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## AN EXPERIMENTAL STUDY OF SEAFOOD

## MERCHANDISING STRATEGIES IN A SUPERMARKET

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an experimental study of seafood MERCHANDISING STRATEGIES IN A SUPERMARKET
by

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This report was written by the junior author, in partial fulfillment for the Masters of Business Administration degree, under the supervision of the senior author who was the primary advisor during the project.

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AN EXPERIMENTAL STUDY OF SEAFOOD MERCHANDISING STRATEGIES IN A SUPERMARKET

Abstract

This research study examines the effects of planned implemented merchandising strategies on the sales and profits of a retail fresh seafood market located within a local Bryan, Texas supermarket. Two major objectives of the study were to determine if:

1. Sales volume and profitability of fresh seafood products may be increased by planned merchandising strategies.
2. The increased sales volume and profitability may be accomplished without taking a disproportionate share of normal supermarket operating funds.

In addition to a period of observation, three planned merchandising strategies were implemented during the study; a low cost merchandising plan involving only procedural changes; an average cost merchandising effort involving light promotional expenditures; and a high cost merchandising strategy consisting of heavy promotion of fresh seafood products.

It was shown that each successive experimental merchandising strategy produced greater sales and profits of fresh seafood items. In addition, incremental analysis showed that these increases did not take a disproportionate share of supermarket funds as each successive experimental merchandising effort showed sizeable incremental rates of return.

In addition to accomplishing the two major objectives, additional conclusions inferred from the analysis of the data were:

1. Fresh seafood products can be promoted with great success.
2. There appeared to be a favorable direct, but not necessarily proportional, relationship between promotion and customer services, and profits.
3. From all evidence, the full potential of the fresh seafood market was not reached.
4. While the full potential of the fresh seafood market was not reached, the effects of diminishing returns were felt.
5. Promotion and customer services were major factors in increasing sales and profits of fresh seafood.
6. While it was difficult to isolate the effects of the payday cycle on sales, it appeared as though payday weeks had little effect upon weekly profits.
7. Weekends remained a strong selling period for fresh seafood.

## CHAPTER I

INTRODUCTION

## Purpose of the Study

On a per capita basis, the average consumer today eats approximately the same amount of seafood products as did his grandfather. It is a fact that annual per capita consumption of seafood products has remained at about eleven pounds while annual per capita consumption of other meat products is around 170 pounds. 1 Perhaps one reason for this wide disparity is the archaic and often poor merchandising practices that have existed for at least the last twenty years. While other forms of merchandising meat products have shown great change, merchandising of seafood products for the most part has shown few improvements and little innovation.

As a result of the out-dated forms of merchandising seafood products have not kept pace with other meat products in the race for the consumer's dollars. This, in turn, has caused many at the retail level to see declining and sometimes negative profits at their seafood counters. In retaliation, the retailer has decreased the investment in seafood. This is the beginning of a vicious circle that has hurt not only the retailer, but also the entire seafood industry. For these reasons, this study has been initiated in the hopes that merchandising practices and profits may be improved at the local, retail level. In addition, if it can be assumed that increased profits are derived from larger sales volumes, then the entire seafood industry will be benefited.

[^0]
## Objectives of the Study

The major thrust of this study is concentrated within the environment of a local retail supermarket operation. Two major objectives of this research study are to determine if:

1. sales volume and profitability of fresh seafood products may be increased by new and different merchandising techniques; and
2. increased sales volume and profitability may be accomplished without taking a disproportionate share of normal supermarket operating funds.

General Design of the Experiment
The study addresses itself to the problem of improving the profitability of fresh seafood products through better merchandising activities in supermarket type operations as opposed to fish market type operations. Therefore, the design of the study is limited by and dependent upon the operating freedom extended by the participating supermarket. The study consists of two phases. Phase I involves the observation of the present merchandising efforts at the participating supermarket and the measurement of the sales volume and profitability associated with these activities. Phase II consists of the implementation of new merchandising techniques, observation of the results, and analysis of the data. The entire study lasts twenty-five weeks from October 26, 1970 to April 17, 1971.

Phase I - Observation of Current Practices. (Duration - five weeks from October 26,1970 to Novenber 29, 1970.) This phase of the study consists of the observation of the participating supemarket's
present method of merchandising fresh seafood products and measuring the results of these activities. The general appearance of the seafood counter, as recorded in written reports, is compared to the sales volume data recorded on the data sheet to determine, if any, the effects of the counter's appearance on sales.

Phase II - Implementation of New Merchandising Practices. (Duration - Twenty weeks from November 30, 1970 to April 17, 1971.) This phase of the study is concerned with the implementation of new merchandising practices and procedures and the measurement of their effectiveness on fresh seafood sales. There are three major plans associated with Phase II operations: Plan $A$, a low cost, minimum merchandising effort plan; Plan $B$, an average cost, convenience-oriented merchandising plan; and Plan $C$, a high cost, "ideal" merchandising plan. Also included in this phase is an analysis of data collected during Phase I and Phase II. These three plans and how the data will be analyzed are discussed in more detail below.

Phase II - Plan A. (Duration - six weeks from November 30, 1970 to January 10, 1971. Plan A consists of the minimum merchandising effort needed to profitably sell fresh seafood products. It is characterized as a low cost, low effort plan and consists of the following tasks:
A. Cleanliness

1. Inside and outside surfaces of the display glass must be cleaned daily so no fingerprints or smudges remain.
2. The outside procelain surfaces of the case must be periodically wiped clean of any dust or greasy film.
3. Floor areas must be clean and free of any standing water.
4. The display case must be taken apart and properly cleaned once a week.
B. Counter Displays
5. "Greens" and other garnishes must be used in the displays to increase the appeal to the shopper.
6. Fish displayed in the counter must be clearly and plainly visible and must be free of any foreign matter.
7. Trays for shrimp, other shellfish and fresh fillets must be used since water from the melting ice "leaches" flavor from them and indirectly lowers the quality of the seafood products.
8. Prices must be attractively and prominently displayed to avoid customer confusion.
C. Promotion
9. Free promotional material for point-of-purchase advertising must be used to educate the consumer on the variety of ways to prepare seafood products. This promotional material comes largely from one source: Texas Parks and Wildlife Department.

Phase II - Plan B. (Duration - seven weeks from January 11, 1971 to February 28, 1971.) Plan B is characteriaed as an average cost and average effort plan that is designed to make fresh fish as convenient as its' frozen counterpart and therefore as desirable as frozen seafood products. In addition to the procedural changes set out in Plan $A$, the following tasks are required:

## A. Product Line

1. Prepared fillets and steaks in addition to whole fish are offered. This is done in an effort to make fresh seafood as convenient as, and therefore as appealing as, frozen seafood.
2. New species are added to the product line to expand the product mix thereby widening the appeal of fresh seafood products.
B. Promotion
3. In addition to point of purchase advertising, newspaper advertising in the supermarket's regular advertisements are used to stimulate demand for fresh seafood products.

## C. Supply

1. Size and substitution policies are adopted to insure proper market sizes of fish and to insure a minimum tonnage volume of fresh seafood products in inventory.

Phase II - Plan C. (Duration - seven weeks from March 1, 1971 to April 17, 1971.) Plan C is characterized as a high cost and a high effort merchandising plan. It consists of the following tasks in addition to those set out in Plans A and B:
A. Additional Promotional Campaigns

1. Radio and television "spots" are used to expound the virtues of fresh seafood, stimulate demand for fresh seafood products and to advertise the supermarket as being an outlet for fresh seafood products.
2. In-store sampling programs are conducted in order that consumers may be exposed to fresh seafood products.
3. Additional newspaper advertisements in two local newspapers are used to stimulate demand for fresh fish products.

## B. Additional Customer Services

1. Additional service personnel are hired to serve seafood customers.

Analysis of Data. This portion of the study involves the analysis of tonnage volumes, costs, revenue, and profit data collected in Phase I and Phase II. In addition, wholesale prices, product waste, average inventory investment and stockouts are examined to give a general over-view of the research study. The data are then subjected to closer forms of analyses such as an analysis based upon calculated performance standards, a moving average sales trend and an incremental analysis to determine incremental rates of return. In this way, incremental increases in cost to move from one plan to another and the corresponding incremental revenue and profit may be used to determine rates of return for each of the three plans. By analyzing the data in this manner, each potential seafood merchandiser, who might want to use these findings, is able to evaluate each of the proposed plans and determine if the rates of return are satisfactory to justify additional expenditures to promote fresh seafood products.

## Methodology

This experimental research study is conducted in a local Bryan,

Texas supermarket over a period of twenty-five weeks. The supermarket is owned by a large southwestern food chain which has its home offices in Houston, Texas. Data for this study are collected daily. These data consist of sales volume in pounds by species, purchases in pounds by species, wholesale and retail prices by species, inventory investment by species, the approximate hours needed to operate the seafood case and the current wage rates, and other operating cost data. Once collected, the sales data are compiled into weekly totals and arranged by phase and plan. Sales data, wholesale and retail prices and operating cost data are used to compile weekly income statements.

Limitations
This experimental research study has three major limitations as listed below:

1. The study is conducted in only one supermarket. Ideally, there should be at least one "control" store where no changes are made.
2. The time span of the study is relatively short. Ideally, data collection should be conducted over at least a year's time so that all seasonal fluctuations are recorded. In addition, more time would allow a greater penetration of the fresh seafood market and more meaningful results.
3. The goals of the participating supermarket chain are limitations. The primary goal of any organization of this nature is to earn a profit for the owners, not to conduct or sponsor research. Therefore, the design and outcome of the study are influenced and limited by, and dependent upon

## the operating freedom and cooperation of the participating supermarket

## CHAPTER II

## PHASE ONE: PRELIMINARY OBSERVATIONS

## Introduction

The purpose of Phase One is twofold. First, it is meant to be a learning experience for the researcher to learn more about fresh seafood merchanding, and second, data collection is to be used as a basis for comparing future merchandising activities.

Chapter II is divided into three sections. First, a description of the observed merchandising practices and a critique of these practices are presented so that a foundation for understanding future policy changes is constructed. Second, the problem of supply is discussed so that policy changes that will alleviate existing problems may be understood. Finally, data about sales, operating costs and profits are presented.

## Description of Observed Seafood Merchandising Practices

This study is conducted in a local supermarket in Bryan, Texas. The supermarket is owned by a large southwestern food chain which has its home offices in Houston, Texas, Display area for fresh seafood is located ideally in the right rear of the store for two reasons. First, it is at the end of the produce aisle and is the first meat display usually seen by customers. Second, the normal traffic pattern in the store takes consumers first to the produce section, making it mandatory for customers to come within sight of the fresh fish display before going to another aisle or to other meat displays. Other meat
display areas are adjacent to the fish case and stretch along the back wall of the store. (See Exhjbit 2-1) A standard twelve-foot case without refrigeration is used to display the fish. The remaining meat display area consists of twelve feet of frozen fish and other frozen meats and sixty feet of fresh meats, cured meats, and delicatesen meats.

Exhibit 2-1
Diagram of the Store

Rear of Store


Seafood Counter Display Preparation
The Procedures Observed. Normal procedure for constructing seafood displays consisted of placing seafood products on a bed of finely crushed ice which had been packed into a hard flat metal tray. Ice is used not only to keep the fish refrigerated but also to keep the skin and meat of the fish from dehydrating. Each specie was placed on the ice in separate stacks. A completed display consisted of several stacks of finfish; two stacks of shrimp, one for each size sold; a row of canned crabmeat; and several rows of glass jars
containing oysters (see Exhibit 2-2). The fish were then covered with loose ice. To complete the display, price markers were hung from the front of the counter. During the last week and a half of this period of the study artificial "greens" were put into the counter to separate the many species and to enhance the attractiveness of the display.*

A Critique of the Observed Procedures. Criticism of the supermarket's approved procedures touch two areas: 1) the separation of species and the attending problem of keeping them separated and 2) the appearance and use of price markers. When the display was attractive when set up initially in the morning. Without "greens", however, often by mid-afternoon the display would look disarranged. Different specie of finfish would occasionally be mixed together or with shrimp.

As a result the use of "greens" generally kept finfish separate but shrimp still remained a problem. The tendency to mix the shrimp was not as great, but they were still scattered throughout the length of the case, especially on days when shrimp sales were high. Another problem associated with the use of the "greens" was their appearance. While they did bring some color into the display, they had not been cleaned properly prior to their use. Particles of fish flesh and other foreign matter often were encrusted on the "greens", creating an unsightly appearance as well as a strong "fishy" odor.

[^1]Exhibit 2-2
Diagram of a Completed Display


scale: $1 / 2^{\prime \prime}=1$ '

An additional criticism was directed toward the use and appearance of price marker signs. Price signs were not always on display. This created a problem since the customer of ten did not know the price of the merchandise offered for sale. Since there were no service personnel immediately available, it was unnecessarily difficult for the customer to determine the prices. Additionally, the signs were old and hand written which tended to detract from the overall appearance of the display area.

## Handling and Storage of Fish

The Procedure Observed. Morning procedures for handling fresh fish consisted of removing the fish from shipping cartons or storage lugs and placing them into the display case. Procedures for handing finfish which arrived at the supermarket in a frozen form, were to put the finfish on the ice in frozen form and allow them to thaw in the display case. Shrimp, which were always received in frozen form, were thawed before they were put on display. Other shellfish, such as crabmeat, were put in the freezer and stored until needed.

Each evening the display case was emptied. All seafood items were placed into a metal storage lug, sprinkled with ice, and placed inside the meat cooler.*

## A Critique of the 0bserved Procedures. Criticisms of procedures

 fall into two areas: 1) the preparation of fish for display and 2) the preparation of fish for nightly storage. Usually, finfish had not[^2]been cleaned thoroughly by the wholesalers. Loose scales and internal organs remained inside the intestinal cavity which could be seen when the fish were placed into the display case. This, clearly, detracted from the appearance of the merchandise. In the mornings, the finfish should have been washed prior to being put into the case. Proper storm age at night can maintain higher quality merchandise. One procedure, to replace that currently used and which tends to sustain the quality of the seafood longer, was to begin with a layer of ice in the bottom of the storage lug and alternate layers of fish and ice until the lug was full and topped with a layer of ice. This kept the fish chilled and moist on both sides so that they would not dehydrate overnight.

## Clean-up of Display Case and Surrounding Area

The Procedures 0bserved. The display case was cleaned at the end of each selling week, generally on Saturday night. The typical procedure consisted of spraying very hot water under high pressure into the display case. Protein and other surface scum was nomally rinsed off the trays and washed down the drain in the display case. The glass doors and windows were cleaned with window cleaner. Once a year or perhaps every other year, the exterior procelain surface of the case was cleaned. The floor area in front of the fish case was mopped every morning while the floor behind it was mopped once or twice a week. The walls behind the case had not been cleaned in at least three years.* The fish dock, where fish is processed for customers, was cleaned once a week with disinfectant.

[^3]A Critique of the Observed Procedures. General criticisms of observed procedures were: 1) cleaning the display case, 2) cleaning the fish dock, and 3) cleaning the surrounding walls and floors. Using just hot water and water pressure to clean the interior of the case left many areas unclean. Therefore, a three-step washing procedure was recommended. First, disinfectant and a stiff brush should be used to scrub the interior of the case and the display trays. Without the use of disinfectant, neither micro-organism growth nor the "fishy" odor is retarded. Second, a hot water rinse was employed to remove the loosened debris and disinfectant. This is especially important since most commercial disinfectants are toxic. Last, a cold water and acetic acid rinse was employed to remove any remaining protein and to further supress the "fishy" odor. The exterior porcelain surfaces and display windows are cleaned too infrequently. Outside procelain areas would look more sanitary if cleaned at least once a month instead of once a year as currently practiced. The display windows, for maximum attractiveness and cleanliness, must be cleaned daily. Improvement of the procedures employed to clean the display case was noticeably absent over this five week period.

The fish dock where fish were processed for customers featured a stainless steel sink, a working area and a cutting board. Criticisms concerning the procedures employed to clean the fish dock focused on one item -- frequency of cleaning. Presently, the stainless steel sink and working area are cleaned once a week. It is advisable to clean this area twice a day -- morning and night. The wooden cutting board, which was never cleaned, but should have been cleaned once a
day with a chlorine bleach or a non-toxic disinfectant. Daily cleaning retards micro-organism growth and keeps fish from coming in contact with the micro-organisms which cause the meat to spoil. Furthermore, the knives should have been cleaned frequently so as not to contaminate the fish.

Adjacent wall and floor areas were also cleaned too infrequently. The floor behind the display counter should have been mopped once a day. The nature of fresh seafood products makes it important to keep the floor dry and odor free. It is recommended that the surrounding wall areas be cleaned once a month, at the minimum.

## Promotion Activities

The supermarket had two weekly newspaper advertisements, one page on Sunday and a .two-page advertisement on Wednesday. All promotion for seafood products was conducted through Wednesday's advertisement. During this five week period there were two separate advertised price specials for fresh shrimp and one in-store promotion for fresh finfish.* All seafood advertisements were lumped into one group. Advertisement copy accompanying different seafood products did not differentiate between the frozen seafood products and the fresh seafood products. Type faces used were usually smaller than type faces for other meat advertisements, making it more difficult for the reader to find.

## Pricing

All retail prices of fresh fish were set by the meat office in

[^4]Houston. There was some discretion left to the Meat Manager in situations where products were overstocked or where products needed to be sold quickly. For the most part, however, retail prices were those set by the home office.

Supply During Phase One
Procedure for Ordering Fish. Alt orders for fish were made through the Meat Office located in Houston, the central buying point for all meat products. The individual supemarket's orders were passed by the Meat Office to a fresh fish wholesaler who boxed and delivered them to the company's central shipping area. Company trucks delivered the orders to the supermarket on the following day.

Supply Problems at the Local Supermarket. The local supermarket could not always depend upon the supply of finfish. Occasionally, mix-ups in orders occurred such that either the order did not arrive or two orders arrived simultaneously. However, "shorting" was a more common problem. If a supplier was not able to fill the food chains seafood orders, some stores would receive only a portion of their order. During the researcher's observation, rarely was an entire order received in this time period. A factor contributing to the irregularity of supply in the local market was the weather in the fishing areas. Clearly, this was a factor which could not be controlled by the local store. The entire industry was at the mercy of the fish harvesters. When the weather conditions prohibited the fishing fleets from fishing, for even one day, the interruption of supply lasted for several days at the retail level. The problems of retail merchandising that
are derived from the irregularity of supply lie within promotion planning. Promotions and price specials of finfish had become so difficult to plan that there were no planned specials conducted for fresh finfish. As a result, planned promotions during this period consisted of only frozen fish which could be stockpiled.

Sizes of Fish Received. While the "ideal" market size of fish in this store was considered to be two pounds, fish received were often as small as one-half pound and as large as four pounds. In theory, size specifications were accepted by the Meat Office in Houston and the wholesaler as a part of the order. In practice, however, it was difficult to specify approximate sizes, either because the size specifications were not passed to the wholesaler, or the wholesaler did not fill the order with the sizes requested.

## Sales, Costs and Profits Data

Daily sales varied from $\$ 198.02$ to no sales. On two occasions the store had no sales. Exhibit 2-3 shows daily sales during Phase One as well as daily sates expressed as a percentage of total sates. The data from Exhibit 2-3 show Friday as the "best" sales day which accounted for $28 \%$ of the total sales during the five week period. Monday was the "worst" sales day accounting for only $3 \%$ of total sales. Tuesdays, together with the weekend days of Friday and Saturday accounted for about $75 \%$ of total sales as shown in Exhibit 2-4, while the other three days accounted for roughly $25 \%$ of sales. Tuesday, al though early in the week, was double stamp day, and store traffic was higher than either a Monday or a Wednesday. Daily operating costs

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# Exhibit 2-4 <br> Percentage of Sales Accounted for over Three Day Periods 

Percentage of Total Sales Accounted for on Monday, Wednesday and Thursday

Percentage of Total Sales Accounted for on Tuesday, Friday and Saturday
remained fairly stable throughout Phase one since most of the expense incurred was in setup costs. Relatively little cost was incurred in service or selling expense because there were no full time personnel assigned to the fish case. On the average, it cost about $\$ 74.76$ per day to set up and operate the fish case (see Exhibit 2-5). Profit, both by day and by week, fluctuated greatly depending on daily sales. Daily profits ranged from $\$ 60.29$ to a loss of $\$ 14.76$. Weekly profits fluctuated just as widely from $\$ 62.91$ to a loss of $\$ 42.22$. Profit per week averaged $\$ 42.45$, or about $11 \%$ of total sales, as shown in Exhibit 2-5.


#### Abstract

Summary The purpose of the preliminary investigation was two-fold. First, this experience enabled the researcher to record normal procedures and make recommendations for improvement based upon knowledge gained from having actually participated in daily merchandising activities. Second, the financial data collected were to be used as a benchmark for comparing future experimental merchandising activities.


Exhibit 2-5
Income Statement for Phase I

|  |  | Phase I |
| :---: | :---: | :---: |
| Less: | Total Revenue | \$1,936.34 |
|  | Cost of Goods Sold | 1,202.67 |
|  | Gross Margin | 733.67 |
| Less: | Operating Expense | 428.16 |
|  | Gross Profit | 305.51 |
| Less: | Product Waste | 93.28 |
|  | Net Profit | \$ 212.23 |
| Less: | Total Revenue | 100.00\% |
|  | Cost of Goods Sold | 62.10\% |
|  | Gross Margin | 37.90\% |
| Less: | Operating Expense | 22.10\% |
|  | Gross Profit | 15.80\% |
| Less: | Product Waste | 4.80\% |
|  | Net Profit | 11.00\% |
| Number of Days in Period |  | 29 days |
| Average Cost/Day |  | \$14.76 |
| Average Profit/Week |  | \$42.45 |

## CHAPTER III

## RESEARCH DATA: PLAN A


#### Abstract

Introduction Chapter III discusses the first of three research merchandising plans, Plan A. Plan A focuses on three areas: 1) increasing the attractiveness of the fresh seafood display; 2) improving the handing and storage procedures; and 3) adopting improved cleaning procedures. The chapter is divided into five sections. The first three sections deal with the policy changes made in the three areas mentioned above. The fourth section involves additional changes in merchandising efforts while the fifth reports the financial results for this six-week period.

\section*{Attractiveness of the Seafood Display}


Five Procedural Changes in Display Case Set-up. Five procedural changes were made to enhance the attractiveness of the fresh seafood display.

1. The "greens" were cleaned regularly with disinfectant so that fish particles did not build up and the odor could be reduced substantially.
2. "Greens" and other garnishes such as plastic lemons, oranges, grapes, and a variety of plastic flowers were used to add separation and color to the display.
3. Loose scales and internal organs, which detract from the appearance of the fish, were removed by a thorough washing in a cold saline solution before the fish were placed on display.
4. Pans and trays were utliized to display shrimp and filleted fish respectively. Pans, when used to display shrimp, serve three functions. They kept the two sizes of shrimp from being mixed together, kept the shrimp from being scattered throughout the display case, and kept the flavor from "leaching: out of the shrimp. The last function has a beneficial aspect of presenting the customer high quality seafood.
5. Price marker signs were rewritten to look neater and were displayed at all times to reduce the confusion and difficulty of deciphering prices. Hand written signs were not as attractive as professionally printed signs; therefore, new plastic marker signs were ordered for future use and improvement in the appearance of the overall merchandise display.

## Changes in Fish Handling and Storage Procedures

Changes in the handing and storage of seafood products were adopted to maintain a high quality product.

Morning Procedures. The fish were washed in a saline solution to remove scales and organs and to retard the spoilage of the seafood. Also, each fish was inspected for freshness and quality. Marginal quality fish was discarded.

Nightly Storage Procedures. An improved storage procedure was adopted. The fish were kept colder and spoiled less rapidly with a bottom layer of ice in the storage lug and alternating layers of fish and ice. Before this procedure was adopted, fish left unsold on

Saturday nights were usually unfit for sale on Monday. Once this procedure was adopted, however, it was not unusual for fish to be kept from Saturday night until the following Wednesday or Thursday. When this procedure was used, benefits accrued to both the supermarket and the consumer since the store had less product waste due to spoilage, and the customer received higher quality seafood products.

## Changes in Clean-up Procedures

The Fish Case. Three improvements were made in the cleaning procedures used to clean the display case.

1. A three-step washing procedure involving a disinfectant wash, a hot water rinse, and a cold water and vinegar rinse was adopted.
2. Daily cleaning of the display windows was initiated.
3. Exterior portions of the display case were inspected daily and cleaned when required.

There were two major benefits as a result of these changes. First, the overall appearance of the display area began to look cleaner and more sanitary. Second, the "fishy" odor was reduced substantially, helping to create an improved image for fresh seafood.

The Fish Dock. Four changes were made to improve the procedures used to clean the fish dock.

1. The fish dock was cleaned twice a day as opposed to the sporadic cleaning in Phase One.
2. Daily cleaning of the cutting board with chlorine bleach was adopted.
3. Knives were cleaned daily with a disinfectant.
4. The trash receptacle was emptied every night.

Three noticeabie benefits resulted from these changes. First, the odor diminished. Second, microbial growth was retarded greatiy, leading to a more sanitary fish processing area. Third, the fish were not contaminated by harmful bacteria, so that the fish could be kept fresher for a longer period of time.

Surrounding Wall and Floor Areas. The walls and floors surrounding the display case were given a thorough cleaning at the start of Plan A. Thereafter, the floors were mopped dafly, and the walls were cleaned at monthly intervals or more frequently if required. The buying environment was improved as a result of these changes.

## Other Changes in Merchandising Practices

Changes in Promotion Activities. The only change made in the promotion mix was the addition of point-of-purchase advertising. Recipe pamphlets and seasonal posters, provided by Texas Parks and Wildlife Department located in Austin, Texas, attracted weight watchers and various other customers looking for appetizing and creative methods of preparing seafood. Point-of-purchase advertising was used to accomplish three goals.

1. To educate the housewife in the various methods of preparing seafood.
2. To show the dietary variety which could be attained with seafood products.
3. To persuade the housewife to include more seafood in her family's diet.

Sales, Costs and Profit Data
Exhibit 3-7, which presents daily sales during Plan $A$, shows that daily sales varied from $\$ 8.99$ to $\$ 158.06$. Thursday was the "best" sales day during the week, accounting for $23 \%$ of the total sales. However, this was probabiy caused by the two Friday holidays (Christmas and New Year's) when the store was closed. Tuesdays, Fridays and Saturdays accounted for only $61 \%$ of total daily sales as shown in Exhibit 3-2, as compared to $75 \%$ in Plan I, the observation period. This decrease was due primarily to increasing sales in the early days of the week and to the weekend holidays which lowered sales on Fridays and Saturdays. Monday's total dollar volume, for example, increased from $\$ 67.76$ or $3 \%$ of total sales in Phase One to $\$ 228.36$ or $9 \%$ of total sales in Plan A. However, Monday was still the "worst" selling day of the week as was true in Phase One. Daily costs to operate increased to $\$ 18.00$ in Plan A compared to $\$ 14.76$ during Phase One, because Plan A was more labor intensive. Weekly profit was approximately $\$ 52.75$ or about 12\% of total sales. (See Exhibit 3-3.)

## Summary

This initial merchandising effort was the first of three test merchandising plans. Many procedural changes were initiated to improve the methods of setting-up merchandise displays, cleaning, and handing and storage of seafood products. Pian A was characterized as a low cost and low effort plan which consisted of the minimum merchandising effort needed to profitably sell fresh seafood products. The second experimental merchandising plan, Plan $B$, is discussed in the following chapter.

## Exhibit 3-2 <br> Percentage of Sales Accounted for Over Three-Day Periods

Percentage of Total Sales Percentage of Total Sales Accounted for on Monday, Accounted for on Tuesday, Wednesday and Thursday
25.63\% Friday and Saturday

Phase I

Phase II - Plan A
39.22\%
60.78\%

Exhibit 3-3
Income Statements for Phase I and Plan A

|  |  | Phase I | Phase II <br> Plan A |
| :---: | :---: | :---: | :---: |
|  | Total Revenue | \$1,936.34 | \$2,620.06 |
| Less: | Cost of Goods Sold | 1,202.67 | $\begin{array}{r}1,667.26 \\ \hline\end{array}$ |
|  | Gross Margin | 733.67 | - 952.80 |
| Less: | Operating Expense | 428.16 | 594.78 |
|  | Gross Profit | 305.51 | 358.02 |
| Less: | Product Waste | 93.28 | 41.48 |
|  | Net Profit | \$ 212.23 | \$ 316.54 |


|  | Total Revenue | $100.00 \%$ | $100.00 \%$ |
| :--- | :--- | ---: | ---: |
| Less: | Cost of Goods Sold | $62.10 \%$ | $63.60 \%$ |
| Gross Margin | $37.90 \%$ | $36.40 \%$ |  |
| Less: | Operating Expense | $22.10 \%$ | $22.70 \%$ |
| Gross Profit | $15.80 \%$ | $13.70 \%$ |  |
| Less: | Product Waste | $4.80 \%$ | $1.60 \%$ |
|  | Net Profit | $11.0 \%$ | $12.10 \%$ |


| Number of Days in Period | 29 days | 29 days |
| :--- | ---: | ---: |
| Average Cost/day | $\$ 74.76$ | $\$ 18.02$ |
| Average Profit/Week | $\$ 42.45$ | $\$ 52.75$ |

## CHAPTER IV

## RESEARCH DATA: PLAN B

## Introduction

Chapter 4 discusses Plan B, the second of three experimental merchandising plans. Plan $B$, in addition to retaining the changes incorporated in Plan A, attempts to accomplish three objectives, which will achieve the overall goal of higher sales volume and profits:

1. to expand the product offering;
2. to overcome previous deficiencies in supply; and
3. to expand fresh fish promotion activities.

The chapter is divided into four sections. The first three discuss the changes made to accomplish the goals mentioned above, while the last section presents the financial results of this seven-week merchandising plan.

## Expansion of the Product Line

Three fresh water species, catfish, buffalo, and carp, and one salt water specie, black drum, were added to the supermarket's prom duct of salt water finfish. Also added was filleted fresh redfish. These additions were made so that minority groups served by the store could now buy the fresh species which they preferred and so that filleted fresh fish might be as convenient to purchase as its frozen counterpart. However, consumer responses to fresh filleted fish did not approach expectations and was soon deleted from the product offering. It was felt that the primary reason for the lack of acceptance
was the perceived difference in price between fresh redfish whole and fresh redfish filleted. Whole redfish sold for $79 \not \subset$ a pound while filleted sold for $\$ 1.59$ a pound. Customers, however, received an identical amount of edible meat for the same retail price.* Since the addition of filleted redfish was not successfur, point of purchase promotion informed the customers that store employees would fillet fish free of charge.

## Overcoming Supply Deficiencies

The researcher worked closely with the wholesaler to establish size and substitution policies to solve supply problems at the supermarket. These policies enabled the supermarket to accomplish two goals. First, it was possible to maintain a consistent product offering in terms of size of finfish offered for sale. Second, it enabled the supermarket to maintain a tonnage volume consistent with demand. Most of the supply problems were overcome except on occasions when fish were not received due to adverse weather conditions in the fishing areas in the Gulf of Mexico.

## Expansion of Fresh Seafood Promotion

Plan B's seafood promotion consisted of point-of-purchase and newspaper advertising. The point-of-purchase advertising used in Plan A which included recipe pamphlets and seasonal posters was continued. In addition to the point-of-purchase advertising, a one

[^5]column-inch insertion (see exhibit 4-1) in the supermarket's newspaper advertisement was used to promote fresh finfish. The original plan for the study required a one column-inch insert every weekend. However, only four of seven planned advertisements made print. It was discovered that on weekends when the advertisement made print, approximately 60 more pounds of fresh finfish were sold as opposed to weekends when the insert did not appear in the newspaper advertisement.* The appearance of a newspaper advertisement for fresh finfish had a definite impact on sales.

Sales, Cost, and Profit Data
Daily sales varied from $\$ 14.28$ to $\$ 200.34$ as shown in Exhibit 4-2. Once again, Friday was the "best" sales day during the week, accounting for about $20 \%$ of the total sales in Plan B. Monday stitl remained the "poorest" selling day accounting for only $7 \%$ of Plan B total sales. Also, Tuesdays and the weekends accounted for the majority of weekly sales accounting for $65 \%$ in Plan $B$ as compared to 61\% during Plan A (see Exhibit 4-3). Daily costs to operate during this plan increased to $\$ 18.79$ from $\$ 18.02$ in Plan $A$. While PJan $B$ was still as labor intensive as Plan $A$, the labor was used more efficiently so that the same tasks were accomplished in less time and at a lower cost. Average weekly profit increased to $\$ 82.41$ from $\$ 52.75$ or a $57 \%$ increase (see Exhibit 4-4).

[^6]Exhibit 4-1
Example of Newspaper Insert During Plan B






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## Exhibit 4-3

Percentage of Sales Accounted for Over Three-Day Periods

|  | Percentage of Total Sales <br> Accounted for on Monday, <br> Wednesday and Thursday | Percentage of Total Sales <br> Accounted for on Tuesday, <br> Friday and Saturday |
| :--- | :---: | :---: |
| Phase I | $25.63 \%$ | $74.37 \%$ |
| Phase II - Plan A | $39.22 \%$ | $60.78 \%$ |
| Phase II - Plan B | $34.82 \%$ | $65.18 \%$ |

## Exhibit 4-4

Income Statements for Phase I, Plan A and Plan B

|  |  | Phase I | $\begin{gathered} \text { Phase II } \\ \text { Plan A } \end{gathered}$ | Phase II Plan B |
| :---: | :---: | :---: | :---: | :---: |
|  | Total Revenue | \$1,936.34 | \$2,620.06 | \$3,898.26 |
| Less: | Cost of Goods Sold | 1,202.67 | 1,667.26 | 2,475.38 |
|  | Gross Margin | 733.67 | 952.80 | 1,422.88 |
| Less: | Operating Expenses | 428.16 | 594.78 | 789.15 |
|  | Gross Profit | 305.57 | 358.02 | 633.73 |
| Less: | Product Waste | 93.28 | 41.48 | 56.89 |
|  | Net Profit | \$ 212.23 | \$ 316.54 | \$576.84 |


|  | Total Revenue | 100.00\% | 100.00\% | 100.00\% |
| :---: | :---: | :---: | :---: | :---: |
| Less: | Cost of Goods Sold | 62.10\% | 63.60\% | 63.50\% |
|  | Gross Margin | 37.90\% | 36.40\% | 36.50\% |
| Less: | Operating Expenses | 22.10\% | 22.70\% | 20.20\% |
|  | Gross Profit | 15.80\% | 13.70\% | 16.30\% |
| Less: | Product Waste | 4.80\% | 1.60\% | 1.50\% |
|  | Net Profit | 17.00\% | 12.10\% | 14.80\% |


| Number of Days in Period | 29 days | 33 days | 42 days |
| :--- | :--- | :--- | :--- |
| Average Cost/Day | $\$ 14.76$ | $\$ 18.02$ | $\$ 18.79$ |
| Average Profit/Week | $\$ 42.45$ | $\$ 52.75$ | $\$ 82.41$ |

Summary
Plan B was the second of three experimental merchandising plans. This plan was characterized as an average effort and average cost merchandising activity designed to accomplish three objectives:

1. to expand the product offering;
2. to overcome previous deficiencies in supply; and
3. to expand fresh fish promotion activities.

The last of the three experimental merchandising plans is discussed in Chapter 5.

## CHAPTER V

RESEARCH DATA: PLAN C

## Introduction

Plan $C$, the final experimental merchandising project, is characterized as a high cost merchandising effort which attempts to integrate television and radio promotion, and increased customer services into the merchandising efforts established in Plans A and B. Four additional tasks were performed during Plan C :

1. Television and radio "spot" advertisements were used to inform the consumer about fresh fish and the supermarket where it could be found.
2. Additional newspaper advertisements were used to stimulate primary demand for fresh seafood products.
3. Two in-store sampling programs were conducted so that consumers could judge the attributes and qualities of fresh seafood for themselves.
4. Service personnel were stationed at the fish counter on four of the six selling days in order that fresh fish customers would receive more personal attention.

This chapter discusses the activities mentioned above, and presents the financial results of this seven week merchandising effort.

Television and Radio Advertising

Television Advertising. Television advertising was conducted during the first and last weeks of the seven week merchandising effort.

The promotion packages for each week were identical and consisted of fifteen 10-second "spot" television advertisements. (See Figure 5-2 for promotion cost details.) In addition to the scheduled "spot" advertisements, a public service television announcement, prepared by Texas Parks and Wildlife Department, was used. The public service announcement was designed to promote seafood products in general while the "spot" advertisements were used to promote fresh seafood and the participating supermarket as being an outlet for fresh seafood products. (See Exhibit 5-1 for promotional cost data.)

Radio Advertising. Radio advertising was employed over the entire seven week period. Each promotion week consisted of nine 30second "spots" on the local radio programs. (See Exhibit 5-2 for "copy" details.) During the first three weeks, there were three spots per day on Monday, Thursday, and Friday. On the fourth week, however, the three spots per day on Monday, Thursday and Friday were not available so that four spots were run on Thursday and five spots on Friday. The concluding three weeks consisted of three spots per day on Wednesday, Thursday and Friday for a total of nine spots per week. (See Exhibit 5-1 for promotion cost data.)

## Additional Newspaper Advertising

Newspaper advertising conducted during Plan B was continued for the duration of Plan $C$. In addition, supplementary advertising was conducted in two local newspapers for this final seven week period of the study.

One of the local newspapers was an evening paper. In each

## Exhibit 5-1

Total Promotion Expenditures During Plan C
Television:
March 1, 1971 to March 7, 1971
Fifteen 10 -second Class "B" spots ..... $\$ 100.00$
April 11, 1971 to April 17, 1971
Fifteen 10 -second Class "B" spots ..... $\$ 100.00$
Radio
March 1, 1971 to April 17, 1971 (seven weeks) Nine 30 -second spots/week @ $\$ 1.25 /$ spot ..... $\$ 78.75$
Newspaper:
Bryan Daily Eagle:
March 1, 1971 to April 17, 1971 (seven weeks) Twelve column-inches/week e $\$ 1.43 /$ column inch ..... $\$ 120.12$
Pictorial Press:
March 1, 1971 to April 17, 1971 (seven Weeks) eight column-inches/week @ $\$ 1.50$ /column-inch. ..... $\$ 58.00$
Incidental Expenses:
Cost for Writing radio slogan ..... $\$ 20.00$
TOTAL PROMOTION EXPENDITURES ..... $\$ 476.87$

Exhibit 5-2<br>Advertising Copy for Plan C

Television 10-second Spot Copy:
Weight watcher's and gourmet cooks alike know fresh fish is better. (Store Name) now offer's a full line of fresh fish products, filleted while you wait. Shop (Store Name) today for fresh fish. Shop (Store Name) in Bryan.

Radio 30-second Spot Copy From March 1 to March 28, 1971:
(Store Name) carries a full line of meat products and all kinds of fresh fish and seafood. Fresh fish has something for everybody. It's low in calories, high in protein, and flavorful. First, since fish are high in protein they are more nutritional, more healthful to the family. Secondly, fish are good for diet and low fat menus. Doctors and dieticians highly recommend fish as a substantial part of any fat free diet. Fish is inexpensive. Budget minded consumers serve fish often. Also, you can now get free recipes at (Store Name). Try some fish today.

Radio 30-second Spot Copy From March 29 to April 17, 1971:
(Store Name) offers a complete selection of fresh fish and seafoods. Fresh fish has something for everybody -- it satisfies! Fresh fish is low in calories, high in protein and $0 h$ so flavorful. Doctors and dieticians highly recommend fish as a substantial part of any diet. So try fish -- it satisfies your every need, and it's low in price to satisfy your budget. (Store Name) offers free recipes so you can

## Exhibit 5-2 Continued

enjoy the variety in your diet only fresh fish can offer. Try some fish today -- it satisfies and (Store Name) will be happy to fillet your trout, redfish, red snapper or any of the many varieties of fresh fish on display. Come to (Store Name) today and try fish -- it satisfies!

## Supplementary Newspaper Copy:

(Store Name) now offers a complete selection of fresh fish.

Monday, Wednesday and Thursday night edition, four one-column inch inserts appeared for a total of 12 column-inches per week. (See Exhibit 5-1 for promotion cost data.) The other newspaper was a bi-weekly paper, and four one-column inserts were placed in for a total of eight column-inches per week. The "copy" for these supplementary advertisements was identical in both papers (see Exhibit 5-2 for "copy" details.)

## In-Store Sampling Programs

Two very successful in-store sampling programs were conducted on Friday and Saturday of the first week and on Friday of the last week of Plan $C$. Both sampling events were conducted by the Texas Parks and Wildlife Department and consisted of having a home economist prepare and offer bite-sized portions of buttermilk-fried trout. Recipe pamphlets containing the recipe used to prepare the fish were also given to customers.

## Addition of Service Personnel

One major problem discovered during the course of the study was inadequate customer services. Many times customers would have to wait as long as five minutes before they could be assisted by a store employee. To overcome this problem, extra service personnel were hired to serve seafood customers. Since Mondays and Wednesdays were not high volume days, service personnel were not hired to work on those days but were hired to work ten hours a day on the remaining selling days for a total of forty selling hours per week.

## Sales, Cost and Profit Data

The additional promotional activities of Plan C contributed to the highest sales volume of the entire research study. Daily sales varied from $\$ 41.74$ to $\$ 286.28$ and averaged $\$ 119.56$, up from an average of $\$ 94.34$ in Plan B for a $27 \%$ increase in average daily sales. Again, Friciay remained the "best" sales day of the week, and Monday the "worst", accounting for approximately $30 \%$ and $6 \%$ of weekly sales, respectively (see Exhibit 5-3). The three-day period of Tuesday, Friday and Saturday accounted for over $70 \%$ of weekly sales as shown in Exhibit 5-4. Daily operating cost decreased from $\$ 18.79$ in Plan $B$ to $\$ 18.64$ in Plan $C$, due primarily to the use of lower cost service personnel which were used for more hours. Average weekly profits in Plan C increased approximately $30 \%$ to $\$ 107.03$ from $\$ 82.41$ in Plan $B$. Net profit as a percent of total sales increased in Plan $C$ to about $15 \%$ from the $14 \%$ in Plan B. This outcome is due to the lower operating costs which decreased faster than wholesale price rose (see Exhibit 5-5).

Summary
Plan $C$ was the final experimental merchandising plan implemented in this research study. This plan was characterized as a high effort merchandising plan which employed extensive promotion, labor costs and inventory investments in fresh fish to accomplish the overall goals of the study for higher sales volume and increased profits. As a result of these additional merchandising activities, dollar sales volume increased faster than the additional costs. This is reflected in the ratio of operating expenses to sales which declined from Plan B
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## Exhibit 5-4 <br> Percentage of Sales Accounted for Over Three Day Periods

|  | Percentage of Total Sales <br> Accounted for on Monday, <br> Wednesday and Thursday | Percentage of Total Sales <br> Accounted for on Tuesday, <br> Friday and Saturday |
| :--- | :---: | :---: |
| Phase I | $25.63 \%$ | $74.37 \%$ |
| Phase II - Plan A | $39.22 \%$ | $60.78 \%$ |
| Phase II - Plan B | $34.82 \%$ | $65.18 \%$ |
| Phase II - Plan C | $29.57 \%$ | $70.43 \%$ |

Exhibit 5-5
Income Statements for Phase I, Plan A, Plan B and Plan C

to PTan $C$ while the absolute dollar amount of expenses increased from Plan B to Plan C (see Exhibit 5-3). A more detailed analysis of the data collected is presented in Chapter VI.

## CHAPTER VI

## ANALYSIS OF RESEARCH DATA

## Introduction

Chapter VI analyzes, in detail, the data collected throughout this seafood merchandising study. The chapter is divided into five sections. The first portion provides an overall view of the results of this study. The next three sections are devoted to sales trend analysis, performance standard analysis, and incremental analysis. The final division of Chapter VI is devoted to the conclusions which may be formulated from the preceding analyses.

## Overall View

Introduction. The first section of Chapter VI is a general or overall view of the research study. In order that a complete picture is viewed, the following eight major topics are discussed:

1. changes in tonnage volume;
2. changes in dollar volume;
3. changes in wholesale prices;
4. changes in operating costs;
5. changes in average inventory investment;
6. changes in product waste;
7. changes in stockout; and
8. changes in profit.

As each of these topics is discussed, Phase I is compared to Plans A, $B$, and C; Plan A is compared to Plan B; and Plan B is compared to Plan
C. A chart is presented below to aid the reader in understanding how the four merchandising observations are related with respect to time:


Changes in Tonnage Volume. Disregarding slight fluctuations, the general trend was for tonnage volume to increase over the life of the study (see Appendix Exhibits 1 through 5).

Changes in Tonnage Volume from Phase I to Phase II - Plan A. During Phase I, there was an average of 127 pounds of fresh fish sold per week, 34 pounds of frozen fish, 150 pounds of shrimp and 62 pounds of miscellaneous seafoods sold per week for a total of approximately 373 pounds of seafood products sold every week. Total tonnage volume showed only a slight increase of $10.5 \%$ during Plan $A$ to an average of 412.5 pounds of seafood products sold each week. While the total increase was slight, there were many dynamic changes. Sales of fresh finfish dropped by about $2 \%$ and total shrimp sales by about $14 \%$. Sales of frozen seafood items such as cod fillets, dressed flounder, and dressed catfish increased by roughty $84 \%$ from 34 pounds per week to 62 pounds per week, and sales of miscellaneous seafood items such as crabmeat, oysters, halibut, salmon and squid increased by $50 \%$ from 62 pounds per week to 93 pounds per week.

Changes in Tonnage Volume from Phase I to Phase II - Plan B. Measured from Phase I, Plan B's total seafood sales in pounds showed a large increase from 373 pounds per week on the average to an average of 546 pounds per week or an increase of $46 \%$ over Phase I. Un]ike the changes from Phase I to Plan $A$, the changes from Phase I to Plan $B$ were all positive percentage increases. The component changes which combined to give the overall increase of $46 \%$ were as follows:

1. Total Fresh Finfish -- $69 \%$ increase to 215 pounds per week from 127 pounds per week.
2. Total Frozen Seafood -- $146 \%$ increase to 84 pounds per week from 34 pounds per week.
3. Total Shrimp -- $10 \%$ increase to 165 pounds per week from 150 pounds per week.
4. Total Miscellaneous Seafood -- $34 \%$ increase to 83 pounds per week from 62 pounds per week.

As impressive as some of the percentage increases are, there were other factors which affected their interpretation. Fresh finfish, for example, showed a large increase in volume due to two factors. First, there was the addition of new species of fresh finfish. Prior to Plan B, gulf trout, gulf redfish, red snapper, flounder, and salt water catfish were the only major species sold on a regular basis. During Plan B, three additional species, buffalo, black drum and carp were added to the product offering. Due to the nature of these additional species, i.e., two were fresh water fish, and their appeal to a different market segment, additional sales were made without losing a major portion of the market for other species.

Second, sales of fresh finfish during Phase I were about 127 pounds per week on the average, while the same five original species, less flounder (because it was out of season), showed average sales of 188 pounds per week in Plan B. This is almost 60 pounds more per week without flounder which, over Phase I averaged about 18 pounds per week.

Frozen seafood products showed a very large increase of $146 \%$ from Phase I to Plan B. This increase can be explained by considering two factors: product offerings and improved merchandising efforts. First, product offering in Plan B included a frozen dressed flounder and a frozen dressed catfish. Second, due to improved merchandising efforts, sales of cod fillets, which were the largest selling item in the frozen fish category, jumped from about 33 pounds per week in Phase I to about 59 pounds per week during Plan $B$.

A large portion of the increase in miscellaneous seafoods can be explained by the differences in merchandising techniques employed to sell oysters. During Phase I the oysters were displayed inside the seafood display counter which generally required some waiting time before customers were serviced. Oysters, which were the largest selling item in miscellaneous seafoods, were sold as a self-service item during Plan B. The 12 ounce jars of prepacked oysters were displayed on ice in front of the fish case and allowed the customers to serve themselves. This self-service feature improved the sales of oysters considerably, e.g., 59 jars per week in Phase I to 86 jars per week in Plan B.

Changes in Tonnage Volume from Phase I to Plan C. Tonnage
volume of total seafood sold increased about $84 \%$ from Phase I to Plan C. Sales showed increases as follows:

1. Total Fresh Finfish -- $157 \%$ increase from 127 pounds per per week to 327 pounds per week.
2. Total Frozen Seafood -- $79 \%$ increase from 34 pounds per week to 61 pounds per week.
3. Total Shrimp -- $39 \%$ increase from 150 pounds per week to 209 pounds per week.
4. Total Miscellaneous Seafood -- 44\% increase from 62 pounds per week to 89 pounds per week.

The percentage changes represented in the tabulation above were more a result of changes leading up to Plan $B$ made from Phase I to Plan C. For this reason, it is important to view the changes between Plan $A$ and $B$ and Plan $B$ and $C$ before it is possible to understand the larger changes between Phase I and Plan C.

Total tonnage volume increased $32 \%$ from Plan A to Plan B. The component changes which combined to give the overall increase were:

1. Total Fresh Finfish -- 73\% increase from 125 pounds per week to 215 pounds per week.
2. Total Frozen Seafood -- $34 \%$ increase from 62 pounds per week to 84 pounds per week.
3. Total Shrimp -- $24 \%$ increase from 133 pounds per week to 164 pounds per week.
4. Total Miscellaneous Seafood -- $11 \%$ decline from 93 pounds per week to 83 pounds per week.

Increases in total fresh fish were due to the addition of new species of fresh fish, buffalo, drum and carp and to the increased sales of
the original species. From Appendix Exhibits 2 and 3, it can be seen that three new species were added to the product line and that sales of the five original species increased by approximately 40 pounds per week on the average during Plan B. All other increases in tonnage volume were due to increased sales of previously existing species rather than the addition of new species. The decline in miscellaneous seafood items can be explained by the decline in oyster sales after the Christmas holidays when oysters were used in holiday recipes.

Total tonnage volume increased $26 \%$ from Plan B to Plan C as total tonnage volume moved from an average of 546 pounds per week to 684 pounds per week. Component changes were as follows:

1. Total Fresh Finfish -- $52 \%$ increase from 215 pounds per week to 327 pounds per week.
2. Total Frozen Seafood -- $27 \%$ decrease from 84 pounds per week to 61 pounds per week.
3. Total Shrimp -- $28 \%$ increase from 164 pounds per week to to 209 pounds per week.
4. Total Miscellaneous Seafood -- $8 \%$ increase from 83 pounds per week to 89 pounds per week.

It seems appropriate that fresh finfish should show the largest increase since all the promotion message content stressed fresh fish products. No new species of fresh finfish were added during plan $C$; however, there was increased promotion and extra service personnel. Increases in tonnage volume for shrimp and miscellaneous seafoods can be attributed to additional promotional efforts and extra customer
services which made it easier to buy seafood products, rather than to the addition of new species. The sharp decrease in frozen seafood products was caused by at least two factors. First, the number of species offered was reduced from four to one. Second, sales of fresh finfish were stressed greatly so that persons who might normally purchase frozen fish now tried fresh fish products.

Tonnage volume increased throughout the study with the largest percentage increases occurring during Plan $B$. Plan $C$ showed the second largest increase in tonnage volume. This increase was due almost entirely to the additional promotion and extra service personnel which were added to the tasks being performed in Plan B.

Changes in Dollar Volume. In this section, dollar sales volume are discussed from two viewpoints: a calendar week and a Wednesday-to-Tuesday week that attempts to isolate the effects of the payday cycle of the local labor force upon sales.

1. Calendar Weeks. A summary of weekly dollar sales data are shown in Appendix Exhibit 6. More detailed weekly sales data are available in Appendix Exhibit 6A through 6E. A calendar week begins on a Monday and ends on a Saturday. On a calendar basis, dollar sales volume increased throughout the study. Measuring each of the experimental merchandising plans against Phase $I$, the preliminary period of observation, gives the following break-down:

Phase I to Plan A -- $13 \%$ increase from $\$ 387.27$ to $\$ 436.68$.
Phase I to Plan B -- 47\% increase from $\$ 387.27$ to $\$ 556.89$.
Phase I to Plan C -- $80 \%$ increase from $\$ 387.27$ to $\$ 693.96$.

If we consider each change from one plan to the other, the breakdown shows the following:

Phase I to Plan A -- $13 \%$ increase from $\$ 387.27$ to $\$ 436.68$.
Plan A to PTan B -- $28 \%$ increase from $\$ 436.68$ to $\$ 556.89$.
Plan B to Plan C -- $25 \%$ increase from $\$ 556.89$ to $\$ 693.96$.
The greatest percentage increase occurs from Plan A to Plan B. This is not surprising for the greatest changes and improvements in merchandising techniques were made during Plan B. Plan B to Plan $C$ shows the second largest increase. Plan $C$ is very similar to Plan $B$, so that almost all of the change in sales can be attributed to the additional promotion and extra service personnel in PTan C .
2. Wednesday-Tuesday Weeks. A summary of weekly dollar sales volume is shown in Appendix Exhibit 7. The Wednesday-Tuesday weeks attempt to isolate the effects of a Wednesday payday in the local area and for that reason the accounting week begins on Wednesday and ends on the following Tuesday. The trend of Wednesday-Tuesday weeks was much the same as the calendar weeks as seen below:

Phase I to Plan A -- $7 \%$ increase from $\$ 430.22$ to $\$ 460.00$.
Phase 1 to Plan B $--32 \%$ increase from $\$ 430.22$ to $\$ 566.04$.
Phase I to Plan C - $63 \%$ increase from $\$ 430.22$ to $\$ 700.30$.
Plan A to Plan B -- $23 \%$ increase from $\$ 460.00$ to $\$ 566.04$.
Plan B to Plan C -- 24\% increase from $\$ 566.04$ to $\$ 700.30$.
The trends highlighted by the different methods were much the same with one major exception. By calendar weeks, the increase from Plan A to Plan B was greatest while the Wednesday-Tuesday week analysis
showed the greatest change occurring between Plan B and Plan C. Exhibit 6-3 shows more payweeks during Plan C than Plan $B$, so that, to some degree, the effects of the payday cycle have been isolated. For this reason, the Wednesday-Tuesday week gave a more accurage picture of weekly sales volume.

Changes in Wholesale Prices. Wholesale prices increased throughout the time span of this research study. While the wholesale price of every specie cannot be examined, the wholesale price for the more important species can. There was little change in wholesale prices of the seafood items purchased in frozen form by the supermarket. The primary reason for this was because these items were purchased for the entire chain of stores in very large quantities and stored by the chain store at a central warehouse until the local stores ordered the merchandise. Since the individual stores purchased durectly from the central warehouse, there was no change in wholesale price. Cod fillets and shrimp were items of this nature, where the wholesale price remained constant.

Fresh seafood items, which were purchased from seafood wholesalers in the Bryan and Houston areas, were subject to the regular market fluctuations of price related to the supply and demand of fresh seafood products. Gulf trout, for example, ranged in price from $\$ .40$ per pound in the seventh week to $\$ .52$ per pound in the twentyfifty week of the study, a $30 \%$ range in price. (See Appendix Exhibit 9 for complete data concerning wholesale and retail prices.)

Changes in Operating Expenses. As expected, operating costs tended to increase over the course of the study. As each experimental merchandising plan added new tasks to merchandising effort, with one exception, costs increased. Costs decreased from Plan B to Plan C by $.8 \%$ primarily because the same tasks were being performed by less expensive labor. During Plan $C$, additional personnel were hired to operate the fish counter and were paid Apprentice Meat Cutter wages of $\$ 3.00$ per hour as opposed to the $\$ 4.35$ per hour Journeyman wages paid in previous portions of the study. (See Appendix Exhibit 10 for breakdown of idea cost to operate.)

Changes in Average Inventory Investment. Average inventory investment per week increased throughout the study until the early weeks of Plan C, when inventories were liquidated in preparation for the participating supermarket to change the nature of their fresh seafood operations to a self-service type operation. It was felt by all concerned that this change would be risky, and therefore, inventories were slowly reduced so that a minimum of inventory remained at the conclusion of the research study. Another factor which must be considered was the better inventory management during Plan C since the researchers and not store managers took on the responsibility for management of seafood inventories. Stockout conditions were reduced to their lowest point during Plan $C$, while sales increased and average inventory investments declined.

Changes in Product Waste. A problem related to inventory investments was product spoilage. In all periods except Plan $C$, product
waste as a percentage of sales declined. While total inventory investments decreased, the investments in fresh fish products increased. Since fresh seafood products were more perishable than seafood products purchased in frozen form, the product waste increased as a result of handling higher inventories of fresh fish.

Changes in Stockouts. Also related to inventory investments was the question of customer service level. While a "proper" customer service level was never defined, for the purposes of this study, it was assumed that a maximum amount of seafood would be sold and a desirable customer service level would be 100\%. However, with the fluctuations in supply that exist in the seafood industry, this goal was never reached although compared with Phase I, the number of stockouts were reduced substantially. By counting the number of stockout conditions (see Appendix Exhibit 11) for the important selected species, the total number of stockouts for each portion of the study was as follows:

Phase I -- 101 stockouts or 20 per week for five weeks.
Phase II Plan A -- 90 stockouts or 15 per week for six weeks.
Phase II Plan B -- 87 stockouts or 12 per week for seven weeks.
Phase II Plan C -- 76 stockouts or 11 per week for seven weeks. If frosh flounder were dropped from this tally due to its very seasonal nature causing a high frequency of unavailability, an even more dramatic decline in the number of stockouts was shown as follows:

Phase I -- 85 stockouts or 17 per week for five weeks.
Phase II Plan A -- 71 stockouts or 12 per week for six weeks.
Phase II - Plan B -- 61 stockouts or 9 per week for seven weeks.
Phase II Plan C -- 41 stockouts or 6 per week for seven weeks.

Throughout this study, stockouts were a critical problem, as the goals of the study were to maximize sales volume of seafood and to maximize profit from retail seafood operations by initiating new and improved merchandising methods. If the stockout problems could have been overcome earlier in this study, the increase of sales and profits could have been much greater.

Changes in Profit. Average profit per week increased during each experimental merchandising plan. From Appendix Exhibit 6, the average profit per week for each period was:

Phase I - $\$ 42.45$ average weekly profit.
Plan A -- \$52.75 average weekTy profit.
Plan B -- \$82.41 average weekly profit.
Plan C -- $\$ 107.03$ average weekly profit.
Measuring each of the experimental merchandising plans against the preliminary observation period showed the increase in profits to be dramatic as can be seen below:

Phase I to Plan A -- 24\% increase from $\$ 42.25$ to $\$ 52.75$.
Phase I to Plan B -- $94 \%$ increase from $\$ 42.45$ to $\$ 82.41$.
Phase I to Plan C -- $152 \%$ increase from $\$ 42.45$ to $\$ 107.03$.
Plan A to Plan B -- $57 \%$ increase from $\$ 52.75$ to $\$ 82.41$.
Plan B to P7an C -- $30 \%$ increase from $\$ 82.41$ to $\$ 107.03$.
As dramatic as these percentage increases are, one factor is not considered. Wholesale prices for fresh fish rose in some instances as much as $30 \%$ while retail prices of fresh fish remained constant. If retail prices had been allowed to fluctuate with wholesale prices, profits in the later portions of the study would have been greater.

In order to visualize weekly profits better a graph is presented in Exhibit 6-1. To smooth the fluctuations and establish a weekly profit trend line, a three week moving average trend line was calculated from the weekly profit figures given in Appendix Exhibit 6A through 6 E . It can be seen easily that profits rose steadily forming "bulges" during Plan B and Plan $C$ when most promotion occurred.

## Sales Trend Analysis

Daily dollar sales volume for the entire research study were graphed. In order to smooth the wide fluctuations in daily sales, a seven-day moving average trend line was calculated and superimposed on the original graph (see Exhibit 6-2). Exhibit $6-2$ reflects many interesting facets of daily sales volume. First, Tuesdays (double stamp day) and the weekend days of Thursday, Friday and Saturday tended to form the high points on the graph, while Mondays and Wednesdays, almost without exception, showed very low sales. Also, the low points in the fluctuations never became much higher as the study progressed. These data suggest that, regardless of the merchandising techniques used, the timing of consumer purchases did not appear to change. Consumers continued to shop for seafood mainly during the weekend, especially on Fridays. Second, the trend line, which is superimposed over the original graph, shows a gradual increase until the beginning week of PTan $C$. This "bulge" in the trend line of Plan C occurs during a period where heavy promotional activities were conducted. In addition to newspaper and radio advertising, television was used as a means to promote seafood products. Television was also added to the final week's promotional activities. The final week,


under normal circumstances, would not be one considered for heavy promotion since it was immediately after the Lent and Easter season, and seafood sales were expected to decline sharply. The positive effects of television advertising on the results were truly evident in spite of conditions which would suggest otherwise. While the sales during the final week of Plan $C$ were not as high as sales during the initial week of Plan $C$, they were substantial and were the fifth highest weekly sales of the entire research study (see Appendix Exhibit 7). The notion that fresh seafood cannot be promoted in supermarkets and during weak seasons Toses some of its value in light of this new evidence.

## Performance Standard Analysis

Performance standard analysis is used to isolate and describe the effect of payweeks on weekly dollar sales. Performance ratios are shown in Exhibit 6-3. Column A contains performance ratios based on equal weekly sales throughout this study. Columns B and C contain performance ratios based upon different performance standards for payweeks and non-payweeks. Comparison of the index numbers shows littie effect of payweeks on total dollar volume. There were approximately the same number of payweeks which were above mean sales as non-pay weeks which were above mean sales. As a whole, this type of analysis proved to be undesirable in isolating the effects of payweeks on dollar sales volume.

Incremental Analysis
Introduction. There are two objectives for conducting this incremental analysis. First, it should provide a foundation which potential seafood merchandisers might use to evaluate their seafood

## Exhibit 6-3

Performance Ratios

|  | Performance Ratios Weekly Sales |  | Ratios |
| :---: | :---: | :---: | :---: |
| Week Of | Mean Sales | Pay Week | Non-Pay Week |
| *10/28 | . 7922 | . 7911 |  |
| 11/4 | 1.0776 |  | 1.0792 |
| *11/11 | . 9012 | . 9000 |  |
| 11/18 | . 6039 |  | . 6045 |
| *11/25 | . 6019 | . 6010 |  |
| 12/2 | . 8858 |  | . 8871 |
| *12/9 | . 9884 | . 9870 |  |
| 12/16 | . 7265 |  | . 7276 |
| *12/23 | . 6371 | . 6362 |  |
| 12/30 | . 7707 |  | . 7719 |
| *1/6 | . 7229 | . 7220 |  |
| 1/13 | 1.2224 |  | 1.2243 |
| *1/20 | 1.0323 | 1.0309 |  |
| 1/27 | 1.0363 |  | 1.0378 |
| *2/3 | . 9539 | . 9529 |  |
| $2 / 10$ | 1.0802 |  | 1.0818 |
| *2/17 | . 8595 | . 8583 |  |
| 2/24 | 1.0852 |  | 1.0868 |
| *3/3 | 1.7048 | 1.7025 |  |
| 3/10 | 1.4853 |  | 1.4875 |
| *3/17 | 1.2798 | 1.2781 |  |
| 3/24 | . 9957 |  | . 9972 |
| *3/31 | 1.2934 | 1.2917 |  |
| 4/7 | 1.0140 |  | 1.0156 |
| *4/14 | 1.2496 | 1.2479 |  |
| *Payweek |  |  |  |
| Column A: Is Performance Ratios based upon constant performance every week, therefore Mean Sales $(X)=\frac{\$ 13,529.15}{25 \text { weeks }}$ Total Sales $\bar{X}=541.17$ |  |  |  |

Column B and C: are Performance Ratios based upon different performance for payweeks and non-payweeks. X for payweeks is \$7,044.79. Total Sales during payweeks divided by 13 payweeks or $\bar{X}$ equals $\$ 541.91$. $\bar{X}$ for non-payweeks is $\$ 6,482.34$ divided by 12 non-payweeks or $\bar{X}=\$ 540.20$.
merchandising plans. Second, it should provide a guide for established seafood merchandisers to expand existing seafood operations. This section deals with two topics.

Marginal or incremental analysis is an accounting tool which allows a comparison of two proposals through examination of the incremental "steps" or "moves" from the original starting point to some new proposal. Under the structure of marginal analysis, the "step" is taken only if the incremental rate of return on the additional investments is greater than the cut-off point or the required rate of return on similar investments.

Incremental Analysis for Potential Seafood Merchandisers. True incremental analysis usually examines "moves" made from some point other than a zero point for the original starting point. Therefore, in a strict accounting sense, this is not incremental analysis, but rather a rate of return on asset analysis. However, since the descriptions are for new or potential merchandisers not now handing fresh seafood, these descriptions are very similar to descriptions of incremental moves and are therefore included in this section on incremental analysis.

1. Return on Inventory Assets. Rates of return on inventory assets or earning power ratios for each of the merchandising plans are discussed in this section. As shown in Exhibit 6-4, the rate of return on inventory assets for each merchandising effort are as follows:

$$
\begin{aligned}
& \text { Phase I -- } 70 \% \\
& \text { Plan A -- } 50 \% \\
& \text { Plan B - } 65 \%
\end{aligned}
$$

## Exhibit 6-4

Rate of Return on Inventory Assets for Phase I, Plan A, Plan B and Plan C


Plan C -- $149 \%$
One fact, seen immediately, is that the rate of return on inventory assets is lower in Plan A and Plan B than in Phase I. There are three reasons for this. First, the very low average inventory investment in Phase I makes the return seem very large because inventory turnover is high. Second, during PIan $A$, average inventory investment more than doubled while net profits rose only $49 \%$. Average inventories simply grew too quickly, so that while profit margin did increase slightly, inventory turnover decreased rapidly causing the rate of return on inventory assets to fall sharply. Third, during Plan $B$, profit margin increased rapidly while inventory turnover increased only slightly so that the return on inventory assets increased, but not enough to reach the Phase I rate of return.

The rate of return on inventory assets during Plan $C$ was very high. As shown in Exhibit 6-4, profit margin increased slightly while inventory asset turnover increased very rapidly.
2. Return on Total Tangible Assets. While inventory assets are the easiest to measure, they are not the only assets employed in the supermarket to earn a return on fresh seafood operations. Exhibit 6-5 presents rates of return on total assets employed at different levels of total assets. In addition to the inventory assets which can be measured, an arbitrary amount of assets are added to compensate for assets like cash, physical facilities, and equipment which cannot be measured accurately due to the accounting system used by the participating supermarket. Notice in Exhibit 6-5 that if there are more than $\$ 400$ of

| \％ $0^{\circ} 09$ | $\% \dagger^{-}$¢ | \％${ }^{\circ}$＇ 45 | \％2＇29 | $\% \boldsymbol{\%}^{\circ} \mathrm{C9}$ | $\% 9^{\circ} \mathrm{b}$ | \％ $0^{\circ}$ ¢ $\%^{\prime}$ | \％2 $2 \cdot \varepsilon 6$ | \％ $0 \cdot 901$ | \％0・ヤてし | 3 ueld |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \％L ${ }^{\circ} 0 \varepsilon$ | \％$\dagger^{\prime}$ 2¢ | $\% t^{\prime} \downarrow \varepsilon$ | \％9＊98 | \％ $0 \cdot 6$ ¢ | \％ $0^{\circ} \mathrm{Z}$ | \％ 0.5 | \％ $0 \cdot 6$ | \％¢ ${ }^{\circ} \mathrm{\varepsilon}$ ¢ | \％ $0^{\circ} 69$ | 8 ueld |
| \％${ }^{\circ} \mathrm{6L}$ | \％9 $9^{\circ} 02$ | \％1＇22 | \％ $8^{\bullet}$ ¢ $\ell$ | \％9 ${ }^{\circ} \mathrm{c} 2$ | \％0＇82 | \％8．0E | \％ $0^{\circ} \downarrow \varepsilon$ | $\% 2 \cdot 8 \varepsilon$ | \％$¢^{\circ}$ ¢ $\square^{\text {b }}$ | $\forall$ ueld |
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of other assets in addition to inventory assets, then each of the experimental merchandising plans provides a higher rate of return than Phase I. It would seem reasonable to assume that there are more than $\$ 400$ of other assets employed by the supermarket so that any of the experimental merchandising plans is preferable to Phase I. Notice also, that, regardless of the amount of additional assets used to calculate the rates of return, each successive experimental merchandising plan offers a higher rate of return.
3. Summary. For a merchandiser who presently does not handle fresh seafood, the rate of return on the assets employed makes seafood a desirable investment. As each successive experimental plan was conducted, the rate of return on total assets increased.

Incremental Analysis for Established Seafood Merchandisers. In this section of incremental analysis, the results of each possible incremental "move" is examined so that an established seafood merchandiser may evaluate his present position and determine the effects of a change in merchandising techniques. Exhibit 6-6 presents the incremental rates of return for each incremental "move". To facilitate the analysis, the rate of return on total assets from the $\$ 600$ column of Exhibit 6-5 is used as a working base. These rates of return as shown in Exhibit 6-5 are as follows:

Phase I -- 23.5\%
Plan A -- 25.6\%
Plan B -- 39.0\%
Plan C -- 67.4\%

Exhibit 6-6
Incremental Rates of Return on Assets for Each Possible Incremental Move*
$\begin{aligned} & \text { Incremental Rate of Return } \\ & \text { on Total Tangible Assets }\end{aligned}=\frac{\text { Net Profit }_{\mathbf{j}}-\text { Net Profit }_{\mathbf{i}} \times}{\text { Sales }_{\mathbf{j}}-\text { Sales }_{\mathbf{i}}}$
$\frac{\text { Sales }_{j}-\text { Sales }_{\mathbf{i}}}{\text { Total Assets }_{j}-\text { Total Assets }_{\mathbf{i}}}$

Phase I to Plan A:
$\frac{\$ 52.50-\$ 42.45}{\$ 437.50-\$ 388.00} \times \frac{\$ 437.50-\$ 388.00}{\$ 105.00-\$ 62.00}=\frac{\$ 10.05}{\$ 45.50} \times \frac{\$ 45.50}{\$ 43.00}=\underline{23.4 \%}$

Plan A to Plan B:
$\frac{\$ 82.41-\$ 52.50}{\$ 556.00-\$ 437.50} \times \frac{\$ 556.00-\$ 437.50}{\$ 125.00-\$ 105.00}=\frac{\$ 29.91}{\$ 118.50} \times \frac{\$ 118.50}{\$ 20.00}=\underline{148 \%}$

Plan B to Plan C:
$\frac{\$ 107.03-\$ 82.41}{\$ 695.00-\$ 556.50} \times \frac{\$ 695.00-\$ 556.50}{\$ 72.00-\$ 125.00}=\frac{\$ 24.62}{\$ 738.50} \times \frac{\$ 738.50}{\$ 53.00}=\underline{47 \%}$

Phase I to Plan B:
$\frac{\$ 82.41-\$ 42.45}{\$ 556.50-\$ 388.00} \times \frac{\$ 556.50-\$ 388.00}{\$ 125.00-\$ 62.00}=\frac{\$ 39.96}{\$ 168.50} \times \frac{\$ 168.50}{\$ 63.00}=\underline{\underline{56.4 \%}}$

Phase I to Plan C:
$\frac{\$ 107.03-\$ 42.45}{\$ 695.00-\$ 388.00} \times \frac{\$ 695.00-\$ 388.00}{\$ 72.00-\$ 62.00}=\frac{\$ 64.58}{\$ 307.00} \times \frac{\$ 307.00}{\$ 10.00}=\underline{646 \%}$

Plan A to Plan C:
$\frac{\$ 107.03-\$ 52.50}{\$ 695.00-\$ 437.50} \times \frac{\$ 695.00-\$ 556.50}{\$ 72.00-\$ 105.00}=\frac{\$ 54.53}{\$ 257.50} \times \frac{\$ 257.50}{\$ 337.00}=\underline{165 \%}$

[^7]1. The Incremental "Move" from Phase I to Plan A. Moving to Plan A earned an additional 23.4\% rate of return on total tangible assets during this study. This means that during this study an additional $\$ 10.05$ of profits was earned per week on additional sales of $\$ 45.50$ per week using an average of $\$ 43.00$ more assets per week. Therefore, an established seafood merchandiser with operations similar to those in Phase I might expect to earn more on the assets employed by moving to a Plan A type operation. This was illustrated by the differences in the rate of return for Phase 1 and P1an A of $23.4 \%$ and $25.6 \%$ respectively. This "move", like any "move" in marginal or incremental analysis decision should be made only if the marginal rate of return is greater than the required rate of return for similar investments.
2. The Incremental "Move" for Plan A to Plan B. The use of Plan B type operations earned an incremental return of $148 \%$ on the additional assets employed to bring Plan A type operations up to Plan B operational plans. During this study an additional profit of $\$ 29.91$ per week was earned on the increased asset investment of $\$ 20.00$ per week. For an established seafood merchandiser with Plan A type operations, the "move" to Plan B type operations can promise increased returns. This particular incremental increase was the highest of the single-plan "moves", and it was not surprising since most of the changes in merchandising techniques occurred between Plan A and Plan B.
3. The Incremental "Move" from Plan B to Plan C. A "move" from plan $B$ to $P l a n C$, during this research $s t u d y$, provided a $47 \%$
incremental return on the additional assets employed. This "move" earned an extra $\$ 24.62$ profit per week with an average of $\$ 53.00$ fewer assets per week than Plan 8 . While this incremental return was not as great as that from Plan A to Plan B, as long as the incremental rate of return is greater than the firm's required rate of return, the move is acceptable under marginal analysis. Therefore, when the "move" from Plan B to Plan C was made the rate of return on total assets increased from $39.0 \%$ in Plan B to $67.4 \%$ in Plan C. Also, since Plan B and Plan $C$ were alike in all respects except for additional promotion and service personnel, the additional return can be largely attributed to the extra promotion and service personnel. Another factor which explained this increase was the improved inventory management during Plan C .
4. The Incremental "Move" from Phase I to Plan B. Assuming an established seafood merchandiser identifies has operations as being similar to Phase $I$, what incremental return can be expected by a move to Plan B type operations? During this study, the incremental return for this "move" was approximately $56.4 \%$ on the additional assets employed to transform Phase I operations into Plan B type operations. An additional average weekly profit of $\$ 39.96$ was earned on an average additional asset investment of $\$ 63.00$. From Exhibit $6-5$ this corresponded to the increase in rate of return from $23.5 \%$ in Phase $I$ to a rate of return of $39.0 \%$ in Plan B.
5. The Incremental "Move" from Phase I to Plan C. During this study, incrementa] returns on assets were $646 \%$ when the change from Phase I to Plan C was made. An additional asset investment of $\$ 10.00$
earned an extra $\$ 64.58$ profit per week on the average. Merchandising changes occurring during this time were of two types: 1) changes which allowed the supermarket to be more responsive to the needs and wants of the fresh seafood consumer; and 2) more aggressive promotion of fresh seafood products. Since these two changes are basic conditions of any successful marketing venture, it is not surprising that such a large incremental return was possible. This large return also indicated the lack of serious marketing effort by the seafood industry at all levels.
6. The Incremental "Move" from Plan A to Plan C. An established seafood merchandiser with Plan A type operations can expect very large incremental rates of return by changing to Plan C type operations. During this study, an additional $\$ 54.53$ profit per week was earned on an additional asset investment of $\$ 33,00$ for an incremental rate of return of $165 \%$.
7. Summary. Each incremental "move" made during this study leads to higher returns on the assets employed for seafood merchandising. Regardless whether the "move" is from a simple or more complex merchandising effort, increased returns always make the change profitable. Therefore, an established seafood merchandiser should evaluate and identify his present position and then evaluate any possible changes he might implement which would make his operation more profitable. This section of marginal analysis is intended to be a guide for evaluating such changes. It does not present all the marketing alternatives that are available, but merely attempts to show the way for improved
merchandising techniques and improved profits through selected merchandising strategies.

## Conclusions

From evidence presented in the analysis of the results of this project, the two objectives of this study, presented in Chapter I, were accomplished.

1. Sales volume, both dollar and tonnage volumes, and profits were improved with planned implementation of new merchandising techniques. Tonnage volume showed an increase of $84 \%$ from Phase I to Plan C while dollar volume rose $80 \%$ on a calendar week basis and $63 \%$ on a Wednesday-to-Tuesday week basis.
2. These increases were made without taking a disproportionate share of the operating funds from the supermarket as shown by the successive increases in the incremental rate of return on the assets.

Additional conclusions which may be inferred from the analysis of the data are:

1. Fresh seafood products can be promoted. The popular belief at the beginning of this study was that fresh seafood products could not be promoted. During this study, fresh seafood was promoted with great success through all types of advertising media such as newspapers, radio and television as well as point of purchase advertising displays. Promotion of fresh seafood products may take more planning and preparation, but it can be done.
2. There appeared to be a favorable direct, but not necessarily proportional, relationship between promotion and customer services and profits. Throughout this study as customer services and more aggressive promotion were employed, profits tended to increase.
3. From all evidence, the full potential of the fresh seafood market was not reached. The more aggressive the merchandising implemented, the greater saies and profits became. If the research study had been over a longer duration, increased profits most likely would have resulted.
4. While the full potential of the fresh seafood market had not been reached, the effects of diminishing returns were felt. Dollar sales volume for example, increased about the same between Plan A and Plan B as between Plan B and Plan C. Profits, on the other hand, showed a larger increase from Plan A to Plan $B$ than from Plan $B$ to Plan $C$. These percentage increases were $57 \%$ and $30 \%$ respectively.
5. While cleanliness and attractiveness of the displays and the quality of the seafood sold are important to proper seafood merchandising, promotion and customer services were also major factors in increasing sales and prafits of fresh seafood. Cleanliness, attractive displays, and high quaility seafood were important as illustrated by the incremental rate of return on assets of $23 \%$ to move from Phase I to Plan A, when these were the only merchandising changes. Promotion and customer services also appear to be important due to the
incremental rate of return on assets of $148 \%$ and $47 \%$ gained by moving from Plan $A$ to $B$ and Plan $B$ to $C$ respectively. While promotion and customer services showed a greater rate of return than only cleanliness, attractive displays and high quality seafood, these three factors are basic to any successful seafood merchandising venture.
6. While it was difficult to isolate the effects of the payday cycle on sales, it appeared as though paydays had little effect upon weekly profits.
7. Weekends remained a strong selling period for fresh seafood in spite of heavy promotion during all days of the week. Therefore, unless other promotional techniques are employed to spread sales more evenly over the week, merchandising efforts should be planned and coordinated for weekend periods.

## CHAPTER VII

SUMMARY AND CONCLUSIONS

## Introduction

This chapter is a summary of the procedures, analysis and evaluation of a study on the merchandising of fresh seafood at retail conducted by the author and funded by the College of Business Administration and Center for Marine Resources, Texas A\&M University; Sea Grant Program, National Marine Fisheries Service, Department of Commerce. The study was conducted in Bryan, Texas (approximately 140 miles from the Gulf coast and 90 miles northwest of Houston, Texas), in a supermarket chain store which has its home office in Houston, Texas. Although initial permission for proceeding with the research project was obtained through the home office, most decisions on merchandising practices were cleared through the local store manager and the meat department manager. The chapter is divided into four sections based primarily on the general procedure followed in conducting the study; Objectives of the Study, Methodology and Design, Analysis of Data, and Conclusions.

## Objectives of the Study

This study was conducted in a local retail supermarket operation. The two major objectives of this research study are to determine:

1. If sales volume and profitability of fresh seafood products may be increased through utilization of different merchandising techniques.
2. If increased sales volume and profitability may be accomplished without taking a disproportionate share of normal supermarket operating funds.

## General Design of the Experiment

The study addressed itself to the problem of improving the profitability of fresh seafood products through better merchandising activities in supermarket store operations as opposed to a free-standing fish market. Therefore, the design of the study was limited by and yet dependent upon the operating freedom extended by the participating supermarket.

The study consisted of two phases. Phase I involved the observation of the present merchandising efforts at the participating supermarket and the measurement of the sales volume and profitability associated with these activities. Phase II consisted of the implementation of new merchandising techniques, observation of the results, and analysis of the data. The entire study lasted a total of twenty-five weeks from October 26, 1970 to April 17, 1971.

Phase I - Observation of Current Practices. (Duration -- five weeks from October 26,1970 to November 29, 1970.) This phase of the study consisted of observing the participating supermarket's present method of merchandising fresh seafood products and recording the results of these activities.

Phase II - Implementation of New Merchandising Practices. (Duration twenty weeks from November 30, 1970 to April 17, 1971.) This phase of
the study concerned the implementation of new merchandising practices and the measurement of their effectiveness on fresh seafood sales. There were three major plans associated with the Phase II operations: Plan A, a low cost, minimum merchandising effort plan; Plan B, an average cost, convenience oriented merchandising plan; and Plan C , a high cost, "ideal" merchandising plan.

Phase II - Plan A. (Duration - six weeks from November 30, 1970 to January 10, 1971.) Plan consisted of the minimum merchandising effort needed to profitably sell fresh seafood products. It is characterized as a low cost, low effort plan which consisted of the following merchandising procedures:
A. Cleanliness

1. Inside and outside surfaces of the display glass must be cleaned daily so no fingerprints or smudges remain.
2. The outside procelain surfaces of the case must be periodically wiped clean of any dust or greasy film.
3. Floor areas must be clean and free of any standing water.
4. The display case must be taken apart and properly cleaned once a week.
B. Counter displays
5. "Greens" and other granishes must be used in the displays to increase the appeal to the shopper.
6. Fish displayed in the counter must be visible and must be free of any foreign matter.
7. Trays for shrimp, other shellfish and fresh fillets must be used since water from the melting ice "leaches"
the flavor from them and indirectly lowers the quality of the seafood products.
8. Prices must be attractively and prominently displayed to avoid customer confusion.
C. Promotion
9. Free promotional material for point of purchase advertising must be used to help educate the consumer on the variety of ways to prepare seafood Products. This promotional material comes primarily from one source: Texas Parks and Wildlife Department.

Phase II - Plan B. (Duration - seven weeks from January 11, 1971 to February 28, 1971.) Plan b was characterized as an average cost and average effort plan designed to make fresh fish as convenient to purchase as its frozen counterpart and therefore as desirable as other frozen seafood products. In addition to the procedural changes set out in Plan $A$, the following tasks were required:
A. Product Line

1. Prepared fillets and steaks in addition to whole fish were offered. This was done in an effort to make fresh seafood as convenient as, and therefore as appealing as, frozen seafood.
2. New species were added to the product line to expand the product mix, thereby widening the appeal of fresh seafood products.
B. Promotion
3. In addition to point of purchase advertising, newspaper advertising in the supermarket's regular advertisements
used to stimulate primary demand for fresh seafood products.
C. Supply
4. Size and substitution policies were adopted to insure proper market sizes of fisn and to insure a minimum tonnage volume of fresh fish in inventory.

Phase II - Plan C. (Duration - seven weeks from March 1, 1971 to April 17, 1971.) Plan C was characterized as a high cost and a high effort merchandising plan. It consisted of the following tasks in addition to those set out in Plans $A$ and $B$.
A. Additional Promotional Campaigns

1. Radio and television "spots" were used to stress the virtues of fresh seafood, stimulate primary demand for fresh seafood and to advertise the supermarket as being the local outlet for fresh seafood products.
2. In-store sampling programs were conducted in order that consumers might be exposed to fresh seafood products.
3. Additional newspaper advertisements in two local newspapers were used to stimulate primary demand for fresh fish products.
B. Additional Customer Services
4. Additional service personnel were hired to serve seafood customers.

Analysis of Data. This portion of the study involves the analysis of tonnage volumes, costs, revenue, and profit data recorded during

Phase I and Phase II. In addition, wholesale prices, product waste, average inventory investment and stockouts were examined to give a general overview of the research study. Beyond this general audit of effort, the data were subjected to closer examination such as an analysis based upon calculated performance standards, a moving average sales trend and an incremental analysis to determine incremental rates of return. By using incremental analysis, incremental increases in cost incurred to move from one plan to another and the corresponding incremental revenue and profit may be used to determine rates of return for each of the three plans. From this approach, a potential seafood merchandiser, who might want to use these findings, is able to evaluate each of the proposed plans and determine if the rates of return are satisfactory relative to his expectations to justify additional expenditures to promore fresh seafood products.

## A Summary of the Analysis

The Overall View
Changes in Tonnage volume. Tonnage volume increased throughout the study with the largest percentage increases occurring during Plan $B$. Plan $B$ showed the second largest increase in tonnage volume in which the increase was due almost entirely to the additional promotion and extra service personnel.

Changes in Dollar Volume. Changes in dollar volume were analyzed from both a calendar week basis and a Wednesday to Tuesday week basis. The dollar volume change highlighted with the calendar weeks showed the largest percentage increase occurring from Plan A to Plan B, while
a Wednesday to Tuesday week analysis showed the largest increase occurring from Plan $B$ to Plan $C$. While both analyses showed each successive plan to have increased dollar volume, it was felt that the Wednesday to Tuesday week gave the more accurate picture of actual increases as it tended to isolate better the affects of the payday cycle of the local labor force than did the calendar week approach.

Changes in Wholesale Prices. Wholesale prices increased throughout the time span of the research study. Species of seafood purchased in a frozen form from the chain store's warehouse, such as shrimp and cod fillets, showed little or no fluctuations in wholesale price. Those species purchased in fesh form from seafood wholesalers in the Bryan and Houston areas showed the usual fluctuations in wholesale price assciated with supply and demand of fresh seafood products. Some species showed as much as a $30 \%$ increase over the time span of the study.

Changes in Operating Expenses. With one exception, operating expenses increased as more merchandising tasks were added. Operating expenses decreased during Plan $C$ due to the substitution of cheaper labor. Service personnel recieved apprentice meat cutter wages rather than journeyman meat cutter wages paid during the other phases of the study.

Changes in Average Inventory Investment. Average inventory investment, increased throughout the study until the early weeks of Plan $C$, when inventories were 1 iquidated in preparation for the participating supermarket to change the nature of their fresh seafood operations to a self-service type operation. In spite of this liquidation of inventories, better inventory management allowed sales and profits to
increase, while stockouts, an indicator of the customer service level, were reduced to their lowest level of the entire research study.

Changes in Product Waste. A problem related to inventory investments is product spoilage. In all periods except Plan C, product waste as a percentage of sales, declined. While total inventory investments decreased during this study, the investment in fresh fish products increased. Since fresh seafood products are more perishable, the product waste increased as a result of handling higher inventories of fresh fish.

Changes in Stockouts. Stockouts, which were used as an indicator of customer service level, decreased throughout the study. Stockouts for the major fresh species handled during this study were as follows:

Phase I - 85 stockouts, or 17 per week for five weeks.
Plan A - 71 stockouts, or 72 per week for six weeks.
Plan B - 61 stockouts, or 9 per week for seven weeks.
Plan C - 41 stockouts, or 6 per week for seven weeks. Some stockouts, such as inavailability of supply, are uncontrollable, but are reflected in the above data.

Changes in Profit. Average profit per week increased during each successive merchandising plan. The average profit per week for each period was as follows:

Phase I - $\$ 42.45$ average weekly profit.
Plan A - $\$ 52.50$ average weekly profit.
Plan B - $\$ 82.41$ average weekly profit
Plan C - $\$ 107.03$ average weekly profit.

These increases translate into percentage increases as follows:
Phase I to Plan A $-24 \%$ increase from $\$ 42.45$ to $\$ 52.50$.
Phase I to Plan B - $94 \%$ increase from $\$ 42.45$ to $\$ 82.41$.
Phase I to Plan C - $152 \%$ increase from $\$ 42.45$ to $\$ 107.03$.
Plan A to Plan B - 57\% increase from $\$ 52.50$ to $\$ 82.41$.
Plan B to Plan C - $30 \%$ increase from $\$ 82.41$ to $\$ 107.03$.

Sales Trend Analysis
Analysis of daily sales volumes highlights many interesting facets of sales volume. First, Tuesdays (double-stamp day) and the weekend days of Thursday, Friday and Saturday tended to form the high points of the week, while Mondays and Wednesdays, almost without exception, showed very low sales. This was true throughout the research study. These data suggest that the timing of consumer purchases did not change regardless of the merchandising techniques used, or the amount of promotion used to attempt to equalize daily sales. Second, the trend line shows a gradual increase until the beginning week of Plan $C$ (see Exhibit 6-2). The large positive change in the trend line during the first week of Plan $C$ occurred during a period of heavy promotion which included television advertising to promote fresh seafood products. Finally, the last week of the study, which under normal circumstances would not have been selected for heavy promotion since the Lent and Easter season had passed and fresh fish sales were expected to decline, was used as a heavy promotion week and also included television advertising in the existing promotion mix of radio and newspaper advertising. While the last week's sales were not as high as the first week of Plan $C$ when television advertising was used, the sales during the
last week were significant. The final week in Plan C showed the fifth highest sales of the entire research study. The commonly held notion that fresh seafood cannot be promoted in supermarkets and during weak selling seasons loses some of its value in light of this new evidence.

## Performance Standard Analysis

Performance standard analysis was used to isolate and describe the affect of payweeks and a payday cycle of the local labor force on weekly sales. Performance ratios for each week were based upon two assumptions. First, performance ratios are calculated as though each week were expected to show equal sales and second, performance ratios are calculated based upon a payweek or non-pay assumption. The differences in the two performance ratios were so slight that performance standard analysis proved to be disappointing and undesirable in isolating the affects of the payweeks on dollar sales volume.

## Incremental Analysis

There were two objectives for conducting incremental analysis. First, incremental analysis should provide a foundation useful to potential seafood merchandisers to evaluate their seafood merchandising plans. Second, it should provide a guide for established seafood merchandisers to expand existing seafood operations. To accomplish these two objectives, incremental analysis was conducted for potential seafood merchandisers and established merchandisers.

Incremental Analysis for Potential Seafood Merchandisers. Analysis of the rate of return on total tangible assets shows each successive experimental plan to earn a higher rate of return if there are more
than $\$ 400.00$ of assets in addition to inventory assets (see Exhibit 5). If there is less than this amount of assets, Phase I earns a higher rate of return on assets than either Plan $A$ or Plan $B$, and it is not until Plan C operations are conducted before a merchandising plan earns more. However, it is reasonable to assume that more than $\$ 400.00$ of additional assets were employed in the seafood operations of the participating supermarket. For illustrative purposes, it will be assumed that $\$ 600.00$ of assets in addition to inventory assets were employed to earn a return in the supermarket. The rate of return on assets earned during this research study were:

Phase I - 24\%
Plan A - 26\%
Plan B - 39\%
Plan C - 67\%
For a merchandiser who presently does not handle fresh seafood, the rate of return on the assets employed appear to make seafood a desirable inves tment.

Incremental Analysis for Established Seafood Merchandisers. In this section of incremental analysis, the results of each possible incremental move from one plan to another is examined so that an established seafood merchandiser may evaluate his present position and determine the effects of a change in merchandising techniques. The incremental rate of return for each "move" was"

Phase I to Plan A - 23\%
Plan A to Plan B - $148 \%$

Plan B to Plan C - $47 \%$
Phase I to Plan B - $56 \%$
Phase I to Plan C ~ $646 \%$
Plan A to Plan C - $165 \%$
Each incremental move made during this research study leads to higher returns on the assets employed for seafood merchandising. Under the structure of incremental analysis, the decision to move from one plan to the next is affirmative only if the incremental rate of return is greater than the rate of return required by the firm on similar investments. Therefore, as long as the required rate of return is less than the incremental rate of return, the incremental investment is profitable and should be made. Incremental analysis appears to be a simple but useful technique for a seafood merchandiser to evaluate alternative merchandising strategies.

## Conclusions

The objectives of this study were accomplished:

1. Sales volume, both dollar and tonnage volumes, and profits can be improved with planned implementation of new merchandising techniques.
2. These increases can be made without taking a disproportionate share of the operating funds from the supermarket.

Additional conclusions which may be inferred from the analysis of the data are:

1. Fresh seafood products can be promoted with great success.
2. There appears to be a favorable direct, but not necessarily
proportional relationship between promotion and customer services and profits.
3. From all evidence, the full potential of the fresh seafood market was not reached.
4. While the full potential of the fresh seafood market had not been reached, the effects of diminishing returns were felt.
5. Promotion and customer services are major factors in increasing sales and profits of fresh seafood.
6. It appeared as though paydays had little effect upon weekly profits, even though there was some difficulty in isolating the effects of the payday cycle on sales.
7. Weekends remained a strong selling period for fresh seafood. Therefore, unless promotional techniques more effective than those used here to distribute sales more eveniy over the weekdays, merchandising efforts shouldbbe planned and corrdinated for weekend periods.

## Usefulness of this Research Study

This research study has at least three types of usefulness to retail merchandisers. First, the study reveals there is untapped market profits in merchandising fresh seafood and suggests alternative measures to gain these profits. However, the study illustrates that the economic law of diminishing returns applies equally to the retail trade as it does to the production section of our economic system.

Second, this research study will be useful to the food retailing industry because the rudiments of a management accounting and recordkeeping system have been developed which permits management to
determine which merchandising strategies are most profitable in their market area. More important, however, are the various tools of analysis applied during the study which suggest methods for evaluating merchandising efforts. The most important of these were:

1. The Wednesday-to-Tuesday week configuration which tends to provide a more accurate picture of weekly sales data.
2. Performance standard or performance ratio analysis which, under other circumstances, may help management to anticipate weekly sales fluctuations caused by pay cycles in the local labor force and to plan ahead for them.
3. Incremental analysis which allows management to evaluate changes in seafood merchandising techniques and to make the appropriate investment decisions.

Finally, this study will be helpful to the seafood industry for identifying weak performance areas in retail merchandising effort of fresh seafood seafood products. With these areas identified, those who supply retailers are in a better position to develop successful retailer cooperative marketing programs.

## Suggestions for Further Research

Several opportunities for additional research have evolved as a result of this initial effort. There needs to be research efforts which attempt:

1. To fully develop an accounting control system for seafood merchandisers.
2. To conduct a similar study in another supermarket for a longer period of time in order to study yearly fluctuations in sales
and profits and to verify the findings of this study.
3. To conduct a similar study in a series of supermarkets with at least one "control" supermarket in which no changes are made. This study should continue for at least a year so that data collection will include yearly seasonal fluctuation.
4. To conduct a similar research study in the environment of a fresh fish market as opposed to a supermarket to learn if the findings of this study are applicable to a fresh fish market and to identify other similarities and differences between supermarket fresh seafood operations and fresh fish market operations.

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| 0921．09 | $9290 \cdot 01$ | ¢290．$\varepsilon 1$ | $000{ }^{\circ} \mathrm{b}$ | $0 \mathrm{G} \angle \varepsilon^{\circ} \angle$ | O¢z9＊g | －0－ | 4S！ 47 P － 2011 |
| ¢21E． 69 |  | $0009^{\circ}$ | 0009＇\％ | $0000^{\circ} \angle \mathrm{L}$ | ¢ $218 \cdot \varepsilon 1$ | $0092 \cdot 9$ | depunols＇zody |
| 009 ${ }^{\circ} 9 \mathrm{DVL}$ | 0000 ${ }^{\circ} \mathrm{sol}$ | 0092．611 | $\overline{0000 \cdot 89}$ | $\overline{09 L 8.611}$ | OGZ1．2もl | $0009^{\circ} 261$ | पs！」 4sand［e7ol |
| $0 ¢ 29{ }^{\circ} \mathrm{Z}$ | －0－ | －0－ | －0－ | －0－ | 0¢Z $1 \cdot \varepsilon$ | $0009 \cdot 6 \varepsilon$ | 4S！ fl PJ $\mathrm{M} / \mathrm{S}$ |
| 0000．9t | －0－ | $0000 \cdot 02$ | －0－ | 009 $L^{\circ} 01$ | 0092＇st | ${ }^{-}{ }^{-}$ | dapunoly |
| $0000 \cdot 121$ | 009L．$\downarrow 2$ | 0092．02 | $0000 \cdot \varepsilon \tau$ | 0 cgz － 01 | $0000 \cdot 1 \varepsilon$ | $009 L^{\circ}$ ！ | daddeus pay |
| $0092 \cdot$－ 1 ¢ | $000 \mathrm{c} \cdot \mathrm{\varepsilon}$ ¢ | 0092＇$\varepsilon \varepsilon$ | $0000 \cdot 6$ | 009く＂9t | 00g ${ }^{\circ}$＇8¢ | $0000^{\circ} \mathrm{OL}$ | us！．fpəy |
| OG $18{ }^{\circ} \mathrm{G} 0 \varepsilon$ | 00SL＇9t | $009 L \cdot 9 力$ | $0000^{\circ} 98$ | $0921 \cdot 29$ | $0000{ }^{\circ} \mathrm{bg}$ | 0092•1L | 7nod 1 |
| slezoi | 9／1 | $0 \varepsilon / 21$ | £ $2 / 21$ | $91 / 2 \mathrm{~L}$ ． | 6／ZI | 2／21 | ə！כəds |



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Tonnage Volume in Pounds by Week for Phase II-Plan B
$\varepsilon$ IIGIHX XIONJdd

| $\overline{9296 \% 808 t}$ |  | $\overline{92 \angle 0.129}$ |  | $\overline{\text { 0SEL＇} \because \angle S}$ | $0080^{\circ 8 \mathrm{Ca}}$ | 0511.868 | $\overline{\overline{8818.86 L}}$ | 7 ${ }^{\text {O20 }}$ ONYY9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9291．929 | $\overline{008 \varepsilon^{\circ} \angle 8}$ | 0999．601 | 9209＊66 | $\overline{0076}{ }^{\circ} 8 \mathrm{~L}$ | $0000 \cdot$ LL | DOS2＇09 | 0921＇811 |  |
| $0000^{\circ} 1$ 市 $0000^{\circ} 0$ |  | 0009•95／0L | $0^{0009} \cdot 19 / 28$ | 0000 ${ }^{\circ} \mathrm{DG} / 2 L$ | $0000 \cdot \varepsilon 9 /$ ¢8 | 0092．69／6L | 92＇68／6 1 | （＇sql／saec）sıats $0_{0}$ |
|  |  |  | $0000 \cdot 2$ | －0－ | $0000{ }^{\circ} \mathrm{Z}$ | $0000 \cdot 1$ | $0000 \cdot \mathrm{~s}$ |  |
| $0 ¢ 18{ }^{\circ} \mathrm{E}$ | ${ }^{-0-}$ | －0－ | －0－ | －0－ | －0－ | －0－ | $0 \mathrm{C} \angle 8 \cdot{ }^{\circ} \mathrm{\varepsilon}$ | 7 7 7 ¢us |
| Şsz＇してし | $00699^{\circ} \mathrm{iz}$ | 9 $681.0 \varepsilon$ | 0092＊ 2 | OSZ1．91 | $0000 \cdot 21$ | －0－ | $0000 \cdot 02$ | p！nbs |
| $9892{ }^{\circ} \mathrm{Cz}$ | $0092 \cdot 5$ | $0 \mathrm{GL8} 8^{\circ} \mathrm{L}$ | 9290． 4 | OS21．${ }^{\text {co }}$ | －0－ | －0－ | －0－ | yeazs uowles |
|  | 00t6．${ }^{\text {l }}$ | 9290． 11 | $0069^{\circ} \mathrm{L}$ | $0069{ }^{\circ} \mathrm{t}$ | －0－ | －0－ | －0－ | yeats 7n9！ $\mathrm{leH}^{\text {a }}$ |
| 9169．09bl | ¢218．2ा1 | $\overline{008 \varepsilon}{ }^{\circ} \mathrm{\varepsilon}$ ¢ | OGLE． 96 L | 00t6 ${ }^{\circ} \mathrm{GLL}$ |  | 9290．88］ | $\overline{92 L E 0} 0$ | dw！ays 18701 |
| $\begin{aligned} & \text { 9269. } 761 \\ & 0 \mathrm{O} 00^{\circ} 9921 \end{aligned}$ | $\begin{aligned} & 00 \mathrm{GL} L^{\circ} 6 \varepsilon \\ & \mathrm{c} 20^{\circ} \dot{\varepsilon L} \end{aligned}$ | $\begin{aligned} & 0009 \cdot 6 \hbar \\ & 0069^{\circ} \mathrm{Z6} \end{aligned}$ | $\begin{aligned} & 0069^{\circ} \cdot \angle Z \\ & 0 G Z 9^{\circ} 89 \mathrm{l} \end{aligned}$ | $\begin{aligned} & 0000^{\circ} 81 \\ & 0076^{\circ} \angle 9 \mathrm{~L} \end{aligned}$ | $\begin{aligned} & 000 G \cdot \angle L \\ & 0 G \angle \varepsilon \cdot 91 Z \end{aligned}$ |  | $521 \varepsilon^{\circ} \cdot 1 t$ $0000 \cdot 6 Z 1$ | dw！̣4S oqun！ du！ 14 S untpew |
| $9261^{\circ} \mathrm{LCD}$ |  | $\overline{0 ¢ L E})^{\circ} \mathrm{GL}$ | OSL8．99 | $\overline{\text { OSCl＇2b }}$ | $\overline{9889} 0{ }^{\circ}$ | $\overline{005 \Sigma^{\circ} \varepsilon L}$ | $\overline{0000 \cdot \varepsilon ร}$ | पS！」 uəzoud［R701 |
| $\begin{aligned} & 9261 \cdot 20 t \\ & 0000 \cdot \mathrm{~g} 2 \end{aligned}$ | $\frac{0076.79}{-0_{-}^{-}}$ | $\begin{gathered} 0 G \angle \varepsilon^{\cdot} \subseteq \\ -0^{-} \\ \hline \end{gathered}$ | $\begin{gathered} 0 S 18 \cdot 99 \\ -0- \end{gathered}$ | $\underset{-0-}{0 G 21 \cdot \varepsilon \emptyset}$ | $\stackrel{9 \angle 89^{\circ} 09}{-0-}$ | $\begin{gathered} 00 \mathrm{OLz} \cdot \varepsilon L \\ -0^{-} \end{gathered}$ | $\begin{aligned} & 0000 \cdot 82 \\ & 0000 \cdot \mathrm{gZ} \end{aligned}$ | szaltty poj uzzous पs！f7ej uazout |
| $0000^{*} 00 \varepsilon^{2}$ | 0061．898 |  | $\overline{0028^{\circ} 2 \angle 2}$ | $\overline{00 E L \cdot 9 L Z}$ | $\overline{\text { 9 } 416.918}$ |  | $\overline{9 \angle E 6.18 t}$ | पs！」 $4598 \pm 10701$ |
| 0g99．961 | $0069{ }^{\circ} 0 \varepsilon$ | OS21．91 | 0009＇0¢ | $0 ¢ \angle 8^{\circ} \angle Z$ | ¢z1E‘9Z |  | 0009 ${ }^{\text {8 }}$ ¢ |  |
| 0009．61 | ${ }_{000}^{-0 \cdot}$ | ${ }_{0}^{-0}$ | －0－ | －0－ | －0－ | 009L．8 | $0092 \cdot 01$ | pezudzays |
| ¢18¢．$+\square 1$ | 0009.91 | $0000^{\circ} \mathrm{L1}$ | $0 \mathrm{SLE} \varepsilon^{\circ} 61$ | $0 \mathrm{gz1} \cdot 11$ | 9 $2899^{\circ} 0 \mathrm{E}$ | 9218．02 | ¢ $186^{\circ} 62$ | unsa |
| 9219．091 | 0921.02 |  | 0 Sc 8.02 | 0929．92 | $0 \mathrm{CLE} \times 1 \mathrm{l}$ |  | 0009 ${ }^{\text {b }}$ | oleftng |
| $0092 \cdot 01$ $9200 \cdot 261$ | $0 ¢ \angle 8 \cdot \varepsilon 1$ $0000 \cdot \varepsilon$ | $\stackrel{-0-}{5 L E \dagger^{\circ} \mathrm{G}}$ | $\stackrel{-0-9}{0097}$ | $\stackrel{-0}{0-8}$ | ${ }^{-0}{ }^{-}$ | 0g $\angle \varepsilon^{\circ} .92$ | －0－ | 5yeats 4S！ $\mathrm{tzej} \mathrm{M} / \mathrm{y}$ |
| Gこてがしか | ${ }_{-0-}{ }^{-}$ | $\begin{aligned} & S \angle E t^{\circ} \cdot \mathrm{G} \\ & 0 \mathrm{~S} 18^{\circ} \angle 1 \end{aligned}$ | ${ }_{0}^{00669.92}$ | ${ }_{-0}^{0069}{ }^{\circ} \downarrow \varepsilon$ | $0 ¢ 29 \cdot 92$ | OSER．89 | 0929＊81． | 4s |
| $0990 \cdot$ t | －0－ | －0－ | 0999．01 | $000{ }^{\circ} 0 \varepsilon$ | ${ }^{-0-}$ | －0－ | －0－ | 4S！ 47 P ¢ $\mathrm{m} / \mathrm{S}$ |
| GZLE．6L己 | －0－ | $0005^{\circ} \mathrm{sz}$ | G $\angle E \square^{\circ} \angle Z$ | $0 ¢ \angle \varepsilon^{\circ} 9{ }^{\circ}$ | $0000 \cdot 19$ | $0009^{\circ} 02$ | $0009^{\circ} 88$ | raddrus pay |
| 0069．998 | 0092＇2b | 0092＇29 | 0921．6b | $0076 \cdot \varepsilon z$ | $0009^{\prime} \varepsilon \xi^{\prime}$ | $0000 \cdot 1$ | 0929．701 | 4S！${ }^{\text {¢ Pay }}$ |
| SLEが6L8 | 009く＇z22 | $0 \mathrm{CL} 28^{\circ} \mathrm{tO}$ | 9290．6L | $0000 \cdot 9 \angle$ | $0009^{*} 66$ | 009L＊96 | 0009＊902 | inoul |
| Ste70］ | $t 1 / t$ | L／t | $1 \varepsilon / \varepsilon$ | カて／\＆ | L1／E | 01／8 | $\varepsilon / \varepsilon$ | ə！วədS |

Tonnage Volume in Pounds by Week for Phase II－Plan C

| $9681^{\circ} \angle L 6^{\circ}$ |
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| $0 \angle L \varepsilon^{\circ} 966$ |
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| $0010.9 \mathrm{Gl} \mathrm{l}^{\text {¢ }}$ |
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| $\overline{00 E 1 .}{ }^{\text {LSg't }}$ |
| G 190 |
| $00^{\circ} \angle L$ |
| ¢299* $¢ \downarrow \downarrow$ |
| 0009 ${ }^{\text {® }}$ ¢ |
| OGL1'981'G |
| $0009^{\circ} 61$ |
| LE.812 |
|  |
| G26\%' 2 ¢¢ |
| OG2t•9Eか |
| S290* $\angle 11$ |
| 0092.699 |
| 9Z9L*0わl' |
| OGLE' GZ6 ${ }^{\text {c }}$ |


| 01．8L\＄ | $20.18 \$$ | ع0＊$\angle 01 \$$ | しが28\＄ | $9 L^{\circ} \mathrm{CS}$ \＄ | ¢がてか\＄ | ұәәм 儿əd 7！ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $60^{\circ} \angle 1 \$$ | $00^{\circ} \angle 1 \$$ | 69．815 | 6＜ $81 \$$ | 20．81\＄ | 9ぐ力し\＄ |  |
| sfep gol | sfep 9ll | skep Lt | sfep 20 | sfep $\varepsilon \varepsilon$ | skep 62 | potazd u！sfep to ıəquinn |
| $\% 00^{\circ}+1$ | $\%$ \％${ }^{\circ}$ |  | \％08．t1 | $\% 01 \cdot 21$ |  |  |
| $\% 09{ }^{\circ} \mathrm{Z}$ | $\% 02.2$ | $\% 02 \cdot \varepsilon$ | $\%$ \％${ }^{\circ}$－ | $\% 09^{\circ} \mathrm{L}$ | $\% 08 \%$ | атSem fonpoid ：Sรว |
| $\%$ \％ 09.91 | \％0¢．91 | \％ $0<181$ | \％$\frac{1}{}$ | \％ $0 L^{\circ} \mathrm{E}$ EL | \％ $608^{\circ} \mathrm{GL}$ | 7！toud ssoug |
| $\% 00.61$ | $\% 01.61$ | $\% 01.91$ | $\%$ \％ 0 \％ 02 | $\% 00 \cdot 22$ | $\frac{201.22}{}$ |  |
| \％ $000{ }^{\circ} 9 \varepsilon$ | $\% 0 \downarrow$ ¢ 9 ¢ | $\% 08 \cdot \square \varepsilon$ | $\%$ \％$\underline{c}^{\circ} 9 \underline{\text { c }}$ |  | $\% 06.18$ | uisuew ssoug |
| \％00＇．${ }^{\text {a }}$ | \％ 09.99 | $\% 02.59$ |  |  | $\% 01.29$ |  |
| $\% 00{ }^{\circ} 001$ | \％00＇001 | $\% 00.001$ | $\% 00.001$ | $\% 00^{\circ} 00 \mathrm{~L}$ | $\% 00^{\circ} 001$ | －ənuaィวy［8701 |
|  | 61．L0L｀${ }^{\text {d }}$ | L2．6tl ${ }^{\text {c }}$ | 78．9LG＿\＄ | ts．91E \＄ |  |  |
| ¢9．8®¢ | L2． $99 \%$ | $06^{\circ} \cdot 9 \mathrm{Cl}$ | $68^{\circ} 95$ |  |  | ว7 Sem 7onpoid ：ssaj |
|  | $\frac{90^{\prime} 966^{\circ}}{12}$ | $\frac{11.906}{8.96}$ |  | 20．89E | $15^{\circ} 908$ | 7！tosd ssong |
| L2．960 ${ }^{\circ}$ | $12.290^{\circ} \mathrm{L}$ | ${ }^{88} .181$ | 91.682 | $80^{\circ}+69$ | 91．82力 | səsuadx 6uţeiado ：ssaך |
|  | $\frac{\angle 9 \cdot \varepsilon 90^{\circ} \mathrm{t}}{}$ | $\frac{66^{\circ} 689^{\prime}}{6}$ | 88．22が家 | 08．296 | $\underline{\angle g} \cdot \underline{\varepsilon \varepsilon L}$ | u！biew ssoug |
|  |  | G $L^{\circ} 699 \mathrm{l}^{\circ} \mathrm{E}$ | $8 \varepsilon^{\circ} \mathrm{SLD} 0^{\circ} \mathrm{C}$ | $92.199^{\circ}$ | L9＇202＇ | Plos spooy to isoy ：Ssal |
| $00^{\prime} 21 \varepsilon^{\prime} \varepsilon 1 \$$ | $90^{\circ} 9<\varepsilon^{\prime}$＇L\＄ |  | $9 \chi^{\prime} 868^{\circ} \mathrm{\varepsilon} \$$ | $90^{\circ} 029{ }^{\circ} 2 \$$ |  | anuanวy［8701 |
|  | 12701 <br> II aseyd | oueld II $\begin{aligned} & \text { aseud }\end{aligned}$ <br> II aseyd | $\begin{aligned} & \text { g uesd } \\ & \text { II } 1 \text { ase } \end{aligned}$ | $\forall$ ueld <br> II əseud | I aseud | ə！วədS |


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| $\overline{98 . \angle 2}$ | 8L＇LG\＄ | $\overline{26} 09 \$$ | $\overline{89} 09 \$$ | $\overline{8 \varepsilon^{\circ} 02}$ | （SSO7）7！ford 72 N |
| :---: | :---: | :---: | :---: | :---: | :---: |
| L＊＇91 | $\overline{7 C O L}$ | 10.0 | ¢9＇9 | G9＊ | 27SEM 73npoud |
| $\varepsilon$ ど氻\＄ | 25＇29\＄ | $\varepsilon \varepsilon^{*} \downarrow \subseteq$ \＄ | $92^{\prime}$ LS \＄ | $\varepsilon 6.02 \$$ | （s507）f！foud ssoug |
| $\overline{\angle D *} 16$ | $\overline{L E^{*} T L}$ | LE＇LOL | $\square S^{*}+01$ | 78．90L | sasuadx］Gu！7erado \e701 |
| －0－ | －0－ | －0－ | －0－ | －0－ | ：asuedx uepfowond |
| $82^{*} 81$ | $\varepsilon G^{\prime} \dagger \mathrm{L}$ | $\varepsilon 8^{*} 02$ | 00．81 | $0 E^{\circ} 6 \mathrm{~L}$ |  |
| $\begin{aligned} & 00 \cdot L \\ & t \nabla^{\circ} \mathrm{G} \end{aligned}$ | $\begin{aligned} & 00^{\circ} \mathrm{L} \\ & ++^{\circ} \mathrm{G} \end{aligned}$ | $\begin{aligned} & 00^{\circ} \mathrm{L} \\ & t^{\circ} \mathrm{G} \end{aligned}$ | $\begin{aligned} & 00^{\circ} L \\ & b t^{\circ} G \end{aligned}$ | $\begin{aligned} & 00^{\circ} \mathrm{L} \\ & t \sigma^{\circ} \mathrm{G} \end{aligned}$ |  |
| $\begin{aligned} & 00^{\circ} \mathrm{Gt} \\ & \mathrm{G} L^{\prime} \mathrm{lZ} \$ \end{aligned}$ | $\begin{aligned} & 00^{\circ} 9 \varepsilon \\ & 00^{\circ} \angle L \$ \end{aligned}$ | $\begin{aligned} & 00^{\circ} \text { をG } \\ & 0 \iota^{\circ} 9 z \$ \end{aligned}$ | $\begin{aligned} & 00^{\circ}+\mathrm{tG} \\ & 01^{\prime} 9 Z^{2} \end{aligned}$ | $00{ }^{\circ} \mathrm{tS}$ 01.92 |  |
| 08．9E1\＄ | 68＊981\＄ | 0＜ 1914 | 08． $191 \$$ | LL＇9LL\＄ | U！6uew Ssors |
| 0¢．9E己 | EL．992 | 19＊997 | ¢9．662 | ZI． 108 | PLOS Spoog to 7503［ 7701 |
| 01＊ 2 LE\＄ |  | 1成8乙力\＄ | \＆か＊ $19 力 \$$ | 68 ${ }^{\circ} \mathrm{LLD}$ \＄ | anuanay sales lefol |
| $0 \varepsilon / 21$ | $\varepsilon 乙 / 21$ | 91／2l | 6／2 | 2／2L |  |

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| 7L＇68 \＄ | 66＊96\＄ | $\overline{70 \cdot \varepsilon \varepsilon L \$}$ | $\overline{08.02 \$}$ | $\overline{\text { 2999 }}$ | （5507）7！foud 7en |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\overline{6 t^{*} 6}$ | $\overline{\varepsilon t^{*}}$ | $\overline{\varepsilon G *} 9$ | 78． 5 | $80^{\circ} \varepsilon$ | 2fsem fonpodd |
| とて＇66\＄ | 86．86 \＄ | LG＊ $68.1 \$$ | 69．92 \＄ | 99＊89 \＄ | （5s07）f！ford ssoug |
| $\overline{\varepsilon \varepsilon} \cdot \bar{\varepsilon}$ II | Z2．811 | 80＊611 | $\overline{9 G} 1{ }^{\prime} L$ | 6L＊LI | səsuədx］6u！perədo［P701 |
| GL＇ | $G L^{\circ}$ | －0－ | －0－ | －0－ | ：asuadx］uotzouodd |
| t0 $0^{\prime} 98$ | E6 ${ }^{\circ} 0 \varepsilon$ | $66^{\circ}$ 2\＆ | $20^{\circ} 12$ | $59^{\circ} \downarrow 乙$ |  |
| $\begin{aligned} & 00^{\circ} 1 \\ & +\square \nabla^{\circ} \end{aligned}$ | $\begin{aligned} & 00^{\circ} \mathrm{l} \\ & \square \nabla^{\circ} \end{aligned}$ | $\begin{aligned} & 00^{\circ} \mathrm{L} \\ & \downarrow \nabla^{\circ} \mathrm{G} \end{aligned}$ | 00\％${ }_{\square}^{\circ}$ |  |  |
| $\begin{aligned} & 00^{\circ} \mathrm{tg} \\ & 0 l^{\circ} 92 \$ \$ \end{aligned}$ |  | $00{ }^{\circ} \mathrm{tg}$ $01.92 \$$ | $00^{\circ} \mathrm{tg}$ 01.98 | $000^{\circ} \mathrm{DG}$ 01.98 |  |
| 99 $9^{\circ}$ 212\＄ | 60．912\＄ | 09＊892\＄ | Gでヤ8L\＄ | 78．6Ll\＄ | UTBrew ssong |
| $9 \downarrow^{\circ} 0$ ¢ | 89＊6を碞 | $86^{\circ} \mathrm{G} 8{ }^{\circ}$ | 0¢． 91 L | L8．962 | PLOS spoog to 7 SOJ LPZOL |
| 20．895\＄ | 2L＇995\＄ | 89＂ 7 ¢ 9 \＄ |  |  | anuenty soles［e7ol |
| $\varepsilon / Z$ | LZ／L | 02／L | $\varepsilon L / L$ | 9／L |  |


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Advertising expense prorated over entire store -- approximately $2.5 \%$ of total advertising expense.
 2 Lower cost due to less expensive labor. ——or


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 Net Profit (Loss) ә7SEM 7onpoud
(5s07) $7!10 \mathrm{~N}_{\mathrm{d}} \mathrm{ssoug}$ səsuadx] 6u!7edədo โeqod


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[^10]39 LISIHX XIONヨddy

| 6 | \$ | 40.95 | \$ | 84.24 | \$ | 104.29 | \$158.06 | \$ 32.30 | \$ | 59.54 | \$ | \$ 479.38 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 |  | 52.02 |  | 109.63 |  | 109.72 | 99.30 | 78.97 |  | 85.27 |  | 534.91 |
| 8 |  | 13.98 |  | 39.70 |  | 73.07 | 103.08 | 53.91 |  | 109.43 |  | 393.17 |
| 9 |  | 100.87 |  | 135.02 |  | Closed | Closed | 19.68 |  | 89.22 |  | 344.79 |
| 10 |  | 39.68 |  | 112.34 |  | Closed | 140.52 | 34.51 |  | 90.06 |  | 417.11 |
| 11 |  | 51.55 |  | 112.49 |  | 104.52 | 70.75 | 8.99 |  | 43.03 |  | 391.26 |
| Plan A Totals | \$ | 299.05 | \$ | 593.42 | \$ | 391.53 | \$ 571.71 | \$228.36 | \$ | 476.55 |  | 2,560.62 |
| Daily Sales as A Percentage of Total Sales |  | 11.67\% |  | 23.17\% |  | 15.29\% | 22.32\% | 8.91\% |  | 18.61\% |  |  |

$$
\begin{aligned}
& \% 16.12 \\
& \forall \angle \cdot 1 \angle \hbar \$ \\
& \hline 90^{\circ} \angle 9 \\
& 08.98 \\
& 18.96 \\
& 20.86 \mathrm{~L} \\
& 96 . \varepsilon \varepsilon \quad \\
& \hline
\end{aligned}
$$

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$$
\begin{aligned}
& \text { Kq pabuedx saellog u! aunlon seies אl!eo } \\
& \angle \text { LIRIHXZ XIONJddy }
\end{aligned}
$$


APPENDIX EXHIBIT 8
Percentage of Sales Accounted for During Three-Day Period
Percentage of Total Sales Percentage of Total SalesAccounted for on Monday, Accounted for on Tuesday,Wednesday and Thursday Friday and SaturdayPhase I25.63\%74.37\%
Phase II - Plan A $39.82 \%$ 60.78\%
Phase II - Plan B ..... 34.82\%65.18\%
Phase II - Plan C 29.57\%70.43\%
Total Phase II 33.56\%$66.44 \%$
Total Phase I and Phase II 35.10\% ..... $64.90 \%$

## APPENDIX EXHIBIT 9

Wholesale and Retail Prices for Selected Species

| Week | Trout | Redfish | Red Snapper | Flounder | Buffalo | Drum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | .44/.79 | .42/. 79 | .85/1.19 | . $56 / .79$ | ---- |  |
| 2 | .42/.79 | . $42 / .79$ | .85/1.19 | . $56 / .79$ |  |  |
| 3 | .42/.79 | .42/.79 | .89/1. 29 | . $56 / .89$ | -..- | ---- |
| 4 | .42/.79 | .42/.79 | .85/1.19 | . | ---- | -- |
| 5 | .42/.79 | .42/.79 | .85/1.19 | .56/. 89 | .25/. 25 | ---- |
| 6 | .42/.79 | .42/.79 | .85/1.19 |  |  |  |
| 7 | .40/.79 | .39/. 79 | .85/1.29 | .56/.89 | ---- | ---- |
| 8 | .42/.79 | .40/.79 | .85/1.29 | . $56 / .89$ | ---- |  |
| 9 | .42/.79 | .40/.79 | .85/1.29 |  |  |  |
| 10 | .42/. 79 | .40/.79 | .85/1.29 | 56/.89 | ---- |  |
| 11 | .46/.79 | .44/.79 | .82/1.29 | . 8 | ---- |  |
| 12 | . $50 / .79$ | .49/.79 | -..-- | ---- | .23/. 59 | . $30 / .59$ |
| 13 | .46/. 79 | .45/.79 | .86/]. 29 | ---- | .23/. 59 | . $32 / .59$ |
| 14 | .45/.79 | .44/.79 | . $85 / 1.29$ | -.-- | .23/. 59 | .29/. 59 |
| 15 | .45/.79 | .44/.79 | .85/1.29 | ---- | .23/.59 | .29/. 59 |
| 16 | .45/.79 | .44/.79 | .85/1.29 | --* | .25/. 59 | .29/. 59 |
| 17 | .47/.79 | .45/.79 | .85/1.29 | ---- | .25/.59 | . $30 / .59$ |
| 18 | .49/.79 | .49/.79 | .85/1.29 | ---- | .23/. 59 | . $30 / .59$ |
| 19 | .47/.79 | .45/.79 | . $85 / 1.29$ | --.- | .23/. 59 | . $30 / .59$ |
| 20 | .49/.79 | .49/.79 | . $85 / 7.29$ | ---- | .23/. 59 | . $30 / .59$ |
| 21 | .49/. 79 | .49/.79 | .85/1.29 | ---- | . $22 / .59$ | . $30 / .59$ |
| 22 | .49/. 79 | .49/.79 | .85/1.29 | - | . $30 / .59$ | . $30 / .59$ |
| 23 | .49/.79 | .49/.79 | .85/1.29 | .55/.89 | .22/. 59 | . $30 / .59$ |
| 24 | .49/.79 | .49/.79 | .85/1.29 | --.-- | .23/. 59 | . $30 / .59$ |
| 25 | .52/. 79 | . $52 / .79$ | .85/]. 29 | ---- | .25/.59 | .31/. 59 |

Wholesale Price/Retail Price

## APPENDIX EXHIBIT 10

## Ideal Costs to Operate a Fresh Fish Market

## Per Week



Per Day
Ideal cost for Monday and Wednesday

Ice: $\$ 4.00$
Labor: Set-up, teardown, and cleaning

Ideal cost for Tuesday, Thursday, Friday and Saturday
Ice: $\$ 4.00$
Labor: Set-up, teardown, and cleaning $\$ 9.00$
Sales Personnel

Phase I
Phase II-A
Phase II-B
Phase II-C
Total Phase II
Total I and II
$\$ 9.00$
$\$ 13.00 /$ day
$\$ 15.00$
\$28.00/day
Cost/day to Operate
$\$ 14.76$
$\$ 18.02$
$\$ 16.44$
$\$ 18.62$
$\$ 18.50$
$\$ 17.75$
SO－Denotes zero sales due to an out of stock position uolz！sod y007s to 7 no ue ut butpua sales sazouad Al Specie $\$ 8.04, \$ 80.21, \$ 27.00$
 10 quәコスд
 Total Shrimp
Percent of
all Specie
Oysters
 dum！ius mintpaw Percent of
all Specie HSIJNII $7 \forall 101$
DOj $u$ ZZOA」加： $8 \$$ $70.8 \$$
$289.0 力$ $\angle Z \cdot \varepsilon \$$
$\% 己 \varepsilon \cdot 6 G$

uolz!sod yoons to 7 no ue of anp sales odaz sazouəa - OS


> I əseyd
> shellod U! satoads pazjalas fo aunlon sales Kl!ed

| bL＇L8ゅ\＄ | L0＇$\angle L \$$ | $00^{\circ} \mathrm{E}$ L\＄ |  | －uol？！sod yjozs fo 7 no up of anp sales odaz sazouəa－OS <br>  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 18．96\＄ | G1．821\＄ | £¢．$\llcorner$ L 1 \＄ | 96＊${ }^{\circ}$ ¢ $\$$ | 3IOJdS 774 |
| \％6カ＇96 | $\% 16.28$ | $\% 00.001$ | \％6く ${ }^{\circ} 86$ | $\% 00.001$ |  | \％00．001 |  |
|  | $06^{\circ} \mathrm{\varepsilon} 9$ | 0＜$¢ 1 \$$ | t9． $96 \$$ | 91•82 ${ }^{\text {¢ }}$ | 28．62 $1 \$$ | $96.7 ¢ \$$ | 7 H 101 ONvy |
| \％ 28.6 | \％01．62 |  | －0－ | －0－ | \％88＊ 11 | －0－ |  |
| $96^{\circ} \angle 力 \$$ | $68^{\circ} 22$ \＄ | 2く．8\＄ | －0－ | －0－ | ¢ع＇91 \＄ | －0－ | Sムə7 $\mathcal{S N}_{0}$ |
| \％92＊8 6 | \％ $9 \varepsilon^{\circ}$ て | \％ $9 \varepsilon^{\prime} 9 \varepsilon$ | \％ 88.92 | \％98．$\angle 9$ | \％LI「9\％ | \％ $09 . L Z$ | a！cads lie t0 ұиәวләд |
| $\begin{aligned} & \frac{2 t^{*} g \varepsilon Z \$}{\varepsilon L^{\circ} \cdot G G} \\ & 69^{\circ} 6 \angle 1 \end{aligned}$ | $\frac{2 s^{\prime} 6 \$}{0 S}$ | $\underset{-86^{\circ} \dagger \$}{86^{\circ} \dagger \$}$ | $\begin{aligned} & \frac{6 c^{\circ} b \angle \$}{66^{\circ}} \\ & 0 t^{\circ} 1 \angle \$ \end{aligned}$ | $\begin{aligned} & \frac{1 G \cdot \varepsilon \iota \$ \$}{18^{\circ} \angle \varepsilon} \\ & 0 L^{\circ} \mathrm{G} \varepsilon \$ \$ \end{aligned}$ |  | $\frac{29^{\circ} 6 \$}{-0^{-}}$ | dWIXHS 7 $\forall 101$ duldus oqunc du！ 145 แn！paW |
| $\% 6 \varepsilon^{\circ} \angle \varepsilon$ | \％ $98^{\circ} 0$ | －0－ | \％96．${ }^{\text {L }}$ | \％$\% 9^{\circ}$ で | $\%$ \％$\llcorner$＇ $9 \varepsilon$ |  |  |
| LE＇281\＄ | $\underline{60^{\circ} .18 \$}$ | －0－ | 92：128 | 79．ts $\$$ | 20．06 \＄ | L6． $6^{\circ}$ \＄ | HSIINIE TVIOL |
| 49.62 | ع8＊${ }^{\circ}$ | OS | ＊+1 ＂${ }^{\text {d }}$ | $06^{\circ} 9$ | $25^{\circ} \mathrm{G}$ | ＊82＊8 | poj иəzody |
| $9 \square^{\circ} \mathrm{F}$ 9 | OS | OS | OS | OS | 05 | ＊ $9 \dagger^{*} 9$ | 45！d7ej |
| ع0． 02 | $06^{\circ} 9$ | OS | OS | ＊ $29^{\circ} \mathrm{Z}$ | 21.5 | $\pm ¢$ | ıapunold |
| t9．02 | OS | OS | 0 S | ＊ $89^{\circ}{ }^{\circ}$ ． | 90.81 | －0－ | raddeus pay |
| $89^{\circ} 9$ | 88.6 | OS | ＊92＇8 | 加＊L | ＊06．9 | OS | 4s！ |
| 00．19\＄ | $88^{\circ} 6 \$$ | OS | ＊98．8 \＄ | 96．02 \＄ | $* 2 \square^{\circ} \mathrm{El}$ \＄ | $06^{\circ} \angle \$$ | 7 nos 1 |
|  | 1 | W | S | $\stackrel{1}{1}$ | 41 | M |  |
|  | L1／L1 | 91／11 | カI／Ll | $\varepsilon 1 / L 1$ | $21 / 11$ | LU／LI |  |

 uolf！sod yools to 7 no ue u！buipua səles sałoual


 $\xrightarrow{72 / 11}$
ә7е0
Daily Sales Volume of Selected Species in Dollars
LI LIGIHXヨ XIONヨdd甘


uoly!sod yoots to 7no ue of anp sales oxaz sazouag - OS


| $\begin{aligned} & \text { 3IJJdS } 7 \\ & \text { a!oods lie } \end{aligned}$ |
| :---: |
|  |  |

Percent of
all Specie
GRAND TOTAL


atoads LIE
fo quajed
HSIJNIJ $7 \forall 101$
poj uzZoug
 Red Snapper Trout
Redfish

|  | $\frac{1}{8 / 21}$ | $\underset{L / Z L}{W}$ | $\stackrel{S}{s / 21}$ | $\stackrel{ \pm}{t / 21}$ | $\begin{aligned} & 41 \\ & \varepsilon / Z 1 \end{aligned}$ | $\stackrel{M}{2 / 21}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ә780 |  |  |  |  |  |  |
| $\forall$ ueld - II aseyd |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| LI 1I8IHX XION3ddy |  |  |  |  |  |  |




uotzled yoozs to 7 no ue of anp sales onaz sazouad - OS


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\begin{aligned}
& \text { Percent of } \\
& \text { all Specie }
\end{aligned}
$$

$$
\begin{aligned}
& \text { all Specie } \\
& \text { GRAND TOTAL }
\end{aligned}
$$

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\begin{gathered}
2 L^{\circ} 60 \text { 市 } \\
\% 01 \cdot 96
\end{gathered}
$$

$$
2 L \cdot 601 \$ \quad \varepsilon 9 \cdot 601 \$
$$

$$
s \varepsilon^{\prime}+01 \$
$$

$$
\text { II LIEIHX XION } 3 d d \forall
$$

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\angle 0.801 \$
$$

$$
20 \cdot 29 \$
$$

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& \% 60^{\circ} Z
\end{aligned}
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\begin{aligned}
& * 60^{\circ} 1 \$ \\
& \% \varepsilon L^{\circ} 0 G
\end{aligned}
$$

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\begin{aligned}
& \frac{6 \varepsilon^{\circ} 92 \$}{20^{\circ} 9 \mathrm{l}} \\
& \angle 6^{\circ} 6 \$ \\
& \% 29^{\circ} \angle \varepsilon
\end{aligned}
$$

$$
\begin{aligned}
& \frac{\angle 9^{\circ} 61 \$}{18^{\circ} \cdot 9} \\
& 22^{\circ} \varepsilon \\
& * 10^{\circ} .1 \\
& 6 L^{\circ} \varepsilon \\
& 886^{\circ} \\
& 99^{\circ} \varepsilon \$ \\
& \hline
\end{aligned}
$$

$$
\begin{aligned}
& \text { IIOJdS } 77 \forall \\
& \text { a!כads } 11 \mathrm{P} \\
& \text { to quaj }
\end{aligned}
$$

Daily Sales Volume of Selected Species in Dollars
Phase II - Plan A



$7 \forall 101$ ONlY



HSIJNIJ $7 \forall 101$
pos razors
Red Snapper
Flounder
Catfish
Redfish
Red Snapper
Flounder 96.91\$

$$
\begin{array}{r}
13.25 \% \\
\$ 15.19 \\
92.34 \% \\
\$ 16.45
\end{array}
$$




|  | $\begin{array}{c}1 \\ 81 / Z 1\end{array}$ | $\angle 1 / 21$ |
| ---: | ---: | ---: |
| 27e0 | $91 / Z \mathrm{~L}$ |  |

$$
\overline{\text { Trout }}
$$ $82^{\circ} 701 \$$

$979^{\circ} / 8$ $80 \cdot \varepsilon 01 \$$
$\% 2 L^{\circ} 16$
$\varepsilon 6^{\circ} \varepsilon 6 \$ \$$
$\% \angle \varepsilon .92$ $\$ .99$
$-0-$
50
$-0-$
$-0-$
4.14
$\$ 5.13$
$9.51 \%$
$\$ 34.51$
$\$ 0$
$\$ 34.57$
$64.01 \%$
$\$ 26.16$

$20.21 \%$
$\$ 50.54$
$93.74 \%$
$\$ 53.91$ $12 / 21$
-
-

$$
\begin{gathered}
8 l^{\prime} 2 \$ \\
26 \tau^{\prime} 91
\end{gathered}
$$

$\sim \frac{\vec{N}}{\frac{1}{c}}$

$$
\begin{array}{r}
\text { APPENOIX EXHIBIT il } \\
\text { Daily Sales Volume of Selected Sped } \\
\text { Phase II - Plan A }
\end{array}
$$

40!7!sod xa07s to fno ue of anp sales oraz sazouad - OS





Daily Sales Volume of Selected Species in Dollars

SO－Denotes zero sales due to an out of stock position
Denotes sales ending in an out of stock position

| 035073 | 七¢゙ていし\＄ | 89＊6§ | 3IOJds 77\％ |
| :---: | :---: | :---: | :---: |
| a3S073 | \％$\varepsilon^{\prime}$＇乙L |  | atoads ILe to 7иəว」əд |
| 93S073 | $92^{\prime} 18$ \＄ | $01 \cdot \angle \varepsilon \$$ | $7 \% 101$ ONbyg |
| 035073 | \％96 ${ }^{\text {¢ }}$ ¢ | \％ $899^{\circ} \mathrm{LS}$ | ə！Jods lle 10 子иәコлд |
| 035073 | ＊ $51.8 \varepsilon \$$ | 68． $22 \$$ | suazsfo |
| 03S073 | －0－ | $\%$ \％ $9^{\circ} \mathrm{G}$ | a！pads lle 10 7иәлад |
| $\begin{aligned} & \text { agsolv } \\ & \text { agso } \\ & \text { agso j } \end{aligned}$ | $\frac{-0-}{-0-}$ |  | dWİHS 7 7 101 du！nus Oqun dutsus wnipaw |
| 09S070 | $\% L \varepsilon \cdot 8 \varepsilon$ | 291．0¢ | eloods tice よ0 ұиəつムəд |
| 035073 | L1．et \＄ | L6．11\＄ | HSISNİ $7 \forall 101$ |
| 03S073 | 0LOO | －0－ | poj uazous |
| $03 \mathrm{S073}$ | －0－ | －0－ | 4S！ 57 e |
| 03S07 | ＊ $0 \cdot \varepsilon$ ¢ 5 | OS | depunols |
| 035075 | $86^{\circ} \mathrm{Z}$ | ぐと | daddeus pay |
| 035073 | ＊01．8 | ＊ $66^{\circ}$ ¢ | 4S！$\dagger$ ¢ ${ }^{\text {a }}$ |
| 035075 | ＊66 ${ }^{\circ} \mathrm{Sl}$ \＄ | $99^{\circ} \varepsilon \$$ | 7 nod |

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\begin{array}{ccc} 
& \frac{1}{L / 1} & L \varepsilon / Z 1
\end{array}
$$

[^11]Uo!f!sod yoozs to 7 no ue of anp sales ouaz sazouəa - OS

\[

$$
\begin{aligned}
& \text { Trout } \\
& \text { Redfish } \\
& \text { Red Snapper } \\
& \text { Flounder } \\
& \text { Catfish } \\
& \text { Frozen Cod } \\
& \text { TOTAL FINFISH }
\end{aligned}
$$
\]

$$
\begin{aligned}
& \text { Percent of } \\
& \text { all Specie } \\
& \text { GRAND TOTAL }
\end{aligned}
$$

$$
\begin{gathered}
\angle L^{\prime} \dagger \& \$ \\
q \cap]^{\prime} \rightarrow G
\end{gathered}
$$

$$
\begin{aligned}
& \frac{\varepsilon 8^{\circ} \varepsilon L \$}{\angle 6^{\circ} \varepsilon} \\
& 86^{\circ} Z \\
& 1 \varepsilon^{\circ} \cdot \hbar \\
& 0 S \\
& 6 L^{\circ} \\
& 8 L^{\circ} L \$ \\
& \hline
\end{aligned}
$$

uolf!sod youłs to fno ue of anp sales olaz sazouəo - os


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\begin{aligned}
& \frac{z L^{\circ} \angle Z \$}{-0^{\circ}} \\
& 2 L^{\circ} \angle Z \$ \\
& \% 0 t^{\circ} 9 \varepsilon \\
& \\
& \frac{12^{\circ}-2 \varepsilon \$}{9 t^{\circ} \varepsilon} \\
& 96^{\circ} 9 \\
& 99^{\circ}{ }^{\circ} \\
& 0 \mathrm{~S} \\
& 6 \varepsilon^{\circ} 8 \\
& 9 L^{\circ} 0 L \$
\end{aligned}
$$

$$
\begin{gathered}
\downarrow \varepsilon^{\prime} 002 \$ \\
\% 0 \mathcal{C}^{\prime} 26 \\
L L^{\prime} \downarrow 81 \$
\end{gathered}
$$

$$
\begin{gathered}
52^{\circ} 25 \$ \\
99^{\circ} G \\
-0^{-} \\
88^{\circ} \varepsilon \\
0 S \\
00^{\circ} 8 \\
L 8^{\circ} b \varepsilon \$ \\
\hline
\end{gathered}
$$

LL LIgIHXJ XIONヨdd

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\begin{aligned}
& \varepsilon t^{\circ} \mathrm{SL} \mathrm{~L} \$ \\
& \% 0<\cdot \mathrm{L} 6
\end{aligned}
$$

$$
\begin{aligned}
& \angle Z^{\prime} G L L \$ \\
& \% 0 \varepsilon^{*} \mathrm{IL} \\
& \angle l^{\circ} \pitchfork L \$ \\
& \% 0 \sigma^{\circ} \varepsilon G
\end{aligned}
$$

$$
\begin{aligned}
& \frac{\angle 6^{\circ} 99}{90^{\circ} \angle l} \$ \\
& 18^{\circ} 6 t \$ \\
& \% 0 z^{\circ} \angle Z
\end{aligned}
$$

$$
\frac{\varepsilon l^{\circ} \eta \varepsilon}{1+\varepsilon^{\circ} g} \$
$$

$$
\begin{gathered}
0 L^{\circ} \angle 己 \$ \\
\% 0 \varepsilon^{*} 68
\end{gathered}
$$

$$
\begin{gathered}
G L^{\prime} \downarrow Z \$ \\
-0-
\end{gathered}
$$

$$
\begin{array}{l|l}
\omega \\
\omega \\
A & 1 \\
\omega & 1 \\
\hline
\end{array}
$$

$$
\begin{gathered}
8 L^{\circ} \mathrm{I} 6 \$ \\
\% 08.8 L
\end{gathered}
$$

$$
8 i^{-0-}
$$

$$
01 \cdot 12 \$
$$

Daily Sales Volume of Selected Species in Dollars
uolfisod yoozs 10 7no ue of anp sales onaz safouad - OS

$$
\begin{aligned}
& \text { Percent of } \\
& \text { all Specie }
\end{aligned}
$$

$$
\begin{aligned}
& \text { all Specie } \\
& \text { Oysters }
\end{aligned}
$$

$$
\begin{aligned}
& \text { Percent of } \\
& \text { all Specie }
\end{aligned}
$$ *Denotes sales ending in an out of stock position

$$
90 \cdot 0 t \$
$$

$$
\% 00.001
$$

$$
\begin{gathered}
9 \nabla^{\circ} 0 \mathrm{~b} \$ \mathrm{\$} \\
\% 06.8 \mathrm{~L}
\end{gathered}
$$

$$
\begin{gathered}
\varepsilon 9^{\circ} \angle \mathrm{L} \\
\% 09 \cdot 0 \mathrm{l}
\end{gathered}
$$

$$
\begin{array}{ccc} 
& 41 & M 1 \\
27 / L & 12 / L & 02 / L \\
\hline 2 \mathrm{eg} & &
\end{array}
$$

$$
7 \forall 101 \text { वN४צ9 }
$$

uolfisod yoozs to fno ue of anp sapes ouaz sazouad－OS

| 28＊095\＄ | $00^{\circ} \mathrm{zL1}$ \＄ |
| :---: | :---: |
| \％$\% 9 \times 6$ | \％0ぐ 26 |
| 21＇209\＄ | 99．801\＄ |
| \％${ }^{\circ} 2^{\circ} \mathrm{Ll}$ | \％ $0 \varepsilon^{\circ} \mathrm{G} 2$ |
| ¢¢ ${ }^{\circ} 96$ \＄ | カ¢ $\underbrace{\circ} 88$ |
| \％ $08{ }^{\circ} \mathrm{E}$ ¢ | \％ $02 \times 8 \mathrm{C}$ |
| $\begin{aligned} & \frac{28^{\circ} \cdot 681 \$}{\varepsilon 9^{\circ} 86} \\ & 61^{-} 16 \$ \end{aligned}$ | $\begin{aligned} & \frac{69^{\circ} L \vdash \$}{98^{\circ} L Z} \\ & \varepsilon 8^{\circ} \varepsilon L \$ \$ \end{aligned}$ |
| \％ 6 ＇ 8 8 | \％02＇$\downarrow$ ¢ |
| Sع．912\＄ | ¢s．8E\＄ |
| $90^{\circ}$ Lt | bz＇$\varepsilon$ L |
| 82．92 | ＊19．1 |
| $9 \varepsilon^{\circ} \varepsilon$ | OS |
| 28＊ 1 | 00.01 |
| Ll＇99 | $\varepsilon \dagger^{\circ} \mathrm{G}$ |
| 91＇l／\＄ | S2＇8 \＄ |

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\begin{aligned}
& \angle 2 / L \\
& \text { ت~~~ }
\end{aligned}
$$

40!7!sod youts to fno ue of ənp səles araz safouad - 0s *Denotes sales ending in an out of stock position

|  |
| :---: |
|  |  |
|  |  |

Percent of
all Specie
GRAND TOTAL
Slatsion
atoads LLe
fo quajuad



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1
$$

$$
1
$$

$$
\left.\begin{gathered}
\approx \underset{N}{N} \\
\\
\underset{\sim}{\mathcal{N}}
\end{gathered} \right\rvert\,
$$ and $t \nabla^{\circ} 0 \varepsilon 1 \$$

$82^{\prime}+1 \$$
$12.68 \$$
$\% 08.96$
$85^{\circ} 98 \$$
$200 \cdot 22$ $29.61 \$$
$\% 06.02$ $\frac{\varepsilon 9^{\circ} \cdot 81 \$}{76.11}$
$69^{\circ} 9 \$$
$\% 06^{\circ} 25$

$$
\begin{aligned}
& \angle 8 \cdot 8 G \$ \\
& \% 0 G^{\circ} \mathrm{L}
\end{aligned}
$$




$\$ 18.91 *$
$21.68^{*}$
17.42
50
$11.01 *$
3.23
$\$ 72.25$
*60* L \$
$\% 06^{\circ} 02$

$\frac{20^{\circ} \mathrm{E}}{96^{\circ} \mathrm{G}}$
$\times 60^{\circ} 0 \mathrm{~L}$
$50^{\circ} 0 S 1 \$$
$\% 0 E^{\circ} 16$
$10^{\circ} \angle E 1 \$$
$\% 09^{\circ} \mathrm{LI}$
$+*^{*}<l \$$
$\% \mathcal{c}^{\circ}$ IE

$$
\begin{aligned}
& \angle \nabla^{\circ} 0 \angle \$ \\
& \% 0 \mathcal{G}^{\circ} \varepsilon 8
\end{aligned}
$$

+ $\frac{2 \varepsilon^{\circ} \cdot L t \$}{69^{\circ} L}$
$\varepsilon 9^{\circ} g \varepsilon \$$
$\% Z^{\circ} 8 t$
ว7e0
$n$

| $\pm$ |
| :---: |
| $9 / Z$ |

APPENDIX EXHIBIT 11
Daily Sales Volume of Selected Species in Dollars
Phase II - PTan B

*Denotes sales ending in an out of stock position

Percent of
all Specie
GRAND TOTAL
 Jumbo Shrimp Medium Shrimp Percent of
all Specie



$$
\begin{gathered}
\Sigma N \\
\cdots \\
\cdots=N
\end{gathered}
$$

$$
\begin{gathered}
\text { Daily Sales Volume of Selected Species in Dollars } \\
\text { Phase II - Plan B } \\
\text { Date }
\end{gathered}
$$

Uo!7!sod yoozs to 7 no ue of anp sales ouaz sazouan - os uoly!sod y307s to $7^{\text {no }}$ ue u! bu!pua səles səfouala*

Percent of
all Specie
GRAND TOTAL Percent of
all Specie
Medium Shrimp
Jumbo Shrimp
TOTAL SHRIMP
Percent of
all Specie
Oysters HSIJNII $7 \forall 101$
poj uazout
 Redfish
Red Snapper
群 * $\varepsilon^{\circ}$ © $01 \$$ cc: 6 \$ $\$$ $79 \cdot 98 \$$
209.6
$69^{\circ}$. 8 \$
\%06• 22
$29.61 \$$



3


uol7！sod yoozs to tho ue of anp soles odaz sazouəa－OS
uo！ 7 ！sod youts to 7 no ue u！bu！pua sales safouəd＊






9c•602\＄ $\% 00^{\circ} \varepsilon \mathrm{L}$ とが $62 \$$


 $3 \frac{\omega}{\infty}$
ә7e0

$$
\begin{gathered}
\text { APPENDIX EXHIBIT } 11 \\
\text { Daily Sales Volume of Selected Species in Dollars } \\
\text { Phase II - Plan } \mathrm{C}
\end{gathered}
$$

uolztsod yoozs to zno ue of anp sales odaz sazouad - OS


 *Denote sales ending in an out of stock position $66^{\circ} 092 \$ \quad 6 \varepsilon^{\circ} 621 \$$ GL'GE\$
$\% 00 \cdot L 6$
$\qquad$ Percent of
all Specie
GRAND TOTAL Medium Shrimp
Jumbo Shrimp
TOTAL SHRIMP
Percent of
all Specie
Oysters Percent of
all Specie
Medium Shrimp
 HSIJNI』 $7 \forall 101$
poj uəzold $45!+78 j$
dapunoly
 1 $=\underset{y}{\omega}$
 $\$ 1.04$
$-0-$
50
$\$ 0$
7.36
1.78
$\$ 10.18$

$23.00 \%$
$\$ 3.77$
3.72
$\$ 7.49$
$17.00 \%$
$\$ 16.35$
$37.00 \%$
$\$ 34.02$
$77.00 \%$
$\$ 44.18$ $3 \frac{\omega}{\omega}$
Daily Sales Volume of Selected Species in Dollars
uoly lisod yכons to fin ue of anp sales oraz sazouad - OS






$\xrightarrow{+ \text { nou }}$



Daily Sales Volume of Selected Species in Dollars
 －Uo！7！sod yว07s to 子no ue u！Sutpuə səles sə7ouəa＊ Gl．09L\＄
30688
$9 L^{\circ} 2 \varepsilon L \$$
$908^{\circ} G$
$2 L^{\circ} 8 \quad \$$
$80 L^{\circ} 00$

 $01 \cdot 88 \mathrm{l} \$$
$\% 0 \mathrm{~S}^{*} \angle 6$ $\angle \nabla^{*} \varepsilon 81 \$$
$\% 0 \varepsilon \cdot \varepsilon!$
$\angle 0^{\circ} G Z \$$
$\% 0 L^{\circ} 6 力$
$\angle G \cdot \varepsilon 6 \$$
$6 L^{\circ} \angle \varepsilon$
$8 L^{\circ} G G \$$
$\% 0 G^{\circ} \downarrow \varepsilon$ $88^{\circ}+79 \$$
$92^{\circ} L 1$
$-0^{\circ}$
05
$\times 81^{\circ} L L$
$79^{\circ} 9 L$
$9 L^{\circ} 6 L \$$ $59 \cdot 89 \$$
$605 \cdot 88$ $\varepsilon 9^{*} \triangleright 巾 \$$
$809^{\circ} 0 \varepsilon$ $G \varepsilon^{\circ} 9 L \$$
$\% 0 \varepsilon^{*} \angle Z$ $\frac{89^{\circ}-D}{2 L^{\circ} E}$
$98^{\circ} 0 L \$$
$\% 09^{\circ} 9 Z$



$$
\begin{aligned}
& \text { 27e0 } \\
& \text { Phase II - Plan C } \\
& \text { Daily Sales Volume of Selected Species in Dollars } \\
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* Denotes sales ending in an out of stock position.
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[^0]:    ${ }^{1}$ Ralph Nader, "Something Fishy," New Republic, January 6, 1968, p. 19.

[^1]:    *On one occasion improvements in the display were made, due to a halo effect caused by the interest of outside researchers in the supermarket's retail fish operations. The day before the "greens" appeared in the display case, a discussion with store personnel took place in which materials needed for future experimental merchandising plans were discussed. "Greens" had been mentioned as being an important aspect of these future plans.

[^2]:    *On several occasions, however, fish were stored without ice which caused them to dry out and spoil more rapidiy.

[^3]:    *One stain, from a thrown tomato, was there when the study began A store employee told the researcher it had been there since he started work there about three years before this study began.

[^4]:    *Generally, planned promotion for fresh finfish was considered to be risky due to the irregularity of supply. (See discussion of supply that follows.) Frozen seafood products were preferred for promotion purposes because they could be stockpiled.

[^5]:    *Prices for filleted fish were set as follows:

    1) Fish were weighed whole and the total retail price determined.
    2) Fish were filleted and the weight of filleted fish divided into the total retail price to get the price per pound.
[^6]:    *Those weeks with newspaper ads averaged about 266 pounds of fish per week, while those without ads averaged about 204 pounds of fish per week -- a difference of 62 pounds.

[^7]:    *No compensation for unmeasureable assets such as cash need to be made since the incremental change would be unaffected. Also, weekly profit, sales and inventory asset figures have been used so that time period of the sane lengths are compared.

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