchasing fresh fish						
	Fish market	Super-market	Meat market	Delica-tessen	Grocery store	Other	Total
				Number			
I	230	144	43	47	21	73	558
II	142	184	14	14	27	48	429
III	28	18	9	1	5	5	66
IV	15	17	-	-	3	8	43
V	6	35	8	5	1	15	70
All areas	421	398	74	67	57	149	1,166
				Percent			
I	41.2	25.8	7.7	8.4	3.8	13.1	100.0
II	33.1	42.9	3.3	3.3	6.3	11.1	100.0
III	42.4	27.3	13.6	1.5	7.6	7.6	100.0
IV	34.9	39.5	-	-	7.0	18.6	100.0
V	8.6	50.0	11.4	7.2	1.4	21.4	100.0
All areas	36.1	34.1	6.3	5.8	4.9	12.8	100.0

TABLE - 22.--TYPE OF STORE WHERE FRESH FISH WERE PURCHASED, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

Income groups	Households purchasing fresh fish						
	Fish market	Super-market	Meat market	Grocery store	Delica-tessen	Other 1/	Other
				Percent			
Under $2,000	29.8	37.2	5.8	3.3	6.6	17.3	100.0
$2,000 to 3,999	35.0	30.3	8.8	6.4	4.0	15.5	100.0
$4,000 to 5,999	36.8	36.0	6.5	4.5	4.2	12.0	100.0
$6,000 to 7,999	32.5	34.4	3.6	6.0	11.5	12.0	100.0
$8,000 to 9,999	41.4	32.0	1.3	5.3	10.7	9.3	100.0
$10,000 or more	33.3	47.3	5.3	5.3	3.5	5.3	100.0
Refused	39.2	28.6	14.3	7.2	-	10.7	100.0
Don't know	46.5	28.7	6.9	1.0	5.0	11.9	100.0
All groups	36.1	34.1	6.3	4.9	5.8	12.8	100.0

1/ Includes those households that marked two types of stores -- street peddlers and retail outlets not included in above.

TABLE - 23.--COMPLAINTS ABOUT THE HANDLING OF FRESH FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1956

Type of store	Complaints about fresh fish					
	Not fresh	Not iced	Poor display	Frozen and thawed	Other	Total
	Number					
Fish market	17	-	2	2	18	39
Supermarket	24	2	1	3	21	51
Meat market	5	-	-	2	1	8
Grocery store	20	-	-	-	6	26
Fish peddler	8	1	-	1	-	10
Other	8	-	1	-	10	19
Total	82	3	4	8	56	153
	Percent					
Fish market	43.6	-	5.1	5.1	46.2	100.0
Supermarket	47.0	3.9	2.0	5.9	41.2	100.0
Meat market	62.5	-	-	25.0	12.5	100.0
Grocery store	76.9	-	-	-	23.1	100.0
Fish peddler	80.0	10.0	-	10.0	-	100.0
Other	42.1	-	5.3	-	52.6	100.0
All stores	53.6	2.0	2.6	5.2	36.6	100.0

TABLE - 24.--CONSUMER PREFERENCE FOR PREPACKAGED FRESH FISH, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Area	Number of households buying fresh fish	Preference for prepackaged fresh fish			
		Prefer prepackaged	Prefer no prepackaging	No preference	Total
		Percent	Percent	Percent	Percent
I	558	12.4	78.8	8.8	100.0
II	429	17.0	73.7	9.3	100.0
III	66	12.1	84.9	3.0	100.0
IV	43	20.9	69.8	9.3	100.0
V	70	35.7	51.4	12.9	100.0
All areas	1,166	15.8	75.3	8.9	100.0

TABLE - 25.--TYPE OF PACKAGE PREFERRED FOR FRESH FISH, PACIFIC COAST STATES, 1956

Type of package	Preference for type of package			
	California	Oregon	Washington	Three states
Number of respondents	109	19	56	184
	Percent	Percent	Percent	Percent
Cardboard tray with transparent wrapper	35.8	31.6	51.8	40.2
Transparent wrapper	28.4	52.6	21.4	28.8
No preference	35.8	15.8	26.8	31.0
Total	100.0	100.0	100.0	100.0

TABLE - 26.--REASONS FOR NOT PURCHASING MORE FRESH FISH, PACIFIC COAST STATES, 1956

Reasons	Number of answers			
	California	Oregon	Washington	Three states
Eating enough now	355	38	66	459
Don't like	108	23	27	158
Not available	72	14	26	112
Catch ample supply	51	11	31	93
Price too high	30	12	31	73
Fish not fresh	33	2	9	44
No special reason	80	17	25	122
Other	136	13	41	190
Total reasons	865	130	256	1,251
	Percent of users			
Eating enough now	43.5	32.5	28.4	39.4
Don't like	13.2	19.7	11.6	13.5
Not available	8.8	12.0	11.2	9.6
Catch ample supply	6.2	9.4	13.3	8.0
Price too high	3.7	10.2	13.4	6.2
Fish not fresh	4.0	1.7	3.9	3.8
No special reason	9.8	14.5	10.8	10.5
Other	16.6	11.1	17.7	16.3

Note: 1,166 households purchasing fresh fish. Some households gave more than one answer.

TABLE - 27.--REASONS FOR NOT PURCHASING MORE FRESH FISH AND SHELLFISH BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Reasons	Number of answers by areas					
	I	II	III	IV	V	All areas
Eat enough now	204	197	27	12	19	459
Don't like odor	77	65	8	5	3	158
Not available	51	24	11	15	11	112
Catch ample supply	46	25	6	6	10	93
Price too high	40	17	4	2	10	73
Fish not fresh	15	24	1	2	2	44
No special reason	73	33	6	2	8	122
Other	87	75	7	4	17	190
Total	593	460	70	48	80	1,251
	Percent of users					
Eat enough now	36.6	45.9	40.9	27.9	27.1	39.4
Don't like odor	13.8	15.1	12.1	11.6	4.3	13.5
Not available	9.1	5.6	16.7	34.9	15.7	9.6
Catch ample supply	8.2	5.8	9.1	14.0	14.3	8.0
Price too high	7.2	4.0	6.1	4.6	14.3	6.2
Fish not fresh	2.7	5.6	1.5	4.7	2.9	3.8
No special reason	13.1	7.7	9.1	4.6	11.4	10.5
Other	15.6	17.5	10.6	9.3	24.3	16.3

TABLE - 28.--HOUSEHOLDS PURCHASING FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

State	Number purchasing frozen packaged fish			Households buying frozen packaged fish as percent of	
	Yes	No	Total	Total studied	Those buying fish
California	797	334	1,131	51.6	70.5
Oregon	87	41	128	47.5	68.0
Washington	125	129	254	37.1	49.2
Three states	1,009	504	1,513	48.9	66.7

TABLE - 29.--HOUSEHOLDS PURCHASING FROZEN PACKAGED FISH, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Area	Number of households			Households buying frozen packaged fish as percent of	
	Total studied	Total buying fish	Buying frozen packaged fish	Total studied	Those buying fish
I	804	623	372	46.3	59.7
II	898	649	472	52.6	72.7
III	102	79	52	51.0	65.8
IV	132	80	69	52.3	86.3
V	128	82	44	34.4	53.7
Total	2,064	1,513	1,009	48.9	66.7

TABLE - 30.--PURCHASE OF FROZEN PACKAGED FISH, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

Income groups	Number of households			Households buying frozen packaged fish as percent of	
	Total studied	Total buying fish	Buying frozen packaged fish	Total studied	Those buying fish
Under $2,000	248	155	84	33.9	54.2
$2,000 to 3,999	514	321	198	38.5	61.7
$4,000 to 5,999	599	484	336	56.1	69.4
$6,000 to 7,999	253	221	169	66.8	76.5
$8,000 to 9,999	118	95	66	55.9	69.5
$10,000 or more	82	73	61	74.4	83.6
Income refused	64	38	22	34.4	57.9
Don't know	186	126	73	39.2	57.9
All groups	2,064	1,513	1,009	48.9	66.7

TABLE - 31.--PURCHASE OF FROZEN PACKAGED FISH, BY YEARS OF SCHOOLING COMPLETED BY HOUSEWIFE, PACIFIC COAST STATES, 1956

Years of schooling completed	Number of households			Households buying frozen packaged fish as percent of	
	Total studied	Total buying fish	Buying frozen packaged fish	Total studied	Those buying fish
Less than 4	32	21	11	34.4	52.4
4 to 6	79	44	17	21.5	38.6
7 to 8	330	198	105	31.8	53.0
9 to 12	1,084	818	564	52.0	68.9
13 to 16	464	380	284	61.2	74.7
More than 16	30	26	18	60.0	69.2
Refused or don't know	45	26	10	22.2	38.5
Total	2,064	1,513	1,009	48.9	66.7

TABLE - 32.--PURCHASE OF FROZEN PACKAGED FISH, BY PRIOR RESIDENCE, PACIFIC COAST STATES, 1956

Prior residence	Number of households			Households buying frozen packaged fish as percent of	
	Total studied	Total buying fish	Buying frozen packaged fish	Total studied	Those buying fish
Native	668	517	335	50.1	64.8
North Atlantic	198	162	114	57.6	70.4
South Atlantic	39	27	20	51.3	74.1
North Central	541	383	262	48.4	68.4
South Central	243	158	108	44.4	68.4
Mountain	223	153	116	52.0	75.8
Canada	30	24	12	40.0	50.0
Mexico	18	8	1	5.6	12.5
Europe	54	40	18	33.3	45.0
Other	50	41	23	46.0	56.0
All groups	2,064	1,513	1,009	48.9	66.7

TABLE - 33.--PURCHASE OF FROZEN PACKAGED FISH, BY LENGTH OF RESIDENCE, PACIFIC COAST STATES, 1956

Years of residence	Number of households			Households buying frozen packaged fish as percent of	
	Total studied	Total buying fish	Buying frozen packaged fish	Total studied	Those buying fish
0 to 1	93	59	44	47.3	74.6
2 to 5	224	158	115	51.3	72.8
6 to 10	260	201	136	52.3	67.7
11 or more	1,487	1,095	714	48.0	65.2
All groups	2,064	1,513	1,009	48.9	66.7

TABLE - 34.--PURCHASE OF FROZEN PACKAGED FISH, BY RELIGIOUS GROUPS, PACIFIC COAST STATES, 1956

Religious preference	Number of households			Households buying frozen packaged fish as percent of	
	Total studied	Total buying fish	Buying frozen packaged fish	Total studied	Those buying fish
Protestant	1,370	998	659	48.1	66.0
Catholic	485	364	261	53.8	71.7
Jewish	60	52	18	30.0	34.6
No preference	95	59	51	53.7	86.4
Other	54	40	20	37.0	50.0
All groups	2,064	1,513	1,009	48.9	66.7

TABLE - 35.--REASONS FOR NOT PURCHASING FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

Reasons	Number of answers				Percent of answers			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Three states
No special reason	32	4	21	57	8.4	8.8	15.3	10.0
Prefer fresh fish	224	15	63	302	58.9	32.6	46.0	53.6
No flavor	33	8	8	49	8.7	17.4	5.8	8.7
Not accustomed to eating	24	2	7	33	6.3	4.3	5.1	5.9
Catch own fresh fish	8	2	10	20	2.2	4.3	7.3	3.6
Price too high	12	2	6	20	3.2	4.3	4.4	3.6
Quality not uniformly good	10	5	4	19	2.6	10.9	3.0	3.4
Other	37	8	18	63	9.7	17.4	13.1	11.2
Total	380	46	137	563	100.0	100.0	100.0	100.0

Note: 504 households purchasing frozen packaged fish. Some households gave more than one answer.

TABLE - 36.--KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED, PACIFIC COAST STATES, 1956

Species	Households purchasing frozen packaged fish			
	California	Oregon	Washington	Three states
	Number purchasing each kind			
Salmon	180	16	34	230
Halibut	358	24	35	417
Sole	391	37	40	468
Rockfishes	188	13	26	227
Crab	49	8	15	72
	Percent of households purchasing frozen packaged fish			
Salmon	22.6	18.3	27.2	22.8
Halibut	44.9	27.6	28.0	41.3
Sole	49.1	42.5	32.0	46.4
Rockfishes	23.6	14.9	20.8	22.5
Crab	6.1	9.2	12.0	7.1
	Percent of households purchasing fish (other than canned)			
Salmon	15.9	12.5	13.4	15.2
Halibut	31.7	18.8	13.8	27.6
Sole	34.6	28.9	15.7	30.9
Rockfishes	16.6	10.2	10.2	15.0
Crab	4.3	6.2	5.9	4.8
	Percent of all households studied			
Salmon	11.7	8.7	10.1	11.1
Halibut	23.2	13.1	10.4	20.2
Sole	25.3	20.2	11.9	22.7
Rockfishes	12.2	7.1	7.7	11.0
Crab	3.2	4.4	4.5	3.5

TABLE - 37.--KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Species	Households purchasing frozen packaged fish by area					
	I	II	III	IV	V	All areas
	Number purchasing each kind					
Salmon	81	107	15	16	11	230
Halibut	111	227	31	32	16	417
Sole	163	224	27	37	17	468
Rockfishes	75	73	38	30	11	227
Crab	28	32	6	-	6	72
	Percent of households purchasing frozen packaged fish					
Salmon	21.8	22.7	28.8	23.2	25.0	22.8
Halibut	29.8	48.1	59.6	46.4	36.4	41.3
Sole	43.8	47.5	51.9	53.6	38.6	46.4
Rockfishes	20.2	15.5	73.1	43.5	25.0	22.5
Crab	7.5	6.8	11.5	-	13.6	7.1
	Percent of households purchasing fish (other than canned)					
Salmon	13.0	16.5	19.0	20.0	13.4	15.2
Halibut	17.8	35.0	39.2	40.0	19.5	27.6
Sole	26.2	34.5	34.2	46.3	20.7	30.9
Rockfishes	12.0	11.2	48.1	37.5	13.4	15.0
Crab	4.5	4.9	7.6	-	7.3	4.8
	Percent of all households studied					
Salmon	10.1	11.9	14.7	12.1	8.6	11.1
Halibut	13.8	25.3	30.4	24.2	12.5	20.2
Sole	20.3	24.9	26.5	28.0	13.3	22.7
Rockfishes	9.3	8.1	37.3	22.7	8.6	11.0
Crab	3.5	3.6	5.9	-	4.7	3.5

TABLE - 38.--KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED BY CITY SIZE, PACIFIC COAST STATES, 1956

Species	Households purchasing frozen packaged fish by city size				
	I Less than 2,500	II 2,500 to 50,000	III Over 50,000 (metro-suburban)	IV Over 50,000 (metropolitan)	Total
			Number purchasing each kind		
Salmon	11	27	77	115	230
Halibut	25	34	170	188	417
Sole	38	41	182	207	468
Rockfishes	26	31	86	84	227
Crab	2	8	20	42	72
			Percent of households purchasing frozen packaged fish		
Salmon	14.1	27.0	20.8	24.9	22.8
Halibut	32.1	34.0	45.9	40.8	41.3
Sole	48.7	41.0	49.2	44.9	46.4
Rockfishes	33.3	31.0	23.2	18.2	22.5
Crab	2.6	8.0	5.4	9.1	7.1
			Percent of households purchasing fish (other than canned)		
Salmon	8.7	16.4	15.5	15.9	15.2
Halibut	19.7	20.6	34.1	26.0	27.6
Sole	29.9	24.8	36.5	28.7	30.9
Rockfishes	20.5	18.8	17.3	11.6	15.0
Crab	1.6	4.8	4.0	5.8	4.8
			Percent of all households studied		
Salmon	5.3	11.2	11.8	12.0	11.1
Halibut	12.1	14.1	26.0	19.6	20.2
Sole	18.4	17.0	27.8	21.5	22.7
Rockfishes	12.6	12.9	13.1	8.7	11.0
Crab	1.0	3.3	3.1	4.4	3.5

TABLE - 39.--KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

Species	Households purchasing frozen packaged fish by income groups							
	Under $2,000	$2,000 to $3,999	$4,000 to $5,999	$6,000 to $7,999	$8,000 to $9,999	$10,000 or more	Refused or don't know	All groups
	Number purchasing each kind							
Salmon	16	43	76	45	18	10	22	230
Halibut	26	74	156	68	31	25	37	417
Sole	42	79	151	79	42	31	44	468
Rockfishes	22	53	78	36	10	7	21	227
Crab	10	16	18	9	11	3	5	72
	Percent of households purchasing frozen packaged fish							
Salmon	19.0	21.7	22.6	26.6	27.3	16.4	23.2	22.8
Halibut	31.0	37.4	46.4	40.2	47.0	41.0	38.9	41.3
Sole	50.0	39.9	44.9	46.7	63.6	50.8	46.3	46.4
Rockfishes	26.2	26.8	23.2	21.3	15.2	11.5	22.1	22.5
Crab	11.9	8.1	5.4	5.3	16.7	4.9	5.3	7.1
	Percent of households purchasing fish (other than canned)							
Salmon	10.3	13.4	15.7	20.4	18.9	13.7	13.4	15.2
Halibut	16.8	23.1	32.2	30.8	32.6	34.2	22.6	27.6
Sole	27.1	24.6	31.2	35.7	44.2	42.5	26.8	30.9
Rockfishes	14.2	16.5	16.1	16.3	10.5	9.6	12.8	15.0
Crab	6.5	5.0	3.7	4.1	11.6	4.1	3.0	4.8
	Percent of all households studied							
Salmon	6.5	8.4	12.7	17.8	15.3	12.2	8.8	11.1
Halibut	10.5	14.4	26.0	26.9	26.3	30.5	14.8	20.2
Sole	16.9	15.4	25.2	31.2	35.6	37.8	17.6	22.7
Rockfishes	8.9	10.3	13.0	14.2	8.5	8.5	8.4	11.0
Crab	4.0	3.1	3.0	3.6	9.3	3.7	2.0	3.5

TABLE - 40.--RELATIONSHIP BETWEEN KINDS OF FROZEN PACKAGED FISH AND SHELLFISH PURCHASED AND LENGTH OF RESIDENCE, PACIFIC COAST STATES, 1956

Species	Households purchasing by length of residence				
	1 year or less	2 to 5 years	6 to 10 years	More than 10 years	All groups
			Number purchasing each kind		
Salmon	9	24	31	166	230
Halibut	18	48	63	288	417
Sole	17	47	53	351	468
Rockfishes	12	36	26	153	227
Crab	-	8	6	58	72
			Percent of households purchasing frozen packaged fish		
Salmon	20.5	20.9	22.8	23.2	22.8
Halibut	40.9	41.7	46.3	40.3	41.3
Sole	38.6	40.9	39.0	49.2	46.4
Rockfishes	27.3	31.3	19.1	21.4	22.5
Crab	-	7.0	4.4	8.1	7.1
			Percent of households purchasing fish (other than canned)		
Salmon	15.3	15.2	15.4	15.2	15.2
Halibut	30.5	30.4	31.3	26.3	27.6
Sole	28.8	29.7	26.4	32.1	30.9
Rockfishes	20.3	22.8	12.9	14.0	15.0
Crab	-	5.1	3.0	5.3	4.8
			Percent of all households studied		
Salmon	9.7	10.7	11.9	11.2	11.1
Halibut	19.4	21.4	24.2	19.4	20.2
Sole	18.3	21.0	20.4	23.6	22.7
Rockfishes	12.9	16.1	10.0	10.3	11.0
Crab	-	3.6	2.3	3.9	3.5

TABLE - 41.--PURCHASE OF FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE, BY GEOGRAPHIC AREA, PACIFIC COAST STATES, 1956

Type of store	Households purchasing frozen packaged fish, by areas					
	I	II	III	IV	V	All areas
			Number			
Supermarket	225	376	37	38	34	710
Grocery store	111	67	13	29	8	228
Fish market	11	4	-	1	-	16
Meat market	4	2	2	-	2	10
Delicatessen	1	-	-	-	-	1
Other	20	23	-	1	-	44
Total	372	472	52	69	44	1,009
			Percent			
Supermarket	60.5	79.7	71.2	55.1	77.3	70.3
Grocery store	29.8	14.2	25.0	42.0	18.2	22.6
Fish market	3.0	0.8	-	1.4	-	1.6
Meat market	1.0	0.4	3.8	-	4.5	1.0
Delicatessen	0.3	-	-	-	-	0.1
Other	5.4	4.9	-	1.5	-	4.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 42.--PURCHASE OF FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE AND CITY SIZE, PACIFIC COAST STATES, 1956

Type of store	Households purchasing				
	City size				
	I	II	III	IV	
	Less than 2,500	2,500 to 50,000	Over 50,000 (metro-suburban)	Over 50,000 (metro-politan)	Total
			Number		
Supermarket	36	71	264	339	710
Grocery store	40	25	69	94	228
Fish market	-	-	8	8	16
Meat market	1	1	1	7	10
Delicatessen	-	-	-	1	1
Other	1	3	28	12	44
All stores	78	100	370	461	1,009
			Percent		
Supermarket	46.1	71.0	71.4	73.5	70.3
Grocery store	51.3	25.0	18.6	20.4	22.6
Fish market	-	-	2.2	1.8	1.6
Meat market	1.3	1.0	0.3	1.5	1.0
Delicatessen	-	-	-	0.2	0.1
Other	1.3	3.0	7.5	2.6	4.4
All stores	100.0	100.0	100.0	100.0	100.0

TABLE - 43.--PURCHASE OF FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE AND INCOME GROUPS, PACIFIC COAST STATES, 1956

Type of store	Households purchasing by income groups							
	Under $2,000	$2,000 to $3,999	$4,000 to $5,999	$6,000 to $7,999	$8,000 to $9,999	$10,000 or over	Refused and don't know	All groups
				Number				
Supermarket	53	134	242	120	53	45	63	710
Grocery store	26	41	72	37	8	14	30	228
Fish market	1	2	6	4	1	2	-	16
Meat market	2	3	5	-	-	-	-	10
Delicatessen	-	-	-	1	-	-	-	1
Other	2	18	11	4	2	4	3	44
All stores	84	198	336	166	64	65	96	1,009
				Percent				
Supermarket	63.1	67.7	72.0	72.3	82.8	69.2	65.6	70.3
Grocery store	30.9	20.7	21.4	22.3	12.5	21.5	31.2	22.6
Fish market	1.2	1.0	1.8	2.4	1.6	3.1	-	1.6
Meat market	2.4	1.5	1.5	-	-	-	-	1.0
Delicatessen	-	-	-	0.6	-	-	-	0.1
Other	2.4	9.1	3.3	2.4	3.1	6.2	3.2	4.4
All stores	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 44.--PURCHASE OF FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1956

Type of store	Households purchasing frozen packaged fish							
	Number				Percent			
	Calif.	Oreg.	Wash.	Three states	Calif.	Oreg.	Wash.	Three states
Supermarket	573	59	78	710	71.9	67.8	62.4	70.3
Grocery store	172	22	34	228	21.6	25.3	27.2	22.6
Fish market	9	1	6	16	1.1	1.1	4.8	1.6
Meat market	4	2	4	10	0.5	2.3	3.2	1.0
Delicatessen	1	0	0	1	0.1	-	-	0.1
Other	38	3	3	44	4.8	3.5	2.4	4.4
All stores	797	87	125	1,009	100.0	100.0	100.0	100.0

TABLE - 45.--KINDS OF PACKAGES PREFERRED FOR FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

Type of package	Percent of frozen packaged fish users			
	California	Oregon	Washington	Total
Cardboard box with picture of product	38.4	26.5	29.6	36.3
Cardboard box with transparent wrapper	19.2	31.0	24.0	20.8
Transparent wrapper	17.8	16.1	20.0	17.9
No preference	24.6	26.4	26.4	25.0

TABLE - 46.--KNOWLEDGE OF THE AVAILABILITY OF SELECTED KINDS OF FROZEN PACKAGED FISH AND SHELLFISH, PACIFIC COAST STATES, 1956

Species	Households answering											
	California			Oregon			Washington			Three states		
	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know
	Number											
Salmon	171	2	7	15	-	1	26	2	6	212	4	14
Halibut	347	2	9	23	-	1	29	2	4	399	4	14
Sole	379	1	11	35	2	-	36	1	3	450	4	14
Rockfish	172	1	15	12	1	-	18	2	6	202	4	21
Crab	46	1	2	8	-	-	10	2	3	64	3	5
	Percent of households purchasing frozen fish											
Salmon	95.0	1.1	3.9	93.8	-	6.2	76.5	5.9	17.6	92.2	1.7	6.1
Halibut	96.9	0.6	2.5	95.8	-	4.2	82.9	5.7	11.4	95.7	1.0	3.3
Sole	96.9	0.3	2.8	94.6	5.4	-	90.0	2.5	7.5	96.2	0.9	2.9
Rockfish	91.5	0.5	8.0	92.3	7.7	-	69.2	7.7	23.1	89.0	1.8	9.2
Crab	93.9	2.0	4.1	100.0	-	-	66.7	13.3	20.0	88.9	4.2	6.9

TABLE - 47.--PREFERENCE FOR INDIVIDUAL SERVINGS OF FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

State	Households answering							
	Number				Percent			
	Yes	No	No preference	Total	Yes	No	No preference	Total
California	337	277	183	797	42.3	34.7	23.0	100.0
Oregon	36	32	19	87	41.4	36.8	21.8	100.0
Washington	53	51	21	125	42.4	40.8	16.8	100.0
Three states	426	360	223	1,009	42.2	35.7	22.1	100.0

TABLE - 48.--PREFERENCE FOR SIZE OF SERVING FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

Size of portion (ounces)	Household preference for portion size							
	Number				Percent			
	Calif.	Oreg.	Wash.	Three states	Calif.	Oreg.	Wash.	Three states
2	5	-	3	8	1.5	-	5.7	1.9
3	6	3	5	14	1.8	8.3	9.4	3.3
4	76	12	14	102	22.5	33.3	26.4	23.9
10	1	1	-	2	0.3	2.8	-	0.5
More than 10	8	-	1	9	2.4	-	1.9	2.1
Don't know	241	20	30	291	71.5	55.6	56.6	68.3
All groups	337	36	53	426	100.0	100.0	100.0	100.0

TABLE - 49.--PREFERENCE FOR SEPARATING INDIVIDUAL STEAKS OR FILLETS IN FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1956

State	Household preference for separation							
	Number				Percent			
	Yes	No	No preference	Total	Yes	No	No preference	Total
California	587	84	126	797	73.7	10.5	15.8	100.0
Oregon	67	4	16	87	77.0	4.6	18.4	100.0
Washington	95	14	16	125	76.0	11.2	12.8	100.0
Total	749	102	158	1,009	74.2	10.1	15.7	100.0

TABLE - 50.--REASONS FOR NOT PURCHASING MORE FROZEN PACKAGED FISH AND SHELLFISH, PACIFIC COAST STATES, 1956

Reasons	Percent of answers			
	California	Oregon	Washington	Total
Eat enough now	34.7	23.0	14.9	31.2
Don't like	20.4	17.0	10.4	18.8
Prefer fresh fish	15.8	19.0	23.9	17.1
No special reason	10.0	13.0	20.2	11.6
Catch own fresh fish	2.3	6.0	5.2	3.0
Not accustomed to eating	1.6	2.0	1.5	1.6
Quality reasons	1.0	5.0	0.7	1.3
Other	14.2	15.0	23.2	15.4
All answers	100.0	100.0	100.0	100.0

Smoked Fish or Shellfish

TABLE - 51.--PURCHASES OF SMOKED FISH, PACIFIC COAST STATES, 1956

State	Households purchasing smoked fish				
	Number			Percent	
	Yes	No	Total	All households studied	All households buying fish
California	328	803	1,131	21.2	29.0
Oregon	60	68	128	32.8	46.9
Washington	147	107	254	43.6	57.9
Total	535	978	1,513	25.9	35.4

TABLE - 52.--PURCHASES OF SMOKED FISH PRODUCTS, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Geographic area	Number of households			Households buying smoked fish as percent of	
	Total studied	Total buying fish	Buying smoked fish	Total studied	Those buying fish
I	804	623	259	32.2	41.6
II	898	649	218	24.3	33.6
III	102	79	11	10.8	13.9
IV	132	80	13	9.8	16.2
V	128	82	34	26.6	41.5
All areas	2,064	1,513	535	25.9	35.4

TABLE - 53.--PURCHASE OF SMOKED FISH, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

Income groups	Number of households			Households buying smoked fish as percent of	
	Total studied	Total buying fish	Buying smoked fish	Total studied	Those buying fish
Under $2,000	248	155	44	17.7	28.3
$2,000 to $3,999	514	321	103	20.0	32.1
$4,000 to $5,999	599	484	180	30.1	37.2
$6,000 to $7,999	253	221	86	34.0	38.9
$8,000 to $9,999	118	95	44	37.3	46.3
$10,000 or more	82	73	34	41.5	46.6
Refused	64	38	9	14.1	23.7
Don't know	186	126	35	18.8	27.8
All groups	2,064	1,513	535	25.9	35.4

TABLE - 54.--PURCHASE OF SMOKED FISH, BY LENGTH OF RESIDENCE, PACIFIC COAST STATES, 1956

Years of residence	Number of households			Households buying smoked fish as percent of	
	Total studied	Total buying fish	Buying smoked fish	Total studied	Those buying fish
0 to 1	93	59	15	16.1	25.4
2 to 5	224	158	54	24.1	34.2
6 to 10	260	201	69	26.5	34.3
Over 10	1,487	1,095	397	26.7	36.3
All groups	2,064	1,513	535	25.9	35.4

TABLE - 55.--KINDS OF SMOKED FISH PURCHASED, PACIFIC COAST STATES, 1956

Kinds of smoked fish	Households purchasing smoked fish			
	California	Oregon	Washington	Three states
	Number of households purchasing each kind			
Salmon	205	57	141	403
Cod	93	4	11	108
Herring	72	6	6	84
Finnan haddie	9	2	3	14
Swordfish	8	-	-	8
Other	100	4	14	118
All households	328	60	147	535
	Percent of households purchasing smoked fish			
Salmon	62.5	95.0	95.9	75.3
Cod	28.4	6.7	7.5	20.2
Herring	22.0	10.0	4.1	15.7
Finnan haddie	2.7	3.3	2.0	2.6
Swordfish	2.4	-	-	1.5
Other	30.5	6.7	9.5	22.1
	Percent of households purchasing fish (other than canned)			
Salmon	13.3	31.1	41.8	19.5
Cod	6.0	2.2	3.3	5.2
Herring	4.7	3.3	1.8	4.1
Finnan haddie	0.6	1.1	0.9	0.7
Swordfish	0.5	-	-	0.4
Other	6.5	2.2	4.2	5.7

TABLE - 56.--KINDS OF SMOKED FISH PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Kinds of smoked fish	Percent of all smoked fish buyers purchasing each kind					
	Area I	Area II	Area III	Area IV	Area V	All areas
Salmon	88.0	57.8	81.8	61.5	94.1	75.3
Cod	17.0	25.7	18.2	23.1	8.8	20.2
Herring	10.0	22.9	18.2	30.8	5.9	15.7
Finnan haddie	2.3	3.2	-	-	2.9	2.6
Swordfish	0.4	2.3	-	15.4	-	1.5
Other	8.9	36.7	54.5	38.5	11.8	22.1

TABLE - 57.--KINDS OF SMOKED FISH PURCHASED, BY CITY SIZE, PACIFIC COAST STATES, 1956

Kinds of fish	Households purchasing by city size				
	I Under 2,500	II 2,500 to 50,000	III Over 50,000 (metro-suburban)	IV Over 50,000 (metro-politan)	All city sizes
			Number purchasing		
Salmon	40	39	131	193	403
Cod	3	3	38	64	108
Herring	2	3	36	43	84
Finnan haddie	-	1	3	10	14
Swordfish	-	1	1	6	8
Other	5	7	53	53	118
			Percent of households purchasing smoked fish		
Salmon	95.2	86.7	70.4	73.7	75.3
Cod	7.1	6.7	20.4	24.4	20.2
Herring	4.8	6.7	19.4	16.4	15.7
Finnan haddie	-	2.2	1.6	3.8	2.6
Swordfish	-	2.2	0.5	2.3	1.5
Other	11.9	15.6	28.5	20.2	22.1

TABLE - 58.--TYPE OF STORE WHERE SMOKED FISH WERE PURCHASED, PACIFIC COAST STATES, 1956

Type of store	Households purchasing			
	California	Oregon	Washington	Three states
	Number purchasing			
Supermarket	153	27	57	237
Fish market	75	18	25	118
Grocery store 1/	32	3	46	81
Delicatessen	42	-	1	43
Meat market	4	3	9	16
Other	22	9	9	40
All households	328	60	147	535
	Percent of households purchasing smoked fish			
Supermarket	46.6	45.0	38.8	44.3
Fish market	22.9	30.0	17.0	22.1
Grocery store 1/	9.8	5.0	31.3	15.1
Delicatessen	12.8	-	0.7	8.0
Meat market	1.2	5.0	6.1	3.0
Other	6.7	15.0	6.1	7.5
All stores	100.0	100.0	100.0	100.0

1/ Includes neighborhood grocery store.

TABLE - 59.--TYPE OF STORE WHERE SMOKED FISH WERE PURCHASED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Type of store	Households purchasing					
	I	II	III	IV	V	All areas
			Number purchasing			
Supermarket	108	103	3	7	16	237
Fish market	54	55	4	4	1	118
Grocery store	51	17	2	-	11	81
Delicatessen	16	26	-	1	-	43
Meat market	11	1	1	1	2	16
Other	19	16	1	-	4	40
All stores	259	218	11	13	34	535
			Percent of households purchasing smoked fish			
Supermarket	41.7	47.2	27.3	53.8	47.1	44.3
Fish market	20.9	25.2	36.3	30.8	2.9	22.1
Grocery store	19.7	7.8	18.2	-	32.4	15.1
Delicatessen	6.2	11.9	-	7.7	-	8.0
Meat market	4.2	0.5	9.1	7.7	5.9	3.0
Other	7.3	7.4	9.1	-	11.7	7.5
All stores	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 60.--TYPE OF STORE WHERE SMOKED FISH WERE PURCHASED, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

Type of store	Households purchasing							
	Under $2,000	$2,000 to $3,999	$4,000 to $5,999	$6,000 to $7,999	$8,000 to $9,999	$10,000 or more	Refused	Don't know
				Number purchasing				
Fish market	3	31	45	13	7	8	-	11
Meat market	1	3	7	2	1	2	-	-
Supermarket	23	41	83	40	17	12	7	14
Grocery store	10	16	23	15	4	6	1	6
Delicatessen	1	4	13	11	10	1	-	2
Other 1/	6	8	9	5	5	5	1	2
All stores	44	103	180	86	44	34	9	35
				Percent				
Fish market	6.8	30.1	25.0	15.1	15.9	23.5	-	31.4
Meat market	2.3	2.9	3.9	2.3	2.3	5.9	-	-
Supermarket	52.3	39.8	46.1	46.5	38.6	35.3	77.8	40.0
Grocery store	22.7	15.5	12.8	17.5	9.1	17.7	11.1	17.2
Delicatessen	2.3	3.9	7.2	12.8	22.7	2.9	-	5.7
Other 1/	13.6	7.8	5.0	5.8	11.4	14.7	11.1	5.7
All stores	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ Includes some households marking 2 types of stores.

TABLE - 61.--CONSUMER KNOWLEDGE OF THE AVAILABILITY OF SMOKED FISH, PACIFIC COAST STATES, 1956

State	Households answering					
	Number			Percent		
	Available	Not available	Don't know	Available	Not available	Don't know
California	204	99	25	62.2	30.2	7.6
Oregon	40	14	6	66.7	23.3	10.0
Washington	107	30	10	72.8	20.4	6.8
Three states	351	143	41	65.6	26.7	7.7

TABLE - 62.--REASONS FOR NOT PURCHASING SMOKED AND KIPPERED FISH, 831 NON-USERS OF SMOKED FISH PRODUCTS, PACIFIC COAST STATES, 1956

Reasons	Households answering			
	California	Oregon	Washington	Three states
	Number of answers			
Don't like	404	34	38	476
Not accustomed to using	145	11	27	183
Not available	40	-	2	42
Price too high	26	3	6	35
Dietary reasons	17	-	3	20
Smoke own	10	4	11	25
Quality	4	1	1	6
Other	56	4	6	66
	Percent of answers			
Don't like	57.5	59.6	40.4	55.8
Not accustomed to using	20.7	19.3	28.7	21.5
Not available	5.7	-	2.1	4.9
Price too high	3.7	5.3	6.4	4.1
Dietary reasons	2.4	-	3.2	2.3
Smoke own	1.4	7.0	11.7	2.9
Quality	0.6	1.8	1.1	0.8
Other	8.0	7.0	6.4	7.7

TABLE - 63.--CONSUMER PREFERENCE FOR FRESH VS. FROZEN PACKAGED FISH AND SHELLFISH, PACIFIC COAST STATES, 1956

Species	Percent of all purchasers			
	Fresh	Frozen	No preference	Total
		California		
Salmon	75.4	12.1	12.5	100.0
Halibut	74.4	13.8	11.8	100.0
Sole	73.2	14.0	12.8	100.0
Rockfishes	68.8	12.5	18.7	100.0
Crab	69.9	11.1	19.0	100.0
		Oregon		
Salmon	86.7	6.3	7.0	100.0
Halibut	86.7	6.3	7.0	100.0
Sole	84.4	8.6	7.0	100.0
Rockfishes	82.0	9.4	8.6	100.0
Crab	86.7	5.5	7.8	100.0
		Washington		
Salmon	87.8	7.5	4.7	100.0
Halibut	87.4	6.7	5.9	100.0
Sole	85.4	7.9	6.7	100.0
Rockfishes	85.4	8.7	5.9	100.0
Crab	87.4	5.1	7.5	100.0

TABLE - 64.--METHODS OF PREPARING SELECTED KINDS OF FISH AND SHELLFISH, PACIFIC COAST STATES, 1956

Methods of preparation	Households reporting				
	Salmon	Halibut	Sole	Rockfishes	Crab
			Number		
Fry	538	642	709	414	-
Broil	202	168	82	48	10
Bake	173	141	84	52	13
Boil	15	20	7	-	177
Barbecue	3	10	6	9	1
Salads	4	-	2	1	302
Appetizers	4	-	1	1	35
Total	939	981	891	525	538
			Percent		
Fry	57.3	65.5	79.6	78.9	-
Broil	21.5	17.1	9.2	9.1	1.9
Bake	18.5	14.4	9.4	9.9	2.4
Boil	1.6	2.0	0.8	-	32.9
Barbecue	0.3	1.0	0.7	1.7	0.2
Salads	0.4	-	0.2	0.2	56.1
Appetizers	0.4	-	0.1	0.2	6.5
Total	100.0	100.0	100.0	100.0	100.0

TABLE - 65.--PURCHASE OF PRECOOKED STEAKS AND FILLETS, PACIFIC COAST STATES, 1956

State	Number purchasing			Percent purchasing		
	Yes	No	Total	Yes	No	Total
California	114	1,017	1,131	10.0	90.0	100.0
Oregon	-	128	128	-	100.0	100.0
Washington	4	250	254	1.6	98.4	100.0
Total	118	1,395	1,513	7.8	92.2	100.0

TABLE - 66.--PREFERENCE FOR EATING FISH MEALS AT HOME VS. IN A RESTAURANT, PACIFIC COAST STATES, 1956

State	Eating place preferred			
	Home	Restaurant	Don't know	Total
		Percent		
California	78.4	18.6	3.0	100.0
Oregon	83.6	14.1	2.3	100.0
Washington	85.0	12.2	2.8	100.0
Total	80.0	17.1	2.9	100.0

TABLE - 67.--PREFERENCE FOR EATING FISH MEALS AT HOME VS. IN A RESTAURANT, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

Income groups	Total number	Eating place preference			
		Home	Restaurant	Don't know	Total
			Percent		
Under $2,000	154	88.1	9.6	2.3	100.0
$2,000 to $3,999	321	84.4	13.1	2.5	100.0
$4,000 to $5,999	484	80.4	16.1	3.5	100.0
$6,000 to $7,999	221	80.1	18.1	1.8	100.0
$8,000 to $9,999	95	60.2	35.6	4.2	100.0
More than $10,000	73	74.0	23.3	2.7	100.0
Refused	38	73.6	21.1	5.3	100.0
Don't know	127	77.2	19.7	3.1	100.0
Total	1,513	80.0	17.1	2.9	100.0

TABLE - 68.--REASONS FOR PREFERRING TO EAT FISH MEALS IN RESTAURANTS, PACIFIC COAST STATES, 1956

Reasons	Percent of reasons given			
	California	Oregon	Washington	Three states
Don't like to fix fish	23.7	5.6	21.2	22.3
Don't like smell in house	16.1	27.8	21.2	17.4
Like way restaurant prepares	11.0	22.2	3.0	10.8
Like to try unusual dishes	17.0	5.5	12.1	15.7
Not all of family like fish	10.2	16.7	9.1	10.5
Don't know how to prepare	5.1	16.7	6.1	5.9
Other	16.9	5.5	27.3	17.4
All reasons	100.0	100.0	100.0	100.0

Note: Based on 259 households.

TABLE - 69.--REASONS FOR PREFERRING TO EAT FISH MEALS IN RESTAURANTS BY INCOME GROUPS, PACIFIC COAST STATES, 1956

Reasons	Percent of reasons given by income							
	Under $2,000	$2,000 to $3,999	$4,000 to $5,999	$6,000 to $7,999	$8,000 to $9,999	$10,000 or more	Re-fused	Other
Don't like to prepare fish	33.3	31.9	22.4	19.6	18.9	10.3	25.0	21.7
Don't like smell in house	16.7	14.9	16.5	17.4	10.8	17.2	25.0	34.8
Like way restaurant prepares fish	-	14.9	8.2	6.5	27.0	6.9	12.5	4.4
Like to try unusual fish dishes	8.3	8.5	21.2	10.9	29.8	10.4	-	13.0
Not all members like fish	-	10.6	9.4	8.7	13.5	10.4	12.5	17.4
Don't know how to prepare	16.7	4.3	9.4	8.7	-	-	12.5	-
Other	25.0	14.9	12.9	28.2	-	44.8	12.5	8.7
All reasons	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of respondents	12	47	85	46	37	29	8	23

Note: Based on 259 households. Some gave more than one answer.

TABLE - 70.--REASONS FOR PREFERRING TO EAT FISH MEALS IN A RESTAURANT, ACCORDING TO YEARS OF SCHOOLING COMPLETED, PACIFIC COAST STATES, 1956

Reasons	Percent of reasons by educational level							
	Less than 4 years	4-6	7-8	9-10	11-12	13-14	15-16	Over 16
Don't like to prepare fish	-	10.0	17.4	13.8	31.0	19.4	21.4	25.0
Don't like smell in house	-	2.5	8.7	17.2	15.0	41.8	23.8	50.0
Like way restaurant prepares	-	-	8.7	20.8	15.9	3.2	9.5	-
Like to try unusual dishes	-	-	-	17.2	20.4	6.5	35.8	-
All members of family don't like	-	-	4.4	17.2	14.2	9.7	9.5	25.0
Don't know how to prepare	-	-	13.0	13.8	3.5	19.4	-	-
Other	100.0	87.5	47.8	-	-	-	-	-
All reasons	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Based on 259 households.

TABLE - 71.--TIMES PER MONTH THAT FISH WAS SERVED, PACIFIC COAST STATES, 1956

State	Times per month				
	None	1 or less	2 to 3	4 or more	Total
			Number		
California	417	307	295	525	1,544
Oregon	56	47	30	50	183
Washington	86	65	55	131	337
Three states	559	419	380	706	2,064
			Percent		
California	27.0	19.9	19.1	34.0	100.0
Oregon	30.6	25.7	16.4	27.3	100.0
Washington	25.5	19.3	16.3	38.9	100.0
Three states	27.1	20.3	18.4	34.2	100.0

TABLE - 72.--TIMES PER MONTH THAT FISH WAS SERVED, BY YEARS OF SCHOOLING COMPLETED BY HOUSEWIFE, PACIFIC COAST STATES, 1956

Years of schooling	Times per month				
	None	1 or less	2 to 3	4 or more	Total
			Number		
Less than 4	11	7	2	12	32
4 - 6	35	7	15	22	79
7 - 8	135	62	44	89	330
9 - 10	75	63	45	84	267
11 - 12	195	173	159	290	817
13 - 14	59	53	61	95	268
15 - 16	25	37	41	93	196
More than 16	4	6	7	13	30
Refused and don't know	20	11	6	8	45
All groups	559	419	380	706	2,064
			Percent		
Less than 4	34.4	21.9	6.2	37.5	100.0
4 - 6	44.3	8.9	19.0	27.8	100.0
7 - 8	40.9	18.8	13.3	27.0	100.0
9 - 10	28.1	23.6	16.8	31.5	100.0
11 - 12	23.8	21.2	19.5	35.5	100.0
13 - 14	22.0	19.8	22.8	35.4	100.0
15 - 16	12.8	18.9	20.9	47.4	100.0
More than 16	13.3	20.0	23.3	43.4	100.0
Refused and don't know	44.5	24.4	13.3	17.8	100.0
All groups	27.1	20.3	18.4	34.2	100.0

TABLE - 73.--TIMES PER MONTH THAT FISH WAS SERVED, BY INCOME GROUPS, PACIFIC COAST STATES, 1956

Income	Times per month				
	None	1 or less	2 to 3	4 or more	Total
			Number		
Under $2,000	96	49	35	68	248
$2,000 to 3,999	195	92	71	156	514
$4,000 to 5,999	117	113	131	238	599
$6,000 to 7,999	32	63	59	99	253
$8,000 to 10,000	23	24	30	41	118
More than $10,000	9	23	19	31	82
Refused	26	11	9	18	64
Don't know	61	44	26	55	186
All groups	559	419	380	706	2,064
			Percent		
Under $2,000	38.7	19.8	14.1	27.4	100.0
$2,000 to 3,999	37.9	17.9	13.8	30.4	100.0
$4,000 to 5,999	19.5	18.9	21.9	39.7	100.0
$6,000 to 7,999	12.7	24.9	23.3	39.1	100.0
$8,000 to 10,000	19.5	20.3	25.4	34.8	100.0
More than $10,000	11.0	28.0	23.2	37.8	100.0
Refused	40.6	17.2	14.1	28.1	100.0
Don't know	32.8	23.6	14.0	29.6	100.0
All groups	27.1	20.3	18.4	34.2	100.0

TABLE - 74.--TIMES PER MONTH THAT FISH WAS SERVED, BY GEOGRAPHIC AREAS, PACIFIC COAST STATES, 1956

Geographic area	Times per month				
	None	1 or less	2 to 3	4 or more	Total
			Number		
I	188	164	136	316	804
II	249	180	174	295	898
III	24	18	25	35	102
IV	52	31	22	27	132
V	46	26	23	33	128
All areas	559	419	380	706	2,064
			Percent		
I	23.4	20.4	16.9	39.3	100.0
II	27.7	20.0	19.4	32.9	100.0
III	23.5	17.7	24.5	34.3	100.0
IV	39.4	23.5	16.7	20.4	100.0
V	35.9	20.3	18.0	25.8	100.0
All areas	27.1	20.3	18.4	34.2	100.0

TABLE - 75.--TIMES PER MONTH THAT FISH WAS SERVED, BY LENGTH OF RESIDENCE, PACIFIC COAST STATES, 1956

Time in State	Times per month				
	None	1 or less	2 to 3	4 or more	Total
			Number		
1 year or less	34	15	16	28	93
2 - 5	66	39	43	76	224
6 - 10	59	62	55	84	260
More than 10	400	303	266	518	1,487
All groups	559	419	380	706	2,064
			Percent		
1 year or less	36.6	16.1	17.2	30.1	100.0
2 - 5	29.5	17.4	19.2	33.9	100.0
6 - 10	22.7	23.8	21.2	32.3	100.0
More than 10	26.9	20.4	17.9	34.8	100.0
All groups	27.1	20.3	18.4	34.2	100.0

TABLE - 76.--TIMES PER MONTH THAT FISH WAS SERVED, BY RELIGIOUS GROUPS, PACIFIC COAST STATES, 1956

Religious group	Times per month				
	None	1 or less	2 to 3	4 or more	Total
			Number		
Protestant	379	315	290	386	1,370
Catholic	121	55	57	252	485
Jewish	8	17	12	23	60
No preference	37	23	13	22	95
Other	14	9	8	23	54
All groups	559	419	380	706	2,064
			Percent		
Protestant	27.6	23.0	21.2	28.2	100.0
Catholic	24.9	11.3	11.8	52.0	100.0
Jewish	13.3	28.3	20.0	38.4	100.0
No preference	38.9	24.2	13.7	23.2	100.0
Other	25.9	16.7	14.8	42.6	100.0
All groups	27.1	20.3	18.4	34.2	100.0

TABLE - 77.--TIMES PER MONTH THAT FISH WAS SERVED, BY PLACE OF PRIOR RESIDENCE, PACIFIC COAST STATES, 1956

Prior residence	Times per month				
	None	1 or less	2 to 3	4 or more	Total
			Number		
Native	156	141	126	245	668
North Atlantic	36	42	39	81	198
South Atlantic	12	4	3	20	39
North Central	158	117	100	166	541
South Central	86	56	39	62	243
Mountain	72	41	52	58	223
Canada	6	4	8	12	30
Mexico	10	2	1	5	18
Europe	14	5	6	29	54
Other	9	7	6	28	50
All groups	559	419	380	706	2,064
			Percent		
Native	23.4	21.1	18.9	36.6	100.0
North Atlantic	18.2	21.2	19.7	40.9	100.0
South Atlantic	30.8	10.2	7.7	51.3	100.0
North Central	29.2	21.6	18.5	30.7	100.0
South Central	35.4	23.0	16.0	25.6	100.0
Mountain	32.3	18.4	23.3	26.0	100.0
Canada	20.0	13.3	26.7	40.0	100.0
Mexico	55.5	11.1	5.6	27.8	100.0
Europe	25.9	9.3	11.1	53.7	100.0
Other	18.0	14.0	12.0	56.0	100.0
All groups	27.1	20.3	18.4	34.2	100.0

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on

Retail Distribution

Items in the tables showing a reported number less than 14 and percentages based on a reported number less than 14 do not give reliable indications for the group to which they refer. They are shown for reference purposes only and should not be used as reliable indications for the group because of the small sample response.

RETAIL DISTRIBUTION

Fresh Fish and Shellfish

TABLE - 78.--STORES SELLING FRESH FISH, PACIFIC COAST STATES, 1955

Type of store	Interviewed stores selling fresh fish			
	California	Oregon	Washington	Total
	Number			
Fish market	7	-	5	12
Meat market	47	4	20	71
Supermarket	101	32	16	149
Grocery store	71	39	46	156
Neighborhood grocery	64	8	30	102
All stores	290	83	117	490
	Percent of stores interviewed			
Fish market	100.0	-	100.0	100.0
Meat market	67.1	100.0	100.0	75.5
Supermarket	66.9	100.0	100.0	74.9
Grocery store	43.6	78.0	69.7	55.9
Neighborhood grocery	26.4	50.0	55.6	32.7
All stores	45.5	78.3	72.7	54.2

TABLE - 79.--STORES SELLING FRESH FISH, BY GEOGRAPHIC AREAS PACIFIC COAST STATES, 1955

Type of store	Stores selling fresh fish by areas							
	Number interviewed				Percent of stores interviewed			
	Area I	Area II	Area III	All areas	Area I	Area II	Area III	All areas
Fish market	5	7	-	12	100.0	100.0	100.0	100.0
Meat market	58	13	-	71	93.5	46.4	-	75.5
Supermarket	79	41	29	149	90.8	62.1	63.0	74.9
Grocery store	109	20	27	156	70.3	28.2	50.9	55.9
Neighborhood grocery	66	24	12	102	42.8	21.8	25.0	32.7
General store	-	-	-	-	-	-	-	-
All stores	317	105	68	490	67.9	37.2	43.9	54.2

TABLE - 80.--STORES INTERVIEWED NOT SELLING FRESH FISH THAT SOLD FRESH MEAT, PACIFIC COAST STATES, 1955

Type of store	Number of stores not selling fish that sold fresh meat				Percent of stores not selling fish that sold fresh meat			
	Calif.	Oreg.	Wash.	Three states	Calif.	Oreg.	Wash.	Three states
Fish market	-	-	-	-	-	-	-	-
Meat market	23	-	-	23	100.0	-	-	100.0
Supermarket	49	-	-	49	98.0	-	-	98.0
Grocery store	73	8	16	97	79.3	72.7	80.0	79.0
Neighborhood grocery	148	8	16	172	83.1	100.0	66.7	82.0
General store	4	4	-	8	100.0	100.0	-	100.0
All stores	297	20	32	349	85.6	86.9	72.7	84.3

TABLE - 81--KINDS OF FRESH FISH SOLD BY RETAIL STORES, PACIFIC COAST STATES, 1955

Type of store	Stores handling				
	Salmon	Halibut	Sole	Rockfishes	Crab
			Number of stores		
Fish market	12	12	12	8	12
Meat market	66	62	67	61	40
Supermarket	134	131	117	96	86
Grocery store	145	122	120	108	85
Neighborhood grocery	94	85	66	73	42
All stores	451	412	382	346	265
			Percent of stores		
Fish market	100.0	100.0	100.0	66.7	100.0
Meat market	93.0	87.3	94.4	85.9	56.3
Supermarket	89.9	87.9	78.5	64.4	57.7
Grocery store	92.9	78.2	76.9	69.2	54.5
Neighborhood grocery	92.2	83.3	64.7	71.6	41.2
All stores	92.0	84.1	77.9	70.6	54.1

TABLE - 82.--RELATIVE IMPORTANCE OF DOLLAR SALES OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Percent of store sales						
	Salmon	Halibut 1/	Sole	Rockfishes	Crab	Other	Total
California							
Fish market	-	-	-	-	-	-	-
Meat market	27.8	15.1	29.7	14.7	4.7	8.0	100.0
Supermarket	27.3	24.5	20.0	8.5	13.8	5.9	100.0
Grocery store	27.6	11.1	26.6	15.1	2.9	16.7	100.0
Neighborhood grocery	36.3	10.8	29.7	12.5	.5	10.2	100.0
All stores	28.1	20.6	23.1	10.5	10.2	7.5	100.0
Oregon							
Fish market	-	-	-	-	-	-	-
Meat market	25.0	20.0	-	50.0	-	5.0	100.0
Supermarket	32.2	16.2	5.0	31.1	6.3	9.2	100.0
Grocery store	39.9	22.6	4.1	11.4	5.4	16.6	100.0
Neighborhood grocery	17.2	0.1	0.9	8.6	4.5	68.7	100.0
All stores	31.6	15.7	4.0	24.9	5.6	18.2	100.0
Washington							
Fish market	10.0	30.0	20.0	20.0	5.0	15.0	100.0
Meat market	50.0	13.6	13.6	16.1	3.1	3.6	100.0
Supermarket	24.9	5.1	7.0	38.6	11.3	13.1	100.0
Grocery store	41.4	17.8	10.6	21.1	2.6	6.5	100.0
Neighborhood grocery	46.9	9.9	13.4	15.2	2.6	12.0	100.0
All stores	20.5	21.3	15.3	24.1	6.0	12.8	100.0
All stores, three states	25.8	20.2	17.7	17.4	8.0	10.9	100.0

1/ Includes California halibut.

TABLE - 83.--SALES VALUE OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Sales value						
	Salmon	Halibut	Sole	Rockfishes	Crab	Other	Total
California							
Fish market	-	-	-	-	-	-	-
Meat market	$36,419	$19,781	$38,908	$19,257	$6,157	$10,480	$131,002
Supermarket	121,373	108,925	88,918	37,790	61,354	26,231	444,591
Grocery store	16,119	6,483	15,535	8,819	1,694	9,753	58,403
Neighborhood grocery	17,993	5,353	14,721	6,196	248	5,056	49,567
All stores	$191,904	$140,542	$158,082	$72,062	$69,453	$51,520	$683,563
Oregon							
Fish market	-	-	-	-	-	-	-
Meat market	$2,210	$1,768	-	$4,420	-	$442	$8,840
Supermarket	36,723	18,476	$5,702	35,469	$7,185	10,492	114,047
Grocery store	16,021	9,075	1,646	4,577	2,168	6,665	40,152
Neighborhood grocery	4,105	24	215	2,052	1,074	16,394	23,864
All stores	$59,059	$29,343	$7,563	$46,518	$10,427	$33,993	$186,903
Washington							
Fish market	$27,625	$82,875	$55,250	$55,250	$13,812	$41,438	$276,250
Meat market	13,308	3,620	3,620	4,285	825	958	26,616
Supermarket	27,864	5,707	7,833	43,195	12,645	14,659	111,903
Grocery store	24,874	10,694	6,369	12,677	1,562	3,905	60,081
Neighborhood grocery	6,250	1,319	1,786	2,026	347	1,599	13,327
All stores	$99,921	$104,215	$74,858	$117,433	$29,191	$62,559	$488,177
All stores, three states	$350,884	$274,100	$240,503	$236,013	$109,071	$148,072	$1,358,643

T/ IE - 84.--AVERAGE SALES VALUE OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Average total sales						
	Salmon	Halibut 1/	Sole	Rockfishes	Crab	Other	Total
California							
Fish market	-	-	-	-	-	-	-
Meat market	$775	$421	$828	$409	$131	$223	$2,787
Supermarket	1,202	1,079	880	374	607	260	4,402
Grocery store	227	91	219	124	24	138	823
Neighborhood grocery	281	84	230	96	4	79	774
All stores	$678	$497	$558	$255	$245	$182	$2,415
Oregon							
Fish market	-	-	-	-	-	-	-
Meat market	$553	$442	-	$1,105	-	$110	$2,210
Supermarket	1,148	577	$178	1,108	$225	328	3,564
Grocery store	411	233	42	117	56	171	1,030
Neighborhood grocery	513	3	27	257	134	2,049	2,983
All stores	$1,712	$354	$91	$560	$126	$409	$3,252
Washington 2/							
Fish market	$5,525	$16,575	$11,050	$11,050	$2,762	$8,288	$55,250
Meat market	666	181	181	214	41	48	1,331
Supermarket	1,741	357	490	2,700	790	916	6,994
Grocery store	541	232	138	276	34	85	1,306
Neighborhood grocery	208	44	59	68	12	53	444
All stores	$1,854	$891	$640	$1,004	$249	$534	$5,172
All stores, three states	$726	$567	$498	$489	$226	$307	$2,813

1/ Includes California halibut.
2/ Washington figures calculated on 134 stores reporting.

TABLE - 85.--SALES VALUE OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Type of store	Sales value		
	Salmon	Halibut 1/	Sole
Fish market	$27,625	$82,875	$55,250
Meat market	51,937	25,169	42,528
Supermarket	185,960	133,108	102,453
Grocery store	57,014	26,252	23,550
Neighborhood grocery	28,348	6,696	16,722
All stores	$350,884	$274,100	$240,503

Type of store	Sales value - continued			
	Rockfishes	Crab	Other	Total
Fish market	$55,250	$13,812	$41,438	$276,250
Meat market	27,962	6,982	11,880	166,458
Supermarket	116,454	81,184	51,382	670,541
Grocery store	26,073	5,424	20,323	158,636
Neighborhood grocery	10,274	1,669	23,049	86,758
All stores	$236,013	$109,071	$148,072	$1,358,643

1/ Includes California halibut.

TABLE - 86.--AVERAGE SALES VALUE OF SELECTED KINDS OF FRESH FISHERY PRODUCTS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Type of store	Average sales		
	Salmon	Halibut 1/	Sole
Fish market	$5,525	$16,575	$11,050
Meat market	732	354	599
Supermarket	1,248	893	688
Grocery store	366	168	151
Neighborhood grocery	278	66	164
All stores	$726	$567	$498
	Percent of sales		
Fish market	10.0	30.0	20.0
Meat market	31.2	15.1	25.6
Supermarket	27.7	19.8	15.3
Grocery store	36.0	16.5	14.9
Neighborhood grocery	32.7	7.7	19.3
All stores	25.8	20.2	17.7

Type of store	Average sales - continued			
	Rockfishes	Crab	Other	Total
Fish market	$11,050	$2,762	$8,288	$55,250
Meat market	394	98	167	2,344
Supermarket	781	545	345	4,500
Grocery store	167	35	130	1,017
Neighborhood grocery	101	16	226	851
All stores	$489	$226	$307	$2,813
	Percent of sales			
Fish market	20.0	5.0	15.0	100.0
Meat market	16.8	4.2	7.1	100.0
Supermarket	17.4	12.1	7.7	100.0
Grocery store	16.4	3.4	12.8	100.0
Neighborhood grocery	11.9	1.9	26.5	100.0
All stores	17.4	8.0	10.9	100.0

1/ Includes California halibut.

TABLE - 87.--PERCENT OF STORES RECEIVING DELIVERIES OF FRESH FISH, PACIFIC COAST STATES, 1955

Type of store	Percent receiving delivery			
	California	Oregon	Washington	Three states
Fish market	100.0	-	-	58.0
Meat market	89.4	100.0	80.0	87.3
Supermarket	100.0	100.0	100.0	100.0
Grocery store	90.1	89.7	100.0	92.9
Neighborhood grocery	93.8	100.0	70.0	87.3

TABLE - 88.--NUMBER OF FRESH FISH DELIVERIES PER WEEK, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Number of deliveries weekly	Stores receiving deliveries									
	Neighborhood grocery		Grocery store		Super-market		Meat market		All stores	
	No.	Per-cent	No.	Per-cent	No.	Per-cent	No.	Per-cent	No.	Per-cent
1	60	67.4	82	56.5	75	50.3	25	40.3	242	54.3
2	14	15.7	35	24.1	20	13.4	8	12.9	77	17.3
3	4	4.5	13	9.0	23	15.4	4	6.5	44	9.9
4	4	4.5	4	2.8	2	1.4	4	6.5	14	3.1
5	-	-	3	2.1	4	2.7	4	6.5	11	2.5
6	-	-	-	-	7	4.7	4	6.4	11	2.5
7	-	-	-	-	4	2.7	4	6.4	8	1.8
When wanted	7	7.9	5	3.4	14	9.4	9	14.5	35	7.9
Less than once a week	-	-	3	2.1	-	-	-	-	3	0.7
Total	89	100.0	145	100.0	149	100.0	62	100.0	445	100.0

TABLE - 89.--PERCENT OF STORES HAVING SELF-SERVICE MEAT COUNTERS, PACIFIC COAST STATES, 1955

Type of store	Percent with self-service			
	California	Oregon	Washington	Three states
Fish market	-	-	-	-
Meat market	8.5	-	20.0	11.3
Supermarket	19.8	44.0	93.8	32.9
Grocery store	-	31.0	37.0	18.6
Neighborhood grocery	-	-	30.0	8.8
All stores	8.3	31.3	38.5	19.4

TABLE - 90.--PERCENT OF STORES HAVING SELF-SERVICE FOR FRESH FISH, PACIFIC COAST STATES, 1955

Type of store	Percent with self-service			
	California	Oregon	Washington	Three states
Fish market	-	-	-	-
Meat market	-	-	-	-
Supermarket	18.8	28.1	68.8	26.2
Grocery store	-	-	22.0	6.4
Neighborhood grocery	-	-	13.3	3.9
All stores	6.6	10.8	21.4	10.8

TABLE - 91.--RETAIL STORES PROCESSING OR PACKAGING FRESH FISH, PACIFIC COAST STATES, 1955

Type of store	Percent processing or packaging			
	California	Oregon	Washington	Three states
Fish market	-	-	-	-
Meat market	-	-	-	-
Supermarket	14.9	40.6	93.8	28.9
Grocery store	-	-	21.7	6.4
Neighborhood grocery	-	-	13.3	3.9
Other	-	-	-	-
All stores	5.2	15.7	24.8	11.6

TABLE - 92.--COMPLAINTS ABOUT THE QUALITY OF FRESH FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Type of store	Not fresh	Wormy	Off-color	Other	Total
			Number		
Meat market	12	-	-	-	12
Supermarket	24	15	8	11	58
Grocery store	8	7	-	7	22
Neighborhood grocery	8	9	4	13	34
All stores	52	31	12	31	126
			Percent		
Meat market	100.0	-	-	-	100.0
Supermarket	41.4	25.9	13.8	18.9	100.0
Grocery store	36.4	31.8	-	31.8	100.0
Neighborhood grocery	23.5	26.5	11.8	38.2	100.0
All stores	41.3	24.6	9.5	24.6	100.0

TABLE - 93.--PROBLEMS IN HANDLING FRESH FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955 1/

Type of store	Stores reporting problems					
	Need special case for fish	Short shelf life and slow turnover	Floor space not adequate	Don't like to handle fish with meat	Other	Total
			Number			
Meat market	8	10	3	-	-	21
Supermarket	12	22	-	5	22	61
Grocery store	18	13	17	7	13	68
Neighborhood grocery	13	13	8	13	11	58
All stores	51	58	28	25	46	208
			Percent			
Meat market	38.1	47.6	14.3	-	-	100.0
Supermarket	19.6	36.1	-	8.2	36.1	100.0
Grocery store	26.5	19.1	25.0	10.3	19.1	100.0
Neighborhood grocery	22.4	22.4	13.8	22.4	19.0	100.0
All stores	24.5	27.9	13.5	12.0	22.1	100.0

1/ Fish markets reported no special problems.

TABLE - 94.--NUMBER AND PERCENT OF INTERVIEWED STORES USING ICE IN FRESH FISH DISPLAY CABINETS, PACIFIC COAST STATES, 1955

State	Number			Percent		
	Yes	No	Total	Yes	No	Total
California	164	126	290	56.6	43.4	100.0
Oregon	39	44	83	47.0	53.0	100.0
Washington	51	66	117	43.6	56.4	100.0
Three states	254	236	490	51.8	48.2	100.0

TABLE - 95.--REASONS FOR NOT ICING FRESH FISH IN DISPLAY CABINETS, PACIFIC COAST STATES, 1955

Type of store	Display case not adapted for icing fish	Not necessary in modern refrig-eration	Moisture damages packages	Turnover is fast enough so that ice not necessary	Other	Total
			Number			
Fish market	-	5	-	-	-	5
Meat market	8	8	-	-	17	33
Supermarket	26	25	18	4	4	77
Grocery store	37	24	-	14	12	87
Neighborhood grocery	12	16	4	8	13	53
All stores	83	78	22	26	46	255
			Percent			
Fish market	-	100.0	-	-	-	100.0
Meat market	24.2	24.2	-	-	51.6	100.0
Supermarket	33.7	32.5	23.4	5.2	5.2	100.0
Grocery store	42.5	27.6	-	16.1	13.8	100.0
Neighborhood grocery	22.7	30.2	7.5	15.1	24.5	100.0
All stores	32.6	30.6	8.6	10.2	18.0	100.0

TABLE - 96.--METHODS FOR DETERMINING THE SELLING PRICE OF FRESH FISH, PACIFIC COAST STATES, 1955

Type of store	No set markup, follow competition	Fixed percent on all fish products	Fixed percent on individual fish products	Price suggested by distributor	Other	Total
			Number			
Fish market	5	7	-	-	-	12
Meat market	19	23	25	4	-	71
Supermarket	68	28	42	4	10	152
Grocery store	58	56	39	5	7	165
Neighborhood grocery	46	28	28	4	-	106
All stores	196	142	134	17	17	506
			Percent			
Fish market	41.7	58.3	-	-	-	100.0
Meat market	26.8	32.4	35.2	5.6	-	100.0
Supermarket	44.7	18.4	27.7	2.6	6.6	100.0
Grocery store	35.2	33.9	23.6	3.0	4.3	100.0
Neighborhood grocery	43.4	26.4	26.4	3.8	-	100.0
All stores	38.7	28.0	26.5	3.4	3.4	100.0

TABLE - 97.--CHANGES IN VOLUME OF FRESH FISH SALES, PACIFIC COAST STATES, 1955

Type of store	Stores reporting changes							
	Number				Percent			
	In-creased	De-creased	No change	Total	In-creased	De-creased	No change	Total
Fish market	7	5	-	12	58.3	41.7	-	100.0
Meat market	17	26	28	71	24.0	36.6	39.4	100.0
Supermarket	41	19	89	149	27.5	12.8	59.7	100.0
Grocery store	21	11	124	156	13.5	7.0	79.5	100.0
Neighborhood grocery	9	21	72	102	8.8	20.6	70.6	100.0
All stores	95	82	313	490	19.4	16.7	63.9	100.0

TABLE - 98.--REASONS FOR INCREASES IN FRESH FISH SALES, PACIFIC COAST STATES, 1955

Type of store	Reasons for increases					
	Better merchan-dizing	Adver-tising	Total store sales increased	Self-service	Other	Total
			Number			
Fish market	-	4	-	-	7	11
Meat market	13	-	4	-	-	17
Supermarket	20	7	16	4	4	51
Grocery store	13	8	4	4	5	34
Neighborhood grocery	-	-	-	-	9	9
All stores	46	19	24	8	25	122
			Percent			
Fish market	-	36.4	-	-	63.6	100.0
Meat market	76.5	-	23.5	-	-	100.0
Supermarket	39.2	13.7	31.4	7.8	7.9	100.0
Grocery store	38.2	23.5	11.8	11.8	14.7	100.0
Neighborhood grocery	-	-	-	-	100.0	100.0
All stores	37.7	15.6	19.7	6.5	20.5	100.0

TABLE - 99.--REASONS FOR DECREASES IN FRESH FISH SALES, PACIFIC COAST STATES, 1955

Type of store	Reasons for decreases					
	Competition from new stores	Fish prices too high	Trend to frozen packaged	Total store sales down	Other	Total
			Number			
Fish market	5	-	-	-	-	5
Meat market	15	-	-	4	11	30
Supermarket	8	-	4	-	7	19
Grocery store	2	4	4	4	1	15
Neighborhood grocery	10	-	4	-	7	21
All stores	40	4	12	8	26	90
			Percent			
Fish market	100.0	-	-	-	-	100.0
Meat market	50.0	-	-	13.3	36.7	100.0
Supermarket	42.1	-	21.1	-	36.8	100.0
Grocery store	13.3	26.7	26.7	26.7	6.6	100.0
Neighborhood grocery	47.6	-	19.1	-	33.3	100.0
All stores	44.5	4.4	13.3	8.9	28.9	100.0

TABLE - 100.--MOTIVE FOR HANDLING FRESH FISH IN RETAIL STORES, PACIFIC COAST STATES, 1955

State and type of store	Number			Percent		
	Profit item	Service item	Both	Profit item	Service item	Both
California						
Fish market	7	-	-	100.0	-	-
Meat market	17	22	8	36.2	46.8	17.0
Supermarket	14	59	28	13.9	58.4	27.7
Grocery store	7	49	15	9.9	69.0	21.1
Neighborhood grocery	11	32	21	17.2	50.0	32.8
All stores	56	162	72	19.3	55.9	24.8
Oregon						
Fish market	-	-	-	-	-	-
Meat market	-	-	4	-	-	100.0
Supermarket	3	14	15	9.4	43.7	46.9
Grocery store	8	22	9	20.5	56.4	23.1
Neighborhood grocery	4	4	-	50.0	50.0	-
All stores	15	40	28	18.1	48.2	33.7
Washington						
Fish market	5	-	-	100.0	-	-
Meat market	4	16	-	20.0	80.0	-
Supermarket	14	1	1	87.4	6.3	6.3
Grocery store	7	36	3	15.2	78.3	6.5
Neighborhood grocery	-	26	4	-	86.7	13.3
All stores	30	79	8	25.7	67.5	6.8
All stores, three states	101	281	108	20.6	57.4	22.0

TABLE - 101.--STORES SELLING SMOKED SALMON, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Stores selling smoked salmon	
	Number	Percent
California		
Fish market	7	100.0
Meat market	20	28.6
Supermarket	63	41.7
Grocery store	29	17.8
Neighborhood grocery	44	18.2
All stores	163	25.6
Oregon		
Fish market	-	-
Meat market	4	100.0
Supermarket	30	93.8
Grocery store	24	48.0
Neighborhood grocery	4	25.0
General store	4	25.0
All stores	66	62.3
Washington		
Fish market	5	100.0
Meat market	20	100.0
Supermarket	16	100.0
Grocery store	55	83.3
Neighborhood grocery	13	24.1
All stores	109	67.7
All stores, three states	338	37.4

TABLE - 102.--STORES SELLING SMOKED SABLEFISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Stores selling smoked sablefish	
	Number	Percent
California		
Fish market	7	100.0
Meat market	4	5.7
Supermarket	32	21.2
Grocery Store	2	1.2
Neighborhood grocery	8	3.3
All stores	53	8.3
Oregon		
Fish market	-	-
Meat market	-	-
Supermarket	5	15.6
Grocery store	3	6.0
Neighborhood grocery	4	25.0
All stores	12	11.3
Washington		
Fish market	5	100.0
Meat market	4	20.0
Supermarket	13	81.3
Grocery store	12	18.2
Neighborhood grocery	-	-
All stores	34	21.1
All stores, three states	99	11.0

TABLE - 103.--RETAIL STORES HAVING COMPLAINTS ABOUT SMOKED FISH PRODUCTS, PACIFIC COAST STATES, 1955

Type of store	Percent of stores with complaints			
	California	Oregon	Washington	Total
Fish market	-	-	100.0	41.7
Meat market	20.0	100.0	66.7	36.4
Supermarket	14.9	58.1	56.3	32.5
Grocery store	-	-	9.1	9.1
Neighborhood grocery	6.2	-	38.5	12.3
General store	-	-	-	-
Total	9.9	34.9	28.6	20.5

TABLE - 104.--PERCENT OF COMPLAINTS ABOUT SMOKED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Price too high	Wrap not adequate	Quality not uniform	Moisture not uniform	Package size not uniform	Too high moisture content	Other
California							
Fish market	-	-	-	-	-	-	-
Meat market	-	-	50.0	-	-	25.0	25.0
Supermarket	20.0	-	60.0	-	-	-	20.0
Grocery store	-	-	-	-	-	-	-
Neighborhood grocery	-	50.0	-	-	50.0	-	-
All stores	8.3	12.5	41.7	-	12.5	8.3	16.7
Oregon							
Fish market	-	-	-	-	-	-	-
Meat market	100.0	-	-	-	-	-	-
Supermarket	28.6	32.1	17.8	3.6	-	3.6	14.3
Grocery store	-	-	-	-	-	-	-
Neighborhood grocery	-	-	-	-	-	-	-
All stores	37.5	28.2	15.6	3.1	-	3.1	12.5
Washington							
Fish market	-	-	50.0	50.0	-	-	-
Meat market	-	-	50.0	-	50.0	-	-
Supermarket	28.6	7.1	35.7	7.1	-	-	21.5
Grocery store	-	-	60.0	-	-	-	40.0
Neighborhood grocery	-	-	100.0	-	-	-	-
All stores	9.5	2.4	52.4	14.3	9.5	-	11.9
Three state average	18.4	13.3	37.7	7.1	7.1	3.1	13.3

TABLE - 105.--INTERVIEWED STORES SELLING FROZEN PACKAGED FISH AND SHELLFISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Stores handling	
	Number	Percent
California		
Fish market	-	-
Meat market	44	62.9
Supermarket	151	100.0
Grocery store	163	100.0
Neighborhood grocery	226	93.4
General store	4	100.0
All stores	588	92.3
Oregon		
Fish market	-	-
Meat market	4	100.0
Supermarket	32	100.0
Grocery store	47	94.0
Neighborhood grocery	12	75.0
General store	4	100.0
All stores	99	93.4
Washington		
Fish market	5	100.0
Meat market	12	60.0
Supermarket	16	100.0
Grocery store	62	93.9
Neighborhood grocery	44	81.5
General store	-	-
All stores	139	86.3
Three states, all stores	826	91.4

TABLE - 106.--SALES VALUE OF SELECTED FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Sales value						
	Salmon	Halibut 1/	Sole	Rockfishes	Crab	Other	Total
California							
Fish market	-	-	-	-	-	-	-
Meat market	$17,919	$24,897	$45,037	$21,567	-	$49,160	$158,580
Supermarket	50,288	131,866	112,310	56,434	$14,528	193,330	558,756
Grocery store	9,404	26,361	33,453	16,187	617	68,139	154,161
Neighborhood grocery	4,795	17,827	23,874	11,885	730	45,141	104,252
General store	100	100	-	200	-	-	400
All stores	$82,506	$201,051	$214,674	$106,273	$15,875	$355,770	$976,149
Oregon							
Fish market	-	-	-	-	-	-	-
Meat market	$707	$884	$2,210	$442	$177	$4,420	$8,840
Supermarket	5,481	6,469	7,950	6,568	148	22,764	49,380
Grocery store	5,167	10,387	8,235	4,144	-	25,888	53,821
Neighborhood grocery	36	143	79	79	-	635	972
General store	74	43	43	676	-	660	1,496
All stores	$11,465	$17,926	$18,517	$11,909	$325	$54,367	$114,509
Washington 2/							
Fish market	-	-	-	-	-	-	-
Meat market	$659	$994	$1,319	$1,319	$678	$4,319	$9,288
Supermarket	372	656	1,771	1,159	1,356	16,556	21,870
Grocery store	3,397	2,843	4,433	3,373	313	9,733	24,092
Neighborhood grocery	1,078	1,586	1,740	1,386	-	9,610	15,400
General store	-	-	-	-	-	-	-
All stores	$5,506	$6,079	$9,263	$7,237	$2,347	$40,218	$70,650
All stores, three states	$99,477	$225,056	$242,454	$125,419	$18,547	$450,355	$1,161,308

1/ Includes California halibut.
2/ Washington figures calculated on 134 of 139 stores reporting.
Note: Based on 821 sample stores.

TABLE - 107.--AVERAGE SALES OF SELECTED FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Average total sales						
	Salmon	Halibut 1/	Sole	Rockfishes	Crab	Other	Total
California							
Fish market	-	-	-	-	-	-	-
Meat market	$407	$566	$1,024	$490	-	$1,117	$3,604
Supermarket	333	873	744	374	$96	1,280	3,700
Grocery store	58	162	205	99	4	418	946
Neighborhood grocery	21	79	106	52	3	200	461
General store	25	25	-	50	-	-	100
All stores	$140	$342	$365	$181	$27	$605	$1,660
Oregon							
Fish market	-	-	-	-	-	-	-
Meat market	$177	$221	$553	$110	$44	$1,105	$2,210
Supermarket	171	202	249	205	5	711	1,543
Grocery store	110	221	175	88	-	551	1,145
Neighborhood grocery	3	12	7	7	-	52	81
General store	18	11	11	169	-	165	374
All stores	$116	$181	$187	$121	$3	$549	$1,157
Washington 2/							
Fish market	-	-	-	-	-	-	-
Meat market	$55	$83	$110	$110	$56	$360	$774
Supermarket	23	41	111	72	85	1,035	1,367
Grocery store	55	46	72	54	5	157	389
Neighborhood grocery	24	36	40	32	-	218	350
All stores	$41	$45	$69	$54	$18	$300	$527
All stores, three states	$121	$274	$295	$153	$23	$549	$1,415

1/ Includes California halibut.
2/ Washington figures calculated on 134 of 139 stores reporting.

Note: Based on 821 sample stores.

TABLE - 108.--RELATIVE IMPORTANCE OF DOLLAR SALES OF SELECTED KINDS OF FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Percent of total sales						
	Salmon	Halibut 1/	Sole	Rockfishes	Crab	Other	Total
California							
Fish market	-	-	-	-	-	-	100.0
Meat market	11.3	15.7	28.4	13.6	-	31.0	100.0
Supermarket	9.0	23.6	20.1	10.1	2.6	34.6	100.0
Grocery store	6.1	17.1	21.7	10.5	0.4	44.2	100.0
Neighborhood grocery	4.6	17.1	22.9	11.4	0.7	43.3	100.0
General store	25.0	25.0	-	50.0	-	-	100.0
All stores	8.5	20.6	22.0	10.9	1.6	36.4	100.0
Oregon							
Fish market	-	-	-	-	-	-	-
Meat market	8.0	10.0	25.0	5.0	2.0	50.0	100.0
Supermarket	11.1	13.1	16.1	13.3	0.3	46.1	100.0
Grocery store	9.6	19.3	15.3	7.7	-	48.1	100.0
Neighborhood grocery	3.7	14.7	8.1	8.1	-	65.4	100.0
General store	4.9	2.9	2.9	45.2	-	44.1	100.0
All stores	10.0	15.6	16.2	10.4	0.3	47.5	100.0
Washington 2/							
Fish market	-	-	-	-	-	-	-
Meat market	7.1	10.7	14.2	14.2	7.3	46.5	100.0
Supermarket	1.7	3.0	8.1	5.3	6.2	75.7	100.0
Grocery store	14.1	11.8	18.4	14.0	1.3	40.4	100.0
Neighborhood grocery	7.0	10.3	11.3	9.0	-	62.4	100.0
All stores	7.8	8.6	13.1	10.3	3.3	56.9	100.0
All stores, three states	8.5	19.4	20.9	10.8	1.6	38.8	100.0

1/ Includes California halibut.
2/ Washington figures calculated on 134 of 139 stores reporting.
Note: Based on 821 sample stores.

TABLE - 109.--SALES VALUE OF SELECTED FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Type of store	Sales value		
	Salmon	Halibut 1/	Sole
Fish market	-	-	-
Meat market	$19,285	$26,775	$48,566
Supermarket	56,141	138,991	122,031
Grocery store	17,968	39,591	46,121
Neighborhood grocery	5,909	19,556	25,693
General store	174	143	43
All stores	$99,477	$225,056	$242,454

Type of store	Sales value - continued			
	Rockfishes	Crab	Other	Total
Fish market	-	-	-	-
Meat market	$23,328	$855	$57,899	$176,708
Supermarket	64,161	16,032	232,650	630,006
Grocery store	23,704	930	103,760	232,074
Neighborhood grocery	13,350	730	55,386	120,624
General store	876	-	660	1,896
All stores	$125,419	$18,547	$450,355	$1,161,308

1/ Includes California halibut.

Note: Based on 821 sample stores.

TABLE - 110.--RELATIVE IMPORTANCE OF DOLLAR SALES OF SELECTED FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Type of store	Percent		
	Salmon	Halibut 1/	Sole
Fish market	-	-	-
Meat market	10.9	15.1	27.5
Supermarket	8.9	22.1	19.4
Grocery store	7.7	17.1	19.9
Neighborhood grocery	4.9	16.2	21.3
General store	9.2	7.5	2.3
All stores	8.5	19.4	20.9

Type of store	Percent - continued			
	Rockfishes	Crab	Other	Total
Fish market	-	-	-	-
Meat market	13.2	0.5	32.8	100.0
Supermarket	10.2	2.5	36.9	100.0
Grocery store	10.2	0.4	44.7	100.0
Neighborhood grocery	11.1	0.6	45.9	100.0
General store	46.2	-	34.8	100.0
All stores	10.8	1.6	38.8	100.0

1/ Includes California halibut.

Note: Based on 821 sample stores.

TABLE - 111.--RELATIVE IMPORTANCE OF SELECTED SOURCES OF SUPPLY FOR FROZEN PACKAGED FISH SOLD AT RETAIL, PACIFIC COAST STATES, 1955

State and type of store	Percent of supply by source					
	Local frozen food whole-saler	Other West Coast whole-salers	Dairy products whole-saler	Local fish whole-saler	Other 1/	Total
Washington						
Fish market	-	-	-	100.0	-	100.0
Meat market	100.0	-	-	-	-	100.0
Supermarket	75.2	24.8	-	-	-	100.0
Grocery store	91.9	8.1	-	-	-	100.0
Neighborhood grocery	86.4	13.6	-	-	-	100.0
General store	-	-	-	-	-	-
All stores	82.8	12.8	-	4.4	-	100.0
Oregon						
Fish market	-	-	-	-	-	-
Meat market	-	-	100.0	-	-	100.0
Supermarket	70.8	16.3	12.9	-	-	100.0
Grocery store	68.3	19.3	11.8	0.6	-	100.0
Neighborhood grocery	16.0	-	84.0	-	-	100.0
General store	-	100.0	-	-	-	100.0
All stores	62.8	17.4	19.5	0.3	-	100.0
California						
Fish market	-	-	-	-	-	-
Meat market	59.8	21.5	6.5	12.2	-	100.0
Supermarket	37.7	49.6	0.6	1.1	11.0	100.0
Grocery store	39.5	51.2	6.5	-	2.8	100.0
Neighborhood grocery	41.4	55.3	1.3	-	2.0	100.0
General store	-	-	100.0	-	-	100.0
All stores	42.0	45.9	2.6	2.6	6.9	100.0
All stores, three states	46.6	41.0	4.1	2.5	5.8	100.0

1/ Includes wholesale grocers and brokers.

Note: Based on 821 sample stores.

TABLE - 112.--SOURCE OF SUPPLY FOR FROZEN PACKAGED FISH SOLD AT RETAIL, PACIFIC COAST STATES, 1955

State and type of store	Amount purchased by source					
	Local frozen food whole-saler	Other West Coast whole-salers	Dairy products whole-saler	Local fish whole-saler	Other 1/	Total
Washington						
Fish market	-	-	-	$3,250	-	$3,250
Meat market	$9,288	-	-	-	-	9,288
Supermarket	16,446	$5,424	-	-	-	21,870
Grocery store	22,141	1,951	-	-	-	24,092
Neighborhood grocery	13,306	2,094	-	-	-	15,400
General store	-	-	-	-	-	-
All stores	$61,181	$9,469	-	$3,250	-	$73,900
Oregon						
Fish market	-	-	-	-	-	-
Meat market	-	-	$8,840	-	-	$8,840
Supermarket	$34,961	$8,049	6,370	-	-	49,380
Grocery store	36,760	10,387	6,351	$323	-	53,821
Neighborhood grocery	156	-	816	-	-	972
General store	-	1,496	-	-	-	1,496
All stores	$71,877	$19,932	$22,377	$323	-	$114,509
California						
Fish market	-	-	-	-	-	-
Meat market	$94,831	$34,094	$10,308	$19,347	-	$158,580
Supermarket	210,651	277,143	3,353	6,146	$61,463	558,756
Grocery store	60,894	78,930	10,020	-	4,317	154,161
Neighborhood grocery	43,160	57,652	1,355	-	2,085	104,252
General store	-	-	400	-	-	400
All stores	$409,536	$447,819	$25,436	$25,493	$67,865	$976,149
All stores, three states	$542,594	$477,220	$47,813	$29,066	$67,865	$1,164,558

1/ Includes wholesale grocers and brokers.

Note: Based on 821 sample stores.

TABLE - 113.--COMPLAINTS BY RETAILERS ABOUT FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

Type of store	Retailers having complaints					
	Number			Percent		
	Yes	No	Total	Yes	No	Total
Fish market	5	-	5	100.0	-	100.0
Meat market	4	56	60	6.7	93.3	100.0
Supermarket	13	186	199	6.5	93.5	100.0
Grocery store	27	245	272	9.9	90.1	100.0
Neighborhood grocery	20	262	282	7.1	92.9	100.0
General store	4	4	8	50.0	50.0	100.0
All stores	73	753	826	8.8	91.2	100.0

TABLE - 114.--KINDS OF COMPLAINTS ON FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Type of store	Total	Off color and flavor	Price too high	Other
	Number	Percent		
Fish market	5	-	100.0	-
Meat market	4	-	-	100.0
Supermarket	17	64.7	-	35.3
Grocery store	31	29.0	35.5	35.5
Neighborhood grocery	24	41.7	37.5	20.8
General store	4	100.0	-	-
All stores, three states	85	40.0	24.7	35.3

Note: Based on 73 stores.

TABLE - 115.--TEMPERATURE OF FROZEN FOOD DISPLAY CABINETS, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Temp. in degrees F.	Fish market	Meat market	Super-market	Grocery store	Neighbor-hood grocery	General store	All stores
				Number of stores			
-10° or lower than 0°F.	5	-	20	17	11	-	53
-10° to -5°F.	-	19	53	57	57	4	190
-4° to 0°F.	-	24	59	88	74	-	245
0.1° to 9°F.	-	5	17	30	17	-	69
10° or higher	-	-	12	8	24	4	48
Don't know	-	12	38	72	99	-	221
Total	5	60	199	272	282	8	826
				Percent of stores			
-10° or lower than 0°F.	100.0	-	10.1	6.3	3.9	-	6.4
-10°F. to -5°F.	-	31.7	26.6	21.0	20.2	50.0	23.0
-4 to 0 F.	-	40.0	29.7	32.3	26.3	-	29.7
0.1° to 9°F.	-	8.3	8.5	11.0	6.0	-	8.3
10° or higher	-	-	6.0	2.9	8.5	50.0	5.8
Don't know	-	20.0	19.1	26.5	35.1	-	26.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 116.--STORES HAVING FROZEN FOOD STORAGE SPACE, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Type of store	Stores having frozen food storage space				
	Number			Percent	
	Yes	No	Total	Yes	No
Supermarket	135	64	199	67.8	32.2
Meat market	32	28	60	53.3	46.7
Grocery store	107	165	272	39.3	60.7
Neighborhood grocery	103	179	282	36.5	63.5
Fish market	-	5	5	-	100.0
General store	-	8	8	-	100.0
Total	377	449	826	45.6	54.4

TABLE - 117.--TEMPERATURES OF FROZEN FOOD STORAGE, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Storage temperature	Fish market	Meat market	Super-market	Grocery store	Neighborhood grocery	Total
				Percent		
-10° F. or lower	-	25.0	44.5	23.4	12.6	28.1
-10° F. to -5°F.	-	25.0	10.4	22.4	24.3	18.8
-4° F. to 0° F.	-	25.0	23.7	29.9	35.9	28.9
0.1° F. to 9° F.	-	-	-	10.3	2.9	3.7
10° F. or higher	-	-	4.4	-	3.9	2.7
Don't know temperature	-	25.0	17.0	14.0	20.4	17.8

TABLE - 118.--METHODS USED IN DETERMINING THE SELLING PRICE OF FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Type of store	Fixed percentage on all fish products	Fixed percentage on individual fish products	Price suggested by the distributor	Competition	Other and refused	Total
			Number			
Fish market	-	5	-	-	-	5
Meat market	28	8	20	8	-	64
Supermarket	88	54	27	20	10	199
Grocery store	109	40	100	17	14	280
Neighborhood grocery	95	76	75	13	23	282
General store	-	4	-	4	-	8
All stores	320	187	222	62	47	1/ 838
			Percent			
Fish market	-	100.0	-	-	-	100.0
Meat market	43.8	12.5	31.2	12.5	-	100.0
Supermarket	44.2	27.1	13.6	10.1	5.0	100.0
Grocery store	38.9	14.3	35.7	6.1	5.0	100.0
Neighborhood grocery	33.7	27.0	26.6	4.6	8.1	100.0
General store	-	50.0	-	50.0	-	100.0
All stores	38.2	22.3	26.5	7.4	5.6	100.0

1/ Some stores gave more than one answer.

TABLE - 119.--METHODS OF PREVENTING THE ACCUMULATION OF OLD STOCKS OF FISH PRODUCTS IN DISPLAY CABINETS, PACIFIC COAST STATES, 1955

Type of store	Number	Rotate packages	Prevent overstocking	Combination of two	Other
		Percent			
Fish market	5	-	100.0	-	-
Meat market	60	55.0	38.3	-	6.7
Supermarket	217	67.3	29.0	0.5	3.2
Grocery store	298	63.8	32.2	-	4.0
Neighborhood grocery	312	63.1	34.6	-	2.3
General store	8	100.0	-	-	-
All stores	1/ 900	63.8	32.8	0.1	3.3

1/ The number of methods given do not agree with the number of stores in the sample because of multiple methods used by some stores.

TABLE - 120.--CHANGES IN SALES OF FROZEN PACKAGED FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1954 AND 1955

State and change in sales	Percent of stores					
	Super-market	Grocery store	Neighborhood grocery	Meat market	General store	All stores
Oregon						
Increased	65.6	68.1	-	-	-	53.5
Decreased	12.5	6.4	-	-	-	7.1
Remained same	21.9	25.5	100.0	100.0	100.0	39.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Washington						
Increased	100.0	50.0	36.4	33.3	-	50.0
Decreased	-	6.5	-	33.3	-	6.0
Remained same	-	43.5	54.5	33.4	-	41.0
Don't know	-	-	9.1	-	-	3.0
Total	100.0	100.0	100.0	100.0	-	100.0
California						
Increased	56.9	31.3	34.1	9.1	-	37.1
Decreased	7.3	14.1	9.3	20.4	-	10.9
Remained same	31.8	52.1	56.6	70.5	100.0	50.3
Don't know	4.0	2.5	-	-	-	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Three states						
Increased	61.8	41.9	33.0	13.3	-	41.2
Decreased	7.5	11.0	7.4	21.7	-	9.6
Remained same	27.7	45.6	58.2	65.0	100.0	47.5
Don't know	3.0	1.5	1.4	-	-	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 121.--REASONS FOR INCREASE OF FROZEN PACKAGED FISH SALES BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Reasons	Super-market	Grocery store	Neighborhood grocery	Total
		Number of reasons		
Modern display cabinets	30	38	20	88
Greater variety available	38	34	18	90
Increase in all frozen food sales	29	14	24	67
Improvement in display and handling	30	15	15	60
Promotion	16	23	16	55
Store volume increased	7	11	19	37
New and convenient packages	8	3	4	15
Other reasons for increase	27	5	13	45
Total	185	143	129	457
		Percent of reasons		
Modern display cabinets	16.2	26.5	15.5	19.3
Greater variety available	20.6	23.8	14.0	19.7
Increase in all frozen food sales	15.7	9.8	18.6	14.7
Improvement in display and handling	16.2	10.5	11.6	13.1
Promotion	8.6	16.1	12.4	12.0
Store volume increased	3.8	7.7	14.7	8.1
New and convenient packages	4.3	2.1	3.1	3.3
Other reasons for increase	14.6	3.5	10.1	9.8
Total	100.0	100.0	100.0	100.0

Note: Fish markets, meat markets, and general stores were too small in number to report.

TABLE - 122.--MOTIVE FOR HANDLING FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

Type of store	Number				Percent		
	Profit item	Service item	Both	Total	Profit item	Service item	Both
Fish market	-	5	-	5	-	100.0	-
Meat market	20	28	12	60	33.3	46.7	20.0
Supermarket	103	22	74	199	51.8	11.0	37.2
Grocery store	150	63	59	272	55.1	23.2	21.7
Neighborhood grocery	117	111	54	282	41.5	39.4	19.1
General store	-	-	8	8	-	-	100.0
All stores	390	229	207	826	47.2	27.7	25.1

TABLE - 123.--RETAILERS' OPINIONS ON SIZE OF PACKAGE PREFERRED BY CONSUMER FOR FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

State and type of store	Number				Percent		
	Standard size	Varying size	Don't know	Total	Standard size	Varying size	Don't know
California							
Meat market	32	8	4	44	72.7	18.2	9.1
Supermarket	109	28	14	151	72.2	18.5	9.3
Grocery store	98	30	35	163	60.1	18.4	21.5
Neighborhood grocery	121	51	54	226	53.5	22.6	23.9
General store	4	-	-	4	100.0	-	-
All stores	364	117	107	588	61.9	19.9	18.2
Oregon							
Meat market	4	-	-	4	100.0	-	-
Supermarket	15	16	1	32	46.9	50.0	3.1
Grocery store	16	19	12	47	34.1	40.4	25.5
Neighborhood grocery	4	4	4	12	33.3	33.3	33.4
General store	4	-	-	4	100.0	-	-
All stores	43	39	17	99	43.4	39.4	17.2
Washington							
Fish market	5	-	-	5	100.0	-	-
Meat market	4	8	-	12	33.3	66.7	-
Supermarket	10	6	-	16	62.5	37.5	-
Grocery store	35	7	20	62	56.5	11.3	32.2
Neighborhood grocery	20	16	8	44	45.4	36.4	18.2
All stores	74	37	28	139	53.2	26.6	20.2
All stores, three states	481	193	152	826	58.2	23.4	18.4

TABLE - 124.--PROMOTION OF FISH, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

State and type of store	Number			Percent		
	Yes	No	Total	Yes	No	Total
California						
Fish market	3	4	7	42.9	57.1	100.0
Meat market	16	54	70	22.9	77.1	100.0
Supermarket	85	66	151	56.3	43.7	100.0
Grocery store	27	136	163	16.6	83.4	100.0
Neighborhood grocery	31	211	242	12.8	87.2	100.0
General store	-	4	4	-	100.0	100.0
All stores	162	475	637	25.4	74.6	100.0
Oregon						
Fish market	-	-	-	-	-	-
Meat market	-	4	4	-	100.0	100.0
Supermarket	23	9	32	71.9	28.1	100.0
Grocery store	4	46	50	8.0	92.0	100.0
Neighborhood grocery	-	16	16	-	100.0	100.0
General store	4	-	4	100.0	-	100.0
All stores	31	75	106	29.2	70.8	100.0
Washington						
Fish market	5	-	5	100.0	-	100.0
Meat market	4	16	20	20.0	80.0	100.0
Supermarket	10	6	16	62.5	37.5	100.0
Grocery store	12	54	66	18.2	81.8	100.0
Neighborhood grocery	12	42	54	22.2	77.8	100.0
All stores	43	118	161	26.7	73.3	100.0
All stores, three states	236	668	904	26.1	73.9	100.0

TABLE - 125.--KIND OF FISHERY PRODUCT PROMOTED, BY TYPE OF STORE, PACIFIC COAST STATES, 1955

Kind of products	Fish market	Meat market	Super-market	Grocery store	Neighborhood grocery	All stores
			Number of retailers promoting			
Salmon	8	-	84	8	11	111
Halibut	8	4	82	7	11	112
Sole	8	4	82	11	18	123
Rockfishes	8	-	61	4	14	87
Crab	8	-	49	3	11	71
Shrimp	8	-	69	16	15	108
Fishsticks	8	8	99	24	27	166
			Percent of retailers			
Salmon	66.6	-	42.2	2.9	3.5	12.3
Halibut	66.6	4.3	41.2	2.5	3.5	12.4
Sole	66.6	4.3	41.2	3.9	5.8	13.6
Rockfishes	66.6	-	30.7	1.4	4.5	9.6
Crab	66.6	-	24.6	1.1	3.5	7.9
Shrimp	66.6	-	34.7	5.7	4.8	11.9
Fishsticks	66.6	8.5	49.7	8.6	8.7	18.4

TABLE - 126.--MEDIA USED BY RETAIL STORES TO PROMOTE FISH, PACIFIC COAST STATES, 1955

Media	Fish market	Meat market	Super-market	Grocery store	Neighborhood grocery	General store	All stores
			Number of stores using				
Newspaper	3	12	103	23	18	-	159
Point of sale	-	4	54	23	12	4	97
Handbills	-	4	10	10	12	4	40
Store demonstration	-	-	20	2	-	-	22
Television	5	-	9	1	-	-	15
Radio	5	4	7	4	-	-	20
Special prices	-	12	62	20	14	4	112
Other	3	-	11	-	4	-	18
All media	16	36	276	83	60	12	483
			Percent of stores using				
Newspaper	18.8	33.3	37.3	27.7	30.0	-	32.9
Point of sale	-	11.1	19.6	27.7	20.0	33.3	20.1
Handbills	-	11.1	3.6	12.1	20.0	33.3	8.3
Store demonstration	-	-	7.2	2.4	-	-	4.6
Television	31.2	-	3.3	1.2	-	-	3.1
Radio	31.2	11.1	2.5	4.8	-	-	4.1
Special prices	-	33.4	22.5	24.1	23.3	33.4	23.2
Other	18.8	-	4.0	-	6.7	-	3.7
All media	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Several stores used more than one media.

TABLE - 127.--RETAILERS' OPINIONS ON EFFECTIVENESS OF SELECTED ADVERTISING MEDIA, PACIFIC COAST STATES, 1955

Type of advertising	Fish market	Meat market	Super-market	Grocery store	Neighborhood grocery	General store	All stores
				Number of answers			
Newspaper	4	36	88	96	57	-	281
Television	8	16	39	89	77	-	229
Store demon-strations	-	4	37	13	20	-	74
Point of sale	-	8	20	16	12	4	60
Handbills	-	4	4	18	16	4	46
Store display	4	5	9	7	10	-	35
Radio	-	4	5	-	12	-	21
Other	-	-	14	21	51	-	86
Don't know	-	17	13	19	57	-	106
All media	16	94	229	279	312	8	938
				Percent of answers			
Newspaper	25.0	38.3	38.4	34.4	18.3	-	30.0
Television	50.0	17.0	17.0	31.9	24.7	-	24.4
Store demon-strations	-	4.3	16.2	4.7	6.4	-	7.9
Point of sale	-	8.5	8.8	5.7	3.8	50.0	6.4
Handbills	-	4.3	1.7	6.5	5.1	50.0	4.9
Store display	25.0	5.3	3.9	2.5	3.2	-	3.7
Radio	-	4.2	2.2	-	3.8	-	2.2
Other	-	-	6.1	7.5	16.4	-	9.2
Don't know	-	18.1	5.7	6.8	18.3	-	11.3
All media	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Retailer Suggestions and Opinions

TABLE - 128.--RETAILERS' OPINIONS ON FACTORS INFLUENCING SALES OF FISH, PACIFIC COAST STATES, 1955

Factors	First choice		Second choice		Third choice	
	Number	Percent	Number	Percent	Number	Percent
Quality	212	23.4	174	19.2	94	10.4
Day of the week	197	21.8	91	10.1	80	8.9
Display	105	11.6	124	13.7	126	13.9
Price of fish	69	7.6	98	10.8	116	12.8
Season	74	8.2	83	9.2	113	12.5
Promotion	46	5.1	46	5.1	24	2.7
Religion	49	5.4	5	0.6	8	0.9
Nationality	34	3.8	42	4.6	13	1.4
Don't know	54	6.0	100	11.1	190	21.0
Attractiveness of the package	16	1.8	41	4.5	68	7.5
Knowledge of preparation	-	-	24	2.7	30	3.3
Other	48	5.3	76	8.4	42	4.7
All answers	904	100.0	904	100.0	904	100.0

TABLE - 129.--SUGGESTED CHANGES IN FISH MARKETING PRACTICES, PACIFIC COAST STATES, 1955

Type of store	Suggested changes						
	More frequent delivery	Improved packages for fresh fish	Wholesaler advertising	Standard size package	Antibiotic treatment for fresh fish	Other	Total
	Number of suggestions						
Meat market	4	4	8	-	5	4	25
Supermarket	14	9	13	10	-	16	62
Grocery store	4	16	15	4	4	15	58
Neighborhood grocery	26	8	-	5	6	17	62
General store	-	-	4	-	-	-	4
All stores	48	37	40	19	15	52	211
	Percent of suggestions						
Meat market	16.0	16.0	32.0	-	20.0	16.0	100.0
Supermarket	22.6	14.5	21.0	16.1	-	25.8	100.0
Grocery store	6.9	27.5	25.9	6.9	6.9	25.9	100.0
Neighborhood grocery	41.9	12.9	-	8.1	9.7	27.4	100.0
General store	-	-	100.0	-	-	-	100.0
All stores	22.8	17.5	19.0	9.0	7.1	24.6	100.0

Note: Based on 61 stores. Some stores gave more than one suggestion.

TABLE - 130.--RELATIVE IMPORTANCE OF SALES OF FRESH, FROZEN PACKAGED, AND SMOKED FISH, BY TYPE OF RETAILER, PACIFIC COAST STATES, 1955

State and type of retailer	Percent - Total value			
	Fresh	Frozen packaged	Smoked	Total
California				
Fish market	-	-	-	-
Meat market	45.0	54.4	0.6	100.0
Supermarket	42.8	53.9	3.3	100.0
Grocery store	27.4	72.2	0.4	100.0
Neighborhood grocery	32.0	67.4	0.6	100.0
General store	-	100.0	-	100.0
Total	40.3	57.5	2.2	100.0
Oregon				
Fish market	-	-	-	-
Meat market	50.0	50.0	-	100.0
Supermarket	66.2	28.6	5.2	100.0
Grocery store	41.8	56.0	2.2	100.0
Neighborhood grocery	96.1	3.9	-	100.0
General store	-	90.1	9.9	100.0
Total	59.8	36.6	3.6	100.0
Washington				
Fish market	85.9	-	14.1	100.0
Meat market	70.9	24.8	4.3	100.0
Supermarket	75.4	14.7	9.9	100.0
Grocery store	68.7	27.6	3.7	100.0
Neighborhood grocery	43.9	50.7	5.4	100.0
General store	-	-	-	-
Total	78.1	11.3	10.6	100.0
Three states	51.5	44.1	4.4	100.0

TABLE - 131.--RATIO OF FISH SALES TO TOTAL STORE SALES, PACIFIC COAST STATES, 1955

State and type of retailer	Total gross sales	Total fish sales	Fish sales as percent of total sales
California			
Meat market	$47,283,160	$178,940	.38
Supermarket	69,418,500	623,740	.90
Grocery store	19,306,037	135,834	.70
Neighborhood grocery	15,384,000	99,689	.65
General store	380,000	400	.11
Total	$151,771,697	$1,038,603	.68
Oregon			
Meat market	$166,400	$17,680	10.62
Supermarket	12,091,000	107,090	.89
Grocery store	4,914,000	47,176	.96
Neighborhood grocery	1,198,456	25,520	2.13
Total	$18,369,856	$197,466	1.07
Washington			
Meat market	$2,756,000	$37,480	1.36
Supermarket	7,800,110	120,557	1.55
Grocery store	11,035,000	69,790	.63
Neighborhood grocery	3,370,000	24,852	.74
Total	$24,961,110	$252,679	1.01
Three states	$195,102,663	$1,488,748	.76

Note: Based on 576 sample stores. Fish markets excluded.

Tables Nos. 132 - 166

on

Wholesale Distribution

Items in the tables showing a reported number less than 14 and percentages based on a reported number less than 14 do not give reliable indications for the group to which they refer. They are shown for reference purposes only and should not be used as reliable indications for the group because of the small sample response.

Sales

TABLE - 132.--ESTIMATED SALES OF FRESH, FROZEN, SMOKED AND CANNED FISH AND SHELLFISH, PACIFIC COAST STATES, 1955

State	Number of wholesalers	Estimated sales of fish and shellfish: Fresh	Frozen whole	Frozen packaged
California	164	$44,332,300	$20,222,100	$32,489,200
Washington	76	12,571,300	13,568,300	12,286,700
Oregon	67	8,563,700	1,775,100	1,894,100
Total	307	$65,467,300	$35,565,500	$46,670,000
		Percent		
California	53.4	43.7	20.0	32.1
Washington	24.8	24.0	25.9	23.4
Oregon	21.8	55.4	11.5	12.3
Three states	100.0	38.7	21.0	27.6

State	Estimated sales of fish and shellfish - continued: Smoked	Canned cured reduced	Total
California	$3,474,100	$820,000	$101,337,700
Washington	1,083,000	12,932,700	52,442,000
Oregon	261,200	2,950,400	15,444,500
Total	$4,818,300	$16,703,100	$169,224,200
		Percent	
California	3.4	0.8	100.0
Washington	2.1	24.6	100.0
Oregon	1.7	19.1	100.0
Three states	2.8	9.9	100.0

Note: Based on 307 wholesalers. These figures were computed by multiplying total gross fish sales by the wholesalers' estimated percents that each form of fish represented. Wholesalers primarily in the canned fish business are not included.

TABLE - 133.--ESTIMATED SALES OF SELECTED FORMS OF FISH, BY TYPES OF WHOLESALERS, PACIFIC COAST STATES, 1955

Form of fish sold	Fresh fish wholesalers	Frozen food wholesalers	All wholesalers
		Estimated sales	
Fresh fish	$65,467,300	-	$65,467,300
Frozen whole	35,565,500	-	35,565,500
Frozen packaged	32,914,500	$13,755,500	46,670,000
Smoked	4,818,300	-	4,818,300
Other	16,703,100	-	16,703,100
Total	$155,468,700	$13,755,500	$169,224,200
		Percent of sales by type of wholesaler	
Fresh fish	100.0	-	100.0
Frozen whole	100.0	-	100.0
Frozen packaged	71.0	29.0	100.0
Smoked	100.0	-	100.0
Other	100.0	-	100.0
Total	92.0	8.0	100.0

Note: Based on 307 wholesalers.

TABLE - 134.--SALES VALUE OF FROZEN FISH PRODUCTS PURCHASED FROM AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

State	Total sales value of frozen fish		Sales value of frozen fish purchased in other areas	
	Fresh fish wholesalers	Frozen food wholesalers	Fresh fish wholesalers	Frozen food wholesalers
California	$41,449,200	$11,262,100	$4,109,000	$4,164,900
Oregon	3,030,200	639,000	78,800	199,100
Washington	24,000,600	1,854,400	604,900	1,039,300
Three states	$68,480,000	$13,755,500	$4,792,700	$5,403,300

State	Percent of total sales purchased in other areas		
	Fresh fish wholesalers	Frozen food wholesalers	All wholesalers
California	9.9	37.0	15.7
Oregon	2.6	31.2	7.6
Washington	2.5	56.0	6.4
Three states	7.0	39.3	12.4

Note: Based on 202 wholesalers. The remaining wholesalers did not handle frozen fish, or did not give purchase figures.

Source of Fresh, Frozen Packaged, or Smoked Fish or Shellfish
(other than Pacific Coast States)

TABLE - 135.--KINDS OF FROZEN FISHERY PRODUCTS PURCHASED FROM AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

Products purchased	California	Oregon	Washington	Total
		Number of wholesalers		
None	39	15	34	88
Shrimp	116	35	43	194
Scallops	86	24	28	138
Lobster	26	1	16	43
Fishsticks	44	11	11	66
Swordfish	34	-	-	34
Clams	14	-	-	14
Other	93	6	12	111
		Percent of wholesalers		
None	23.0	22.0	45.0	29.0
Shrimp	70.0	52.0	57.0	63.0
Scallops	52.0	36.0	37.0	45.0
Lobster	16.0	1.0	21.0	14.0
Fishsticks	27.0	16.0	14.0	21.0
Swordfish	21.0	-	-	11.0
Clams	8.0	-	-	5.0
Other	57.0	9.0	16.0	36.0

Note: Based on 307 wholesalers.

TABLE - 136.--SOURCE OF FROZEN FISHERY PRODUCTS PURCHASED IN AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

Area of production	Shrimp	Scallops	Fish-sticks	Lobster	Sword-fish	Clams	Other
			Number of wholesalers purchasing				
East Coast	-	69	64	10	-	4	54
Japan	6	32	-	2	29	6	31
Mexico	97	7	-	4	4	4	-
Gulf Coast	32	-	-	1	-	-	-
Northern Europe	-	-	-	-	-	-	30
Other	2	5	6	9	-	-	3
All areas	137	113	70	26	33	14	118
			Percent of wholesalers purchasing				
East Coast	-	61.1	91.4	38.5	-	28.6	45.8
Japan	4.4	28.3	-	7.7	87.9	42.8	26.3
Mexico	70.7	6.2	-	15.4	12.1	28.6	-
Gulf Coast	23.4	-	-	3.8	-	-	-
Northern Europe	-	-	-	-	-	-	25.4
Other	1.5	4.4	8.6	34.6	-	-	2.5
All areas	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 137.--REASONS FOR PURCHASING FISH IN AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

Reasons for purchasing fish in other areas	Number of reasons			Percent of reasons		
	Calif.	Oreg.	Wash.	Calif.	Oreg.	Wash.
Not available locally	115	30	40	46.0	49.2	71.4
Cheaper	39	15	14	15.6	24.6	25.0
Better quality	41	4	1	16.4	6.6	1.8
More uniformity	5	-	-	2.0	-	-
Consumer preference	44	6	1	17.6	9.8	1.8
Other	6	6	-	2.4	9.8	-
Total	250	61	56	100.0	100.0	100.0

TABLE - 138.--CHANGE IN PURCHASES OF FROZEN FISH PRODUCTS PRODUCED IN AREAS OTHER THAN THE PACIFIC COAST, PACIFIC COAST WHOLESALERS, 1955

Trends in total sales	Fish wholesalers			Frozen food wholesalers		
	California	Oregon	Washington	California	Oregon	Washington
			Number			
Remained same	35	12	13	22	17	6
Increased	29	1	7	39	11	22
Decreased	12	-	-	-	-	-
Don't know	1	-	1	6	6	-
Total	77	13	21	67	34	28
			Percent			
Remained same	45.4	92.3	61.9	32.8	50.0	21.4
Increased	37.7	7.7	33.3	58.2	32.4	78.6
Decreased	15.6	-	-	-	-	-
Don't know	1.3	-	4.8	9.0	17.6	-
Total	100.0	100.0	100.0	100.0	100.0	100.0

Trends in total sales	All wholesalers			Total
	California	Oregon	Washington	
		Number		
Remained same	57	29	19	105
Increased	68	12	29	109
Decreased	12	-	-	12
Don't know	7	6	1	14
Total	144	47	49	240
		Percent		
Remained same	39.6	61.7	38.8	43.8
Increased	47.2	25.5	59.2	45.4
Decreased	8.3	-	-	5.0
Don't know	4.9	12.8	2.0	5.8
Total	100.0	100.0	100.0	100.0

Note: Includes only those wholesalers purchasing frozen fish products from other areas.

TABLE - 139.--CAPACITY OF SHARP FREEZING EQUIPMENT OWNED OR RENTED BY PACIFIC COAST FISH WHOLESALERS, 1955

State	Fish wholesalers with sharp freezing equipment: Number	Fish wholesalers with sharp freezing equipment: Percent of fish wholesalers interviewed	Capacity in pounds per day
California	53	54	732,911
Oregon	19	68	497,680
Washington	20	42	1,766,188
Three states	92	53	2,996,779

TABLE - 140.--ADEQUACY OF OWNED AND RENTED SHARP FREEZING FACILITIES OF PACIFIC COAST FISH WHOLESALERS, 1955

Answer	Number of wholesalers				Percent of wholesalers			
	Calif.	Oreg.	Wash.	Three states	Calif.	Oreg.	Wash.	Three states
Yes	52	18	13	83	68	95	38	64
No	25	1	21	47	32	5	62	36
Total	77	19	34	130	100	100	100	100

Note: Only wholesalers using sharp freezing equipment answered this question.

TABLE - 141.--CAPACITY OF FROZEN FOOD STORAGE FACILITIES OPERATED BY 146 FISH WHOLESALERS 1/, PACIFIC COAST STATES, 1955

State	Fish wholesalers with frozen storage space		
	Number	Percent	Pounds capacity 2/
California	88	92	14,402,538
Oregon	27	100	20,647,784
Washington	31	65	57,142,926
Total	146	85	92,193,248

1/ Data from frozen food wholesalers was too incomplete to report.

2/ Based upon 87 firms in California, 27 in Oregon, and 16 in Washington. Excludes 16 firms unable to estimate capacity.

TABLE - 142.--ADEQUACY OF AVAILABLE PUBLIC FROZEN PRODUCT STORAGE FACILITIES, PACIFIC COAST STATES, 1955

Adequacy of public frozen storage	Fish wholesalers				Frozen food wholesalers			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
				Number				
Yes	48	15	40	103	67	22	28	117
No	8	12	10	30	-	17	-	17
Total	56	27	50	133	67	39	28	134
				Percent				
Yes	85.7	55.6	80.0	77.4	100.0	56.4	100.0	87.3
No	14.3	44.4	20.0	22.6	-	43.6	-	12.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 143.--STORAGE ROOM TEMPERATURES FOR FROZEN FISH PRODUCTS, PACIFIC COAST STATES, 1955

Storage temperatures	Number of wholesalers				Percent of wholesalers			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
More than 10° below 0°F.	12	-	2	14	7.8	-	2.9	4.9
-10° to -5°F.	46	22	13	81	30.3	35.5	18.6	28.5
-4.9° to 0°F.	76	34	24	134	50.0	54.8	34.2	47.2
0.1° to 5°F.	8	6	16	30	5.3	9.7	22.9	10.6
5.1° to 10°F.	10	-	10	20	6.6	-	14.3	7.0
20.1° to 25°F.	-	-	4	4	-	-	5.7	1.4
25.1° to 30°F.	-	-	1	1	-	-	1.4	0.4
All groups	152	62	70	284	100.0	100.0	100.0	100.0

Note: Based on 284 wholesalers. Twenty-three wholesalers had no frozen storage.

TABLE - 144.--PRODUCTION CAPACITY OF ICE MAKING EQUIPMENT FISH WHOLESALERS, PACIFIC COAST STATES, 1955

State	Number with ice making equipment	Percent interviewed with ice equipment	Capacity in pounds per 24 hours	Percent of capacity used	
				Peak season	Low season
California	66	69	241,400	100	73
Oregon	20	74	403,800	100	9
Washington	22	45	483,900	100	17
Three states	108	63	1,291,100	100	23

Note: Based on 104 firms reporting capacity.

TABLE - 145.--WHOLESALERS' OPINION ON STORAGE LIFE OF SELECTED FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

Months	Estimated months product can be stored				
	Salmon	Halibut	Sole	Rockfishes	Crab
			Number answering		
1 to 2	30	22	11	4	12
3 to 4	23	34	26	29	27
5 to 6	15	17	23	27	29
7 to 8	6	3	4	6	1
9 to 10	5	11	1	4	1
11 to 12	21	18	34	19	13
More than 12	-	-	6	1	-
Don't know	207	202	202	217	224
All wholesalers	307	307	307	307	307
			Percent answering		
1 to 2	9.8	7.2	3.6	1.3	3.9
3 to 4	7.5	11.1	8.5	9.4	8.8
5 to 6	4.9	5.5	7.5	8.8	9.4
7 to 8	2.0	1.0	1.3	2.0	0.3
9 to 10	1.6	3.6	0.3	1.3	0.3
11 to 12	6.8	5.9	11.1	6.2	4.2
More than 12	-	-	2.0	0.3	-
Don't know	67.4	65.7	65.7	70.7	73.1
All wholesalers	100.0	100.0	100.0	100.0	100.0

Note: Based on 307 wholesalers.

TABLE - 146.--REPORTED SPOILAGE LOSS ON FRESH AND FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

State and percent of loss	Number of wholesalers		Percent of wholesalers	
	Fresh fish	Frozen packaged	Fresh fish	Frozen packaged
California				
None	32	120	33.7	73.6
Less than 1%	35	28	36.8	17.2
1%	11	2	11.6	1.2
2% or more	12	4	12.6	2.5
Didn't know or didn't handle	5	9	5.3	5.5
Total	95	163	100.0	100.0
Oregon				
None	8	52	29.6	78.8
Less than 1%	14	5	51.9	7.6
1%	4	4	14.8	6.0
2% or more	-	-	-	-
Didn't know or didn't handle	1	5	3.7	7.6
Total	27	66	100.0	100.0
Washington				
None	22	54	44.9	70.1
Less than 1%	20	10	40.8	13.0
1%	-	-	-	-
2% or more	7	3	14.3	3.9
Didn't know or didn't handle	-	10	-	13.0
Total	49	77	100.0	100.0

TABLE - 147.--CAUSES OF SPOILAGE LOSSES IN HANDLING FRESH FISH, PACIFIC COAST WHOLESALERS, 1955

Causes of spoilage losses	Number of reasons				Percent of reasons			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
Improper handling before receiving	23	8	14	45	31.9	33.3	36.9	33.6
Overstocking	13	5	4	22	18.1	20.8	10.5	16.4
Market gluts	13	-	1	14	18.1	-	2.6	10.5
Improper handling during transportation	4	6	1	11	5.5	25.0	2.6	8.2
Too old on arrival	1	4	6	11	1.4	16.7	15.8	8.2
Other	18	1	12	31	25.0	4.2	31.6	23.1
Total	72	24	38	134	100.0	100.0	100.0	100.0

TABLE - 148.--CAUSES OF SPOILAGE LOSSES ON FROZEN PACKAGED FISH, PACIFIC COAST WHOLESALERS, 1955

Causes of spoilage	Wholesalers reporting	
	Number of reasons	Percent of reasons
Loss due to overstocking	13	36.1
Improper holding temperature during transportation	7	19.5
Stored too long before receiving	5	13.9
Held too long in storage	3	8.3
Poor quality fish are frozen	3	8.3
Other	5	13.9
All answers	36	100.0

TABLE - 149.--RELATIVE IMPORTANCE OF SELECTED SALES OUTLETS FOR FRESH AND FROZEN FISH, PACIFIC COAST STATES, 1955

Sales outlets	California	Oregon	Washington	Three states
	Fresh fish			
	Percent	Percent	Percent	Percent
Retail stores	39.9	38.3	21.2	36.2
Institutions	29.1	2.7	5.7	21.1
Other wholesalers	28.5	47.1	69.5	38.7
Dairy and frozen food	0.1	-	0.1	0.1
Other	2.4	11.9	3.5	3.9
All outlets	100.0	100.0	100.0	100.0
	Frozen fish			
	Percent	Percent	Percent	Percent
Retail stores	44.6	23.5	22.8	37.6
Institutions	27.4	39.3	5.8	21.8
Other wholesalers	26.9	12.9	35.4	28.7
Dairy and frozen food	-	-	20.7	5.9
Other	1.1	24.3	15.3	6.0
All outlets	100.0	100.0	100.0	100.0

Services Offered

TABLE - 150.--WHOLESALERS OFFERING DELIVERY SERVICE ON PRODUCTS SOLD TO OTHER WHOLESALERS, PACIFIC COAST STATES, 1955

Delivery service	Fish wholesalers				Frozen food wholesalers			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
				Number				
Yes	30	13	11	54	-	6	6	12
No	46	12	21	79	6	6	-	12
Total	76	25	32	133	6	12	6	24
				Percent				
Yes	39.5	52.0	34.4	40.6	-	50.0	100.0	50.0
No	60.5	48.0	65.6	59.4	100.0	50.0	-	50.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: 150 wholesalers did not sell to other wholesalers.

TABLE - 151.--WHOLESALERS OFFERING DELIVERY SERVICE ON PRODUCTS SOLD TO RETAIL STORES, PACIFIC COAST STATES, 1955

Answer	Fish wholesalers				Frozen food wholesalers			
	Calif.	Oreg.	Wash.	Three states	Calif.	Oreg.	Wash.	Three states
				Number				
Yes	64	13	27	104	61	33	28	122
No	10	10	15	35	6	-	-	6
Total	74	23	42	139	67	33	28	128
				Percent				
Yes	86.5	56.5	64.3	74.8	91.0	100.0	100.0	95.3
No	13.5	43.5	35.7	25.2	9.0	-	-	4.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Only wholesalers selling to retail stores are included.

TABLE - 152.--RADIUS OF WHOLESALE DELIVERY ROUTES FOR FISHERY PRODUCTS, PACIFIC COAST STATES, 1955

Distance covered by delivery routes	Fish wholesalers			Frozen food wholesalers			All wholesalers			
	Cal.	Oreg.	Wash.	Cal.	Oreg.	Wash.	Cal.	Oreg.	Wash.	Total
					Number					
Local	8	4	4	6	6	-	14	10	4	28
To 25 miles	14	4	6	22	-	-	36	4	6	46
To 50 miles	43	4	1	28	6	17	71	10	18	99
To 100 miles	4	-	1	11	11	-	15	11	1	27
To 150 miles	4	-	4	-	6	6	4	6	10	20
More than 150 miles	2	1	11	-	6	6	2	7	17	26
Total	75	13	27	67	35	29	142	48	56	246
					Percent					
Local	10.7	30.8	14.8	9.0	17.1	-	9.9	20.8	7.1	11.4
To 25 miles	18.7	30.8	22.2	32.8	-	-	25.3	8.4	10.7	18.7
To 50 miles	57.3	30.8	3.7	41.8	17.1	58.6	50.0	20.8	32.1	40.2
To 100 miles	5.3	-	3.7	16.4	31.6	-	10.6	22.9	1.8	11.0
To 150 miles	5.3	-	14.8	-	17.1	20.7	2.8	12.5	17.9	8.1
More than 150 miles	2.7	7.6	40.8	-	17.1	20.7	1.4	14.6	30.4	10.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Based on 246 Pacific Coast wholesalers. Sixty-one wholesalers did not offer delivery service either to retailers or other wholesalers.

TABLE - 153.--FREQUENCY OF DELIVERY OF FISHERY PRODUCTS BY PACIFIC COAST WHOLESALERS OFFERING DELIVERY SERVICE, 1955

Frequency of delivery	Fresh fish wholesalers				Frozen food wholesalers			
	Calif.	Oreg.	Wash.	Three states	Calif.	Oreg.	Wash.	Three states
					Number			
Daily	65	9	17	91	28	11	17	56
Twice weekly	6	4	5	15	22	17	17	56
Weekly	3	-	2	5	6	17	11	34
Other	-	-	4	4	17	6	-	23
Total	74	13	28	115	73	51	45	169
					Percent			
Daily	87.8	69.2	60.7	79.1	38.4	21.6	37.8	33.1
Twice weekly	8.1	30.8	17.9	13.0	30.1	33.3	37.8	33.1
Weekly	4.1	-	7.1	4.4	8.2	33.3	24.4	20.2
Other	-	-	14.3	3.5	23.3	11.8	-	13.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 154.--TYPE OF REFRIGERATION USED FOR DELIVERY OF FRESH FISH TO RETAILERS, PACIFIC COAST WHOLESALERS, 1955

Type of refrigeration used	Fresh fish wholesalers			
	California	Oregon	Washington	Three states
		Number		
Insulated truck with ice	16	6	9	31
Non-insulated truck with ice	60	9	28	97
Other	8	1	-	9
Total	84	16	37	137
		Percent		
Insulated truck with ice	19.0	37.5	24.3	22.6
Non-insulated truck with ice	71.5	56.3	75.7	70.8
Other	9.5	6.2	-	6.6
Total	100.0	100.0	100.0	100.0

Note: Some wholesalers used both methods depending on the length of the route.

TABLE - 155.--TYPE OF REFRIGERATION USED DURING DELIVERY OF FROZEN PACKAGED FISH, PACIFIC COAST WHOLESALERS, 1955

Type of refrigeration used during delivery	Fish wholesalers			Frozen food wholesalers		
	Calif.	Oreg.	Wash.	Calif.	Oreg.	Wash.
			Number			
Mechanical refrigeration	14	3	7	39	22	17
Dry ice insulated truck	8	-	4	6	-	6
Dry ice non-insulated truck	9	1	1	-	6	-
Non-insulated truck, no ice	39	4	8	6	11	-
Insulated truck	1	-	-	6	-	-
Insulated box	-	4	4	11	-	6
Total	71	12	24	68	39	29
			Percent			
Mechanical refrigeration	19.7	25.0	29.2	57.4	56.4	58.6
Dry ice insulated truck	11.3	-	16.7	8.8	-	20.7
Dry ice non-insulated truck	12.7	8.4	4.2	-	15.4	-
Non-insulated truck, no ice	54.9	33.3	33.2	8.8	28.2	-
Insulated truck	1.4	-	-	8.8	-	-
Insulated box	-	33.3	16.7	16.2	-	20.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 156.--WHOLESALERS ARRANGING FROZEN PACKAGED FISH PRODUCTS IN THE RETAIL FROZEN FOOD CABINETS, PACIFIC COAST STATES, 1955

Answer	Fish wholesalers				Frozen packaged wholesalers			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
				Number				
Yes	3	-	-	3	33	28	11	72
No	47	7	25	79	6	6	17	29
Total	50	7	25	82	39	34	28	101
				Percent				
Yes	6.0	-	-	3.7	84.6	82.4	39.3	71.3
No	94.0	100.0	100.0	96.3	15.4	17.6	60.7	28.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The remaining wholesalers either did not sell to retail stores or did not handle any frozen packaged fish products.

TABLE - 157.--FISH WHOLESALERS FURNISHING ICE TO RETAILERS WITHOUT CHARGE, PACIFIC COAST STATES, 1955

Answer	Fish wholesalers furnishing ice			
	California	Oregon	Washington	Total
		Number		
Yes	36	18	26	80
No	43	2	14	59
Total	79	20	40	139
		Percent		
Yes	45.6	90.0	65.0	57.6
No	54.4	10.0	35.0	42.4
Total	100.0	100.0	100.0	100.0

TABLE - 158.--WHOLESALERS UNDERTAKING EDUCATIONAL WORK WITH RETAILERS, PACIFIC COAST STATES, 1955

Answers	Fish wholesalers				Frozen food wholesalers			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
				Number				
Yes	18	8	13	39	6	6	-	12
No	71	9	28	108	56	28	28	112
Total	89	17	41	147	62	34	28	124
				Percent				
Yes	20.2	47.1	31.7	26.5	9.7	17.6	-	9.7
No	79.8	52.9	68.3	73.5	90.3	82.4	100.0	90.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Total does not equal total number in survey because some wholesalers did not sell to retailers.

TABLE - 159.--PACIFIC COAST WHOLESALERS ADVERTISING FISH IN 1955

Answers	Fish wholesalers				Frozen food wholesalers			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
					Number			
Yes	70	14	40	124	11	17	22	50
No	28	16	8	52	56	22	6	84
Total	98	30	48	176	67	39	28	134
					Percent			
Yes	71.4	46.7	83.3	70.5	16.4	43.6	78.6	37.3
No	28.6	53.3	16.7	29.5	83.6	56.4	21.4	62.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 160.--PERCENT OF GROSS SALES SPENT FOR ADVERTISING BY SIZE GROUPS, PACIFIC COAST WHOLESALERS, 1955

Size groups	Total gross	Advertising expenditure	Percent of gross spent
Less than $50,000	$937,440	$13,887	1.48
50- 99	2,534,017	12,171	0.48
100- 199	4,081,605	4,166	0.10
200- 299	4,439,332	11,397	0.26
300- 399	5,423,280	5,483	0.10
400- 499	7,641,836	23,050	0.30
500- 999	14,872,442	35,903	0.24
1000-3999	43,336,185	85,823	0.20
4000 or more	48,780,683	63,000	0.13
Unclassified	Refused or didn't know	34,083	-
Total	$132,046,820	$288,963	0.22

Note: 51 wholesalers in California, Oregon, and Washington refused to give information on advertising expenditures or gross sales.

TABLE - 161.--ADVERTISING BUDGET PLANS OF PACIFIC COAST WHOLESALERS FOR 1956 COMPARED WITH 1955

Advertising budget plans	Number of wholesalers answering			
	California	Oregon	Washington	Total
		Number		
More	27	15	11	53
Less	8	-	6	14
About the same	59	51	52	162
Don't know	10	-	7	17
Total	104	66	76	246
		Percent		
More	26.0	22.7	14.5	21.5
Less	7.7	-	7.9	5.7
About the same	56.7	77.3	68.4	65.9
Don't know	9.6	-	9.2	6.9
Total	100.0	100.0	100.0	100.0

TABLE - 162.--NEW FROZEN PACKAGED FISHERY PRODUCTS HANDLED BY WHOLESALERS, PACIFIC COAST STATES, 1955

New products handled	Wholesalers selling new products			
	California	Oregon	Washington	Total
		Number		
None	26	32	16	74
Fishsticks	79	22	25	126
Breaded scallops	31	11	5	47
Tuna pies	22	17	4	43
Fish soups	23	6	5	34
Breaded oysters	17	6	6	29
Frozen fish dinners	10	13	4	27
Lobster tails	7	-	-	7
Other	40	18	3	61
		Percent		
None	15.8	48.5	20.8	24.1
Fishsticks	48.2	33.3	32.5	41.0
Breaded scallops	18.9	16.7	6.5	15.3
Tuna pies	13.4	25.8	5.2	14.0
Fish soups	14.0	9.1	6.5	11.1
Breaded oysters	10.4	9.1	7.8	9.4
Frozen fish dinners	6.1	19.7	5.2	8.8
Lobster tails	4.2	-	-	2.3
Other	24.4	27.3	3.9	19.9

Wholesaler Suggestions

TABLE - 163.--WHOLESALER PREFERENCE FOR FEDERAL GRADES AND STANDARDS FOR FISHERY PRODUCTS, PACIFIC COAST STATES, 1955

Preference	Number				Percent			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
				Fresh fish				
Yes	56	9	29	94	58.4	34.7	60.4	55.3
No	32	16	13	61	33.3	61.5	27.1	35.9
Don't know	8	1	6	15	8.3	3.8	12.5	8.8
Total	96	26	48	170	100.0	100.0	100.0	100.0
				Frozen packaged fish				
Yes	139	38	51	228	84.2	56.7	66.2	73.8
No	14	15	18	47	8.5	22.4	23.4	15.2
Don't know	12	14	8	34	7.3	20.9	10.4	11.0
Total	165	67	77	309	100.0	100.0	100.0	100.0

TABLE - 164.--OPINIONS OF WHOLESALERS CONCERNING PORTION CONTROL OF FROZEN PACKAGED FISH, PACIFIC COAST STATES, 1955

Opinion	Fish wholesalers				Frozen food wholesalers			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
				Number				
Yes	22	1	17	40	28	11	11	50
No	49	13	20	82	22	28	6	56
Don't know	27	13	11	51	17	-	11	28
Total	98	27	48	173	67	39	28	134
				Percent				
Yes	22.4	3.7	35.4	23.1	41.8	28.2	39.3	37.3
No	50.0	48.1	41.7	47.4	32.8	71.8	21.4	41.8
Don't know	27.6	48.2	22.9	29.5	25.4	-	39.3	20.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE - 165.--FACTORS HAVING GREATEST INFLUENCE ON RETAIL SALES OF FISH IN PACIFIC COAST STATES, 1955

Factors	Percent of answers		
	First choice	Second choice	Third choice
Quality	41.9	30.5	13.3
Price of fish	17.9	30.5	25.1
Type of store display	10.6	4.4	19.4

TABLE - 166.--SUGGESTED NUMBER OF PORTIONS PER PACKAGE, 90 PACIFIC COAST WHOLESALERS, 1955

Number of portions	Fish wholesalers				Frozen food wholesalers			
	Calif.	Oreg.	Wash.	Total	Calif.	Oreg.	Wash.	Total
				Number				
2	-	-	-	-	6	-	-	6
3	5	-	4	9	-	-	-	-
4	7	1	1	9	17	-	6	23
5	-	-	5	5	-	-	-	-
6	-	-	1	1	-	-	-	-
7	-	-	-	-	-	-	-	-
8	-	-	1	1	-	-	-	-
9	-	-	-	-	-	-	-	-
10	-	-	-	-	-	6	-	6
Don't know	5	-	7	12	6	6	6	18
Total	17	1	19	37	29	12	12	53
				Percent				
2	-	-	-	-	20.7	-	-	11.3
3	29.4	-	21.1	24.3	-	-	-	-
4	41.2	100.0	5.3	24.3	58.6	-	50.0	43.4
5	-	-	26.3	13.5	-	-	-	-
6	-	-	5.3	2.7	-	-	-	-
7	-	-	-	-	-	-	-	-
8	-	-	5.3	2.7	-	-	-	-
9	-	-	-	-	-	-	-	-
10	-	-	-	-	-	50.0	-	11.3
Don't know	29.4	-	36.7	32.5	20.7	50.0	50.0	34.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Appendix A

General procedure and sample design for selecting consumer, retailer, and wholesaler units included in the survey

PROCEDURE AND SAMPLE DESIGN

General Procedure

After initial orientation, personnel assigned to this study visited numerous fish wholesalers in Oregon, Washington, and California for the purpose of getting background information and to inform the wholesalers about the study. Later, formal meetings were held with official industry groups in Seattle, Portland, and San Francisco. At the suggestion of the College, each of these groups set up an advisory committee to work with the College and to encourage industry support for the study.

Oregon State College personnel met with the members of the advisory committees, as well as other wholesalers suggested by committee members, to learn more specifically of the problems confronting the industry and to get suggestions on questions the industry desired answered.

Following the meeting with the industry groups, preliminary questionnaires were developed (consumer, retail, and wholesale). These questionnaires were then checked with members of the industry advisory committees for corrections and suggestions. The questionnaires were then sent to the Fish and Wildlife Service and the Bureau of the Budget for approval. Permission to pretest was granted and the questionnaires were pretested, revised, and returned to the Bureau of the Budget (via the Fish and Wildlife Service) for final approval. Final approval for conducting the field surveys was granted and the field work started about February 1, 1956. The field work was completed about August 1, 1956.

Sample Design

Household survey

The primary sampling units and blocks for the household survey were selected by the Market Research Corporation of America as follows:

1. The three West Coast states (Washington, Oregon, and California) were stratified by city size and geographic area. The three city sizes were rural (under 2,500), urban (2,500-50,000) and Standard Metropolitan Area (SMA) which included all the area in the counties designated by the Bureau of the Census. The sample areas are shown in appendix table 1.

2. Using the above stratification and 1950 census statistics and supplementary information as indicated below, a sample of 668 blocks was selected with known probabilities using multi-stage sampling procedures. The primary sampling units (p.s.u.'s) were selected within each stratum with probabilities proportionate to size (p.p.s.). These p.s.u.'s consisted of whole SMA's, individual cities or towns in the urban city size, and rural portions of non-SMA counties. Sampling within each selected p.s.u. was as described in the following paragraphs.

3. In all p.s.u.'s, a minimum of four blocks was selected in each selected city, town, or minor civil division (m.c.d.). Measures of block size were provided by Market Research Corporation of America (MRCA) for each selected block. By using the intra-block sampling fractions, a three-state sample of households was selected with equal probabilities, and hence a self-weighting sample of households was obtained.

4. In the block-city portion of the SMA's, block cities were selected with probabilities proportionate to size. A listing of these selected block cities, together with their measures of size, was provided by Market Research Corporation. Within each selected block city, blocks were selected with probabilities proportionate to size, using systematic sampling with a random start. A minimum block size of ten census households was established, combining small blocks (including zero blocks) with adjacent larger ones in an unbiased manner. A listing of selected blocks by tract and block number, together with their respective measures of size, and one copy of a reproduction of the census block map with the selected blocks indicated thereon were provided by Market Research Corporation.

5. In the non-block area portion of the SMA's, minor civil divisions (m.c.d.'s) were selected with p.p.s. A list of selected m.c.d.'s was provided together with measures of size. Within each selected m.c.d., four blocks (or small areas) were selected with p.p.s. where count units were available on county maps and with equal probabilities where they were not. One copy of a map or map reproduction was provided by Market Research Corporation for each selected m.c.d. on which the selected blocks were indicated.

6. In the urban city size, cities or towns were selected with p.p.s., and a listing of selected cities or towns was provided together with their measures of size. Within each selected city or town, four blocks were selected with equal probabilities. A map or map reproduction was provided for each selected town or city on which the selected blocks were indicated.

7. In the rural city size, within each selected county, a m.c.d. was selected with p.p.s. and with replacement for each group of four blocks. A listing of selected m.c.d.'s together with their measures of size, was provided. Within each selected m.c.d., four blocks or small areas were selected with p.p.s. where count units were available on county maps and with equal probabilities where they were not. A map of selected m.c.d.'s was provided on which was indicated the selected blocks or areas.

8. The sample allocation was approximately as outlined in appendix table 2.

9. The households within the blocks were selected as follows:

a. From the measures of block size provided by MRCA under 3 above, a sampling rate was calculated so as to give an expected total number of households of 2,001 or an average number of three households per block.

b. A cruise by car was made in each block to count the number of households. This number was multiplied by the sampling rate to give a calculated number of households to sample. If the calculated number of households in a block was six or less, this was the sample number.

c. If the calculated number was greater than six, only six households were sampled. The total number of households in a block was divided by the sample number to give a sampling interval for the block. Numbering the households along a pre-designated route, a random start plus the sampling interval was used to select the sample households.

d. To give a self-weighting sample, the sample households were duplicated sufficiently to arrive at the calculated number of households for each block. Where only a portion of the sample households needed to be duplicated, these were selected randomly.

A total of 1,883 interviews was completed. Unsuccessful attempts were made to contact 129 additional not-at-home households. As the sample was drawn proportionate to population, a high percent of the interviews was taken in the coastal areas where the population of these states is concentrated.

In duplicating selected records to give a self-weighting sample (as described in 9d above), 221 additional questionnaires were added to the study, for a total of 2,064. Throughout the study, reference to the number of households includes the duplicated questionnaires. Of the 2,064 households included in the analysis, 1,544 were from California, 337 were from Washington, and 183 from Oregon.

The field survey work in Oregon and in the rural and nonblock areas of Washington and California was completed by Oregon State College personnel. In Seattle, San Francisco, and Los Angeles professional interviewers were hired to do a substantial part of the field work, under the supervision of a staff member from Oregon State College.

Appendix Table 1. Sample areas

State	County or Standard Metropolitan Area (or block cities)		
Washington	Clallam	Kitsap	Pacific
	Grays Harbor	Mason	Wahkiakum
	Jefferson		
	Cowlitz	Skagit	Thurston
	Lewis	Skamania	Whatcom
	San Juan Islands	Snohomish	
	Asotin	Franklin	Okanogan
	Chelan	Garfield	Pend Oreille
	Columbia	Grant	Stevens
	Benton	Kittitas	Walla Walla
	Adams	Klickitat	Whitman
	Douglas	Lincoln	Yakima
	Ferry		
	Seattle SMA		
	Spokane SMA		
	Tacoma SMA		
	Portland SMA - Clark Co.		
Oregon	Columbia	Curry	Clatsop
	Coos	Lincoln	Tillamook
	Benton	Lane	Polk
	Douglas	Linn	Yamhill
	Jackson	Marion	Hood River
	Josephine		
	Baker	Jefferson	Umatilla
	Crook	Klamath	Union
	Deschutes	Lake	Wallowa
	Gilliam	Malheur	Wasco
	Grant	Morrow	Wheeler
	Harney	Sherman	
	Portland SMA		
California	Del Norte	Lake	Napa
	Humboldt	Mendocino	Sonoma
	Monterey	San Luis Obispo	Santa Cruz
	San Benito	Santa Barbara	Ventura

Appendix Table 1 (cont'd)

State	County or Standard Metropolitan Area (or block cities)		
California (cont'd)	Butte	Sutter	Yolo
	Colusa	Tehama	Yuba
	Glenn		
	Merced	Stanislaus	
	Kern	Madera	Tulare
	Kings		
	Alpine	Mono	Shasta
	Amador	Modoc	Sierra
	El Dorado	Nevada	Siskiyou
	Imperial	Placer	Trinity
	Inyo	Plumas	Tuolumne
	Lassen	Riverside	Calaveras
	Mariposa		
	Fresno SMA		
	Sacramento SMA		
	San Bernardino SMA		
	San Diego SMA		
	San Jose SMA		
	Stockton SMA		
	San Francisco-Oakland SMA (including all non-block area and San Francisco City)		
	Alameda City (in San Francisco-Oakland SMA)		
	Berkeley City (in San Francisco-Oakland SMA)		
	Oakland City (in San Francisco-Oakland SMA)		
	Richland City (in San Francisco-Oakland SMA)		
	Los Angeles SMA (including all non-block area and Los Angeles City)		
	Alhambra City (in Los Angeles SMA)		
	Burbank City (in Los Angeles SMA)		
	Glendale City (in Los Angeles SMA)		
	Long Beach City (in Los Angeles SMA)		
	Pasadena City (in Los Angeles SMA)		
	Santa Monica City (in Los Angeles SMA)		

Appendix Table 2. Sample allocation

State	City size	Geo-graphic stratum	Census house-holds	Expected p.s.u.'s	Expected blocks	Expected sample house-holds
Wash.	Under 2,500	1	34,544	1	4	12
		2	67,319	1	12	36
		3	79,128	1	12	36
	2,500-50,000	1	29,159	1	4	12
		2	54,335	2	8	24
		3	61,304	2	8	24
	SMA--Seattle		234,258	2	34	102
	Spokane		68,949	1	10	30
	Tacoma		78,850	1	12	36
	Portland		25,900	1	4	12
	STATE TOTAL		733,746	13	108	324
Oreg.	Under 2,500	4	30,597	1	4	12
		5	96,690	4	16	48
		6	40,709	1	4	12
	2,500-50,000	4	14,011	1	4	12
		5	61,847	2	8	24
		6	31,047	1	4	12
	SMA--Portland		204,146	1	30	90
	STATE TOTAL		479,047	11	70	210
Calif.	Under 2,500	7	54,679	2	8	24
		8	55,070	2	8	24
		9	134,132	5	20	60
		10	88,647	3	12	36
	2,500-50,000	7	30,709	1	4	12
		8	88,574	3	12	36
		9	116,181	4	16	48
		10	57,586	2	8	24
	SMA--Fresno		80,283	1	12	36
	Los Angeles		1,440,451	1	212	636
	Sacramento		82,728	1	13	39
	San Bernardino		85,631	1	13	39
	San Diego		169,010	1	25	75
	San Fran-Oklnd		706,297	1	104	312
	San Jose		85,424	1	13	39
	Stockton		58,004	1	9	27
	STATE TOTAL		3,333,406	30	489	1,467
GRAND TOTAL			4,546,199	54	667	2,001

Retail survey

The sample design for the retail survey was worked out in cooperation with the Bureau of Old Age and Survivors Insurance of the United States Department of Health, Education, and Welfare as follows:

1. The BOASI supplied Oregon State College with a list of all retail stores in industry groups 541 (grocery stores) and 542 (meat and fish markets) for California, Oregon, and Washington. The listing included a stratification by county, industry groups, and number of employees. The employee sizes were the same as those used in County Business Patterns (United States Department of Commerce), and were the number of employees for which social security funds were collected in the first quarter of 1953.

2. Upon receiving this listing, Oregon State College selected the counties to be sampled (the same counties as used in the consumer survey), determined the sampling rates, and drew a systematic interval sample, using a random start in each stratum. A total of 440 stores were selected to give an allowance for stores not handling fish.

3. The sampling rate for each size classification was increased with increasing size of store. A sampling rate of 1.7 percent was used for stores with less than four employees. For stores with 4 to 19 employees the sampling rate was 2.2 percent, and for stores with 20 or more employees, was 7.1 percent. Within each size classification the sample rate was constant across all strata.

4. As part of the 440 selected stores did not handle fish, the sample number was adjusted to yield the desired number of stores for all strata by using a uniformly lower sampling rate.

5. After the stores to be sampled were selected, they were sent to the Bureau of Old Age and Survivors Insurance which in turn supplied Oregon State College with a list of names and addresses for the sample stores.

A total of 260 retail stores was surveyed in the study. As different sampling rates were used for different sized stores, the field records were duplicated at varying rates to give a self-weighting sample. Thus in the analysis a total of 904 stores were used.

The retail questionnaires were taken by employees of Oregon State College, except for the medium and small stores in the Los Angeles metropolitan area. Mrs. Hazel Dugdale and Associates of Inglewood, California, were hired to complete part of the retail survey in that area. This same firm also worked on the consumer phase of the study.

Wholesale survey

The wholesalers selling fish to retailers and institutional outlets in the three Pacific Coast states fell into two general groups: (a) wholesalers handling fresh, frozen and frozen packaged fish exclusively;

and (b) wholesalers handling frozen packaged fish along with other kinds of frozen food. Such wholesalers included frozen food companies, dairies, ice companies, and wholesale groceries.

As complete lists as possible were assembled for each of the two classes of wholesalers. In assembling these lists, contact was made with the United States Fish and Wildlife field offices in Seattle and San Pedro, the State Fish Commissions in Washington and Oregon, the trade associations in Seattle, Portland, and northern California, leading fish and frozen food brokers, and numerous individual wholesalers in the three states.

Information on the size of business as measured by the average number of employees was obtained for the fish wholesalers, but such information was not readily available on the frozen food wholesalers.

It was estimated after contacting numerous members of the trade, that about 30 percent of the total fish sales to retail stores and institutions on the West Coast was handled by frozen food wholesalers. On the basis of this estimate it was decided that about two-thirds of the wholesalers to be interviewed should be fish wholesalers and the other one-third frozen food wholesalers.

A uniform sampling rate of 18 percent was used across all states, areas, and size groups for the frozen food wholesalers.

For the fish wholesalers the sampling rate varied by size groups, but was kept uniform across states and areas. A sampling rate of 24 percent was used for wholesalers with less than 10 employees. For wholesalers with 10 to 39 employees the sampling rate was 76 percent, and for wholesalers with 40 or more employees, 100 percent.

All of the wholesaler interviews were conducted by Oregon State College staff members. A total of 97 interviews was completed. To give a self-weighting sample, for purposes of analysis, the completed questionnaires were duplicated at appropriate rates, to represent 100 percent of the wholesalers in the Pacific Coast states. A total of 307 wholesaler records was used in the analysis. One hundred and sixty-five of these were from California, 64 were from Oregon and 78 were from Washington.

Since all of the wholesaler interviews were taken by Oregon State College personnel under proper supervision, no written instructions to interviewers were issued and none are shown following.

Appendix B

Instructions for interviewers
and specimen survey questionnaires

INSTRUCTIONS FOR INTERVIEWER
FOR
CONSUMER SURVEY

I. Purpose:

The purpose of this survey of consumers is:

1. to obtain information about consumer preferences and frequency of purchase for Pacific Coast species of fish and shellfish,

2. to obtain opinions as to quality, type of packages preferred, availability, and

3. to locate consumer dissatisfactions with fish and shellfish products. It is hoped the findings of this study will enable the fisheries industry to supply the consumer with a better product. In order to get a representative picture of the consumer market, a total of 2,000 households in Oregon, Washington, and California will be interviewed.

II. Background Material for Interviewers

Some background material will be necessary for you to be able to answer consumer questions and interpret their answers. The following information will be helpful to you.

A. Market terms to know.

1. General

Fresh fish and shellfish - fish or shellfish bought in the fresh form is any whole, steaked, filleted or packaged fish or shellfish that is not frozen, cured, or canned.

Frozen fish and shellfish - fish and shellfish that are bought frozen, usually in packaged form by consumers.

Cured fish - any form of smoked, kippered, salted, or pickled fish. The more important kinds sold are salmon, sablefish, herring, and cod.

2. Market forms of fresh fish.

Whole or round - those fish marketed just as they come from the water.

Drawn - those fish marketed with only their entrails removed.

Dressed - those fish marketed with their entrails removed, and with head, tail, and fins cut off.

Steaks - steaks are cross section slices of the larger sizes of dressed fish. The slices usually are about 3/4 of an inch thick. Salmon and halibut steaks are the most common ones sold.

Fillets - fillets are pieces of flesh removed from the side of the fish. This piece of flesh contains most of the meat on the side of a fish from the head to the tail. Sole, cod, rockfish, perch, and flounder are ordinarily marketed in this form. Sometimes salmon and halibut are sold in this form.

Butterfly fillets - butterfly fillets are the two sides of the fish corresponding to two single fillets, but held together by the uncut flesh and skin of the belly.

Fish sticks - fish sticks are pieces of fish cut lengthwise or crosswise from fillets into portions of uniform width and length. These portions or sticks are usually about 1 inch wide and 3 inches long. Fish sticks are sold in frozen packaged form and are breaded and precooked.

3. Market forms of shellfish.
   Whole or in shell - fresh shellfish bought in the shell should be alive. Crabs, lobsters, clams, and oysters may be bought this way. Crabs and lobsters may be bought cooked in the shell.

   Shucked - shucking is the process of removing the shellfish meat from the shell. The meat is sold free from the shell.

   Cooked meat - the edible portion of crab, lobster, and shrimp which is picked from the cooked shellfish.

4. Other terms.
   Pre-cooked - fish or shellfish that has been cooked before purchase.

   Breaded - fish and shellfish which have been dipped in a batter consisting of flour, milk, eggs, bread crumbs, corn meal, etc. When cooked, breaded fish has a crisp brown crust.

B. Species of fish and shellfish.

Following is a list of fish and shellfish that you may find consumers mentioning. Become familiar enough with the lists so you will be able to distinguish between fish and shellfish.

Fish	Shellfish
Salmon	Crab
Halibut	Shrimp
Sole	Lobster
Rockfishes	Oysters
Tuna	Clams
Cod	Scallops
Perch	Abalone
Flounder	
Mackerel	
Barracuda	
Sea Bass	
Herring	
Swordfish	

Many species of fish have several common names. This may prove somewhat confusing to you when interviewing. The names listed above are the ones most commonly used.

In the case of rockfish, there are about 50 different species on the Pacific Coast. You may find the respondents mentioning the following names which should be considered as rockfish.

Rock Cod
Red Cod
Snapper or Red Snapper - (one of the most common)
Striped Bass - (this is a different species than Sea Bass)

In California you may hear consumers refer to a fish called California Halibut. This fish is not a true halibut, but should be classified as such in this study.

C. Food value of fishery products.

Fishery products are excellent sources of highly digestible protein. In addition many contain fat, minerals, and vitamins. Fish and shellfish can be included in the diet with full confidence that they supply high quality food. Practically all fish contain the same nutritional properties. Fish are comparable to beef in total food value per pound.

III. Method of Collection

The data will be collected by personal interview. You will be furnished with a map or diagram of the district where you will work. Some of the districts cover only one city block and are usually regular in shape, other districts cover several city blocks and some of them may be irregular in shape. The rural districts frequently include rather extensive areas.

After locating the district assigned to you, follow the steps in the sample procedure given below for determining the households to be interviewed.

A household, as defined by the Bureau of the Census, includes all the persons who occupy a house, an apartment or other group of rooms, or a room, that constitutes a dwelling unit. In general, a group of rooms occupied as separate living quarters is a dwelling unit if it has separate cooking equipment or a separate entrance; a single room occupied as separate living quarters is a dwelling unit if it has separate cooking equipment or if it constitutes the only living quarters in the structure. A household includes the related family members and also the unrelated persons, if any, such as lodgers, foster children, wards, or employees who share the dwelling unit. A person living alone in a dwelling unit or a group of unrelated persons sharing the same dwelling unit as partners is also counted as a household.

A. Sampling Procedure

The following procedure should be used in selecting the households to be interviewed:

1. Count the total number of households in the district by driving or walking through the area. You may start at any point; however, it is imperative that you count all households, including all standard households, all apartments, single and multiple room dwellings, and all small dwellings which may be set back from the street, face an alley, or which may be located behind other houses.

2. Decide upon the starting place and the exact route which you will follow in selecting the households to be interviewed. The predetermined route must also be decided upon in any apartment houses located in the district. The starting point or the route to be followed is not important as long as it is determined before selecting the first household.

3. Divide the number of households counted (in number 1, above) by the sampling rate given to you by your supervisor. The sampling rate may not be the same for every district. This will give you the approximate number of households to be interviewed providing your answer is 6 or less. If your answer is 6 or less, follow the instuctions in paragraph (a) below. If your answer is more than 6, follow instructions in paragraph (b) below.

   (a) Select the number of the first household to be interviewed along the predetermined route by using the random numbers given to you by your supervisor. The second household will be determined by adding the sampling rate to the number of the first household. The third household will be determined by adding the sampling rate to the number of the second household. This procedure is followed until you reach the end of your predetermined route at which time you should have interviewed or contacted for interview, the number of households called for in your answer in 3, above, or in some instances one additional household. For refusals and people not at home see instructions which are given later.

(b) If the answer you obtained, in 3, above, is more than 6, divide the total number of households in your district by 6, and round to the nearest whole number. The answer you get will be the sampling rate for this district. If this new sampling rate differs from the one given on the block listings of consumer households, the number of the first household to be interviewed will also change. In this situation determine the number of the first household to be interviewed by using the table of random numbers supplied to you. The number of the 2nd. household will be determined by adding the sampling rate to the number of the first household. Likewise, the 3rd. household will be determined by adding the sampling rate to the number of the 2nd. household--etc. The total number of households interviewed in the districts where this procedure is used will always be six.

In using the table of random numbers, start at the left hand side and read down the columns. As a random number is used in selecting a household to be interviewed, strike it off the list. The next random number in the sequence will be used in determining the first household to be interviewed in the next district where you may be working. If a number on the random table exceeds the total of the households in the district, disregard it and proceed to the next random number. The disregarded numbers should be marked off the list and not used at all. All numbers will be taken in sequence. You should never go back to an unused number. Several tables of random numbers will be given to you. Be sure to use the one which corresponds to the sampling rate for the district.

B. Refusals

In the event that a consumer refuses to participate in the survey, write the address on the form given to you for this purpose and turn it in to your supervisor. After a refusal, go to the next household to get a replacement for the refusal. For example, if the refusal was number 17, go to 18 to get the replacement. If 17 and 18 both refuse, go to 19 and so on until you get the replacement. To get the number of the next household to interview, after an alternate household has been interviewed, add the sampling rate to the number of the first household that refused, which in this case was number 17.

C. <u>Consumers not at Home</u>

When no one is at home at a designated household the first time you try to get an interview, call on a neighbor to see if you can find out when the consumer in question will be home and then make your return call accordingly. If you get no information from the neighbor, you might make additional calls the same day while you are in the neighborhood. If you leave the neighborhood and haven't been able to contact the consumer in question, make 2 more calls on 2 different days or evenings. If after this time you cannot contact the consumer write down the address and the name of the consumer, if you can get it, and turn it in to your supervisor.

D. Spot checks will be made by your supervisor to insure that the proper households are interviewed and that all questions on the questionnaire have been asked.

E. <u>Example</u>

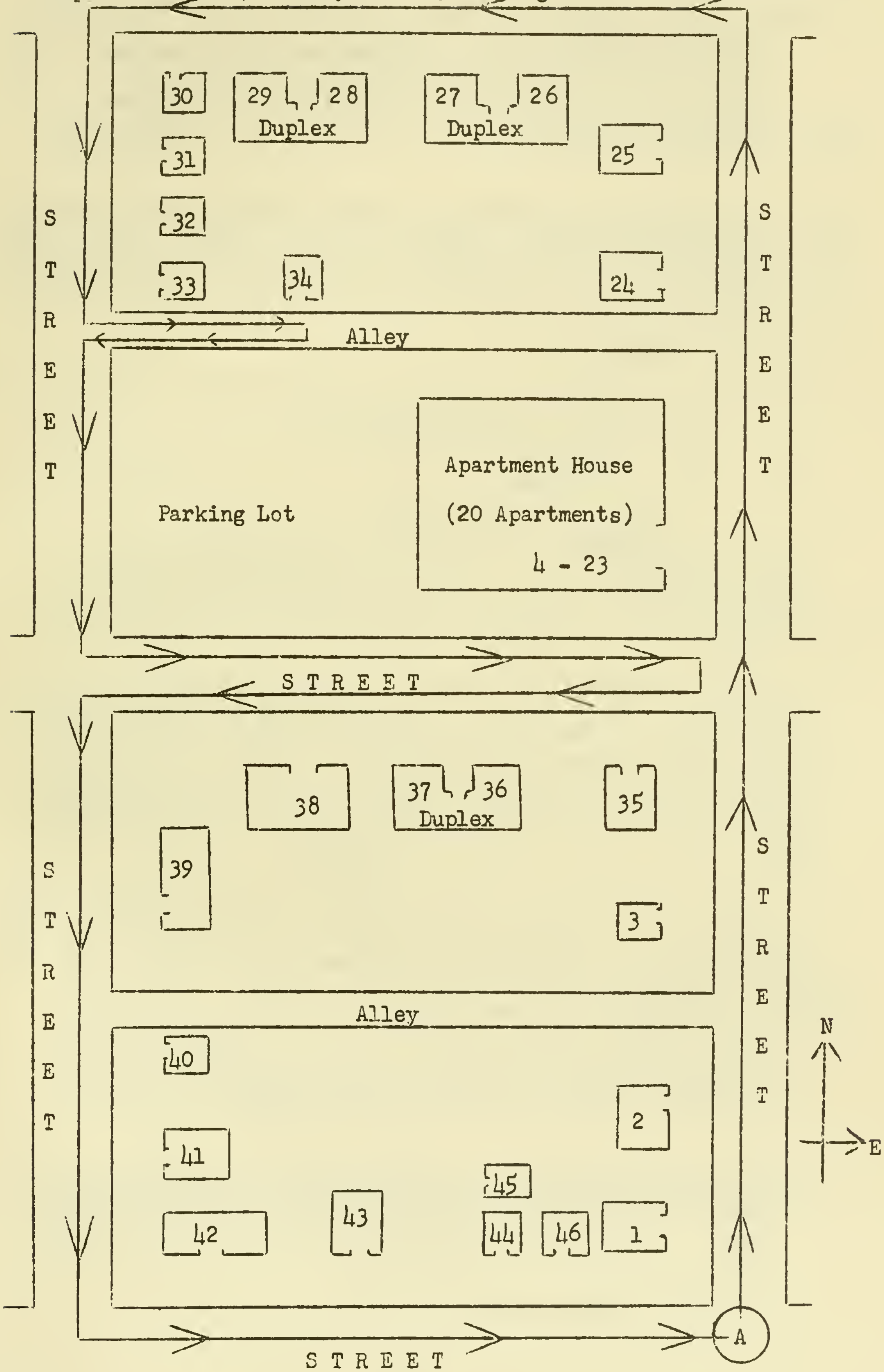
To illustrate the foregoing instructions, a diagram of a sample district and the details for determining the individual households to be interviewed is given below.

By walking around the entire area shown in the diagram the enumerator counts 46 households. Included in this total are 20 individual households, one of which faces an alley and another which is located behind a house that faces the street. There are 6 households in the three duplexes, and 20 units in the apartment building.

Prior to selecting the households to be interviewed, the enumerator decides that the starting point will be at point "A" (lower right hand corner) and the route to be followed will be that indicated by the arrows. The sampling rate given him is 10. The total number of households divided by the sampling rate gives 4 as the estimated number of interviews to be taken in the district, $(\frac{46}{10} = 4.6)$.

From a table of random numbers, it is determined that the number of the first household to be interviewed is 8. An interview is completed at this household. The next household to be interviewed, number 18(8 $\neq$ 10), is not at home. The enumerator obtains information from a neighbor in apartment 19 as to the most likely time to contact the household in question and proceeds to the third interview which is household 28(18 $\neq$ 10). The enumerator is refused at 28 so he goes to 29 where he also is refused, but an interview is completed at 30.

Sample District (two city blocks) Showing Route and Households



The number of the next, or fourth, household is determined by adding the sampling rate to the number of the first refusal ($28 + 10 = 38$). An interview is obtained here which completes the required number for this district with the exception of household number 18, which was not at home. The enumerator calls back the next evening and completes the interview at number 18.

If the random number, or first household interviewed in this illustration had been 6 or under, 5 rather than 4 households would have been interviewed. For example, with a random number of 5, the households interviewed would have been 5, 15, 25, 35 and 45.

IV. Materials for Survey

The following material will be needed:

1. A supply of questionnaires
2. A copy of instructions for interviewers and sampling procedure.
3. Tables of random numbers
4. Clipboard or something on which to write
5. Pencils
6. Maps

V. The Interview

After introducing yourself to the housewife, tell her that you are representing Oregon State College which is doing a survey for the United States Fish and Wildlife Service. Tell her that we are conducting personal interviews of consumers to find out about their habits of fish consumption, about their preferences for certain fish, and about her opinions and ideas for improvement in order to bring her better quality fish products. If the housewife asks you in, start the interview.

Many of the housewives may not want to be interviewed. Here is a list of suggestions that will give you ideas for a sales talk. Your opening sales talk is most important, plan it well.

A. The interview will take 15 minutes or less.

B. Her household has been selected on a scientific basis, and therefore her participation is very important in getting a true cross section of the consumer market.

C. If she tells you that her family does not use fish, you can say something like this, "That's fine; it is more important that I talk to you than some family that uses fish all the time." "The interview will take just a few minutes in your case."

D. We are not trying to sell her any fish products.

E. You may have to make up a story of your own. The important thing is to get that particular interview. It may be necessary to stand on the porch and interview some housewives if they do not let you into their home.

Clean, moderately dressed, friendly interviewers always have the most success.

Early morning and meal times are busy hours for housewives. Try to make your calls when she is free. It may prove helpful to make appointments for later calls. This should be done only as a last resort as it is expensive to make call backs. Also, the respondent may not keep the appointment. Some evening calls may be necessary. This is the only time that working people can be contacted.

VI. Instructions for Completing the Questionnaires

A. Review questionnaire several times in order to become completely familiar with it. If you have any questions, contact your supervisor.

B. Interview the person in each household responsible for buying or preparing and serving the food. Ask about this when you start the questionnaire. If the housewife is not at home, it will be necessary to make call backs. Working housewives will usually have to be contacted in the evening.

C. Be sure the housewife understands that the survey does not include canned fish.

D. Read all questions exactly as they are worded. Do not omit any words or rephrase the questions in your own words. This is important to insure that each question will be asked the same way by all interviewers.

E. In all cases the word frozen refers to packaged frozen fish or shellfish.

F. In several of the questions you will notice that there is a list of alternatives for the housewife to choose from. Unless specifically directed to do so on the questionnaire, do not read this aloud. In most cases you will read the question and let the housewife give her answer. Then you will check the appropriate blank. If her answer is not listed, write it in on the questionnaire.

G. All material in parenthesis is for your instruction. Do not read this aloud when conducting an interview but read it to yourself and follow instructions.

H. You should stress the underlined words in each question.

I. The questionnaire is organized into four parts. Part I consists of questions about fresh fish and shellfish. Part II consists of questions about frozen packaged fish and shellfish. Part III contains questions about smoked fish and Part IV is a group of general questions. If the household does not use fresh fish, Part I will be skipped. If she does not use frozen packaged fish, Part II will be skipped, etc. Instructions for carrying out the procedure are indicated on the questionnaire. Follow them carefully and ask your supervisor any questions that you may have.

J. The classification information asked for in question 39 is rather personal, but is necessary for analyzing the data. Explain to the housewife that the information is desired because we think it may explain some of the important differences in fish consumption. Annual income will be the most difficult to obtain. If the housewife doesn't know or refuses to answer, indicate in the margin whether the family would fall in a low, medium, or high income group.

K. If the respondent mentions something that seems important but not covered by the questions, it should be recorded under "Remarks" at the end of the questionnaire.

L. After completing the interview, thank the person interviewed for their time and cooperation before leaving the house.

RETAIL SURVEY
Instructions for Interviewers

1. Approximately 250 retailers will be interviewed personally in Washington, Oregon, and California. The survey is concerned with fresh, frozen packaged, and smoked fish. It does not include canned fish.

2. Each interviewer will receive the addresses of the stores he is to interview. Only the specified stores will be contacted. If fresh, frozen packaged, or smoked fish are not handled then discontinue the interview.

3. Interviewers should talk to the manager or the store owner. It may be necessary to make appointments for call backs. There will be cases where different people will be in charge of the frozen packaged fish and the fresh fish departments. When this situation arises, both men should be interviewed about their respective responsibilities. The manager of the store should be asked the general questions (39-47). The name of each person interviewed should be recorded on the lines provided at the beginning of the questionnaire.

4. The cooperation from retailers on the pretest was excellent and there should be few refusals. In case you have one, fill in the name of the store, mark your questionnaire accordingly and turn it in to your supervisor. Interviewers are not to substitute another firm in the place of a refusal.

   All questionnaires must be turned in to your supervisor regardless of the amount of information contained in them.

5. Comments made by the respondents during the interview that are not covered in the questionnaire should be recorded in the margins or at the end.

6. In several of the questions you will notice that there is a list of alternatives for the respondent to choose from. Unless <u>specifically directed to do so on the questionnaire</u>, <u>DO NOT READ THIS LIST ALOUD.</u> In most cases you will read the question and let the respondent give his answer. Then you will check the appropriate blank. If his answer is not listed, write it in.

7. All the material in parenthesis is for your instruction. Read it to yourself.

Study these instructions and the questionnaire carefully. The questionnaire is self explanatory except for those instructions given above.

Confidential
Final Questionnaire
March 5, 1956

Record No.________

Results of calls at household

	1st Call	2nd Call	3rd Call
Housewife home			
Not home			

Consumer Questionnaire
Pacific Coast Fish Marketing Study
Department of Agricultural Economics
Oregon State College
Corvallis, Oregon

Interviewer____ Date ______________

Name of person interviewed____

Address____Phone______________
street number city state

1. During the past year did you or any member of your family purchase any fish or shellfish other than canned, for home consumption? This would include fresh, frozen packaged, and smoked fish and shellfish.
_____yes (If yes, continue interview at 3 below.)
_____no (If no, ask question 2, and then skip to 39 and complete the questionnaire from there.)

2. Are there any special reasons why your family did not purchase any fresh, frozen packaged or smoked fish or shellfish? _____no _____yes

(If yes) What are your reasons for not purchasing any?
_____don't like
_____prefer canned fish
_____catch our own or receive from other people
_____not accustomed to eating fish
_____other (specify)____

____

(Skip to question 39)

PART I Start here - I would first like to ask you some questions about fresh fish and shellfish.

3. Did you or any members of your family purchase any fresh fish or shellfish for home consumption during the past year?
_____yes (If yes, skip to question 5)
_____no (If no, ask question 4, then skip to Part II, question 14)

Record No.__________

4. Are there any special reasons why you did not purchase any fresh fish?
_____no _____yes

(If yes) What are your reasons for not purchasing any?
_____don't like
_____prefer frozen packaged
_____catch our own or receive from other people
_____not available
_____can't keep fresh fish long enough at home
_____not accustomed to using fresh fish
_____price too high
_____other (specify)____

____

(Skip to Part II, question 14)

5. Which of the following kinds of fresh fish and shellfish did your family purchase last year? (Read list and check proper blanks)
_____salmon __________
_____halibut __________
_____sole __________
_____rockfishes __________
_____crab __________
_____other (specify)

6. At what type of store did you last purchase these fresh fish and shellfish? That is, did you purchase them at: (Read list)
_____fish market
_____meat market
_____supermarket
_____grocery store
_____neighborhood grocery
_____fish peddler
_____other (specify)____

7. Can you generally get the following kinds of fresh fish and shellfish at the place where you do most of your food shopping? (Read list)

	Yes	No	Don't know
Salmon	___	___	___
Halibut	___	___	___
Sole	___	___	___
Rockfishes	___	___	___
Crab	___	___	___

8. Do you have any complaints about the way fresh fish and shellfish are handled in the stores where you buy fish? _____no _____yes

(If yes) What are your complaints?
_____not iced
_____fish not fresh
_____fish off-color
_____not attractively displayed
_____other (specify)____

Record No.________

9. Do you prefer to buy your fresh fish and shellfish pre-packaged?
_____yes - ask question 10 _____no - ask 11 _____don't know - ask 11

10. (If yes) In which of the following kinds of packages do you prefer to buy fresh fish and shellfish? (Read list)
_____in a cardboard tray with a transparent cover
_____in a transparent wrapper
_____no preference
_____other (write in) ____________________

11. Which do you prefer, salmon steaks or salmon fillets?
_____steaks
_____fillets
_____no preference

12. Which do you prefer, halibut steaks or halibut fillets?
_____steaks
_____fillets
_____no preference

13. Why is it that you do not purchase more fresh fish and shellfish?
_____no special reason
_____price too high
_____catch ample supply
_____fish not fresh
_____eating enough now
_____other (specify) ____________________

PART II Start here - Now I would like to ask you some questions about frozen packaged fish and shellfish.

14. Did you or any members of your family purchase any frozen packaged fish or shellfish for home consumption during the past year?
_____yes (If yes, skip to question 16)
_____no (If no, ask question 15, then skip to Part III, question 26)

15. Are there any special reasons why you did not purchase any frozen packaged fish or shellfish? _____no _____yes

(If yes) What are the reasons you did not purchase any?
_____prefer fresh fish
_____catch own fresh fish
_____price too high
_____quality not uniformly good
_____not accustomed to eating frozen foods
_____other (specify) ____________________

(Skip to Part III, question 26)

Record No.________

16. Which of the following kinds of frozen packaged fish and shellfish did your family purchase during the past year? (Read list)
_____salmon ________
_____halibut ________
_____sole ________
_____rockfishes ________
_____crab
_____other (specify)

17. At what type of store did you last purchase these frozen packaged fish and shellfish? That is, did you purchase them at: (Read list)
_____fish market
_____meat market
_____supermarket
_____grocery store
_____neighborhood grocery
_____other (specify)____

18. Can you generally get the following kinds of frozen packaged fish and shellfish at the place where you do most of your shopping? (Read list)

	Yes	No	Don't know
Salmon	___	___	___
Halibut	___	___	___
Sole	___	___	___
Rockfishes	___	___	___
Crab	___	___	___

19. Do you have any special complaints about the way frozen packaged fish and shellfish are handled in the stores where you buy your fish?
_____no _____yes

(If yes) What are your complaints?
_____not attractively displayed
_____old merchandise left in cabinet
_____other (specify) ____

20. In which of the following kinds of packages do you prefer to buy frozen packaged fish and shellfish? (Read list)
_____in a cardboard box with a transparent cover
_____in a covered box with a picture showing what the product looks like when ready to eat
_____in a transparent wrapper
_____no preference
_____other (write in)____

21. How many servings would you like to be able to get from each package of frozen fish or shellfish? ______________number of servings

22. Would you prefer that frozen packaged fish be divided into individual servings?
_____yes - ask 23 _____no - skip to 24 _____no preference - skip to 24

23. How large would you prefer each serving to be in ounces? _____oz.
_____don't know

24. In buying frozen packaged steaks and fillets, do you think the steaks and fillets should be separated by a piece of waxed paper?
_____yes _____no _____no preference

Record No.________

25. Why is it that you do not purchase more frozen packaged fish and shellfish?
_____no special reason
_____don't like
_____prefer fresh fish
_____not accustomed to eating frozen foods
_____eat enough at present
_____other (specify)____

PART III Start here - Now I have a few questions about smoked or kippered fish.

26. Did you or any members of your family purchase any smoked or kippered fish for home consumption during the past year?
_____yes (If yes, skip to question 28)
_____no (If no, ask question 27, then skip to Part IV, question 32)

27. Are there any special reasons why you did not purchase any smoked or kippered fish? _____no _____yes

(If yes) What are your reasons for not purchasing any?
_____price too high
_____don't like
_____not accustomed to using
_____salt not permitted in diet
_____not available
_____quality (specify) ________________________________
_____other (specify)________________________________

(Skip to Part IV, question 32)

28. Which of the following kinds of smoked or kippered fish did your family purchase during the past year? (Read list)
_____salmon
_____cod (sablefish or black cod)
_____others (write in) ________________________________

29. At what type of store did you last purchase smoked or kippered fish? That is, did you purchase them at: (Read list)
_____fish market
_____meat market
_____supermarket
_____grocery store
_____neighborhood grocery
_____other (specify) ________________________________

30. Can you generally get the kinds of smoked or kippered fish that you want at the place where you do most of your food shopping?
_____yes _____no _____don't know

Record No.__________

31. Do you have any complaints about smoked or kippered fish products?
_____no _____yes

(If yes) What are your complaints?
_____too soft and moist
_____too dry
_____price too high
_____other (specify)______________________________

PART IV Start here - Now there are a few general questions that I would like to ask you.

32. If you could buy fresh fish and frozen packaged fish at the same price, in which form would you prefer each of the following kinds of fish and shellfish? (Read list)

	Fresh	Frozen	No Preference
Salmon	___	___	___
Halibut	___	___	___
Sole	___	___	___
Rockfishes	___	___	___
Crab	___	___	___

33. How do you most frequently prepare the following kinds of fresh and frozen packaged fish and shellfish? That is, do you fry, bake, broil, barbecue, boil, poach, make salads or appetizers? (Read list and ask only about fish used by this family.) (Check proper blanks.)

	Fry	Bake	Broil	Barbecue	Boil	Poach	Salads	Appetizers
Salmon								
Halibut								
Sole								
Rockfishes								
Crab								

34. Have you purchased any pre-cooked steaks or fillets?
_____yes - ask 35 _____no - skip to 36 _____don't know - skip to 36

35. Would you prefer to buy pre-cooked steaks and fillets breaded or unbreaded?
_____breaded _____unbreaded _____no preference

36. Have you tried "prepared" frozen fish dinners?
_____yes _____no _____don't know

(If yes) What suggestions do you have for their improvement?______________

____

Record No.__________

37. For meals eaten at home, about how many times a month do you serve fresh or frozen packaged fish for lunch or dinner during Lent and during the rest of the year? _____times a month during Lent _____times a month during the rest of the year

38. Does your family as a group prefer to eat its fish meals at home or in a restaurant? _____at home _____in a restaurant

If in a restaurant, why?
_____all members of the family don't like fish
_____don't like to fix fish
_____don't know how to prepare fish
_____don't like smell
_____like to try unusual fish dishes
_____other (specify) ____

---

39. CLASSIFICATION DATA

A. How many people are there living in your household, counting children and babies and any relatives or other adults? ____________number

B. How many people in your household are in each of the following age groups? (Read list)
Number
_____under 16 years
_____16 to 24 years
_____25 to 45 years
_____45 and over

C. What kind of work does the head of the household do? (Get kind of work, not profession)
____

D. In which of the following groups does the approximate yearly income of your family fall before income taxes are deducted?
_____under 2,000 dollars
_____2,000 to 4,000 "
_____4,000 to 6,000 "
_____6,000 to 8,000 "
_____8,000 to 10,000 "
_____more than 10,000"

E. For rural families only. Does your family raise most of the food you use, or do you buy most of it?
_____raise most _____buy most _____don't know

F. What was the last grade you completed in school or college?
_____last grade completed

G. How long have you lived in this state?
_____years

H. Where did you live prior to moving to this state?
____________________________________county or state

Record No.__________

I. What is your religious preference?
_____none
_____Catholic
_____Protestant
_____Jewish
_____other

Automatic Classification

J. Color
_____white
_____Negro
_____oriental
_____other

K. Farm, Non-Farm
_____farm
_____non-farm

REMARKS____

____

____

____

____

Confidential
Final Questionnaire
March 10, 1956

Record No. ______________

Result of Call

	1st	2nd	3rd
Manager in			
Not in			
Refused			

RETAIL QUESTIONNAIRE
PACIFIC COAST FISH MARKETING STUDY

Department of Agricultural Economics
Oregon State College
Corvallis, Oregon

Name of firm ______________________________ Phone ______________

Address ____
street city state

Ownership: _____chain _____independent

Name of person interviewed ______________________________

Position ______________________________

TYPE OF RETAILER

_____neighborhood grocery _____supermarket _____fish market

_____grocery store _____meat market _____other (specify)

Part I - Start here. First I want to ask you some questions about fresh fish and shellfish.

1. Did you handle any fresh fish or shellfish during 1955?

_____yes - ask question 4
_____no - ask question 2

2. Did you handle fresh meat during 1955?

_____yes - ask question 3, then skip to question 21, Part II
_____no - ask question 3, then skip to question 21, Part II

3. Are there any special reasons why you did not handle fresh fish and shellfish?

_____no
_____yes - if yes, what are your reasons for not handling fresh fish?

_____not enough demand
_____don't like fish smell in store
_____other (specify) ______________________________

(Skip to question 21, Part II)

Record No.________________

4. In 1955 approximately what percent of your total fresh fish dollar purchases were each of the following?

_____% salmon _____% sole _____crab
_____% halibut _____% rockfishes _____all other

5. In 1955 approximately what percent of your dollar purchases of fresh fish and shellfish did you purchase from each of the following sources? (read list)

_____% fisherman _____% local wholesaler _____% other West Coast wholesaler. Ask for location of wholesaler (city)________________

6. In 1955 approximately what percent of your fresh fish and shellfish were purchased through a broker? ________%

7. Are fresh fish and shellfish delivered to your store?

_____yes - How many times per week? _____number deliveries/week

_____no - How often do you pick up your fish from the wholesaler? _____number pickups/week

8. Do you have a self-service meat counter? _____yes _____no

9. Do you have self-service for packaged fresh fish? _____yes _____no

10. Do you do any processing or packaging of any fresh fish and shellfish?

_____yes - ask question 11 _____no - skip to question 12

11. Why do you package or process these fish products rather than buying them from a wholesaler?

____

____

____

12. Do you have any complaints about the <u>quality</u> of fresh fish and shellfish products purchased by you?

_____no
_____yes - If any complaints, please explain:

____

____

Record No. __________

13. Do you have any problems in handling fresh fish products in your store?

_____no
_____yes - If yes, please explain the problems: __________

____

____

____

14. Do you keep fresh fish iced while on display?

_____yes - If yes, skip to question 16. _____no - If no, ask question 15.

15. Why don't you ice your fish? (check answers mentioned)

_____isn't necessary in modern refrigeration case
_____ice not available
_____too expensive to buy ice
_____turnover is fast enough so that icing is not necessary
_____display case not adapted for icing fish
_____moisture damage to packages
_____other (specify) __________

____

16. Which of the following methods do you currently use in determining your selling prices for fresh fish? (read list)

_____fixed percentage markup on all fish products
_____fixed percentage markup on individual fish products
_____price suggested by distributor
_____no set markup--follow competition
_____other

____

17. What is your approximate current percent markup for each of the following kinds of fish and shellfish? (If percentage is not available, ask for cents per pounds markup and average purchase price for each specie - read list)

	Percentage markup	Cents/pound markup		Percentage markup	Cents/pound markup
halibut	_____	_____	rockfishes	_____	_____
salmon	_____	_____	crab	_____	_____
sole	_____	_____			

18. Have your sales of fresh fish and shellfish increased, decreased or remained about the same during the past year?

_____increased - ask question 19
_____decreased - ask question 19
_____remained about the same - skip to question 20

Record No.____________

19. What factors do you think were responsible for the changes in your fresh fish sales?

_____advertising
_____self service
_____better merchandising
_____over all store sales up
_____other (explain) ____________

____

20. Do you handle fresh fish as a profit item or as a service to your patrons?

_____profit item _____service to patrons _____both

PART II - Start here. I would now like to ask you some questions about frozen packaged fish.

21. Did you handle any frozen packaged fish and shellfish during 1955?

_____yes - ask question 22
_____no - If no, ask if there are any reasons why frozen packaged fish was not handled; then skip to 35 and continue.

_____not enough demand
_____handle only fresh fish
_____other (explain) ____________

22. In 1955 approximately what percent of your total dollar purchases of frozen packaged fish and shellfish sales were each of the following?

_____% salmon _____% halibut _____% sole _____% rockfishes
_____% crab _____% all others

23. In 1955 approximately what percent of your <u>total</u> dollar purchases of frozen packaged fish and shellfish products did you purchase from each of the following sources? (read list)

_____% local fish wholesaler
_____% local frozen food wholesaler
_____% dairy products wholesaler
_____% other West Coast wholesaler
_____% other (specify) ____________

24. In 1955 approximately what percentage of your frozen packaged fish and shellfish did you purchase through a broker? ____________%

25. Do you have any complaints about West Coast frozen packaged fish and shellfish products?

_____yes _____no _____don't know

If yes, what are your complaints?____________

____

Record No._______________

26. What system do you have to prevent the accumulation of old stocks of frozen packaged fish and shellfish in your display cabinet?

_____rotate packages when cabinets are replenished
_____prevent overstocking to insure fast turnover
_____other (explain) ____

____

27. Which of the following methods do you currently use in determining your selling prices for frozen packaged fish and shellfish products? (read list,

_____fixed percentage markup on all fish products
_____fixed percentage markup on individual fish products
_____price suggested by distributor
_____other

28. What is your approximate current percentage markup for frozen packaged fish and shellfish products? __________%

29. At what temperature do you keep your frozen food cabinet? ___________°F.

30. Do you have frozen food storage space other than your display cabinets?

_____yes - If yes, at what temperature is it kept? _________°F

_____no

31. Have your sales of frozen packaged fish and shellfish products increased, decreased or remained about the same during the past year

_____increased - ask question 32
_____decreased - ask question 32
_____remained about the same - ask question 33

32. What factors do you think were responsible for the change in your frozen fish sales?

_____modernized display cabinets
_____improved methods of displaying and handling fish in the store
_____increase in all frozen food sales
_____greater variety of frozen fish available
_____promotion
_____other (explain)____

____

33. Do you handle frozen packaged fish and shellfish as profit items or as a service to your patrons?

_____profit item _____service item _____both

34. Do you think the consumer would prefer a standard size package or varying sized packages to meet the needs of different sized families?

_____standard size _____different size _____don't know

Record No.______________

Part III - Start here. Now I would like to ask you some questions about smoked fish.

35. Did you handle any smoked salmon or sablefish in 1955? (includes kippered)

Salmon _____yes _____no
Sablefish _____yes _____no

36. Do you have any complaints about smoked fish?

_____no
_____yes - If yes, what are these complaints?

_____need improved wrapper - explain ______________________________

____

_____reduce moisture content
_____greater uniformity of moisture content
_____greater uniformity of package size
_____other (explain) ______________________________

____

Part IV - Start here. Now I would like to ask you some general questions about fish.

37. Did you undertake any special promotion of fish and shellfish products in 1955?

_____yes - ask questions 38 and 39
_____no - skip to question 40

38. What products were involved?______________ ______________

______________ ______________

39. What methods were used to promote these products?

_____point of sale advertising
_____store demonstration
_____television
_____radio
_____newspaper
_____handbills
_____special price
_____other ______________

40. What type of advertising do you think is most effective in increasing fish and shellfish sales?

_____store demonstration
_____television
_____radio
_____newspaper
_____handbills
_____other ______________

Record No.________________

41. In order of importance, what three factors do you think have the greatest influence on the volume of fish and shellfish sold by you?

_____quality
_____price of red meat in relation to the price of fish
_____price of poultry in relation to the price of fish
_____season
_____nationality
_____day of the week
_____knowledge of preparation
_____display
_____promotion
_____attractiveness of packages
_____other ____

42. Are there any changes needed in marketing practices, delivery services, quality, varieties of fish, packaging, etc. which would result in your handling more fish?

_____no
_____yes - If yes, please explain:______________________________

____

____

43. Approximately what was the total value of your sales of fresh, frozen packaged, and smoked fish and shellfish products in 1955? (Includes all fresh and frozen packaged fish) ____________________

44. Approximately what percent of your total dollar sales of fish and shellfish were sold as fresh, frozen packaged, or smoked?
_______% fresh
_______% frozen packaged
_______% smoked

45. Approximately how much were your total dollar store sales in 1955?
$__________________

Confidential

Record No. ______

Final Questionnaire
January 10, 1956

Record of Calls	1st Call	2nd Call	3rd Call
Official in			
Not in			
Refusal			

Wholesale Questionnaire
Pacific Coast Fish Marketing Study
Department of Agricultural Economics
Oregon State College
Corvallis, Oregon

Interviewer ______________________ Date ______________

Name of firm ____

Address ____
Street City State

Phone ______ Ownership: Individual Partnership Corp. Coop (Circle one)

Name of Person Interviewed ___________________________

Position ____

Type of wholesaler:

____ Fish and Shellfish

____ Primary

____ Secondary

____ Frozen food

____ Dairy Products

____ Other (write in)

____

1. What was the total pounds and total sales value of fish and shellfish products sold by your firm in 1955?

______________ Pounds $ ______________

2. Approximately how many pounds and what was the sales value of each of the following species of fish and shellfish handled by you in 1955? (If pounds and dollars figures are not available, ask what percent of your total dollar sales were accounted for by each of the following fish and shellfish?)

	Fresh		Frozen Whole		Frozen Packaged	
	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars
Salmon	____	____	____	____	____	____
Halibut	____	____	____	____	____	____
Sole	____	____	____	____	____	____
Rockfishes	____	____	____	____	____	____
Crabs	____	____	____	____	____	____
All Other	____	____	____	____	____	____

	Smoked	
	Pounds	Dollars
Salmon	____	____

3. Approximately what percentage of your total 1955 sales of fish and shellfish were

____Fresh fish ____Frozen whole ____Frozen packaged ____Canned, reduced, etc. ____Smoked

4. Approximately what percent of the frozen fish and shellfish handled by you in 1955 was produced in areas other than the West Coast?
______________%

(If wholesaler purchased fish produced in areas other than the West Coast, ask questions 5,6,7, and 8; if he did not, skip to 9.)

5. What products did you purchase from areas other than the Pacific Coast in 1955?

Product	Areas from which purchased
______________	______________________________
______________	______________________________

6. What were your reasons for purchasing fish and shellfish from areas other than the Pacific Coast in 1955?

____Cheaper
____Better quality
____Uniformity
____Consumer preference
____Inadequate local supply
____Not available locally
____________________________Other (write in)

7. Have your purchases of fish from areas other than the Pacific Coast in the past 2 years remained about the same, increased, or decreased?

____about the same - skip to 9
____increased - ask 8
____decreased - ask 8

8. (If purchases increased or decreased). Do you expect the trend to continue? ____yes ____no ____don't know Why?________________

____

____

9. Do you think it would be a good idea to establish federal or state grades or standards for fresh fish on a voluntary basis? (Repeat question for frozen packaged fish.)

Fresh (Check one)	Frozen Packages (Check one)
____yes ____no ____don't know	____yes ____no ____don't know

10. On a quantity basis, approximately what percentage spoilage loss did you experience on each of the following kinds of fresh fish handled in 1955? (Interviewer read list and record percentages. Repeat the question for frozen packaged fish.)

Fish	Percentage Loss on Fresh Fish	Percentage Loss on Frozen Packaged
Salmon	________	________
Halibut	________	________
Sole	________	________
Rockfishes	________	________
Crab	________	________

11. (If wholesaler handles fresh fish)
What are your major causes of spoilage losses on fresh fish?

___ Improper icing before receiving
___ Improper icing after receiving
___ Improper handling before receiving
___ Loss due to overstocking
___ Improper handling during transportation
___ Other (specify)

12. (If wholesaler handles frozen packaged)
What are your major causes of spoilage losses on frozen packaged fish?

___ Improper packaging
___ Improper storage temperature before receiving
___ Improper holding temperature during transportation.
___ Product had been stored too long before receiving
___ Loss due to overstocking
___ Improper storage temperature after receiving
___ Other (specify)______

13. At what temperatures (degrees Fahrenheit) are your storage rooms kept for fresh, frozen packaged, and smoked fish?

_____fresh _____frozen packaged _____smoked

14. How long can you hold the following kinds of frozen packaged fish and shellfish at merchantable qualities using your existing facilities? (Interviewer read list and record number of months.)

Products	Frozen Packaged (months)
Salmon	______
Halibut	______
Sole	______
Rockfishes	______
Crabs	______

15. Approximately what percentage of your dollar sales of fresh fish went to the following outlets? (Interviewer read outlets and record percentages. Repeat the question for frozen packaged fish. Institutions means restaurants, hotels, hospitals, etc.)

Products	Sales Outlets: Retail Stores	Institutions	Other fish wholesalers	Frozen food & Dairy Co.	Other (specify)
Fresh	_____	_____	_____	_____	_____
Frozen packaged	_____	_____	_____	_____	_____

(If wholesaler handles frozen packaged fish, ask 16.)

16. In 1955, what percent of your dollar sales of frozen packaged fish was sold:

____Under your own label ____Under someone else's label ____Unlabeled

17. Do you offer delivery service on fish sold to other wholesalers?

____Yes ____No

18. Do you offer delivery service on fish sold to retailers?

____Yes ____No

19. If delivery service is offered, do you have regular routes?

____Yes ____No

20. If you have regular delivery routes, how often do you deliver?

____Daily ____Twice weekly ____Weekly ____Other__________

21. What general areas do your delivery trucks cover? (List cities)

22. What type of refrigeration is used during delivery of fresh fish to retail and intitutional trade?

____Insulated truck with ice
____Non-insulated truck with ice
____Other (explain) ______________________________

23. What type of refrigeration is used in delivery of frozen packaged fish to retail and institutional trade?

____Mechanical refrigeration
____Dry ice - insulated truck
____Dry ice - non-insulated truck
____Other (explain) ______________________________

24. Do you provide frozen fish display cabinets to retailers?

____Yes - If yes, ask 25
____No - If no, skip to 26

25. Are these cabinets leased to retailers or provided free of charge?

____Leased ____Provided free of charge

26. Do you arrange merchandise in frozen fish display cabinets?

____Yes ____No

27. Do you remove the stocks of frozen fish from the display cabinets after a given length of time?

____Yes - Ask 28 ____No - Skip to 29

28. How long do you permit frozen stocks to remain in the cabinet?

(Write in number of months) __________

29. Do you furnish ice without charge to fresh fish retailers?

____Yes ____No

30. Do you take back from retailers unsold fresh fish which has deteriorated in quality?

____Yes ____No

31. Did you do any organized educational work with retailers for the purpose of improving the quality of fish in 1955?

____Yes - Ask 32 ____No - Skip to 33

32. What type of educational work did you do?

____

____

____

33. Approximately how much did you spend for advertising fish in 1955? $__________. What percent of this total was expended for the following kinds of advertising: (Interviewer read list)

____Firm advertising
____Brand advertising
____Local Association advertising
____National Association advertising (such as tuna, salmon, etc.)
____Industry-wide advertising (such as N.F.I.)
____Other ____

34. What media was used for brand and firm advertising in 1955?

____Radio
____TV
____Magazines
____Newspapers
____Billboards
____Car and Bus Cards
____Leaflets
____Store Demonstrations
____Special Sales Promotion
____
____
____

35. Do you expect to spend more, less, or about the same for advertising fish in 1956?

____More　　　____Less　　　____About the same

36. Which of the following kinds of advertising do you think is most effective; that which promotes: (Read list)

____Specific items on continuing basis
____Fish in season
____Items in temporary over-supply on a short-term basis
____Other (specify) ______________________________

37. When providing extra services to your patrons, do you increase your prices or make a service charge?

____Increase prices
____Service charge
____Other (explain) ______________________________

____

38. What new fish products have you sold in the past three years?

____None
____Precooked fillets and steaks
____Frozen fish dinners
____Fish sticks
____Tuna pies
____Frozen fish soups
____Breaded scallops
____Other (specify)
____ ____________________
____ ____________________

(If some new products were introduced, ask 40.)

39. In your opinion, what is the best method for introducing new fish products to other wholesalers? (Repeat the question for retailers and consumers.)

	Wholesalers	Retailers	Consumers
Advertising (radio, TV, newspaper)	______	______	______
Salesmen	______	______	______
Free samples	______	______	______
Store demonstrations	______	______	______
Leaflets	______	______	______
Recipe or cook books	______	______	______
Other	______	______	______

Notes: ______________________________________

____

40. Do you find retail stores generally receptive to new fish products?

____Yes - Skip to question 42　　____No - Ask 41　　____Don't know - Skip to 42

41. Why do you think stores are not receptive to new fish products?

____Cost of promotion ____Facilities not adequate
____Space not adequate ____Other ________________________

42. What is the capacity of the sharp-freezing facilities owned and rented by your firm?

lbs/day ____________________

43. Are your own and rented sharp-freezing facilities adequate to handle all your sharp-freezing requirements?

____Yes - Skip to 45 ____No - Ask 44

44. If no - Are enough public sharp-freezing facilities available for your use?

____Yes ____No

45. What is the capacity of the frozen product storage facilities operated by your firm?

____________lbs.

46. Are adequate public frozen product storage facilities available to your firm?

____Yes ____No

47. What is the capacity of your ice production unit? ______________
What percent of capacity was used in peak period in 1955? ________
In low period in 1955? _________

48. How much ice did you purchase last year? __________tons
Price per ton? ____________

49. Do you have any specific suggestions about how you could improve the quality of Pacific Coast fish and shellfish products?

____

____

50. Do you have any suggestions for improving the packaging of fish and fish products? (attractiveness, durability, size, shape, etc.)

____

____

51. Indicate in order of importance the three factors which you think have the greatest influence on the retail sales of fish. (Show card to wholesalers.)

___Quality	___Weather
___Price of red meats	___Income
___Price of poultry	___Day of week
___Price of fish	___Knowledge of preparation
___Season	___Advertising
___Nationality	___Type of store displays
___Religion	___Other

52. Do you think frozen packaged fish and shellfish should be divided into portions?

___Yes - Ask 53, 54, and 55 ___No - Ask 56 ___Don't know - Ask 56

53. How many portions should be in one package? ________

54. Approximately how large should the portions be in ounces? ________

55. Should the size of the portions be the same for family-size package and restaurant-size package? ___Yes ___No

56. How do you think the sale of smoked fish can be increased?

____

____

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