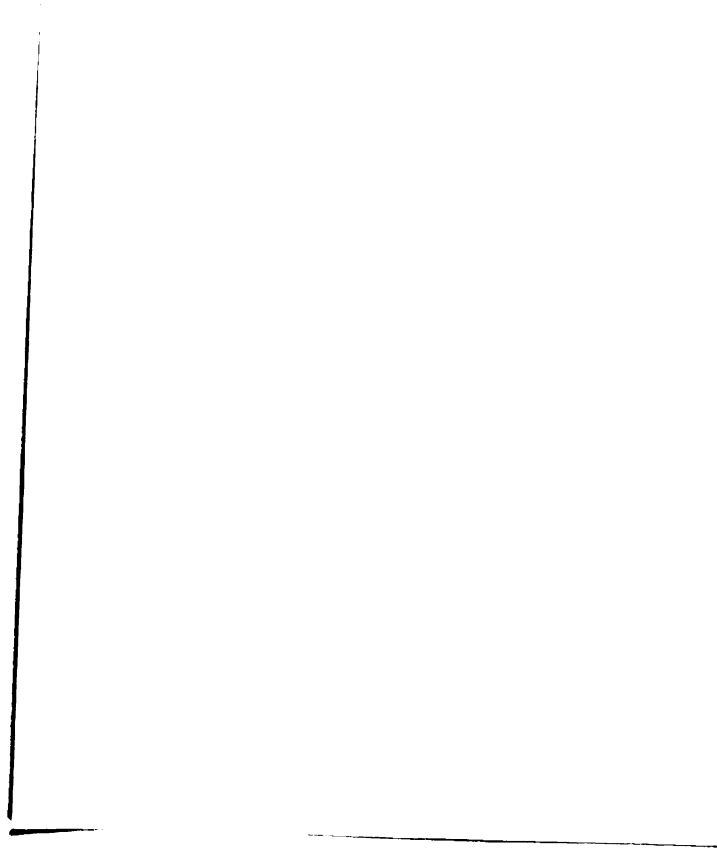
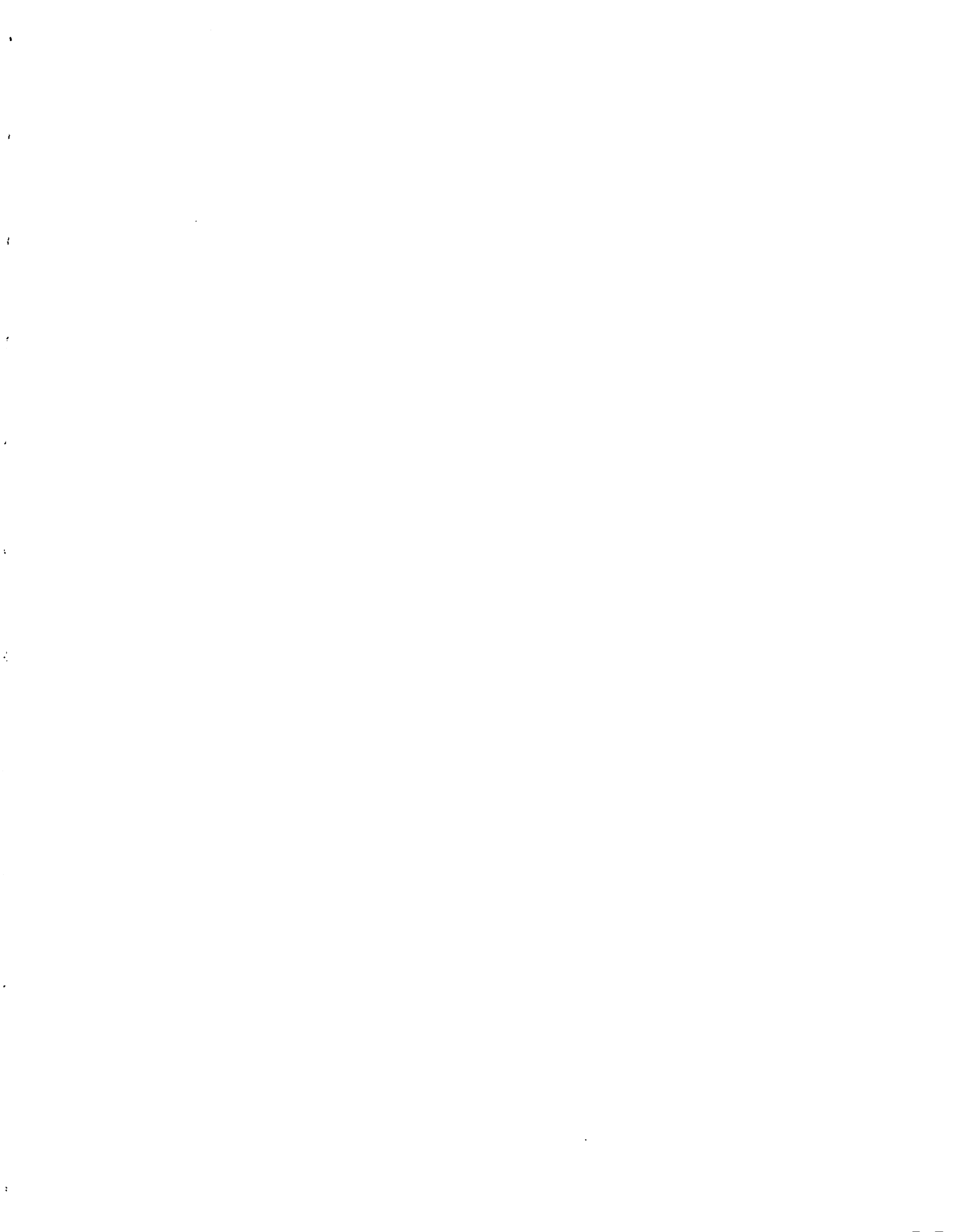


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ABSTRACT

AN INTERACTIONAL APPROACH TO INVESTIGATING FOOD BUYING BEHAVIOR

by Gordon W. Paul

The need for obtaining more generalized knowledge about persons, when acting in the role of food purchasers, has been largely ignored by marketing research. The majority of marketing research studies have concentrated primarily upon obtaining quantitative measurements at the expense of building a body of causal relationships pertaining to food buying behavior. A combination of survey and observational research techniques are needed to be used if interaction between buyers and sellers is to be investigated.

This study reports on the initial phase of a three phase research program which attempts to identify and measure the market processes of the food distribution system serving an entire community. A body of store, consumer, and promotional knowledge was obtained in this research. The procedure involved operating a consumer food purchasing panel, conducting retail store audits, and monitoring all food market promotion and advertising simultaneously over a ten week period.

Audits of nine product categories, in food stores accounting for ninety-five percent of total grocery sales made in this community, provided a virtual census of retail food operations. The consumer panel furnished a weekly record of the buying behavior of a sample of households from the urban and rural community. Later phases of the research program propose to utilize data generated by this study to cross refer buying behavior with marketing efforts and sales results. At the conclusion of the ten week audit and panel reporting period, information for constructing personality configurations for panel members, persons who had refused panel membership, and a random sample of community members was obtained.

An investigation and evaluation into current types of food marketing research is made. The techniques and methodology employed in the organization and operations necessary for conducting retail store audits are discussed along with the selection, recruitment, and maintenance of the consumer food purchase panel. Limitations, problems, and recommendations encountered in each stage of the research are discussed. Many of the techniques employed in this study appear worthy of consideration by other researchers in view of the excellent cooperation of respondents that was obtained. For example, of 325 panel recruiting contacts, there was an agreement to participate by 267 of these households, or eighty-one percent. Of those agreeing to panel membership, seventy-two percent became active members.

Gordon W. Paul

Store audits provided sales data against which panel purchases were compared. Comparisons between panel and audit figures were made for both private branded and national branded items. Panel data reflected an aggregate over-statement of purchases for both private and national brands when compared to actual sales data. However, further tests indicated that the difference was not significant for national brands, but was for private brands. Explanations are offered as to this discrepancy between audit and panel figures.

AN INTERACTIONAL APPROACH TO
INVESTIGATING FOOD BUYING
BEHAVIOR

By

Gordon Wilbur Paul

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CHAPTER I

INTRODUCTION

Background of Study

Food Marketing Practice

The complexity of decision making for food executives when choosing among promotional strategy alternatives and developing product policies can be attributed to primarily two factors: (1) the abundance of available alternatives from which to choose; and (2) the lack of adequate market information relating to these alternatives.¹ A number of other factors affecting promotion and product decisions are also present. Among these are included personnel turnover, management's influence on the decision, and communications within the organization.²

¹The Fabulous Von's Story (New York: Super-Market Publishing Co., Inc., 1960), Part I. Mr. Harold Ward points out the need for a better understanding of promotional, as well as other marketing activities in the food industry. It is Mr. Ward's opinion that the role played by promotional activity is just beginning to be understood and present methods and data available could, if used correctly, provide for better promotional decisions.

²Patrick J. Robinson and David J. Luck, Promotional Decision Making: Practice and Theory, Marketing Science Institute (New York: McGraw-Hill Book Company, 1964), p. 5.

However, it was the consensus of executives interviewed by the Marketing Science Institute, in a study of promotional decision making, that lack of information was one of the most important deterrents to effective decisions.³

The 1963 Mid-Year Conference of the Super-Market Institute focused upon the increasing complexity of retail food competition. This complexity was found present in the form of more stores, more promotional changes, more trading stamps, longer hours, more services, closer pricing, and tighter management for food retailers.⁴ There has been a decline in sales per square foot and a subsequent shrink in profits for the supermarket operator, as the cost elements of operation and the number of outlets have increased.⁵ Although this is only reference to one portion of the retail food marketing system, the maturing character of the supermarket serves to emphasize the necessity for food management decisions based upon alternatives requiring data not available from present sources.

The merchandise strategy alternatives considered and employed by the food retailer can generate additional profit dollars if

³Ibid., pp. 24-25.

⁴Perspective for Decision Makers: A Study of the Emerging Retail Environment (Chicago: Super-Market Institute, 1963), p. 19.

⁵Ibid., pp. 25-27.

chosen well, but the myriad of alternatives makes such strategy choices exceedingly complex. A recent study illustrates the problem of making such decisions when only the variable of promotional pricing is considered.⁶ If promotional decisions are to be made wisely, the food executive must have extensive information available about competition and consumers. The necessity of predicting competitive behavior and consumer response requires a continuous market information system both complex to administer and expensive to maintain.

Complexity of Promotional Mix Decisions

Food executives when choosing their promotional strategies must select from among a large number of alternatives and an equally large number of ways in which these may be combined. The decision to offer or not to offer trading stamps may illustrate the scope of such alternatives. The following questions illustrate the complexity of promotional decisions when the only promotional variable considered is trading stamps:

⁶See: Wroe Alderson, "Administered Prices and Retail Grocery Advertising," Journal of Advertising Research, Vol. III, no. 1 (March, 1963), pp. 2-6; George Fisk, Lawrence Nein, and Stanley J. Shapiro, "Price Rivalry Among Philadelphia Food Chains," Journal of Advertising Research, Vol. IV, no. 2 (June, 1964), pp. 12-21; and Wroe Alderson and Stanley J. Shapiro, "Toward a Theory of Retail Competition," Theory in Marketing, ed. Reavis Cox, Wroe Alderson, Stanley Shapiro (Homewood: Richard D. Irwin, Inc., 1964), pp. 190-202.

1. If stamps are not to be offered, should the firm stress a policy of comparative price advertising with those competitors offering stamps as part of their promotional mix?
2. If stamps are to be adopted, should bonus stamps be given only for high margin items, and if so, how often should such items be repeated?
3. Should there be several days during the week in which extra stamps are given, and if so, which days, and is a minimum purchase required?

The above are but a few of the more obvious questions needing answers if promotional decisions are to be made most effectively. In addition to trading stamps, also to be considered are the equally perplexing and wide choices of other promotional variables. Included among these would be discounts, gift premiums, and various in-store merchandising activities. In addition, underlying all such decisions is the question of who responds to the various alternatives once they are chosen and implemented. With such a wide range of promotional variations available and the amount of information at hand, it is difficult, if not impossible, to approach an optimal promotional mix.

Complexity of Product Mix Decisions

Difficulties are presented when attempting to arrive at an optimal mix of products. Scarce shelf space must be allocated efficiently between new items which have been introduced and those already

carried in inventory.⁷ A recent survey of leading grocery manufacturers disclosed a total of 280 new items introduced by these companies per year, or an average of nine per manufacturer.⁸ This was the equivalent of one new item for every nineteen established products these manufacturers produced. When one considers that the six thousand to eight thousand items stocked by the average supermarket comprise but a small portion of the total number available, it becomes apparent that the food executive must carefully select those items best serving his customers at a profit for his firm.⁹

Two of the many questions the addition or deletion of products presents to the retailer are: (1) will items considered for deletion because of movement and profit contribution be purchased elsewhere by a store's loyal customers if they are discontinued; and

⁷William Brown and W. T. Tucker, "The Marketing Center: Vanishing Shelf Space," Atlanta Economic Review, XI (October, 1961), pp. 9-13.

⁸Grocery Business Annual Report--1964 (New York: Progressive Grocer, 1964), p. F-2.

⁹Thirtieth Annual Nielsen Review of Retail Grocery Store Trends (Chicago: A. C. Nielsen Company, 1964), p. 23. This report illustrates the difficulty that the supermarket operator has when faced with choosing among 35,035 packaged items available and, in most cases, having only sufficient shelf space for 7,000 such items. The problem is further intensified in certain departments such as frozen foods. Here there are three thousand items from which to choose and only three to four hundred that can be carried.

(2) if so, will other purchases also be made somewhere else? Little information is available as to the product perception of the housewife and her sensitivity to a store's product changes. Product selection presents a difficult problem for the retailer, due in part to the lack of information upon which to base product mix decisions.

The method to determine the optimal promotional and product mix appears relatively easy to outline but difficult to implement in practice. The retail food executive would need only determine the effectiveness of different promotions and product offerings by analysis of the increased sales attributed to these changes. The additional costs incurred by each promotion or product would then be weighed against additional sales and profits generated from the change. However, much of the information necessary to follow such a procedure is not available. The inadequacy of information is a result of several factors. Among one of the more important of these factors is that of joint products. Additional or reduced promotional expenditures for certain products not only directly affects sales of the product receiving the promotional treatment, but also affects substitute and complementary product sales as well. Because cross elasticities between product categories are often unknown, the complexity of arriving at promotional and product mix decisions is further magnified. In addition, little is known about the decisional processes of food executives when adjusting promotional and product mixes. However, one of the principal problems

in optimizing promotional and product mixes remains that of obtaining necessary marketing information and developing adequate methods for its analysis.

Marketing management is aware that if a more complete knowledge of marketing interaction is to be obtained, it is necessary to have some continuous measurement of three factors. Included are a body of store knowledge, promotional and competitive measurement, and a body of respondent or consumer knowledge. To acquire such an amount of information on an aggregate basis appears an insurmountable task. However, a microscopic look at one particular market appears to offer a basis for obtaining additional insight into better understanding the independent marketing variables and their effects upon food shopping behavior. Such an exploratory investigation would, hopefully, determine the feasibility and possibilities such an approach has for further research.

Several studies attempting total market investigations in one community have been made in the past. One study, attempting to explore milk consumption relationships, investigated an isolated market by saturation interviewing, census of dealers' sales records, and store sales.¹⁰ Approximately \$50,000 was spent in this market of ten thousand persons and few meaningful relationships were identified. Another study attempted to determine the decision variables open to the entre-

¹⁰Dr. Max E. Brunk, personal correspondence, Dec. 16, 1964.

preneur, rather than the variables impinging upon a particular commodity.¹¹ Both of these studies employed different methodology from that proposed in this research.

Recently there has been displayed an increased recognition of the need for a continuous marketing intelligence program.¹² New methods must be developed to monitor consumer goods markets if adequate knowledge of market segmentation is to be obtained. Demography alone is not an adequate measure for classifying market segments for establishing meaningful relationships, and the marketing intelligence system necessary would need to be more sensitive. This requires that the intelligence gathering techniques must be directed at segments of the consumer market at the same time that institutional brand and store loyalties are obtained. Differences such as buyer values, attitudes, and preferences must be considered as important as the traditional demographic characteristics now used in delineating market segments.¹³ New ways must be found to discover market segments based upon such considerations. These segments could then be used to develop the appropriate marketing mixes and strategies.

¹¹ Bob R. Holdren, The Structure of a Retail Market and the Market Behavior of Retail Units (Englewood Cliffs: Prentice-Hall, Inc., 1960).

¹² Robert Mainer and Charles C. Slater, "Markets in Motion," Harvard Business Review (March-April, 1964), pp. 75-83.

¹³ Daniel Yankelovich, "New Criteria for Market Segmentation," Harvard Business Review (March-April, 1964), pp. 91-101.

Because changes in the marketing mix do not affect a market uniformly, such methodology needs to provide a means of segmenting markets by both demography and personality configurations. If possible, this could provide the information necessary for analyzing the response to changes in marketing variables by different groups of consumers. Such a marketing intelligence program would require that data useful in establishing the pertinent dimensions best describing the market be generated. In addition, such a system would need to provide the necessary information required for the analysis of the cause of trends. This would require that an additional knowledge of consumers be obtained along with the monitoring of competitive activity.

Food Marketing Theory

The possibility of studying in detail food marketing in one particular community was discussed by Dr. Charles Slater with members of the food industry on numerous occasions. Several discussions held with Mr. Martin Stoller of McCann-Ericksen were directed toward the possibility of conducting an exploratory study designed to obtain store, consumer, and promotional information by utilizing present marketing research methods. Retail food store audits, consumer panels, and promotional monitoring all appeared to offer some contribution. Because each of these techniques has certain limitations, as presently used, an integration of these methods would be necessary.

If both audits and panels were used at the same time, discrepancies existing between these techniques could be investigated. The implementation of a methodology whereby the buying behavior of households could be compared with the universe of food stores supplying their needs was viewed as a vehicle for providing information necessary for later investigations. These would be directed toward answering questions like the following:

1. To what extent do different market segments shift patronage as a result of promotional activities?
2. Does sensitivity to promotion vary inversely with store loyalty?
3. How do stores differ in their radius of customer draw? How, and to what extent, does this vary over time as merchandise or promotional variables are changed?
4. How do changes in promotional efforts affect the buying behavior of "bargain hunters"?
5. Do food chains compete more intensively with some rivals than with others? Can this be verified by store "switching" patterns?
6. Are changes in purchasing behavior and shopping patterns related to different personality configurations, and if so, can this effect be determined? Are panel members atypical of the population in their personality configurations?

Research techniques, as presently used, have been inadequate for providing the necessary information for arriving at answers to the above questions. This can be attributed to the manner and combination in which they are used. In most cases, these techniques are employed to obtain quantitative measurements of brand movement and

market share rather than information useful for building a body of causal relationships relating to food buying behavior. It was because of the limited uses made of present methods that this research was conducted, and an attempt to combine several methods for investigating marketing interaction present in one community was made. Such an exploratory attempt at a more meaningful marketing information system appeared justified in light of the rising costs of promotion and the proliferation of product offering.¹⁴

Research Problem

The problem visualized was that of developing and implementing a methodology whereby buying behavior could be compared with marketing efforts and sales. Information relating to the buying behavior of a sample of households in one market was to be cross referred with the sales results of the universe of food stores supplying their needs. From this cross referral the pertinent dimensions best describing food marketing in this community were to be delineated. The magnitude of such an exploratory investigation into food marketing interaction called for a team effort by several persons. The complete research program consisted of the following three separate phases:

¹⁴Wendell Earle and John Sheehan, Operating Results of Food Chains, 1963-64 (Ithaca: Cornell University, 1964).

1. Phase I: Methodology Investigation

This phase includes a review of the need for such a research approach and the actual implementation of the major portion of the methodology. This phase of the project includes an evaluation of present sources of marketing information used by food marketers along with problems and limitations of these methods. An exploratory analysis illustrative of the possible research investigations such a study presents is included. The limitations, problem areas, and recommendations discovered in methodology implementation are included to provide a reference source for researchers using similar techniques.

2. Phase II: Psychological Investigation of Consumer Panel Members

An exploration of possible differences existing in the personality configurations of panel members vs. others is the major topic of this phase. The panel recruited and operated in Phase I of the research is utilized for part of this exploration. In addition, measures of store characteristics, personal influence on shopping behavior, and food shopping patterns are obtained and analyzed.

3. Phase III: Shopping Behavior Study

Simulation models of food shopping in the market being investigated are included in this phase of the project. Phase III of the study uses data generated in the previous two phases of the research. The relationships and effects of certain marketing variables upon shopping behavior are explored in this portion of the research program. Methods of cross referring buying behavior with sales results are developed in this part of the research.

This particular study reports only on the Phase I portion of the research program. Because a team approach was necessary due to the comprehensiveness and magnitude of the project, there will occasionally be referrals made in this study to later phases of the research program conducted by other team members. However, an attempt has been made to confine such references to a minimum.

Research Objectives

The major research objectives of this study (Phase I of the research program) are threefold. Included in each of the three broad major objectives are several sub-objectives. These objectives are as follows:

- I. To develop and implement a methodology whereby buying behavior can be compared with marketing efforts and sales results. The implementation and evaluation of the methodology as the first phase of the research program is undertaken. This includes:
 - A. an examination of the literature to determine the need and applicability of the research methodology for studying food marketing interaction.
 - B. the development, implementation, and evaluation of the methodology determining strengths, weaknesses, and limitations discovered in each portion. Suggestions for overcoming weaknesses in future generations of similar studies and the problems, limitations, and possibilities such an approach presents are analyzed.
 - C. the generation of data necessary for later phases of the research program and suggestions as to possible approaches for analyzing this information. Future areas of exploration and tentative hypotheses to be tested using data generated in this phase are to be suggested.
- II. To provide other researchers with a source of information reflecting upon certain operational techniques of the study. Because of the secrecy shrouding operational aspects and

techniques of commercial research organizations using similar tools, little published literature is available to the student wishing to use these techniques. Included are:

- A. techniques and methodology employed in the selection, recruitment, and maintenance of a continuous consumer purchase panel.
 - B. techniques and methodology employed in the organization and operations necessary for conducting retail store audits.
- III. To explore possible discrepancies which may exist between research techniques employed in the study. Retail store audit figures and consumer panel data are compared for:
- A. measures of aggregate over or under reporting of purchases by consumer panel members for national branded food items.
 - B. measures of aggregate over or under reporting of purchases by panel members for private branded food products.
 - C. purposes of evaluating consumer purchase panels for brand reporting by comparison to store audit information.

Research Methodology

The research methodology obtains information necessary for investigating interaction between buyers and sellers of food items in one community. Information for later investigations into the causal relationships between people and goods was obtained by use of retail store audits and a continuous consumer purchase panel. Store audits obtained store and product information while the consumer panel provided buyer information. The research methodology was a natural design in Phase I as only the events resulting from natural occurrences were observed and recorded. An experimental design for investigating personality configurations of panel members in Phase II was used. The research methodology was as follows:

1. A community relatively isolated for food shopping was selected for the research. The number of variables impinging on food shopping behavior in the community selected were reduced by selecting such a community. Community selection necessitated the presence of several retail food outlets serviced by various warehouse groups to insure a variation in merchandising between outlets.
2. Retail store audits for nine food product categories were taken weekly for ten weeks in the majority of food stores servicing the community. Product categories selected for

auditing were expected to receive promotional treatments during the ten week period. Price, space allocation, weekly product movement, and in-store promotional information for the product categories selected were audited. Total weekly dollar sales for the majority of stores were obtained.

3. A consumer panel, large enough to discern major market segments, was recruited from the urban and nearby rural community. The consumer panel was operated concurrently with store audits for a ten week period. Weekly purchasing information relating to quantity, brands, prices, and stores shopped was obtained from panel members.
4. A record of promotional variables for the panel operation and store audit period was maintained. Newspapers, radio, and television were monitored for food promotional activity.
5. Consumer panel members were interviewed at the end of the ten week reporting period. Interviews obtained information for constructing personality configurations of panel members. Needs, values, measures of personal influence, and food shopping habits were obtained from panel members at this time. Interviews were also conducted at this time with persons who had been originally requested to participate as panel members but had refused cooperation. In addition, interviews were also obtained from a random

sample of the community's population. All interviews attempted to obtain the same personality and demographic information.

6. Retail store audit figures and consumer panel data were compared for product movement for both national and private branded items. A test of paired comparisons was made to determine the significance of any discrepancies present between consumer panel and store audit figures.

Limitations

Limitations appear inevitable in most research and this project was no exception. The problems presented by limited finances and time were ever present. In addition, the following limitations must also be mentioned:

1. The research was conducted in only one community. This may result in the inclusion of variables atypical to other localities. By purposely choosing a community where food purchasing alternatives are reduced, certain limitations are present. Panel members may well react differently in food shopping behavior if purchase alternatives are enlarged. However, this study does not purport to represent other communities, and is only a statement of an exploratory investigation into one particular community.

2. All variables affecting food shopping behavior have not been obtained in this study. Only a limited amount of information has been secured. Certain omissions are present which would have effect upon precise results.
3. Because of the confidential nature of some of the data, information on community and cooperating companies is not as complete as may be desired. The identity of both the community and cooperators has been disguised, and in some cases, minor alterations have been made to preserve the anonymity of those extending cooperation. No changes have been made in the content of the data.
4. An erstwhile attempt has been made to be completely objective in both the collection of data and in an impartial analysis of the project. It is recognized that certain constraints may have induced the presence of some bias in the study, but it is the researchers' belief that a scientific method of inquiry has been maintained.

Organization of the Study

Partial explanation of the background and importance of the study has been presented in this chapter. This chapter establishes the proper perspective of this study in relation to the research program and its importance to current food marketing practice. This chapter sets out the research objectives for Phase I of the research program.

The objective of Chapter II is fourfold: (1) to review present methods and sources of information available to food marketing management, (2) to review the advantages, disadvantages, and limitations of survey and observational research methods, (3) to review the advantages, disadvantages, and limitations of consumer purchase panels and retail store audits as extensions of survey and observational research, and (4) to show the need for integrating both consumer panels and store audits if food marketing interaction is to be more fully investigated.

In Chapter III, the preparation necessary for implementation of the methodology is presented. The primary objective of this chapter is to describe the operational basis for the investigation excluding consumer panel and retail audit execution. Throughout this chapter, the reader and later researchers are furnished with a step-by-step account of the limitations and problems encountered in the initial stages of this study. Recommendations made as a result of experience obtained are made throughout the chapter.

The performance of the retail audits and promotional monitoring portion of the research is described in Chapter IV. The training necessary and field execution of store audits is discussed. Problems encountered in auditing are discussed with recommendations developed from the research. This research presents other researchers a source of information relating to the technical aspects of store auditing.

Chapter V presents the selection, operation, and maintenance of the consumer purchase panel. The primary purpose of this chapter is to describe the operational techniques and problems encountered in panel operation. Certain demographic comparisons are made between consumer panel households and other households in the areas from which panel members were chosen.

An exploratory investigation using data obtained from the research is presented in Chapter VI. This analysis uses audit and panel data to investigate the consumer panel's performance in brand reporting. The analysis compares movements of selected national and private branded products as reflected by audit and panel data. Possible explanations are offered for discrepancies present between store audit and consumer panel figures.

Conclusions are presented for the research in Chapter VII. The major strengths, weaknesses, and limitations of the research are reviewed at this time. Implications and recommendations for further research are made in this chapter.

CHAPTER II

SOURCES AND LIMITATIONS OF PRESENT
FOOD MARKETING INFORMATION

Introduction

An initial search of the literature was undertaken to provide necessary background relating to present sources of food marketing information. This search focused upon present sources of information available and the manner these were utilized by food marketing management. Periodicals, trade journals, and general marketing books were examined. This examination was directed toward obtaining a general overview of any similar marketing studies having been previously conducted. At the same time, the limitations of marketing research methods now utilized were explored. The two most suitable research techniques for a study of food marketing interaction in one community appeared to be the retail store audit and the continuous consumer panel. The literature on panels and audits was then examined for limitations, current uses, and possibilities for application to this investigation.

Available published material concerning audits and consumer panels was insufficient in two respects. Most published material lacked information about the current uses of both consumer panels and audits. In addition, much of the available material reflected only upon the more obvious types of data generated. Continuous consumer panel and retail store audit references usually concentrated upon the use of these techniques for providing aggregate measurements of products sold at the retail or consumer level.¹ Brand loyalty and brand switching studies were usually cited as an extension of this information.

The second deficiency was the lack of reference made to the limitations associated with these techniques. Much of this can be attributed to the same reasons that limitations are often under-emphasized by many researchers. Consumer panels and retail store audits are conducted and operated, in most cases, by commercial research organizations. Of necessity, such organizations do not emphasize the shortcomings of their methodological approaches when this provides the source of revenue. It may be for this reason that firms continually stress the advantages associated with their techniques, as many of these same advantages are also limiting factors of competitors' techniques.

¹Parker Holmes, Marketing Research: Principles and Readings (Cincinnati: South-Western Publishing Co., 1960), Appendix A and C, pp. 597-629. These appendices are the basic information source for published references to continuous consumer panels and retail store audits.

Because of the limited usefulness of published documents relating to these aspects, correspondence was directed to commercial marketing research organizations providing such services. This correspondence attempted to find answers to questions not answered in the literature. In addition to contacting the leading firms conducting retail store audits or operating continuous consumer panels, smaller organizations providing similar services were written. It was anticipated there would be a reluctance on the part of commercial organizations to divulge uses and limitations of their techniques. For this reason, agencies conducting or having conducted store audits or panels on a non-commercial basis were also contacted. Correspondence was received from university research groups and newspapers that had engaged in such research. Information about panel advantages and limitations was obtained by correspondence with fourteen individuals and firms. Because of the dominance of one organization conducting retail store audits, fewer individuals were contacted. Seven different organizations and individuals provided information relating to the uses and limitations of retail store audits.

Correspondence provided useful information pertaining to limiting considerations, but little on the manner in which audits and panels are utilized, beyond that obtained from published sources. Visitations were made to the A. C. Nielsen Company, Market Research Corporation of America, and The Chicago Tribune to solicit informa-

tion on operational techniques, while at the same time hoping to discover additional uses of audits and panels. Interviews conducted were extremely valuable in providing limitations and uses of audits and panels. Problem areas one might expect when employing these techniques in a total marketing study were also emphasized by those interviewed.

Research into Food Marketing

Numerous studies pertaining to the detailed technical or operational aspects of food marketing have been conducted in recent years, but few have directed themselves to general retailing strategies.² Many of these studies attempt to isolate and determine the effect of a single independent variable upon product movement. Such studies frequently focus upon the relationship between shelf space, price, or placement and sales performance at the retail level. Representative of such studies is that by Coxe.³

Coxe, attempting to measure the relationship between product shelf space and sales, selected only those products having the same price during the test period with no sales promotion or advertising

²For an example of the specific nature of many studies see: Index of Super Market Articles (Chicago: Super-Market Institute), Vol. I-VIII.

³Keith Coxe, "The Responsiveness of Food Sales to Shelf Space Changes in Supermarkets," Journal of Marketing Research (May, 1964), pp. 63-68.

treatment present. Without a measure of promotional activity for both the cooperating stores and competitive activity, the meaningfulness of the results is questionable. Products that indicated a responsiveness to changes in shelf space may have only reflected changes in the total marketing effort of the retail outlet. Because the housewife purchases a "market basket" rather than isolated products, some initial measure of store choice in relationship to competitive activity would be necessary.

Pessemier has stressed the need for studies attempting to measure relationships existing between shelf space and produce movement as follows:⁴

Ideally, if management knew just how sensitive were the sales of each item to the particular space allocated to it and just how large a contribution each item produced, it would be possible to make allocations which would return the largest profit.

Studies made, with food industry sponsorship, have attempted to determine space and product movement relationships and product categories profit contribution such as Pessemier stresses.⁵ One source of difficulty with these studies is observed. The results too

⁴Edgar Pessemier, "Applying Supermarket Techniques to Non-Food Retailing," Journal of Retailing (Summer, 1960), Vol. XXXVI, pp. 108-113.

⁵See: The P & C Food Markets Study: Projecting Product Profitability (Ithaca: Eastern Market Research Service, Inc., 1964) and A Top Management Approach to Meat Merchandising (Washington: National Association of Food Chains, 1964).

frequently show large profit contributions by certain product groups. Studies of shelf space allocation and product profitability contribution leave the impression that shelf space should be expanded indefinitely on high profit items. Coxe implies that hypotheses formulated about the responsiveness of food product sales to changes in shelf space allocation are too generalized and in need of additional refinement.⁶ However, at this time, product profit contribution approaches have remained unquestioned.

Most product profitability and shelf space research has been confined to the analysis of a few stores of a cooperating chain or all of that chain's widely distributed member stores.⁷ Each store has been observed in relation to the independent and dependent variable under investigation. As a methodology of discovering market interaction, this type of approach may be likened to the "individual-unit" procedure of sales forecasting.⁸ Many food marketing studies appear

⁶Coxe, op. cit., p. 66.

⁷Examples of this approach are five major studies conducted for Progressive Grocer. Individual reports are available for Providence Public Markets, Foodtown Stores, Super-Value Stores, Dillon Stores, and Colonial Stores. Each of these studies emphasizes operating efficiencies and refinement of food marketing techniques.

⁸D. Maynard Phelps and J. Howard Westing, Marketing Management (Homewood: Richard D. Irwin, Inc., 1960), pp. 241-244 and Harry Deane Wolfe, Business Forecasting Methods (New York: Holt, Rinehart and Winston, 1966), pp. 155-156.

to utilize such an approach. First, each separate variable is observed and then an attempt to aggregate these into a market model is made. If a more complete knowledge or understanding of food marketing interaction or consumer dynamics is to be obtained, a different approach is necessary.

Need for More Generalized Studies

Food retailing may be described as being a "transaction" business. The retailer earns a profit on the customer's total "transaction" not on each of the individual products making up the total "transaction." If food retailing operates in this manner, then it may appear useful to look first at aggregate food marketing behavior. The size and makeup of the total "transaction" may be influenced by merchandising skills. However, before investigating individual products and the merchandising skills affecting them, it would appear more beneficial to observe marketing interaction on a more general basis. This may lead to establishing those areas of food marketing behavior appearing most profitable for further exploration.

One recent and widely quoted food marketing study cites one of its limiting factors to be that data generated from the research is only part of the total information needed for marketing decision making.⁹ Even though Direct Product Profit data is useful, as

⁹McKinsey General Foods Study: The Economics of Food Distributors, (White Plains: General Foods Corporation, 1963) p. 36.

illustrated by the McKinsey study, additional information about consumer demand, competitor's practices, price/volume relationships, consumer price awareness, space/movement relationships, and numerous other merchandising considerations are necessary.¹⁰ The McKinsey study, by inference, points to the shortcomings of such approaches and the need for a more complete knowledge of consumer dynamics.

In the past food retailers have operated under the assumption that marketing efforts should be directed toward the average consumer. This has been done, in many cases, to obtain those economies available from a centralized operation. This has resulted in the marketing mix of many, if not the majority, of food retailers being one of likeness. As mechanical and technical features of retail food operations become more widely understood, this sameness will likely be increased. While the marketing effort has become more similar on the part of many retailers, there has, at the same time, developed a recognition that there is no such thing as an "average" customer.¹¹ Instead, the market is viewed as consisting of many sub-markets comprising certain characteristics. It appears that one of the more important needs for food retailers today is a basic knowledge about

¹⁰ Ibid., p. 37.

¹¹ Walter Weir, On the Writing of Advertising, (New York: McGraw-Hill Book Co., Inc., 1960) p. 95.

consumers as demographic and psychological groups and their relationships to the marketer.

In discussing retail research, Prof. Hollander emphasized that suitable techniques have not yet been developed for determining how stores are selected by such groups, the effect of retail advertisements on such groups, or the effect of price changes on sales.¹² The need for generalized research covering a wide range of items and situations was further accented. Prof. Hollander stressed that initial retail research attempts should be directed toward determining who customers are, with later research directed toward determining why they make the selections they do. If the interaction that takes place between the customer and those providing her needs is to be better understood, it may first be necessary to study markets in the aggregate. Those areas appearing to warrant detailed research may then be investigated further. Such an approach, like the "over-all" sales forecasting procedure, would start with the "general" and proceed to the "particular."¹³

Generalized approaches for investigating market interaction have seldom been used in the past for two reasons: (1) the costs incurred by such a project; and (2) the lack of adequate methods of

¹² Stanley C. Hollander, "Retail Research," Business Topics, Vol. VII, No. 2, (Spring, 1959) p. 52.

¹³ Phelps and Westing, op. cit., pp. 244-249.

analyzing the large amount of data such research generates. One of the researcher's purposes in conducting this total marketing study was to determine the costs of such a study. Correspondence with Dr. Brunk, of Cornell University, indicated the costs of a previous marketing study under his direction for one commodity in a single community to be fifty thousand dollars. When one considers the yearly cost of a bi-monthly national audit report for one product's movement to approximate ten thousand dollars, an analysis of the consumer dynamics influencing this product movement would seem to warrant at least the same expenditure. Such an expenditure, in even a limited market, could lead to results useful for planning marketing strategy for that product.

The availability of adequate financial resources was one of the limiting factors of this research. This same limitation also was advantageous because it established parameters determining the extent to which the investigation could be conducted. The total direct expenses for this research were four-thousand dollars. Because much of the data processing remains to be done, this figure only includes those costs incurred to the completion of field investigation.

This figure can be misleading because of the contribution of time and effort by graduate marketing students. If these efforts had been reimbursed, the total field costs for this food marketing study would have approximated ten-thousand dollars. Even if this amount

were to be doubled by future analysis of data, such research appears relatively inexpensive to food industry members when compared to the costs of commercial research now being purchased.¹⁴ However, this cost must also be considered in respect to the extent of geographical coverage. Although the information obtained from present commercial sources is based upon wide geographical dispersion, more complete investigations into a limited number of selected communities may provide information useful in making some marketing decisions, such as allocating promotional expenditures, that is not obtainable from present commercial store audit and consumer panel data.

There are indications of a growing awareness on the part of food industry members for studies investigating local or district markets. One such study now being conducted and a proposed study, by one of the leading commercial marketing research organizations, illustrates this increased interest.

A report on a market study sponsored by Kroger Company, Progressive Grocer magazine, and Reuben H. Donnelley Corporation was presented at the 1965 annual meeting of the National Association

¹⁴"Researchers Snap up Supermarket 'Secrets,'" Business Week, (March 5, 1966) p. 83. J. Clarke Mattimore refers to a charge of \$50,000 a year a product classification for national reports indicating movement as obtained from chain warehouse records.

of Food Chains. The first report of this research states that the:¹⁵

first stage of study is an examination of differences among different consumer groups in terms of store selection, category and brand purchases, food budgets, attitudes, habits, problems, wants, satisfaction, complaints, reactions to promotion, new items, prices, stamps, perishables and hundreds of other factors that should and do concern modern supermarket operators.

The methodology for this research begins to approximate a total food marketing study. Five distinct neighborhoods in Cleveland, Ohio, were selected on the basis of family size, age, income, and education. In each of these five areas, two Kroger stores were selected for audits of all items in units, dollars, and dollar margins over a period of eight weeks. A consumer panel was established consisting of five hundred families. One hundred panel members were selected around the location of each of five Kroger stores in the five areas. Each family was to keep a diary of all food purchases for a period of eight weeks. In addition, four hundred telephone interviews were conducted in those five trading areas. Because of the need to obtain information not available through the use of a consumer panel diary, depth interviews were conducted with 125 panel members. These depth interviews were designed to elicit information about store personality, promotional mix, and information most useful to the consumer in food shopping.

¹⁵"Consumer Dynamics in the Super Markets," Progressive Grocer (Oct., 1965) p. K-2.

Newlyweds, recent movers, and ethnic groups are to be the subjects of additional investigations. The researchers anticipate that the diary and store audits will provide a portrait of sales in each of the five demographic areas under study. This should then lead to a projectable sampling of food purchases from all food stores by 100 representative families.

Market Research Corporation of America is considering a similar approach to investigating consumer dynamics in Boston, Massachusetts.¹⁶ Dr. William Applebaum of Harvard University has developed map overlays consisting of equal lines of income, age groupings, and other demographic measures. From these maps will be drawn, randomly, sample communities which represent the total variance in the metropolitan market. A consumer panel is then to be established surrounding each community. Instead of then following the Cleveland practice of auditing selected stores, warehouse withdrawal slips are to be utilized. This project, like the Cleveland project, would attempt to discover the consumer dynamics present in food marketing in this particular community. Such a study would hopefully result in a short term predictive model of consumer sales.¹⁷

¹⁶ Personal interview with Dr. I. J. Abrams, Director of Research, MRCA, June, 1965.

¹⁷ Samuel G. Barton, "Model for Short-term Prediction of Consumer Sales," Journal of Marketing, (July, 1965) pp. 19-29.

A step toward establishing a complete information service on supermarket product movement was recently made by the Market Research Corporation of America.¹⁸ MRCA signed an exclusive agreement to purchase warehouse inventory data from Kroger with which it plans to:

track the pattern of usage and purchase beyond the warehouse, through the store, and right into the home. The company has obtained so-called "observation privileges" in Kroger and Grand Union stores, in order to measure such things as shelf space and display arrangements. Next step will be to set up market-by-market test panels to measure in-home use.

Studies such as the Progressive Grocer Cleveland research and the proposed MRCA Boston study utilize two types of measurement; a consumer panel for purchases by household and retail store audits or warehouse withdrawals to secure measurements of total product movement. Because an important part of this research utilized both audits and panels, it is necessary to investigate further their uses, advantages, and limitations, and show the need for integrating the two. Continuous consumer purchase panels and retail store audits have both been referred to as extensions of survey and observational research. Because of the apparent confusion existing, it is first necessary to briefly review survey and observational research methods. Retail audits and consumer panels then will be further discussed as techniques of each type.

¹⁸"MRCA Gets Rich Supermarket Data," Business Week (April 30, 1966), p. 134.

Survey and Observational Research

Data collection methods have been classified in different ways by various writers.¹⁹ In marketing research, the collection of data usually utilizes a methodology of questioning or observation.²⁰ These two methods are distinguished by the actions undertaken by the researcher in securing information. In observation, the researcher asks no questions, but instead observes objects or actions of interest. The questioning method involves securing responses to questions either in person or in writing. Regardless of the type of research design used, "the necessary data are collected by one or both of these two methods."²¹

Questionnaire research is often referred to as survey research by many writers.²² Because of the value which descriptive survey research can provide, many different techniques have been developed. As a result of this proliferation of techniques, one writer has stressed that survey research has merged with observational

¹⁹ Fred T. Schreier, Modern Marketing Research: A Behavioral Science Approach, (Belmont: Wadsworth Pub. Co., 1963) p. 34.

²⁰ Harper W. Boyd, Jr. and Ralph Westfall, Marketing Research (Homewood: Richard D. Irwin, Inc., 1964) p. 148.

²¹ Ibid.

²² Chester Wasson, The Strategy of Marketing Research, (New York: Meridith Publishing Co., 1964) Chapter 5, pp. 130-164, and Holmes, op. cit., p. 222.

research on one side and experimental research on the other side, as a means of gathering information.²³ The distinction between survey and observational research may be considered minor, but this distinction becomes important when the uses, advantages, and limitations of each are considered. This distinction is important because each is best suited for obtaining certain types of marketing information.

Survey Research

Survey research studies both large and small populations by usually selecting and studying samples chosen to discover incidence, distribution, and interrelations of variables. Studies of samples are utilized because of the difficulty of studying entire populations. The survey approach and the techniques used focus upon people, facts of people, their beliefs, opinions, attitudes, motivations, and behavior in a marketing situation.²⁴ The most common survey techniques utilize mail, telephone, and personal interviewing.

The techniques employed in survey research depend on some form of verbal or written response to a question or other stimulus. Survey research results can only be considered a logical implication as to the actual response which would result in a real situation. This

²³Wasson, op. cit., p. 138.

²⁴Fred N. Kerlinger, Foundations of Behavioral Research, (New York: Holt, Rinehart and Winston, Inc., 1964) pp. 392-408.

occurs from the reliance that must be placed on verbal or written responses. Because of the versatility, ease of administration, speed, and associated costs, survey research has found wide application as a method of securing marketing information.²⁵

Wasson has discussed several of the underlying assumptions of the survey approach.²⁶ These focus upon the significance, validity, and relevance of the information obtained, because of the differences in meaning attributed to words and the individual reactions of those responding. It is because of these assumptions that some additional method of determining and recording actual behavior may be needed. If an accurate picture of the market situation is to be obtained, observational methods may be necessary to alleviate some of the problems or deficiencies present when the survey approach is used alone.

²⁵For an overview of the procedures and development of survey research see: A. Campbell and G. Katona, "The Sample Survey: A Technique for Social Research," in L. Festinger and D. Katz, Research Methods in the Behavioral Sciences, (New York: Holt, Rinehart and Winston, Inc., 1953) Chap. 1 and Richard D. Crisp, Company Practices in Marketing Research, American Management Association Research Report 22, 1953. For the most comprehensive source on the entire survey method see: Mildred Parten, Surveys, Polls, and Samples: Practical Procedures, (New York: Harper, 1950).

²⁶Wasson, op. cit., p. 138.

Observational Research

In one manner, it is possible to think of observation research as a part of all data collection and not a separate method. Everyday observation allows the formulation of the necessary information required for survey research. The type of observation referred to as a distinct method of research differs because it is systematic in approach rather than consisting primarily of random observations.

Necessary characteristics for observational research to be considered a separate type of marketing research are: (1) it must be systematically planned to focus on specific propositions of the study; (2) it must include a systematic recording of events; and (3) it must utilize planned checks and controls to insure the completeness of the observation.²⁷

The use of the observation technique permits actual behavior to be recorded by relying primarily on physical observation of one or more phenomena under study. There is disagreement among marketing writers as to whether self-recorded observation by a respondent should be considered or only that reported by an outside observer. Wasson would consider self-observation recorded and

²⁷Richard D. Crisp, Marketing Research, (New York: McGraw-Hill Book Co., Inc., 1957) pp. 179-227.

reported to be a part of the category encompassing observational research whereas Crisp includes self-reporting as an extension of survey research.²⁸ This disagreement has led to considerable confusion for classifying continuous consumer purchase panels and retail store audits as being either survey or observational research techniques.²⁹

Classification of Audits and Panels as
Survey or Observational Research

Obtaining some evaluation of changes occurring over a period of time is an objective of both audits and consumer panels. It is for this reason that both have been occasionally referred to as the panel technique. Both utilize a panel of respondents remaining somewhat constant. This is done to eliminate the possibility of differences occurring between two separate samples when taken over a period of time. By utilizing a panel of respondents and observing this same panel over a period of time, it has been possible to obtain measurements on such items as real shifts in consumer usage rather than that

²⁸Wasson, op. cit., p. 132 and Crisp, op. cit., pp. 209-227.

²⁹One such example is provided in Crisp, op. cit., pp. 209-227. In discussing panels as a technique of survey research, the A.C. Nielsen store auditing service is used as an example. Later discussion of observational research refers to this firm's methodology. Any existing confusion results from classifying the stores used in retail store audits as a "panel" of stores. There appears to be some agreement that panels are a form of survey research when using consumers' as reporters and observational research when used for retail store auditing.

which may have occurred by a chance variation in sampling. Although both utilize a panel of respondents, (households, retail stores, manufacturers, professional persons, etc.) the basic method of recording the data varies.

Many problems peculiar to consumer panels also are present with retail store audits. There are important differences serving to distinguish each technique even though similarities as to uses, advantages, and limitations of each are present. The primary distinction is in the manner in which the data is collected. In the case of the continuous consumer panel the necessary information is provided by the respondent, in this case an individual consumer or some other member of the household. Although the retail store audit may utilize a panel of stores, the information is systematically gathered and recorded by the researcher or his staff by direct observation.

Observational research is many times only used when survey methods are found to be inadequate in providing desired information. When there is question about the accuracy of information supplied by survey methods, and when a high degree of accuracy is required, observational techniques may be desired. The observational approach is often found necessary when data concerning the actions of competitors is desired and it is unavailable by other means.

If one is to approach consumer dynamics by a total marketing investigation, it appears that observation can provide some of

the quantitative findings such as Alfred Politz stresses are needed.³⁰ Nevertheless, opinions, attitudes, and preferences are the basis of purchase behavior and it may be necessary to investigate these through survey research. This research utilized both survey and observation methods by including retail store audits and a continuous consumer panel among the employed techniques. Continuous consumer panels are considered a technique of survey research and retail store audits as observational research throughout this study. One can infer that the limitations and advantages of consumer panels and store audits discussed are also limitations and advantages of the broader classifications of research methodology which they illustrate.

Retail Store Audits

Retail audit research accounts for a large percentage of the commercial research purchased by the consumer packaged goods industry each year. Audits supply the subscriber of the service with useful information about sales, inventories, distribution of his and

³⁰ Alfred Politz, "Motivational Research from a Research Viewpoint," The Public Opinion Quarterly, Vol. XX, No. 4, (Winter, 1956-57) pp. 663-673. Mr. Politz states: "If consumer surveys are to predict consumer behavior in a way which will help management to make marketing decisions, they should come up with quantitative findings. As well as being more useful, this is a requisite of the scientific approach. It is also more reason why definite reactions to stimuli must be studied rather than opinions, attitudes, and preferences which as such cannot be reduced to weights or measures."

competitors' product, and some limited measure of promotional activity. This information is used by subscribers to make estimates of national or regional market trends and market penetration. Retail store audits are defined as:³¹

The measurement of sales of a product, or brand shares of a product category, determined by inventory and invoice checks in a sample of cooperating retail outlets, usually periodically.

Retail store audits were first developed commercially during the 1920's, when manufacturers of consumer packaged food and drug items developed a growing awareness that the lag in distribution prevented sensitive measurements about quantities and rates in which final consumers were purchasing products. In 1933 the A. C. Nielsen Company inaugurated a marketing research service later known as the Nielsen Food-Drug Index.³² Although many firms provide similar services, this organization is the largest commercial firm conducting retail store audits. Conversations with Nielsen personnel revealed that most major food manufacturers subscribed to the Nielsen service. Retail store audits, a method of observational marketing research, will be analyzed from the scope and method in which they are conducted

³¹ Robert Ferber, Donald F. Blankertz, and Sidney Hollander, Jr., Marketing Research, (New York: The Ronald Press Company, 1964) p. 662.

³² A Brief Description of Nielsen Food Index and Nielsen Drug Index, (Chicago: A. C. Nielsen Company, 1957) p. 1.

by this organization. Before any assessment of the advantages and limitations of the retail store audit as a method of observational research can be made, it is first necessary to review the need for audits and methodology employed in such research.

The lag in distribution resulting from the use of intermediaries causes a difference between manufacturer's factory sales and consumer sales to exist. Because the manufacturer's product does not move directly to the consumer but moves first through the various chain and wholesale warehouses and retail food stores, inventories are present throughout various levels of distribution. These inventories result in an appreciable difference between factory sales and consumer sales. Of course, factory sales information is already available to the firm, but the additional measurement of consumer sales is needed if there is to be adequate information about distribution, stock cover, display, and sales to consumers. It was in an effort to provide such information that retail audits were first developed for commercial purposes. Most retail store audits conducted on a commercial basis are usually utilized for arriving at aggregate sales for a product and competitive products at the consumer level.

The basic principle of the retail store audit is that retailer's sales over a certain period of time equal an opening inventory plus any purchases during this period minus present stocks at the time of the audit. Stocks at the beginning of the inventory period are physically

counted and invoices and similar records are observed to determine additions during the period under observation. The residual resulting from opening inventory, additions, and ending inventory is the amount purchased by consumers during the period.

Most audits are conducted on a national basis although special audits are available for certain test markets. Stores selected for auditing are selected in such a manner that each store type, neighborhood served, and store size are represented in the proper proportion. However, certain chain stores are not included and the proportion of small stores audits remains questionable. In the case of the A. C. Nielsen audit service, stores audited have been selected using probability methods. The Nielsen organization uses approximately 1600 retail food stores as the base for its service. Retail units contract with the Nielsen company to allow auditors to take inventories, check invoices, and record promotional activity every 60 days in exchange for cash compensation. This compensation varies with the type and size of retail store and amounts to approximately \$15-\$35 for each audit. Consumer sales figures obtained from this sample of stores is then expanded to a total for the entire country.

Store audits are usually a technique employed in test marketing research for new products. The A. C. Nielsen Company provides several different facilities for measuring results of market

tests.³³ The stores audited for the national store audit may be broken-out by areas, districts, or limited cities. The same type of information obtained in the regular bimonthly report of the Nielsen Food-Drug Index is available for these smaller markets. Special analyses applicable to the test operation may also be obtained. Such analyses include shelf space measurements, special display evaluation, stores redeeming coupons, and age of stocks. Special test stores may also be audited in markets which are not Nielsen Test Cities or which are too small to permit a breakout of the existing sample used for the Nielsen Food or Drug Index. The stores chosen for auditing in these smaller markets are chosen on the basis of a stratified disproportionate sampling with ratio estimation. The universe is stratified with a higher percentage of large stores in the sample and combined with the ratio of each product's sales to total store sales in projecting total consumer sales for the product under investigation.³⁴ In both the test market store audit and those used for aggregate consumer sales data, only a sample of stores are audited.

Uses of Store Audits

Information obtained from retail store audits is analyzed and used in various ways. Although the majority of subscribers of commercial audit services utilize audit data for analyzing aggregate

³³Markets in Miniature, (Chicago: A. C. Nielsen Company, 1964) p. 3.

³⁴Ibid., p. 6.

sales and distribution, test market analyses are also made. The A. C. Nielsen Company provides the following list of data every sixty days for food stores by brand, territories, population range, stores, package size, and product type:³⁵

1. sales to consumers
2. purchases by retailers
3. retail inventories
4. days' supply
5. store count distribution
6. all-commodity distribution
7. out-of-stock
8. prices (wholesale and retail)
9. special factory packs
10. dealer support (displays, local advertising, coupon redemption)
11. special observations (order size, reorders, direct vs. wholesale)
12. total food store sales (all commodities)
13. major media advertising (secured from other sources)

The above information is usually used by the client in an effort to determine his consumer sales and those of competitors. Using retail audits, it is possible to obtain a measure of total consumer sales for all brands, and then break these down into percentages of the total market for each particular brand. These breakdowns can be further stratified into particular market segments by territory, population groups, store types, and store sizes to provide a basis for allocating promotional efforts. By measuring sales at the point of consumption a limited knowledge is gained about each particular market.

³⁵A. C. Nielsen Company, op. cit., p. 5.

The sales accounted for by each particular store type (chains vs. independents) is available and if corrective efforts are needed, audits can provide some necessary information useful in gaining distribution in weak areas.

Cents-off promotions have been investigated as to their effectiveness by the use of retail store audits.³⁶ As is the case with most advertising or promotion, many variables enter the marketing "mix" and the influence of only one of these is difficult, if not impossible, to determine with any precision. Nevertheless, audit information, within broad limits, can be useful in determining the effect of the price promotion on the share of the market held by the particular product receiving the promotional treatment. Most such studies, which employ store audit techniques, investigate by case histories certain brands and promotion on an aggregate basis. Product category groups are chosen which have utilized the type of promotion being investigated. Within these categories, brands are evaluated as to market share, based upon the size of the cents-off "deal" expressed as a percentage of the brand's average selling price. Some measure of the effectiveness of the "deal" is obtained by comparisons of the sales of competing brands in that product. This is possible because store audits provide a measure of sales for all brands within the product category.

³⁶"Cents-off Promotions," The Nielsen Researcher, No. 1, (Chicago: A. C. Nielsen Company, 1964).

Conclusions based upon only store audit information are rather limited because variables such as advertising, other promotions, product quality, and those responding to the promotion are unavailable. Regardless, some broad conclusions are usually arrived at on an aggregate basis.³⁷ Because conclusions often are so general, they often only serve to stress the need for more sensitive research into the problem area being investigated.

In addition to studies designed to measure such variables as promotional deals and prices, store audit information has been used in determining sales trends by sizes, importance of store types, sales trends by areas, turnover, and exposure of product categories and individual brands.³⁸ Such studies are normally made on an aggregate basis and the information used in the analysis is that available from a national retail store audit. This does not void the use of the retail store audit and similar analyses being utilized in smaller well defined markets. Information obtained from retail store audits conducted in small well defined test market cities is often analyzed in the same

³⁷ Ibid., p. 10. The single conclusion reached from this investigation into cents-off promotions was that cents-off deals, when large enough, can be effective on a short term basis.

³⁸ J. O. Peckham, "Guideposts for Pricing," A Presentation to the Grocery Manufacturers of America, (White Sulpher Springs, June 17, 1963) and Franklin H. Graf, "Marketing Developments in the United States," A Presentation to the Foundation for Branded Consumer Goods Marketing Seminar, (Amsterdam, November 14, 1964).

manner as that obtained from national store audits.³⁹ The retail store audit has found considerable use as a research technique because of the amount and type of information it provides which is unavailable by other methods.⁴⁰ Exposure of product categories, individual brands, and monitoring of in-store merchandising activity are but a few examples of market information available exclusively by use of retail store audits.

Limitations of Audits

Many of the limitations concerning the use of retail store audit research center about errors resulting from the work of field investigators. Stonborough has pointed out the following types of errors occurring in audits:⁴¹

1. arithmetical errors which result in counting stock on shelves.
2. errors in omission of inventory stocked in out-of-the-way places.
3. errors due to missing invoices.
4. clerical and arithmetical errors on invoice proper.
5. errors in overlooking credits and computing sales.
6. errors due to lack of records and convenience pickups of merchandise.
7. sampling errors in selection of "panel" of stores.

³⁹ Testing, (Chicago: A. C. Nielsen Company, 1957).

⁴⁰ Markets in Miniature, (Chicago: A. C. Nielsen Company, 1964).

⁴¹ Thomas H. W. Stonborough, "Fixed Panels in Consumer Research," ed. Hugh G. Wales and Robert Ferber, Marketing Research: Selected Literature, (Dubuque: Wm. C. Brown Co., 1952) p. 111.

Many of these errors can be reduced to a minimum by the use of well trained field auditors. The main limitation is that retail store audits provide no direct analysis of consumers. The retail store audit technique does not furnish data which relates purchases directly to the people making the purchases. While providing certain knowledge as to sales, prices, and promotional effort, there is no knowledge of who accounted for such sales or who responded to which promotional effort. It is for this reason that retail store audits, by themselves, are not an adequate research tool to describe food marketing from a total perspective.

By selecting only a sample of stores to be audited, certain products' total sales are understated.⁴² This understatement results from added strength of some branded products among chains when compared to independent stores and because of non-cooperation by some chains. When audits include only certain chains' member stores, an insufficient knowledge of promotional activity as well as product distribution is present.

The Metropolitan Supermarket Audit Division of Marketing Research Corporation of America is designed in such a way to eliminate part of the non-cooperator problem. By making no attempt to secure

⁴²J. A. P. Treasure, "Retail Audit Research," The Incorporated Statistician, (October, 1953), Vol IV, No. 3.

necessary information for projecting product sales, it is possible for this organization to take audits of a limited nature. The Metropolitan Supermarket Audit only reports distribution, space assigned to brands by type and package size, price of the products on the shelf, and other visual measurements such as special displays and location. This organization's audit utilizes a standing sample of 2268 supermarkets located in fifty-four key metropolitan areas each having yearly sales exceeding \$1,000,000. With no working contact with the sample organizations audited, it is possible for the Metropolitan Supermarket Audit to provide data relating to brand distribution by chain organizations. The subscriber to this service obtains distribution and the amount of promotion given his brands by chain classifications. By limiting the sample to million dollar supermarkets, this audit overlooks many of the more important outlets for certain categories of food products.

The lack of adequate promotional monitoring is one of the major limitations of store audits when used as the sole measure of a product's performance in a test market. Some manufacturers attempt to distort any national projections made from test market information, by loading the competitor's test market with extra advertising and promotional features during the test period.⁴³ This competitive counter-strategy requires that manufacturers using audits for test market

⁴³ "Colgate vs. P. & G.," Forbes, (Feb. 1, 1966) p. 28.

information rely on more than audit information alone in evaluating product performance. Some measure of the amount of competitive promotional effort must be obtained if product performance is to be judged accurately.

Recently, several new companies have been organized to purchase and process merchandise movement information from chains and wholesalers and resell it to manufacturers on a regular basis.⁴⁴ Limitations of present retail store audits have been directly responsible for the development of these new market research organizations. Food manufacturers find audit information, such as A. C. Nielsen Co. provides, adequate on a national basis but lacking in reliability for individual market areas. This occurs because of the sampling techniques employed and the sample size of present audits. The small number of stores included in certain market areas make product movement projections for those markets unreliable. In addition, store audit organizations sell bi-monthly reports which do not reach subscribers until a month after the reporting period. These new organizations utilizing warehouse-based product movement data have been able to reduce this time, and furnish product movement reports one week after the close of the four-week reporting

⁴⁴See: "Data Collectors are Moving in on Food Chain Warehouses," Business Week, (April 19, 1966) p. 57; and "Researchers Snap up Supermarket 'Secrets,'" Business Week, (March 5, 1966) p. 83, also "MRCA Gets Rich Supermarket Data," Business Week, (April 30, 1966) p. 134.

period. Manufacturers introducing new products have found these services advantageous because remedial actions, if necessary, can be taken almost immediately upon discovery rather than a possible one or two months later.

The continuous panel of consumers provides much information not available from retail store audits. It is for this reason that many firms in the consumer packaged goods industry also purchase consumer panel data to use in conjunction with audit information.

Continuous Consumer Purchase Panels

The J. Walter Thompson agency began a pilot consumer panel research project in England in the early 1930's, which attempted to develop a method for obtaining data on consumer buying habits by brands and quantities. This initial project led to later experimental work in the United States. There are several commercial organizations which use continuous consumer panels for gathering data similar to that obtained by retail store audits. In many cases, however, the panel technique is employed for obtaining additional information not available by retail store audits. Because of limitations of retail store audits in providing adequate information about products and their relation to the consumer, many firms have found it necessary to obtain the type of data desired by purchase of consumer panel data.

The panel technique has been the subject of much publication because of the uniqueness of panel information. A few published sources accent the methodological and operational aspects of panels.⁴⁵ However, many sources have concentrated upon the panel as a source of marketing information and its use as a research instrument in social research.⁴⁶ While there appears to be a paucity of published literature on store audits, there are several sources related to the uses of consumer panels as a research method.

Before discussing the types of information and limitations of panels, it is first necessary to define the consumer panel which was used in this research. The consumer panel referred to is defined as:⁴⁷

⁴⁵ See: G. G. Quackenbush and J. D. Shaffer, Collecting Food Purchase Data by Consumer Panel, Technical Bulletin 279 (East Lansing: Michigan State University, 1960), and Harry E. Allison, Charles J. Zwick, and Ayres Brinser, "Recruiting and Maintaining a Consumer Panel," Journal of Marketing, (April, 1958) Vol. XXII, no. 4, pp. 377-390; also Establishing a National Consumer Panel from a Probability Sample, Marketing Research Report no. 40, (Washington: U. S. Government Printing Office, June, 1953) and Problems of Establishing a Consumer Panel in the New York Metropolitan Area, Marketing Research Report No. 8, (Washington: U. S. Government Printing Office, May, 1952).

⁴⁶ Harper W. Boyd and Ralph L. Westfall, An Evaluation of Continuous Consumer Panels as a Source of Marketing Information, (Chicago: American Marketing Association, 1960) and P. F. Lazarsfeld, "The Uses of Panels in Social Research," Proceedings of the American Philosophical Society, (Nov., 1948) pp. 405-410.

⁴⁷ Raymond H. Ganley and Richard D. Crisp, "Consumer Purchase Panels Serve Advertisers, Agencies, and Media," Printer's Ink (Aug. 8, 1947) p.29.

a group of consumer units, either families or individuals, carefully selected and controlled to constitute a proportional and representative cross section of all consumer units in the population group being sampled, who report weekly, all food purchases.

The consumer panel is designed to obtain a continuous record of the behavior of consumers over a period of time. Both the store audit "panel" and the continuous consumer panel obtain information about the same cooperators. Because consumer panel observations are continuous, inferences do not have to be made for the periods in which no observation was made as they do when observations are made at separate points in time. Through analysis of the component parts of the consumer panel it is possible to account for aggregate changes which have taken place by tracing the movement of merchandise into the hands of the final consumer.

Consumer panels are comprised of participating families who maintain records where the details of all purchases made of the commodity under investigation are recorded. Although panels vary, depending upon the purpose, the typical consumer panel obtains the following information from reporting panel members:⁴⁸

1. brand of grocery or beauty aid purchased
2. type, flavor, or variety of product
3. package size
4. quantity purchased
5. price paid
6. store purchased including all types and organizations
7. whether special inducement (price off, in-pack premium, or coupon) was received.

⁴⁸ A Guide to the Organization and Services of Market Research Corporation of America, (Chicago: Market Research Corporation of America) p. 5.

The above data provides a portrayal of the purchase transaction, and is combined with classifying data of the cooperating panel member. Classifying data of panel members consists of demographic information about size of family, income, economic group, occupation of head of household, age of members of household, education, and geographic location. Most panel members report purchases weekly and are compensated by merchandise awards chosen from a catalog on the basis of points awarded for various degrees of cooperation.

Uses of Consumer Panel Data

The major use of most consumer panels is for obtaining a measurement of both the net and gross change in consumer purchases. The net change measurement is the difference in level of purchases reported by panel members between two or more periods of reporting. The gross change reflects gains or losses in units purchased between the periods considered by combining both new and old purchasers for the specified time. Gross changes are often used to obtain a measure of "new" versus "old" purchasers of the product among panel members. The net change is merely descriptive whereas the gross change is utilized in various ways. Repeat buyers versus non-repeat buyers may be analyzed relative to their classification characteristics to determine the loss or gain of certain demographic market segments. By analysis of those panel members having not

repeated purchases of a product, it is possible to determine the extent of substitutions of competitive products by non-repeat panel members. By projecting such panel members purchase data, the manufacturer can obtain an aggregate view of total sales of his brand, all other brands, non-buyers of competitive brands, and the switching that takes place between brands.⁴⁹

The complete written record provided by the consumer panel provides information as to what was purchased, where it was purchased, when it was purchased, and by what type of household. This information is then combined with the number of households purchasing for the first time, repeat purchasers, number of times each household buys, and the amount purchased each time. Careful analysis of this data can provide the marketer with information useful in determining a market profile for his product. The consumer panel is unique in providing the type of information used in promotional decisions. By correlating customer demographic profiles and their purchases of the product (heavy, light, non-use) and media audiences, it is possible to use panel information for improving media selection.

Because it is not economically feasible to cover all the types of stores which may sell particular products by use of retail store audits, consumer panel data is often used in determining the

⁴⁹Boyd and Westfall, op. cit., pp. 7-8.

relative importance of a variety of store types. Many types of outlets selling food products may not be included in the retail store audit but consumer panel members report all purchases regardless of where they are made. This information assists the panel user in recognizing distribution trends taking place and discovering the importance of the various types of outlets relative to his product.

In addition to aggregate information about market size, brand shares, package types, and seasonal, cyclical and long term trends, the consumer panel would be useful in obtaining data in studies where market dynamics are investigated. Because of the panel's sensitivity to changes in consumer buying patterns, it can be useful in evaluating the impact of new competition by obtaining measurements of the effect of competitive promotion, price, or change in packaging.⁵⁰

A partial listing of the various ways in which consumer panels have been used would include the following:

1. for discovering problems associated with product testing⁵¹
2. for judging radio programs⁵²

⁵⁰The Chicago Tribune Consumer Panel, (Chicago: The Tribune Co., 1962) p. 34.

⁵¹Marie Sellers, "Pretesting of Products by Consumer Juries," Journal of Marketing, (April, 1943) No. 4, part 2.

⁵²Hazel Gaudet and Daniel Cuthbert, Radio Listener Panels, (Washington: The Federal Radio Education Commission, 1941).

3. for determining magazine content and voting behavior⁵³
4. for measuring the sales power of advertising⁵⁴
5. for measuring the degree of exposure of magazines and television and the extent to which these reach markets for various products⁵⁵
6. for measurements of department store buying⁵⁶
7. for opinion and attitude research⁵⁷
8. for predicting early the market success of a product.⁵⁸

⁵³ Paul Lazarsfeld and Marjorie Fisk, "The Panel as a New Tool for Measuring Opinions," Public Opinion Quarterly, (Oct., 1938).

⁵⁴ Raymond Ganley and Richard D. Crisp, "How Would You Like to Measure the Sales Power of Your Advertising," Printer's Ink, (Sept. 26, 1947) pp. 44-52.

⁵⁵ A Study of the Magazine Market: Its Size, Quality, and Buying, (New York: The Magazine Advertising Bureau of Magazine Publisher's Association, 1960).

⁵⁶ T. W. Black, "Using the Consumer Panel to Measure Department Store Buying," Journal of Retailing, (December, 1948) Vol. XXIV, pp. 151-157.

⁵⁷ R. A. Robinson, "Uses of the Panel in Opinion and Attitude Research," International Journal of Opinion and Attitude Research, (March, 1947) pp. 83-86.

⁵⁸ Louis A. Faust and Joseph W. Woodlock, "Early Prediction of Market Success for New Grocery Products," Journal of Marketing, (Oct., 1960) and W. Barclay, "A Probability Model for Early Prediction of New Product Market Success," Journal of Marketing, (January, 1963) pp. 63-68.

9. for a source of data for price, income, and cross-elasticity computation⁵⁹
10. for a source of determining the extent to which a brand has become recognized in a community⁶⁰

Limitations of Consumer Panels

Regardless of the numerous advantages and uses of consumer panels, there are also certain limitations present. Certain of these center about the technical nature of establishing and maintaining a panel operation, but several are inherent limitations of this type of information source. In an address to The American Marketing Association, Mr. Samuel Barton listed the following restrictions on the uses of purchase panels because of inherent limitations:⁶¹

1. they cannot be used to directly analyze the motivation underlying purchase or non-purchase behavior;
2. they cannot provide a measure as to the reactions of family members to various products;
3. they cannot provide the reasons underlying selection of the particular store where purchases were made;
4. they provide no measure of the readership of advertisements or identification of radio and television sponsors;

⁵⁹G. G. Quackenbush, "Demand Analysis from the MSC Consumer Panel," Journal of Farm Economics, (August, 1954) Vol. XXXVI, No. 5, pp. 691-698.

⁶⁰George H. Brown, "Measuring Consumers' Attitudes Toward Products," Journal of Marketing, Vol. XIV, No. 5, (April, 1950) pp. 691-698.

⁶¹Samuel G. Barton, "What You Can and Can't Do with a Consumer Panel," an address to the American Marketing Association, Boston, (March 15, 1949).

5. they are unable to provide a measurement as to the availability of products for purchase in stores, no measure of the posted prices of all products is available or the amount of display space for particular products by the consumer panel;
6. they cannot provide a measurement of retail inventory levels.

If the consumer panel technique was employed to secure information about the previous items, it would result in a biasing and conditioning effect on the future activities of panel members. In addition to such inherent limitations, sampling and reporting problems are present.

The continuous consumer panel, like the retail store audit, is based on sampling techniques. Recruiting and maintaining a panel from a sample may affect the representativeness of the information secured from the panel. The dependence upon cooperation, and the problems in obtaining this cooperation prevents the use of a probability sample design. Because of difficulties in securing a high rate of cooperation by those selected for panel membership, few panels are selected entirely by probability methods.⁶² The problem of non-cooperation increases the sampling problem because of the difference in cooperation rates among various types of households. Because of the necessity to keep records, there is usually an upward bias of intelligence and education among panels. This may result in unreliable

⁶²Establishing a National Consumer Panel from a Probability Sample, Marketing Research Report 40, (Washington: U.S. Government Printing Office, June, 1953) p. 19.

information for products having different rates of usage by groups with different educational levels.

Over a period of time, one can expect some mortality or attrition of panel members. For various reasons panel members will drop from the panel. Those who drop from the panel may cause the remaining panel to be composed of "atypical" members.⁶³ Phase II of this research program investigated the differences existing between cooperators, non-cooperators, and those discontinuing panel membership. Because no control group is usually maintained, there is no measure of the changes that take place among another group.

The problems associated with panel reporting limits the use of information provided by consumer panels. The accuracy of information obtained may be questionable, because other members of the household make purchases other than the housewife and these may be overlooked in recording. One must consider that of those husbands who help with shopping, three out of four shop for food or related items.⁶⁴ However, only forty percent of the male members of households do practically no shopping, and the possibility of failing to report purchases by all household members is present when recording is done by other than the husband.

⁶³ Shaffer and Quackenbush, op. cit., p. 89 and Allison, Zwick, and Brinser, op. cit., p. 377.

⁶⁴ The Changing Consumer, Research Report of the Public Opinion Index for Industry, (Princeton: Opinion Research Corporation, 1962) p. 16.

In an effort to maintain their panels, commercial research organizations exercise special cautions not to obtain too much information. Even though panel members receive compensation for their participation, this is often inadequate for obtaining information otherwise desired. The incentive itself may produce further selectivity of the panel composition. If an attempt were made to secure data on the psychological make-up of panel members it could lead to a large drop-out of panel members. It is for this reason commercial panel members only classify their panels by demographic data. Such demographic data, although valuable, is not sufficient to adequately delineate market segments.

In an effort to minimize the danger of panel members becoming "experts" as a result of re-interview effects, most commercial panels have a forced turnover of members. The MRCA panel has a turnover of twenty percent each year. This includes those who voluntarily discontinue membership and those who are forced to withdraw so the total of twenty percent can be obtained. This turnover rate is to reduce conditioning which may occur. Nevertheless, there is still the possibility of remaining a panel member for a period of five or more years. Panels may be criticized on the grounds that participants are habit-ridden people as evidenced by their willingness to prepare necessary reports over such a long period of time. The question as to the

atypical nature of panel members has direct bearing upon the information they may provide in new brand loyalty studies.⁶⁵

The continuous consumer purchase panel and the retail store audit both provide useful purchase information. The choice of using one or the other, or a combination, depends upon the nature of the problem to be solved, the kind of information needed for the solution, and the efficiency-cost relationship of the alternatives. Both consumer panel and retail store audit data are primarily utilized for projecting brand shares and trends. It is unfortunate that emphasis has been given to routine projections rather than to the special analysis which can be made because of the unique nature of each method.

Store Audits and Consumer Panels in Total Market Investigations

If the interaction taking place in a particular market is to be observed, it is necessary to have some knowledge of the stores serving the market, the purchasers comprising the market, and the promotion activity that is present. If such data could be effectively and efficiently collected, it may lead to a better understanding of the nature in which one particular market is segmented. Such an

⁶⁵Ross M. Cunningham, "Brand Loyalty, What, Where, How Much?" Harvard Business Review, (January-February, 1956) pp. 116-128.

understanding may offer possible explanations why certain promotional treatments are more effective than others. The possibility that certain segments are more sensitive than others and respond differently to promotional efforts could be evaluated. Such explanation could lead to the determination of why shifts in patronage took place both among products and stores.

Because most markets for consumer goods are dynamic and changing, it is necessary to utilize research methodology which will obtain the needed information over time. The continuous nature of store audits and consumer panels could provide such information. However, because each has certain limitations and advantages, it is necessary to employ both for a better understanding of interaction occurring between buyer and seller. Each is best suited for the collection of certain types of the needed information, and neither utilized alone provides the necessary information.

Need for Audits

In a total market exploration retail store audits are needed primarily as an information source about sellers, whereas the consumer panel would provide information pertaining to the purchaser side of the market. It is necessary to employ some method of retail store audits to obtain some indication of the overall competitive atmosphere. Consumer panels cannot obtain this information but the retail store audit can provide:

1. a measure of the distribution of products by brands. It would be necessary to have a measure of the offering of various outlets. This will provide alternatives available to the purchaser. The retail audit also provides information on out-of-stock conditions.
2. a measure of the in-store merchandising activity and extent of special retail support. Much in-store promotional activity goes unreported by consumer panels.
3. a reading on competitive prices. Only those prices of items purchased are available from the panel member's diary. The price of competitive products might have been the variable accounting for this product's purchase.
4. a measure of display and shelf space allocation in addition to other merchandising activity.
5. a reading as to total store makeup and composition in the way of services offered.
6. a measure of new products available. The A. C. Nielsen Co. feels this is the major advantage of retail store audits, as opposed to consumer purchase panel data, in making product or brand projections. They feel that products change more rapidly than do consumer preferences and they can provide a better measurement of the distribution lag present.
7. a measure of the dollar sales by product, department, and store.

Need for Consumer Panels

Although retail store audits provide needed information concerning product offering and outlet, the consumer panel is necessary to secure the following information pertaining to the buyer side of the exchange process:

1. a measurement of the demographic characteristics possibly accounting for variations in purchasing and brand positions;
2. a measurement of the depth of the market in terms of the proportion of people purchasing;
3. a measurement of brand and store loyalties indicated by repeat purchasing;
4. the concentration of buying by relating frequency of purchase with number of families;
5. the number of families reached by special deals and promotional offers;
6. an accounting for items purchased in all stores where the product may be sold;
7. a measure of the effectiveness of certain promotions by accounting for coupon redemptions, extra stamps, and other specials;
8. a measure of the personality configurations of panel members if a panel was established and then systematically destroyed by obtaining too much information;
9. a measure of the importance of products making up the market-basket rather than just those items easily identified, classified, and counted;
10. a measure of life style changes on purchasing.

Summary

Much of the research pertaining to the food industry has attempted to isolate a single independent variable and analyze its effect upon sales of a particular product or group of products. This type of research has provided the food industry with information useful for

improving operating techniques but little in the way of discovering interaction that is present in the market.

Recently, there has developed an interest by the food industry and some marketing research organizations in more complete food marketing studies. Such research is generalized to cover a wide range of items and situations and relies on both survey and observational research. Because of the advantages and limitations of each, it is necessary to utilize both in such studies.

One method of observational research is the retail store audit. Retail store audits provide an accurate and practical way to evaluate aggregate consumer choice at point of sale but are inadequate in other respects. The continuous consumer panel, as a technique of survey research, can obtain much of the information needed for total marketing studies not available by use of retail store audits. Nevertheless, the consumer panel is deficient in several respects. Because each of these research instruments has certain uses, advantages, and limitations, an integration of the two methods is desirable.

By combining both retail store audits and a consumer purchase panel in one community, it may be possible to arrive at a more complete understanding of market segmentation and marketing effectiveness. This research attempted to integrate and implement both methods in one particular market. This was accomplished by obtaining measures of the buying behavior of a sample of households in a small

isolated market by consumer panel concurrently with audits of the sales results of the universe of food stores supplying their needs. The selection of the community, development of the panel reporting diary, and training of store auditors were necessary preliminary steps to implementing the proposed methodology.

CHAPTER III

PREPARATIONS PRIOR TO FIELD INVESTIGATION

Introduction

Several steps were necessary before retail store audits could be conducted or the consumer panel could be recruited and operated. The initial selection of a community for the research was as important consideration. Certain communities were expected to lend themselves more than others to the proposed research methodology. The community chosen had to be large enough to include several food stores but at the same time be small enough to accommodate financial and personnel restrictions. The development of certain criteria for selecting a community was necessary before progressing further with the research.

Upon selection of the community and securing indications of cooperation from needed persons, it was then necessary to prepare for the implementation of store audits and consumer panel. Diary forms, incentive programs, and products to be audited had to be chosen prior to field investigation. Some choices that were made in

this phase of the research led to recommendations applicable to similar studies of this type.

It was necessary to approach the tasks, events, and activities necessary in some sequential manner. This allowed for the researcher to anticipate future difficulties and plan the time and costs required more effectively. The sequential stages for this portion of the research were: (1) selection of a community; (2) obtaining the cooperation necessary; (3) selecting product categories to be audited; and (4) the preparatory work necessary for operating a consumer panel.

Community Selection Criteria

Isolation of Community

A community relatively isolated for food purchasing patterns was necessary for this research. It was necessary to locate an isolated community because: (1) there was a need to reduce the influence of alternatives available for food purchasing; and (2) to isolate the more important variables effecting food shopping behavior. For purposes of this research the term "isolation" was defined as being separated from food shopping alternatives because of spatial and temporal considerations resulting in the impracticality of making planned trips for food purchases.

In addition to time and distance, other considerations would influence the selection of the city. Among these factors were product offering and store size, but because of the exploratory nature of this

study, only travel time and distance to other communities was considered.¹

LaLonde, in studying supermarket drawing power, found small town supermarkets drew ninety percent of their customers from 1.38 miles.² If a shopping district of the community selected were to approximate a regional shopping center, this distance increased to 2.53 miles.³ These yardsticks were initially employed for selecting the isolated community used in this study.

One study found, using travel time rather than distance, that consumers will spend only about twelve to fifteen minutes traveling to reach a shopping area.⁴ The regional shopping center distance, or

¹William Applebaum and Saul B. Cohen, "The Dynamics of Store Trading Areas and Market Equilibrium," The Annals of the American Association of Geographers, Vol. 51, (March, 1961) p. 3.

²Bernard J. LaLonde, Differentials in Supermarket Drawing Power and per Capita Sales by Store Complex and Store Size, Research Report in Mass Marketing Management No. 2, (East Lansing: Michigan State University, 1961), p. 90. This study investigates store size and products relation to distance traveled, and defined a small town store as a supermarket located in a town of less than 5,000 population.

³Ibid., p. 21. A regional shopping center was defined as having in excess of fifty separate retail units dominated by a complete, full size department store. Although this investigation was to take place in one community rather than a shopping center, it was felt that these guidelines provided an adequate initial criteria to delineate communities for investigation.

⁴Victor Gruen and Larry Smith, Shopping Towns, U.S.A., (New York: Reinhold Publishing, 1960), p. 33.

time for travel, whichever greater, was used as a minimum requirement for selecting the community. Several communities within a radius of one-hundred miles of East Lansing, Michigan, were screened. Each community was additionally screened for population characteristics, cross-section of food outlets, employment base, and media availability. Foodtown was chosen as the community best meeting these considerations.⁵

Population Characteristics of Foodtown

A community approximating national and state population characteristics was desired. Although the research was not intended to be representative of other communities, some similarity was desirable to enable other studies to be based on the data. The population factors analyzed were median family income, percentage above and below median income, average size of family, and education.

United States Bureau of Census data for 1960 indicated an approximate population of 7,000 for Foodtown proper and 12,000 for both city and suburban area. This 12,000 population figure represents

⁵ Anonymity was assured for all persons and firms cooperating in the research. In order to preserve the confidential nature of some information, e.g. weekly dollar sales of cooperating retailers, product movement, and market share information, it was necessary to disguise the name of the community selected. If this had not been done, individual cooperating stores could easily be identified because of the nature of the retail food marketing structure present in this community.

slightly over twenty-five percent of the total population of the country in which Foodtown is located. Although not representative in some respects, Foodtown was chosen because it more nearly approximated these factors than other communities considered.

Table 1. --Family income for Foodtown, State of Michigan, and United States (in dollars and percents).

Income	United States	Michigan	Foodtown
Median Family Income	\$5,625	\$6,256	\$5,681
Percent Under \$3,000	21.7	15.7	19.8
Percent Over \$10,000	14.3	17.4	13.1

Source: United States Bureau of Census, 1960.

Table 2. --Median Years of Education for Foodtown, State of Michigan and United States.

Education	United States	Michigan	Foodtown
Median Education in Years	10.3	10.8	12.0

Source: United States Bureau of Census, 1960.

The increase in population between the 1950 and 1960 U. S. Census indicated that Foodtown did not increase in population at the same rate as did the county in which it is located or the State of Michigan. The population for the city of Foodtown increased 5.3% during the

1950-1960 period. This smaller population growth may be accounted for by the addition of several new urban areas adjacent to the city but not included within the city limits. These new areas are included in county figures for census purposes.

Cross Section of Food Outlets

A project of this scope required that there be a variation in the merchandising practices of the stores included in the community. These differences allowed various changes in promotion to be monitored throughout the length of the study. Foodtown had the necessary differences, because the several stores were serviced by different warehouse groups.⁶

Ideally, one would select a community with several outlets available and adjust the promotional variables of one store holding the promotional activity of the remainder constant. Because of the complexity of variables affecting sales beyond the marketing experimenters control, such scientific experimentation is impossible. In addition, the problem of extensive cooperation to the point of adjusting merchandising variables would most likely not be available from retailers serving the community.

⁶For a description of different promotional strategies employed by various food chains see: "The Great Supermarket Profit Squeeze: Relief in 1964"? Forbes, (Feb. 15, 1964), pp. 20-24.

By observing previous weekly sales plans provided by chain warehouse groups servicing outlets in this community, it was evident that varying merchandise approaches could be expected.⁷ In addition, newspapers for exactly the same period, one year perviously, were examined to obtain some indication of the promotional policies of stores not following warehouse sales plans. The available newspaper advertising indicated different approaches had been utilized during the previous year.

Fifteen retail outlets provided the grocery needs for Foodtown at the beginning of the study. One outlet discontinued business during the course of the research. These fifteen outlets were serviced by two national chain warehouses, one voluntary--cooperative warehouse group, and one regional chain warehouse. Several of the smaller

⁷The weekly sales plan provides warehouse member stores with the merchandising and promotional plan to be followed for a specified period. Typical weekly sales plans contain information regarding all promotional treatments for the time period. In addition, future promotional activities are outlined to allow member stores adequate preparation for these events. Additional information contained may include equipment for sale, availability of special bonus or priced merchandise, and certain management information regarding store operation. Weekly sales plans obtained indicated certain chains could be expected to use different merchandising approaches than those of other chains. For example, one chain's weekly sales plan indicated a heavy emphasis would be placed upon the continuation of bonus trading stamps with appropriate newspaper copy emphasizing bonus stamps. However, another warehouse group's weekly sales plan indicated that newspaper and in-store displays would revolve about a policy of low prices with no trading stamps.

outlets were serviced by a combination of three grocery wholesalers. It was observed that these wholesalers provided no merchandising plans or assistance to these customers. A profile of the retail grocery outlets and merchandising approach is seen in Exhibit A.

Employment Base

The employment base of the city chosen had to be large enough to preclude large portions of the population commuting to other communities for employment. A relatively self-contained community enabled the observer to monitor changes in promotion bearing upon those panel members making weekly purchases. If many of these purchases had been made in communities other than the one under observation, no measurement of what had occurred in promotion in these outside food outlets would have been available. Likewise, the size of the city chosen was not to be such that it would draw a large number of persons commuting for employment from other nearby areas. If a large amount of migration into the community were present, there would be no representation by these individuals on the consumer panel. By selecting a community where the daily migration to and from the community for employment was minimized, grocery purchases made by those persons residing outside the community were expected to be minimized. Also, the possibility of food purchases being made by panel members in other communities where they were employed was reduced.

Exhibit A. --Profile of retail food outlets serving Foodtown.

Store Number	Description	Merchandising Policy
1	"Mom and Pop" with one register and combined with gasoline pumps. No fresh meat, produce, frozen section, or sausage-luncheon. Approx. 250 sq. ft. with annual sales of \$24,000.	Gives trading stamps but no local advertising or in-store promotion.
2	Downtown grocery store with one register. Approx. 1500 sq. ft. of selling area. A service meat case and small self-service produce case. Carries a limited line of frozen foods. A large percent of sales are from beer and wine. Annual sales of \$104,000.	No in-store promotion, local advertising, or handbills. Does not give trading stamps and has no offstreet parking.
3	"Mom and Pop" with one register. 615 sq. ft. of selling area. No produce or fresh meat. Stocks dry groceries, dairy, and sausage-luncheon meats. High volume items are beer, soft drinks, and candy. Annual sales of \$18,500.	No trading stamps, in-store displays limited to local brands of beer and soft drinks. No local advertising.

Exhibit A. -- (Continued)

Store Number	Description	Merchandising Policy
4	<p>Supermarket with four checkout counters and 6300 sq. ft. of selling area. A fully complete store inclusive of meat, produce, dry groceries, health and beauty aids. Member of a voluntary-cooperative group. Sales of approximately \$1,040,000 annually.</p>	<p>Gives trading stamps with one double stamp day weekly and coupons for extra double stamp days. Advertises in both daily newspapers and features in-store promotion. Appears to follow a policy of slightly higher prices with more personalized attention at meat counter.</p>
5	<p>Small supermarket with two checkout counters. Approx. 2,000 sq. ft. Full line with fresh meat and produce, dry groceries, health and beauty aids. Member of voluntary cooperative chain. Follows weekly sales plan provided. Annual sales of \$260,000. Open Sundays 10:00 - 6:00.</p>	<p>Gives trading stamps, local newspaper advertising, in-store promotion. Advertising based on weekly "Raffle" for free food drawing. \$70-\$100 weekly drawing.</p>
6	<p>Small supermarket with two registers and 1200 sq. ft. Full line with limited offering. Approx. 50% of sales volume is fresh meat, with fresh produce, sausage-luncheon section, and frozen food case. Annual sales \$160,000.</p>	<p>No trading stamps or local advertising. Uses in-store displays and promotional material.</p>

Exhibit A. -- (Continued)

Store Number	Description	Merchandising Policy
7	Full line supermarket--member of national chain. Four checkout counters with 9,000 sq. ft. Complete line of fresh meat, produce, dry groceries, and health and beauty aids. Annual sales \$1,000,000.	Gives trading stamps with one double stamp day. In-store promotion & displays. Local advertising in newspaper with a policy of giving merchandise for register tapes.
8	Full line supermarket with approx. 13,000 sq. ft. Pre-packaged meat section with large sausage-luncheon meat section. Eight checkout counters. Has an adjoining limited offering of soft goods. Annual sales of \$2,000,000.	Policy of no stamps--low prices. Large off-street parking area with local newspaper advertising and in-store promotion.
9	"Mom and Pop" with one checkout counter and approx. 500 sq. ft. of selling area. A convenience type of operation that does most of its business from beverages, bread and snack items. No fresh produce or meat. Contains a closed cooler stocked with sausage-luncheon meats, milk and cheese. Sales of \$32,500 annually.	No in-store promotion or special displays. Advertises only store hours on local radio. No newspaper or handbills.

Exhibit A. -- (Continued)

Store Number	Description	Merchandising Policy
10	<p>"Mom and Pop" with one register. 600 sq. ft. of selling area with a fresh meat counter and produce. Stocks mostly convenience grocery items with a large offer in available product categories. A large beer and wine trade with total annual sales of \$75, 000 excluding beer and wine sales.</p>	<p>No in-store promotion, no local advertising, handbills or trading stamps.</p>
11	<p>"Mom and Pop" with one checkout counter and approx. 660 sq. ft. of selling space. A limited offering of grocery items, a small amount of fresh produce, and no fresh meat. Annual sales approx. \$46, 800.</p>	<p>No in-store displays, trading stamps, advertising or handbills.</p>
12	<p>"Mom and Pop" with one register and 550 sq. ft. Limited grocery items stocked, no fresh produce, and limited fresh meat of sausage type. Beer and wine best volume. Annual sales \$28, 000.</p>	<p>No local advertising, in-store promotion, or trading stamps.</p>

Exhibit A. -- (Continued)

Store Number	Description	Merchandising Policy
13	<p>"Mom and Pop" with one register. Convenience offering with large produce outside display in season. 1100 sq. ft. with frozen foods and sausage-luncheon section. Annual sales \$35,000.</p>	<p>No local advertising, in-store promotion, or trading stamps.</p>
14	<p>Member of a national chain. Located downtown with 1800 sq. ft. and two checkout counters. Limited offering of both fresh meat and produce. Small frozen foods section. Annual sales \$180,000.</p>	<p>Gives trading stamps, has some in-store displays and promotion. Local advertising. Features specials by large window displays.</p>
15	<p>"Mom and Pop" with one checkout counter. Approx. 500 sq. ft. Limited fresh meat and no fresh produce. No frozen foods section. Limited dry grocery offering. Annual sales \$44,700.</p>	<p>No local advertising, trading stamps, or in-store promotion.</p>

The possibility of selecting a community fulfilling all of these requirements in their entirety was next to impossible and had to be relaxed. Foodtown was chosen as a community which closely met the above employment restrictions. Some indication of this small employment migration was observed from panel members weekly diaries. Only six persons on the panel reported food purchases made outside of Foodtown during the ten-week period. These outside purchases were made in the city where the head of the family was employed. However, there was no measure of the extent of purchases made in Foodtown by persons outside the community at this time.

Twenty industries, varying in size from a small tool and die shop employing eight persons to a large assembly maker for the automotive industry employing over five-hundred persons, were located in Foodtown. Furniture, athletic wear, and foodstuffs were but a few of the wide range of products produced. Also present were several state institutions adding considerably to the employment base of the community. This presence of a fairly large number of state employees may have accounted for the high median educational level of this town because of state civil service educational requirements.

With an average unemployment of less than three percent and the local availability of employment for both male and female, it was felt that Foodtown provided an adequate employment base for

purposes of this study. Although no data was available for migration into and out of the community for employment and possible subsequent grocery purchasing, conversations with Chamber of Commerce officials and the largest employer's personnel manager indicated this would not be a significant number.

Media Availability

Because of the extensive use of newspapers by retail food stores for food promotion, it was necessary to have a minimum of one daily newspaper serving the community.⁸ Ideally this was to be a local publication rather than one of a nearby metropolitan community. This would confine certain promotional variables to the particular community used in the research. It would have been difficult to monitor the outside promotional material influencing purchasing in the city being studied.

Several communities initially considered as having local media available were inadequate in other respects. Foodtown had two newspapers published locally. One of these was a daily having an approximate circulation of 4300 during the period of the research, while

⁸For a description of the various uses of newspaper advertising by retail grocers and the extent of such advertising see: Colin B. Church, "How is Newspaper Advertising Used as a Competitive Tool by Chain Grocers in the Philadelphia Area?" Unpublished Masters Thesis, Wharton School, University of Pennsylvania, 1962.

the other publication was a weekly having a circulation approximating 3700.

The majority of grocery store advertising was placed in the daily newspaper. This paper featured a Wednesday food section but of a limited nature. In addition to local news, news of other communities in the county was featured. Such a format gave the newspaper the appearance of a county rather than city publication.

There were six weekly newspapers published throughout the county with a combined circulation of 12,200. The weekly Foodtown newspaper circulation comprised about one-third of this total, but grocery advertising was limited. In the past, the publisher of this paper printed enclosures with the paper for several local grocery outlets, but this did not occur during this investigation.

Other community media was limited to one 5000-watt local radio station but radio and television were available from the two nearby metropolitan areas. Television was received on six different channels, but two of these channels had marginal reception.

Because of the proximity of these metropolitan areas some measure of the newspapers which were read was desired. It was felt that one daily metropolitan paper featuring advertisements of the same chains with outlets in Foodtown would receive rather wide circulation in this community. If this were the case, some monitoring of this paper was necessary. A questionnaire was sent to over 700 Foodtown

householders. Those responding indicated that this was not an important factor. Only ten percent of those responding indicated they read this paper, and panel members indicated that only twenty-nine percent read a newspaper other than one of the two local newspapers. Although no precise measure was obtained, interviews and notations on returned questionnaires indicated that outside newspaper readership was generally confined to Sunday editions.

Obtaining Cooperation

After choosing the community most closely meeting the requirements for isolation, the next problem was to obtain the cooperation necessary from all sources. A ranking order was established to minimize the possibility of not being able to secure cooperation from some strategic member of respondents, stores, or media. The following ranking was used to insure that the necessary services would be contacted in the following order of importance: (1) warehouse groups; (2) community influences and information centers; (3) independent retailers; and (4) panel.

Warehouse Groups

Food outlets in the community were ranked by estimated sales.⁹ Sales estimates were based upon the number of checkout counters, product categories stocked, and services offered. The

⁹ These estimates were made by two experienced students

purpose of this initial ranking was to determine a priority in seeking stores' cooperation for audits. If a lack of cooperation was not forthcoming from one or more units, comprising a significant portion of total sales, it would be required that the selected community be eliminated from consideration.

The three stores with the largest sales volume were members of various national chain and voluntary cooperative warehouse groups. Through the efforts of Dr. Edward Brand appointments were made to interview the grocery merchandisers for each warehouse group.¹⁰ A presentation of the research project was made at the interview. Several important points were made in the interviews including outlining the background of the study, problem areas to be explored, the methodology to be employed, and possible results. Store managers were requested to allow the researchers to collect or provide to them the following data: store audits, weekly sales plans, and weekly dollar sales. The confidentiality of information

in the Michigan State University food marketing program. Each of these students had several years experience in the capacity of retail grocery store managers, and on the basis of this experience made weekly sales estimates for each unit.

¹⁰ These appointments were made through the office of Dr. Edward Brand, Assistant Dean of the College of Business Administration, Michigan State University. Dr. Brand's prior tenure as Director of the Food Marketing Program and reputation with members of the food industry assisted greatly in making these appointments. It was questionable if the researcher could have secured the cooperation needed without Dr. Brand's efforts.

was emphasized and it was pointed out that the results would be disguised. In exchange for such cooperation each group was to receive a profile of their Foodtown member store's customer. In addition to the profile, each store was to receive a summary of what customers and non-customers liked or disliked about the Food town store. Suggestions for product groups to be audited were solicited. The three warehouse groups approached were receptive to the proposal and each sent letters authorizing store audits to be taken to store managers.

Community Influences and Information Centers

Preliminary contacts were made with various community organizations before local independent store operators were contacted. The local Chamber of Commerce, Better Business Bureau, and the Retail Merchants Association were appraised of the research. This preceded any local contacts with potential panel members or grocery store operators. Such a procedure was to allow the researcher to establish credibility with these organizations and enhance the possibility of obtaining further community contacts.

Personal calls were made to the three previous mentioned community organizations. Proper identification was shown and the research project explained. Any assistance these organizations could offer was solicited at this time. Assurance was given that all field workers would carry proper identification and a letter of introduction

from the project director. These agencies' knowledge of the research aided the field investigators considerably, when on several occasions community members and store operators checked with these agencies on identity of investigators. This contact was also used to solicit demographic background information about the community. Local maps, industrial studies, and pamphlets describing the community were obtained from these sources. The two local newspapers serving the community were contacted at this time. An explanation of the research project was made to the news editor and cooperation was sought for later insertion of a news item concerning the project. Initial contact with newspapers was made early enough to insure that such an item would appear. If the paper would not allow a news item, then a paid advertisement was prepared for placement at the proper time.

In all cases, local community organizations and persons contacted in Foodtown were receptive to the project. Throughout all conversations regarding the project, the dominant theme followed was one of asking for assistance in the university's efforts in studying food marketing. Because of familiarity with the university such an appeal appeared effective. Without this sponsorship, different results may have occurred.

Independent Retailers

The identity of the research team was established with recognized information centers and contacts were made with unaffiliated retailers. Personal calls were made to the remaining outlets by ex-grocery products salesmen. Because of previous experience with grocery store operators, it was felt these interviewers could handle all possible objections and questions.

Each owner-operator was contacted during the morning hours Tuesday through Thursday. Such a time was found to be effective in securing the necessary time and attention required to fully explain the project. In explaining the project, emphasis upon the possible advantages to the owner-operator were explained. Each owner or operator was told that the completion of the project required the cooperation from the majority of stores in the community, and those previously contacted had agreed to participate. It was explained that in return for such cooperation a customer profile would be provided and suggestions for utilizing the data would be given. It was emphasized that the value of such profile would depend solely upon its utilization.

Each retailer was asked for permission to conduct weekly audits, provide weekly sales data, and information as to any promotional activity utilized. Confidentiality of data was to be honored and a minimum amount of time required on the operator's part was stressed.

Several unanticipated objections were encountered. The primary objection appeared to be a suspicion on the part of the smaller retailer that such a study was being conducted at the instigation of large chains to achieve further penetration in the local community. Failure to secure the participation of one retailer resulted from the failure to obviate this belief.

It was found advisable in approaching owners or operators of the smaller units to present the research project at a much more basic level than that presented to the warehouse group grocery merchandisers. Even in following this practice, several objections centered around the failure to fully understand the purpose and approach to the research. In several cases the project was outlined repeatedly but without adequate comprehension on the part of the operator. Several agreed to lend assistance even though failing to adequately understand what was required.

All except four of the fifteen outlets contacted agreed to allow audits to be taken weekly. Although weekly sales data was desired, several stores agreed to cooperate only on the condition that this data would not be provided. Those stores not agreeing to furnish sales data were estimated to account for a relatively minor proportion of total food sales in the community. No reasons were given as to why sales data was not to be provided.

Non-cooperators indicated various reasons for refusing permission to allow audits. One store initially agreeing to allow field workers to audit sales reversed this position when the field worker arrived to take the initial inventory. This particular store operator indicated that he was in the process of selling his store, and the owner did not desire his sales data to be made public. Attempts were made to assure him of the confidentiality of such data but to no avail. This store did change ownership during the period of the research.

Store Number Twelve was operated by an elderly lady of foreign birth and because of a communication barrier the research was never adequately explained to her. Her son was contacted in an attempt to secure audit information from this store with similar results. The owner of store Number Fifteen indicated that he felt it was "too much bother to have people coming and going in his stock-room." This particular owner did agree to furnish sales data for the period of the research even though not allowing audits to be taken.

Store Fourteen was a member store of a national chain which has historically followed a policy of not participating in such projects. Attempts to secure permission for audits were made through national headquarters but without satisfactory results. However, this attempt did result in the securing of average weekly sales for this store.

Even though failing to secure the cooperation from the universe of food stores serving the community, Table 3 indicates that the number of stores cooperating was sufficient for the study.

Table 3. -- Yearly sales of cooperating and non-cooperating food outlets serving Foodtown.

	Yearly Sales	Percent of Total Sales
Cooperators	\$4, 760, 800	94. 3%
Non-Cooperators	287, 700	5. 7
Total	\$5, 048, 500	100. 0%

Source: Actual sales data from eleven cooperators and estimates for non-cooperators.

Although the percentage of total sales of non-cooperators would at first appear to be understated, because of the number of these stores (4) in relation to total universe (15), this is not the case. The inclusion of a national chain, not cooperating for audits, has little bearing upon this total. This particular store was located in the center of the city with no off-street parking facilities and a limited merchandise assortment. National headquarters personnel expressed their displeasure with sales of this outlet and indicated studies were presently being made for a decision to either relocate or discontinue this outlet. The other three non-participating stores were of the small "Mom and Pop" variety with poor locations and extremely

limited merchandise. Fresh meat and produce was stocked by only one of these stores and later diary entries by panel members indicated the relationship of these stores to the total sales of all stores was as represented in the above table.

Problems Encountered and Recommendations

Community Selection

Selection of the community in which the research was to be conducted was restricted by travel limitations for field workers. No hired field staff was available because of limited funds allocated for this project. This required that the community selected be located within a driving distance allowing the field worker to complete his audit and return in the same day. Such a restriction resulted in certain communities not being considered. The arbitrary selection of the initial communities considered would necessarily induce a certain amount of bias. In most cases, these communities were looked at superficially by the researcher because of time and financial constraints. Only those cities appearing on the surface to be isolated called for further investigation. In addition, because of the close proximity of the community and familiarity with the work of the university, cooperation was found available which may have been unavailable in more distant locations.

The size of the community chosen would result in more personal influence affecting shopping behavior than in a larger community. Some measure of the degree of personal influence was obtained in Phase II of the research program. Word-of-mouth behavior patterns for food shopping may be present to a larger extent in a community of this size than in metropolitan areas.

A more comprehensive method of delineating the Retail Trading Area or extent of isolation for the community selected would be necessary. This would allow for establishment of a panel that includes members located throughout the trading area rather than just those living within the city limits and nearby urban and rural area. Several various methods may be utilized for establishing these boundaries. These methods may follow either an empirical or a gravitational approach and the specific method used would depend upon the objectives of the study, financial support, and time constraints.¹¹

Cross Section of Food Outlets

One of the objectives of the study was to obtain data useful in the analysis of consumers' reactions to changes in promotional treatments. Those food outlets servicing Foodtown's needs could be divided into three groups by order of promotional importance as follows:

¹¹ A description of various methods and their advantages and disadvantages is found in Lalonde, op. cit., pp. 150-170.

1. Large supermarkets which account for both the majority of sales and promotion. (Stores 4, 7, 8)
2. Small supermarkets which do limited promotion and next in amount of sales. (Stores 5, 6, 14)
3. "Mom and Pops" which account for a small amount of total sales and follow an extremely limited policy of promotion. (Stores 1, 2, 3, 9, 10, 11, 12, 13, 15)

Diaries indicated that customers changed stores for food purchasing, but not to the extent anticipated. Limited store switching may be attributed to the relatively small amount of promotion by several outlets. It may be desirable in future studies of this type to select either a smaller or larger community for observation. If a smaller community were selected, it should be one with a limited number of stores, but one in which intense promotional rivalry takes place. A community containing three or more stores similar in size and offering and exhibiting extensive promotional rivalry may provide a more complete measure of store switching by customers. In a larger community the amount of rivalry present is exhibited, to a large extent, in the weekly food section of the newspapers serving that community. Observation would lead one to conclude that promotional rivalry among grocery outlets would be much more intense than that present in this community.

Obtaining Cooperation

Cooperation was not obtained from the majority of persons from whom it was sought. Several sources necessary for auditing the universe of stores were not willing to lend cooperation to this research. Several recommendations applying to obtaining cooperation can be made from the experience gained in this research. These include:

1. Letters introducing the project should be sent to all sources involved in the research other than panel members before actual contact is made with those persons. Such a letter should explain the background and scope of the study and prepare the reader for later personal contact. This would provide the field worker with an 'entre'. Such introductory letters should be sent to community information sources, independent retailers, and warehouse groups with follow-up telephone calls made to establish appointments.
2. Written research outlines should be given to all desired participants in the research except panel members. Outlines should stress the cooperative aspects of such a venture. Such an outline would serve two functions: (1) it would provide answers to questions concerning the research that cooperators have; and (2) it may develop questions from cooperators concerning points that the researcher has overlooked. Such an outline would have to be limited to reduce the bias which it may introduce at the retail level. Retailers may not follow their normal merchandising pattern if they are aware of all variables investigated.
3. An offer of a limited payment to those retailers otherwise not cooperating in allowing store audits to be taken may be necessary. Remuneration for audits has been found to be successful by A. C. Nielsen Company in securing cooperation for retail audits. Conversations with non-cooperators at the end of the research indicated that two more stores could have been secured if a payment had originally been extended. If a payment is made for audits

it has to be made to all cooperators not just those initially failing to participate. Such a plan of compensation would be based upon size and importance of the establishment audited.

Product Category Selection for Store Audits

The selection of product categories to be audited was accomplished in two steps: (1) a initial selection of categories to be observed; and (2) a final selection after interviews with cooperating retailers. This two stage procedure enabled the researcher to initially provide warehouse groups and independent stores with an indication of the scope and extent of the retail audits. Final selection of audited categories was not made until after retailers were interviewed, and the initial selection was revised because of suggestions made by cooperators. Several store managers displayed an interest in specific product categories during interviews, and some of these were included in the final product category list.

The initial selection of product categories was based upon the following factors:

1. Auditability
2. Broad Distribution
3. Vitality of Movement
4. Promotional Activity

Auditability

Only those products which would provide a minimum of difficulty in auditing were selected, because field reports were to be

collected by part time personnel with a minimum of training. Correspondence and visitations with A. C. Nielsen Company personnel aided considerably in eliminating products presenting special problems in auditing. Members of the Nielsen staff stressed that the primary problems facing inexperienced auditors could be expected in "classifying" products and in obtaining all invoices. Several product categories were suggested as groups which would be more easily audited.

Perishables were not to be included because of the difficulty in obtaining actual consumer sales. Produce, bread and dairy products have either considerable spoilage or merchandise returned to suppliers for credit. These categories were not considered because of lack of adequate return and spoilage records. If audited, spoilage and returns may have been reflected in product movement because of the lack of these records. In addition, sources of supply for some product categories may be from producers, from a number of wholesale drop shippers, or from warehouse groups. Securing the necessary weekly invoices for cash purchase becomes complicated and in some cases impossible. Similar invoice problems occur in bread where returns are credited as stale merchandise is replaced.

For purposes of this study only dry groceries were to be audited. Several categories were chosen for their relative ease in auditing. These categories were initially selected using only ease of

auditing as the principle consideration. This initial selection was then evaluated using other factors and reduced to nine product categories.

Broad Distribution

Since the majority of stores providing the communities food needs were to be audited, a broad distribution of products audited was desired. The lack of frozen food cases, fresh meat, and fresh produce precluded the selection of products in these categories. Frozen foods were also eliminated because of the difficulty in obtaining some measurement of facings or exposures to the shopper. Observation of several frozen food sections provided an indication of the difficulty in obtaining such data. In many cases a disarray of items was observed and difficulty in obtaining accurate field results was forecast.

Ready-to-eat cereals were initially considered but a trial audit found this section to be too complex and time consuming within the restrictions present. The dry cereal section illustrates the need to restrict product categories to a workable number of brands and sizes. The largest supermarket contained approximately 120 lineal feet of facings for ready-to-eat cereals where the smallest independent store carried only three or four of the most popular items. If such a category was selected it would be necessary to conduct audits

on the largest section with only three or four items being used for comparisons between all stores.

Vitality of Movement

It was not anticipated that during the research product categories would be replaced by substitutes. However, this would be a consideration in research over longer periods. Nevertheless, product categories were evaluated on the basis of their vitality. Relatively stable categories were desired where a continuation of existing brands could be expected, and the addition of new brands would be limited. Ideally, one would desire the introduction of several new products so that questions concerning the effect of product introductions and discontinuances upon shopping behavior could be investigated. However, inexperienced auditors dictated that categories be chosen where these would be minimal.

In spite of cautioning field workers to include any new brand introduced in the product category during the period under observation, this was overlooked in two cases. The stability of the brands included in the product category also reduced the number of old products stocked for the first time by the store during the research. This aided the field worker in obtaining more accurate observations by minimizing first-time stocked items.

Promotional Activity

This research attempted to obtain information useful for later evaluating promotional effectiveness. Measures of promotional effectiveness would require that items audited receive promotional treatments during the research period. Items receiving price specials, deals, cents-off labeling, advertised specials, and in-store merchandising treatments would be included. In prior studies, products receiving price or promotional changes have often been discarded, due to the researcher's inability to account for variation in sales resulting from these uncontrolled variables.¹² Unlike attempts to control the experiment to measure the effect of one variable, this study attempted to secure some measure of as many observable variables affecting sales as possible. Therefore, product categories where a variation in promotion could be expected were desired.

Categories Selected

Nine product categories were chosen to be audited. These categories most closely met the criteria for inclusion. The following product categories were easily auditable, represented broadly, and could be expected to receive some promotion treatment over a ten week period:

¹²Coxe, op. cit., p. 64.

1. Canned Peaches
2. Canned Peas
3. Catsup
4. Canned Tuna Fish
5. Aero-Spray Starches
6. Instant Coffee
7. Wax and Plastic Wraps
8. Cooking Oils
9. Dry Dog Food

Two categories included deserve special mention. Canned tuna was chosen because a portion of the research was to be conducted during the Lenten Season. This category was expected to receive heavy promotion treatments during this time by various stores. The dog food category was included at the request of a large supermarket cooperator who suggested this item to be one heavily promoted in this community.

Recommendations for Selecting Product Categories

Information about the number of different brands and sizes for each product category was necessary before determining the number of categories to be audited. Cooperating warehouse groups made order forms and price lists available for this purpose. Even after analyzing these, other sizes and brands were discovered during the preliminary audit. It would be advisable to visit larger retailers to secure the number of items the audited categories include. Such items as dry dog food would have been reconsidered upon discovering that one supermarket carries over thirty-five individual brands and sizes.

It may be feasible to select product categories based upon the largest distribution by one outlet. This would provide the maximum number of items to be audited in any one outlet, and give some indication of the time required per audited store.

Diary Selection and Development

Substantial literature is available relating to the type of diary kept by panel members.¹³ Articles containing descriptive or illustrative material pertaining to diary types and formats were reviewed, and samples of diaries used by panel operators were obtained. Diaries were received for investigation from MRCA panel, Chicago Tribune, National Family Opinion, MARPLAN division of McCann-Ericksen, University of California, and Michigan State University.

The content and format of these diaries was carefully reviewed and the decision was made to use the diary developed for a previous Michigan State University Consumer Food Purchase Panel conducted by Shaffer in Lansing, Michigan. This diary was chosen

¹³ Seymour Sudman, "On the Accuracy of Recording of Consumer Panels," unpublished Ph.D. Thesis, University of Chicago, 1962 and Seymour Sudman, "On the Accuracy of Recording of Consumer Panels." I and II, Journal of Marketing Research, May 1964, pp. 14-20 and August, 1964, pp. 69-83. Also, James D. Shaffer, "Methodological Bases for the Operation of a Consumer Purchase Panel," unpublished Ph.D. Thesis, Michigan State College, 1952, and Franklin Cawl, "The Continuing Panel Technique," Journal of Marketing, (August, 1943) pp. 45-50.

for several reasons. The M.S.U. diary was a ledger type diary. The ledger format for consumer diaries consists of fairly complete breakdowns of product categories and items and purchases are recorded in the proper pre-coded section of the diary by the panel cooperator. If no items are purchased for the category, the panel cooperator is required to indicate this by placing a check in a no purchase made space. The journal diary allows the panel cooperator to record purchases in any sequence she chooses within very broad categories. The ledger diary may assist in recall for recording by panel members. The journal type diary leads to further expenses in extracting and processing data as compared to a pre-coded ledger diary. The M.S.U. diary was developed after experimentation with five diary formats. The M.S.U. diary was chosen because the type of diary used influences survey results and there was previous data available concerning the reliability of this diary.¹⁴ In addition, this diary could be utilized, with minor changes, for it had been developed for use in the same geographical area and was available to the researcher.

The original Michigan State University diary contained no space for the recorder to list where purchases were made, whether promotional specials were available, or the specific brand or name of the item purchased. Another limitation of the M.S.U. diary resulted

¹⁴For a description of the different diary forms evaluated and tested see: Shaffer, op. cit., Chapter 16.

from the heavy concentration on food items by the operators of this panel. Non-food items were also to be audited as well as food items in this research, and it was necessary to add certain product categories to the M.S.U. diary. (See Appendix A-12.)

The original M.S.U. weekly consumer food purchase diary was modified as follows:

1. Spaces were provided for recording brand purchases, where purchased, and special price, coupon, or other promotional activity. In order to enable the researcher to have sufficient space for these items, it was necessary to delete in some cases grades and other descriptive data contained in some product classifications.
2. Product classifications for soaps, detergents, starch, paper products and dog foods were added. These classifications replaced nuts, nut products, vitamins, and minerals.
3. Questions pertaining to income received by the household for the week reported were deleted. It was felt that the initial information received from the questionnaire would be adequate because the length of this research was to be only ten weeks. In addition income data was to be sought in a follow up interview by later researchers.
4. Directions for keeping the diary were modified to accommodate the use of a different incentive program for panel members.

Diary Limitations and Recommendations

Correspondence and requests for diary suggestions from panel members during the research period indicated the following information for modifying the diary format used:

1. Fruits and vegetable product categories should be broken into a fresh and processed section. Several members indicated this would have facilitated their completion of the diaries and eliminated the possibility of only considering the classification as being only fresh or packed. Several comments were received early in the study and a reminder that all fresh and processed fruits and vegetables were to be included under the major category was communicated to consumers through a panel newsletter.
2. A provision for number of shopping trips and the days of these trips should be made. This would provide useful information in future studies of promotional effectiveness. Such promotional treatments as double stamp days, bonus stamps, and special promotions could be obtained from promotional audits. These items could then be compared to determine if certain patterns emerged for particular classifications (demographic or psychological) of panel members.
3. Certain items could be combined that were not of importance to the research. This would reduce the task of completing the weekly report by the panel member. General categories could be established allowing the panel member to fill in purchases made under these classifications. The ledger diary would still be utilized but it would feature some of the advantages inherent in the journal type diary.¹⁵ Combining various classifications of meat products into one category would be an example.
4. If only limited product categories are to be audited, the diary could be reduced to include only these categories plus a limited number of other classifications.
5. No provision was made for the recorder to report where bread and milk were purchased. Because a larger proportion of some store's sales are accounted for by these items, restrictions of later types of analyses that can be made are present.

¹⁵ Sudman, op. cit., 75-76.

Panel Incentive Program

Little evidence is available on which to base the type and amount of material incentive needed to obtain maximum cooperation from panel members. Cash payments, merchandise incentives, or a combination of both appear most frequently used. The amounts of incentive necessary for panel members varies with individual panels. Sudman, in studying the accuracy of panel reporting, found the percentage of households willing to maintain a continuing purchase diary and the accuracy of their recording appeared to be independent of the level of compensation.¹⁶

Correspondence with panel operators indicated that the proposed panel should be compensated for fullest cooperation for the ten week reporting period with an equivalent wholesale gift priced at \$1.50. This figure was increased to approximately \$3.00 because extensive interviews of panel cooperators were to be conducted at the close of the recording period. Such an additional compensation was used in an effort to obtain increased cooperation for this phase of the research.

Several mail order premium houses were contacted in an effort to secure merchandise incentives in the \$1.00 to \$3.00 price range. In most cases, those available were \$5.00 to \$25.00. Because

¹⁶ibid.

of the unavailability of satisfactory merchandise premiums and possible administrative difficulties in making cash payments, a merchandise point schedule was developed in cooperation with a mail order house. (See Appendix A-5.)

Published guidelines for choosing a premium were followed in developing the merchandise list.¹⁷ The following four considerations were made in developing the premium schedule:

1. Premiums should be something the prospective respondent would find desirable.
2. Premiums had to be something that did not introduce bias, --A premium should be the kind of thing everybody in a given universe could be interested in.
3. Premiums had to be small and light enough to be easily mailed.
4. Premiums were not to exceed \$3.00.

Panel members were remunerated by points with bonus points given to encourage a greater continual return of completed diaries. Points needed to secure the majority of premiums required almost complete cooperation for ten weeks. By weighing the number of items from which premiums could be selected toward the high point side, continuous cooperation was expected to be more easily obtained.

¹⁷Paul L. Erdos, "Successful Mail Surveys: High Returns and How to Get Them," Printer's Ink, (March 1, 1957) pp. 56-60.

Bonus points were given for mailing the completed diary on Sunday or Monday and certifying that all members of the household's purchases were included. Points were added after the tenth week and totals provided to panel members who then selected the item(s) which they wished to receive. On the return card indicating preference, panel members were also asked to indicate whether they saved trading stamps or not, and if so, which kinds. Any questions overlooked previously should be obtained at this time because of the relative assurance of a high response. Only two percent of the panel members receiving this card failed to either answer questions about stamps or return the card.

Incentive Limitations and Recommendations

In spite of what may appear to be a relatively problem-free portion of the study, several major problems were presented by this facet of the research. The two major areas in which these could be classified were: (1) point misunderstanding on the part of panel members; and (2) prize selection and procedure.

It would be advisable for future studies of this type to confine prize selection to limited categories. A choice of two or three items in each point range of 100 points would eliminate much administrative work necessitated by panel members requesting premiums for which they were not eligible. Panel members lacking only a few

points, on several occasions, attempted to obtain premiums which required additional points. A limited descriptive catalogue could be compiled which would assist in the recruiting effort of prospective panel members for a relatively small amount.

In attempting to delineate factors bearing upon new product acceptance, a combination of incentive plans may be utilized. Panel members at the beginning of the study could be given a choice of choosing from the prize list or taking a chance on a larger more expensive prize to be selected by drawing. Once this decision was made it could not be changed. Points could then be given as chances for this lottery. Hopefully, some broad general measure of overall risk taking on the part of the consumer could be determined. The usefulness of such a measure of risk could then be applied to new product purchases by high risk takers as opposed to low risk takers.

Points awarded should be mailed weekly in the form of coupons which can later be redeemed. This will eliminate confusion as to points earned by the panel member. Several panel members failed to adequately understand the method in which bonus points were earned, and much later correspondence could have been eliminated by use of coupons and more adequate explanation of the point system. This confusion developed from certain panel members not understanding that they could only qualify for the number of diaries completed for bonus points one time.

Summary

Several communities were investigated as possible research sites. Foodtown was chosen as the community most meeting established requirements. This city was relatively isolated for food shopping from other communities by both distance and travel time. In addition, Foodtown had two local newspapers available normally featuring food store advertising. The employment base of the community was large enough to preclude large number of residents migrating to other communities for employment and subsequent grocery shopping. It was anticipated that the number of outside variables effecting food shopping could be reduced by conducting the research in such a self-contained and isolated community.

Expressions of cooperation were obtained from warehouse groups, newspapers, and grocery store managers. In few cases was cooperation not available. However, due to the lack of permission to audit four grocery stores, only eleven of the fifteen grocery stores present were subject to examination. These eleven stores accounted for about ninety-five percent of all grocery sales made in Foodtown.

Nine product categories were chosen to be audited. This selection was based upon ease of auditing, distribution among outlets, vitality of movement, and the amount of promotional activity expected during the research. The panel diary was developed from a diary

previously used in a M.S.U. study. It was necessary to modify the original M.S.U. diary to accomodate this research. Certain product categories were deleted and other categories included to provide for reporting of non-food purchases. Panel members were to receive points for reporting which could be exchanged for merchandise selected from a premium list.

Some limited field investigation was necessary preparatory to choosing product categories to be audited and diary development. Contacts were made with all grocery store operators in Foodtown following previous visitations for estimating each store's sales importance and product distribution among stores. However, preliminary field investigations did not include actual store auditing. Audits were taken only after the completion of some audit training by field investigators.

CHAPTER IV

EXECUTION OF STORE AUDITING AND PROMOTIONAL MONITORING

Introduction

Retail store audits were taken weekly in the eleven co-operating stores for thirteen weeks. These audits obtained consumer sales information for nine product categories from January 23, 1965 until April 24, 1965. The Foodtown consumer panel reported purchases during the last ten weeks that store audits were taken.

Prior to auditing, a limited amount of training was given to field investigators. This training was not as extensive as desirable, but was thought sufficient due to the types of products being audited and the previous experience of auditors. In spite of this training and cautions made to field investigators, several errors in auditing later occurred.

Food promotion taking place in Foodtown for the thirteen week period was monitored. Special emphasis was placed upon obtaining promotional information directly relating to the nine audited product categories, but more generalized promotional activity was also observed and recorded. Several grocery stores in Foodtown

used a very limited amount of merchandising activity and the majority of promotional effort was made by five stores. Four of these five stores were extending cooperation for auditing their establishments.

Period of Audit

The thirteen week period chosen for store auditing was selected for three reasons: (1) to insure the presence of different promotional treatments for the audited categories; (2) to provide a three week trial period of auditing for field investigators in addition to the ten week period of audits taken simultaneously with the panel recording period; and (3) to facilitate the use of part-time field personnel.

Several product categories were expected to receive heavy promotional treatments during this time. Warehouse grocery merchandisers had perviously given an indication of some products to be featured in later weekly sales plans when first interviewed. Canned tuna fish and dry dog food categories were selected for auditing based primarily on conversations with grocery merchandisers. In addition, canned tuna was expected to receive extensive promotional treatments by most stores during the Lenten Season. It was therefore desirable that the audit period include the entire period of Lent.

Because inexperienced personnel were used in auditing, it was desirable that the period of audits be long enough to allow for some on-the-job experience and store product familiarization, by

investigators. Investigators were graduate students enrolled in a graduate food marketing series, and store audits had to be taken during a time that facilitated the availability of these personnel. The presence of university vacations was minimized during this thirteen week period.

Training of Auditors

Audits were taken by students enrolled in the graduate food marketing seminar at Michigan State University. The background of these students dictated a decision to minimize the amount of audit training.¹ The limited number of product categories to be audited also contributed to this reduced training period.

A visitation was made to the A. C. Nielsen Company's Training School for Auditors before field personnel were trained in auditing procedures. During this visit, Nielsen personnel stressed the extensive preparation that their auditor trainees received prior to qualifying for field positions.² The importance of accuracy, familiarity with forms, and product classification problems were areas that Nielsen personnel suggested be covered in training.

¹These students were experienced personnel in grocery store operations with experience as store managers, food products salesmen, or independent grocery store owner-operators. The experience in food store operations of these men ranged from three to twenty-two years.

²Trainees are trained in audit procedures and techniques for a period of 6 months by the A. C. Nielsen Company before being given field assignments.

Training of student auditors concentrated primarily on theory of retail store audits, audit forms to be used, product categories to be audited, importance of retailer corporation, and controls to be exercised. These topics were covered in class sessions followed by a three week period of trial audits. Problem areas discovered during the weekly audits were covered in follow-up class sessions.

Information supplied by A. C. Nielsen Company was used in the explanation of the theory and uses of retail audits. Nielsen personnel emphasized that field auditors should first be exposed to the basic idea underlying retail audit research before recurring problem areas are covered. The basic idea of retail audits was presented using the framework of the equation: $\text{consumer sales} = \text{opening inventory} + \text{purchases} - \text{present inventory}$. This equation was later modified to accommodate various problems leading to possible inaccuracies. Among the points presented were: (1) inaccurate counts; (2) missing invoices; (3) inter-store invoices; and (4) returns for credit. These four problem areas were covered by sample problems illustrating their effects upon the basic equation and results. Nielsen methods used in recognizing and remedying problem areas were presented.

The audit form used in this research was developed by incorporating several features of commercial audit forms. Auditors spent a total of six hours in practice sessions computing product movements using this audit form. Special examples and sample

problems were chosen to emphasize the cautions needing to be exercised in field work. (See Appendix B-1.) Auditors not only became cognizant of the reasons for inaccuracies, but also gained a working knowledge with the audit form in these practice periods.

A list of all brands stocked in cooperating stores was compiled from order forms and price lists of warehouses. This master list indicated that several local, regional, and private brands were carried by cooperating grocery stores. Lists of brands expected for the individual stores were compiled by product group and given to each auditor. Auditors were expected to familiarize themselves with the brands carried by the store for which they were responsible. These brands were to be transferred to audit sheets, and were expected to be of some assistance in taking counts of back-room stocks during the initial inventory. The master list provided each auditor may not have contained all brands, and each auditor was cautioned to add brands carried to his audit sheets on his initial inventory. The possibility of retailers stocking brands for the first time during the audit period was discussed, and auditors were cautioned to constantly be alert for such items.

Store operators had little incentive to continue in their cooperation, and the importance of a friendly and courteous manner for establishing and maintaining rapport with owners and operators was stressed. Good relationships were necessary not only with store

personnel but customers as well. Shelves and store rooms were to be arranged as found at the beginning of each audit. Permission was to be requested from the retailer, at the initial audit, for putting all products in their proper space at the end of each visit without changing facings or merchandise arrangement. Products needing to be remarked for price or out-of-stock conditions were to be called to the attention of the manager. Retail audits entail an outside person to be present in the store for several hours, and the possibility of a cumulative effect of this "nuisance" may result in the withdrawal of cooperation. It was emphasized to field auditors that only by extending assistance and maintaining good relationships with store personnel could cooperation be expected to continue.

Auditors were reimbursed only for travel expenses and mileage forms were to be submitted weekly. Completed audit forms for each weekly audit were to be submitted at the same time. Auditors were to be monitored by both early observational trips and an independent audit taken at various times during the research. In addition, invoices were inspected periodically at certain warehouses by the writer.

Execution of Store Audits

Each auditor was assigned to audit the same store each week throughout the research. The three stores having the largest estimated weekly sales volume were each assigned an additional person.

Three larger stores were audited by persons having prior experience as managers of similar type stores. Letters of introduction were provided each auditor for presentation at the time of the initial interview.

Stores were audited each Tuesday morning. Tuesday was selected for several reasons. Because of heavy weekend shopping traffic, several stores did extensive restocking of shelves on Monday, and this increased the possibility of auditors failing to account for all in-transit items. Shelf stocks may have been replaced from carts or pallets moving from stocks to selling floor after shelf items had been inventoried by the auditor.

Wednesday, Fridays, and Saturdays were undesirable days for executing audits because these were heavy shopper traffic days. Double or bonus stamps were given on Wednesday by two of the three largest grocery stores. The normal heavy traffic on weekends precluded audits being taken on these days if auditors were to be least obtrusive.

The first three weeks of store audits were not conducted in conjunction with the operation of the consumer panel. This three week period was needed to provide audit experience and store familiarity for auditors. The list of brands carried by cooperating stores had to be modified during the opening inventory and it was necessary for store auditors to eliminate certain brands from weekly audit forms that were

not carried and add others to the form. These forms were then reproduced by individual auditors in the quantity necessary for the remainder of the research. Questions regarding the classification of items were resolved during the three week trial period. Dietetic canned goods and specialized dog foods were two product categories requiring special attention. The decision not to audit these items or banquet sizes of canned goods was made. Special problems were encountered by auditors in physical counts of special merchandise displays. The importance of accurate counts was stressed even if they could be obtained only at the cost of a tearing down and reconstructing displays.

At the end of the three week period when auditors had become acquainted with locations of product categories and stocks, a measure of the time involved in each stores audit was obtained. The time required for two persons to audit the nine product categories for the three largest grocery stores was one-and-one-half to two-and-one-half hours. The eight smaller stores required an average of one-hour for auditing the nine classifications. In one of the smallest stores, the entire audit was accomplished in twenty minutes.

Table 4. --Number of items audited in each product category for all cooperating retail food stores.

Product Categories	Cooperating Retail Outlet #											Total Number of Items Audited in Each Category
	1	2	3	4	5	6	7	8	9	10	11	
Canned Peaches	2	4	2	6	7	4	19	15	1	7	1	68
Canned Peas	2	1	2	8	5	2	11	13	1	2	2	49
Tuna Fish	3	3	1	10	6	2	9	13	2	2	2	53
Spray Starch	1	1	1	5	3	1	5	9	1	2	1	30
Instant Coffee	6	5	3	17	12	5	20	21	3	11	8	111
Dog Food	4	5	1	20	17	1	29	30	1	9	5	122
Cooking Oils	2	2	1	9	6	2	13	16	1	4	2	58
Wax & Plastic Wraps	3	2	1	7	5	2	8	7	2	4	3	44
Catsup	1	4	2	10	7	3	9	10	2	3	2	53
Total Number Items Audited for Each Store	24	27	14	92	68	22	124	134	14	44	26	

Audit Problems and Recommendations

Obtaining Invoices

It became apparent after the initial two weeks of audits that invoices for two stores would be difficult to obtain. One of these stores received deliveries on Tuesday and Thursday afternoons from the warehouse group. These invoices were sent the same night to another store owned and operated by the same management. Central records were kept at this out of town location a considerable distance away. Auditors, because of the lack of invoices, could only take inventories each week, and not calculate weekly sales. To overcome this problem, arrangements were made to secure invoices every fourth week by making a special visit to the central office to inspect all invoices and allowances for credit.

Invoices were not available for the largest grocery store Foodtown. All records were maintained at the chain's central office and only shipping documents accompanied warehouse deliveries. Any shortages or overages were recorded on these documents for credits or deductions. These corrected shipping records were then returned to the central accounting office. Corrected invoices had to be copied on a bi-weekly basis at chain headquarters. However, due to an oversight by the person recording this information, two weeks of invoice records were not obtained until after the completion of audits. This necessitated going back and computing weekly product movement for

the nine audited categories at a later date. Computations for product movement for this one store required approximately 125 more hours. This time could have been reduced considerably if movements had been computed by the auditors of that particular store. If necessary funds had been available to pay for duplicate copies of invoices, many later problems could have been alleviated. In addition to classification and invoice problems appearing early in the field auditing, several minor problem areas also developed. These problems were as follows:

(1) new products or first time stocked items; (2) weekly dollar sales from stores; (3) scheduling and control of auditors; and (4) audit form used.

New Products

Two new products were introduced to one of the audited product categories during the research. Hunts Pizza Catsup and Hunts Hickory Catsup. Auditors in all stores but one recorded these new additions to product line. In this one store, these items were introduced by use of a special merchandise display not closely located to other products in this category. The auditor assigned to this store failed to record the addition on two successive weeks. Only when this oversight was called to his attention by the writer, acting in the role of an observer, did he become cognizant of this product. Total product movement for this item was determined from invoices, but it was

necessary to average product movement for the two week period. This was thought to be the best method for treating this error even though it was not completely accurate, because of the likelihood of differences in exposure and acceptance for the two weekly periods.

A systematic procedure to be used for monitoring new products would be desirable. This is particularly important when using part-time personnel. A check off item may be necessary for each product category to serve as a reminder to the auditor. An appropriate space for (new products - yes or no) could be included for each classification. Each auditor would be required each week to check this item against both inventory and invoices. Possibly, the best solution to insuring the auditing of new additions is to increase the amount of emphasis given to this in training sessions.

Weekly Dollar Sales of Cooperators

Cooperators were originally requested to provide weekly sales data. Sales data was expected to be obtained for total weekly sales with additional break-downs into meat, produce, dairy, and dry grocery sales. Several cooperators initially agreeing to furnish such data later would not make sales totals available. Only seven of the eleven audited stores provided weekly total sales figures. Three stores furnished only an estimated yearly sales total, and two of these stores made no weekly totals and only kept monthly figures as required by

state sales tax regulations. One store had cooperated for auditing only on the condition sales information would not be made available. Two of the stores providing only yearly sales totals were among the least important stores in sales in the community. Smaller stores were found more reluctant in furnishing dollar sales information than the larger outlets. Because of their small size, it may be advisable to extend a small payment for maintaining and furnishing sales information. With the apparent small income from these establishments, such an offer would appear justified and in all probability acceptable.

Audit Forms

Extracting data from audit forms was complicated by the lack of pre-printed audit forms by brands and sizes. Pre-printed forms were unavailable because the product offer of each cooperating store was unknown until the opening inventory had been taken. Because each auditor added or deleted certain brands or sizes at the time of his initial visit, brands or sizes carried by several stores were not in the same order for all stores. Pre-printing audit forms by brand and sizes after the opening inventory would have minimized much of the time required to extract data. Even though several stores had a very limited product offering, pre-printing all brands and sizes available in the community would have allowed for pre-coding and facilitated later tabulation of the data.

Promotional Monitoring

Preliminary plans for Phase III of the research program called for developing some estimate of the impact various promotional treatments have upon shopping behavior. The desirability of using various promotional treatments depends not only upon the retailer who elects to implement them, but also upon the impact the promotion has upon different groups of customers. Three groups of customers would be affected by promotional variations: (1) the present customers of the retailer introducing the variation; (2) those customers purchasing from direct competitors; and (3) customers of other establishments not considered to be direct competitors. If measures of effectiveness for various promotional alternatives are later to be made, it was necessary at this time to monitor the impact of various promotions upon customer segments. Some method of obtaining measure of competitive reactions also appeared necessary. It was therefore desirable to obtain measures of promotional variations using both a macro and micro approach.

An audit of all promotional activity directly relating to the nine audited product categories was made. In addition, a limited measure of all food promotion in this community was obtained. Because retailers are concerned with total transactions rather than individual items, it was necessary to monitor food promotions indirectly affecting the product movement of the nine audited categories.

The consumer panel diaries were designed to obtain limited information relating to impact of promotional variations on market segments. Panel diaries provided space for recording special prices, coupons, or other promotional activity relating to specific purchased products. Diaries are useful for providing measures of positive actions taken to promotion, but can furnish little information about the total promotional activity present.

Retail store audits were used to obtain some measure of the promotional information directly associated with the selected categories chosen for auditing. Shelf space allocation, price, and merchandising activity were recorded. With adequate resources, it would be possible to obtain measures of all in-store promotion with no foreseeable difficulty.

In addition to panel diaries and store audits, other sources were monitored for promotion. All newspaper grocery store advertising for a thirteen week period was obtained. Both Foodtown newspapers were observed and a file of grocery advertisements was maintained on a daily and weekly basis. All cooperating and non-cooperating food store advertisements were recorded.

Weekly sales plans were provided by each warehouse group that made these available to member stores. Three cooperating stores religiously followed the warehouse weekly plan in their merchandising activity. A fourth cooperating store was receiving a weekly warehouse

sales plan but did not adhere to it closely. Each weekly sales plan was obtained prior to the week it covered. Store auditors then familiarized themselves with the plan and observed the extent to which it was employed by cooperating stores.

Store managers were requested at each audit to indicate the amount of local radio or television placed the previous week by their store. In only one case was radio advertising used and this was institutional. No monitoring of magazine advertising, radio, or television was employed. The importance of this omission is realized and was dictated by manpower and financial restrictions. The explanatory nature of this investigation did not seem to justify this part of the monitoring to the exclusion of other aspects.

At the completion of the research panel members were asked to report whether or not they saved trading stamps and the kinds that they collected.

A measurement of the characteristics of stores "most" liked and "least" liked was obtained by the researcher conducting Phase II of the project, from both panel members and other persons who had refused to become panel cooperators or had not been solicited. Measures of certain store characteristics were obtained by use of a scale using a most liked - least liked - spectrum. Measures of responsiveness and non-responsiveness of food store advertisements and personal influence were obtained at this time. (See Appendix C.)

Summary

Weekly store audits were taken of eleven cooperating grocery stores in Foodtown. These audits were taken by inexperienced auditors who had received only a limited amount of previous auditing training. The first three weeks of the thirteen week audit period was used as a training period for the field auditors. In spite of cautions given in prior classroom training sessions about possible problem areas, several mistakes were made by auditors during trial audits. Several problems developed during the last ten weeks of store audits but most of minor importance. However, one serious problem developed which places limitations on future analyses of the research data. Cooperating retailers had expressed a willingness to provide the researcher with weekly dollar sales figures, but only seven of the eleven stores later provided this information. Fortunately, those not providing sales figures were smaller stores. A request for yearly sales information was then made rather than pressing for weekly sales information and possibly losing cooperation for audits. Three of the four stores agreed to cooperate in providing yearly sales information.

Promotional variations were monitored by use of panel diaries and store audits. In addition, local newspaper, radio, and TV advertising was recorded. No measures of magazines entering the households of panel members or outside radio and television were obtained. At the end of the consumer panel reporting period,

panel members were asked to furnish additional information about trading stamps, perception of Foodtown grocery stores, and their observation of grocery store advertising.

CHAPTER V

RECRUITING AND OPERATING THE FOODTOWN CONSUMER PANEL

Introduction

An integral part of the research plan for a total market investigation was the establishment and operation of a consumer purchase panel. This panel was to be operated concurrently with the retail store audits of food outlets servicing the community. The objective of the panel was to obtain some measurement of food purchasing behavior by a selected group of consumers on a current basis. The data obtained was to then be analyzed in aggregate and compared with audit data for reliability and use in projecting product movement. A later phase of the research program called for the analysis by certain demographic and psychological characteristics of reporting panel members. The panel was to provide the repetitive-continual information necessary for delineating changes in buying habits for the period. Such information, compiled and analyzed on an individual household reporting basis, would facilitate the examination of internal shifts or changes that had taken place. In addition, the panel was to be utilized for a later phase exploratory study investigating the characteristics

of panel members, non-panel members, and a random sample of the population. This was to ascertain whether these groups differed in relation to measures of needs, values, and demographic characteristics. The establishment and operation of the consumer panel centered about three major areas. These were: (1) the sampling problem; (2) obtaining cooperation and information for panel participants and non-participants; and (3) the reporting burden and degree of cooperation.

The Sampling Problem--Literature Review

A probability sample design accurately drawn allows precise inferences to be made about the population for the period of time covered. The panel operator must consider the problem of securing cooperation when choosing his sampling technique. This becomes more critical when one considers that cooperation must be secured on a continuing basis rather than for just one time. Even though the superiority of the probability design for panel construction as compared to a quota design is well recognized statistically, it is lacking in other respects. Several attempts at establishing panels using a pure probability sample have been made.¹ Because of the high refusal rate for

¹See: U. S. Dept. of Agriculture, op. cit., and J. D. Shaffer, "A Plan for Sampling a Changing Population Over Time," Journal of Farm Economics, (Vol. XXXVI, No. 1), pp. 154-163.

cooperation, it is difficult to maintain the panel composition as intended. The final sample for the panel usually ends in being a quota sample because of the cooperation and drop-out problem.² Boyd and Westfall point out the importance of carrying randomization as far as possible before introducing the necessary modifications because of these cooperation and drop-out problems. By doing so, it allows a systematic geographical scatter and determination of areas for purposes of later substitution for panel members discontinuing panel membership or having been forced to drop from participation. For substitution purposes, households within the same geographical areas are likely thought to be relatively homogeneous with respect to certain desired characteristics.

A review of the literature indicates that many local panels have initially started with a probability design for sampling purposes. The 2,551 families selected for the initial sample for a Medford, Massachusetts, panel were drawn by serial selection from the city directory.³ Only nineteen percent of this group indicated a willingness to cooperate. In a panel conducted jointly by Marketing Research Corporation of America and the United States Agriculture Department,

²Harper Boyd and Ralph Westfall, An Evaluation of Continuous Consumer Panels as a Source of Marketing Information (Chicago: American Marketing Association, 1960), p. 14.

³Allison, Zwick, and Brinser, op. cit., pp. 377-390.

a three stage approach to probability sampling was employed.⁴ Places for initial investigation were selected randomly from U. S. Census tract data. This step was followed with the random selection of blocks and dwelling units within the place.⁵ The sampling procedure for an earlier Michigan State food panel used a two stage approach.⁶ A sample census was made using a random sample of households. These sampled households were chosen by utilizing the Nth residential address of the directory for the City of Lansing. This random sample of households comprised the master panel. Data from the master panel was then used in cross classifying the population of households into socio-economic groupings. Size of family, age of homemaker, education of homemaker, and the income of the family were the variables for group determination. All families in the sample census were then serialized by sorting of these variables and each Nth family was drawn from the master panel for listing as an original panel member. Subsequent attempts at recruiting resulted in a 47% refusal by those persons so selected.

⁴U. S. Dept. of Agriculture, op. cit., pp. 3-7.

⁵Ibid.

⁶Quackenbush and Shaffer, op. cit., pp. 3-15.

Foodtown Sampling Procedures

The distance from retail food outlets was expected to be a variable having effect upon consumers' store selection choices in the community. It was therefore desirable to have panel members dispersed throughout the geographical area. It was for this reason that panel membership was to include not only the immediate city of Foodtown but the urban and rural areas as well in the population. In addition to obtaining geographical dispersion, the research also was to be evaluated from the representativeness of the panel composition when selected in a slightly different manner than normally used.

In the present study the unit to be sampled was the household. Because food shopping is done for the household or family, in most cases, households were chosen as being the most representative unit for matters involving family expenditures. The universe to be sampled for this investigation consisted of all households in Foodtown and a surrounding area. The 1960 United States Bureau of Census definition of household was used. By defining a household as including those persons living in a dwelling unit, which is in essence a room or group of rooms, occupied or intended for occupancy as separate living quarters and having separate cooking equipment, the following units were those making up the universe:

1. Families composed of a family head and all those other persons living in the home who are related to the family head by blood, marriage, or adoption, and who are living together and sharing common housekeeping facilities.

2. Families in which living accommodations are shared with persons who are unrelated.
3. Individuals who are living alone and maintaining house-keeping facilities.

Those persons excluded were individuals residing in boarding houses, transient hotels, where no housekeeping facilities were available, and those in institutions. It was concluded that those excluded from the sample did not represent a significant number who bought food for home preparation.

In addition to choosing the sample unit to be used, the problem of how it was to be chosen was present. Should the units be randomly chosen individually or be included within some kind of area or cluster? Although it is recognized that cluster samples decrease the cost of sampling, the efficiency is also simultaneously decreased. Both efficiency and costs were important considerations. It was felt the efficiency of the sample would not be appreciably decreased by cluster or area sampling. By choosing a sample by area or clusters the efficiency could be evaluated in relationship to the cost savings. Pure random sampling of individual households over a large area gives a dispersion of type. However, random sampling for panel purposes, by nature, results in obtaining a higher proportion of some types than of others. Cost considerations dictated the use of an area or cluster sample to be employed in establishing the panel. By framing the population to be studied geographically, the concentration by the

interviewer in certain areas led to important and necessary cost savings.

It was felt that the efficiency of the sample would not be impaired by clustering if the size of the clusters or areas was kept small and their incidence well scattered throughout the sampling universe. A random selection of clusters within the area would contain or approximate closely the right proportion of households within the aggregate general area. The results obtained from the units within the small cluster and the general area would provide uniform results. In political polling, uniform results have been obtained between small clusters and the general areas from which these clusters were chosen.⁷ In this case, not every individual in the group was taken but certain specified individuals were taken on a systematic basis.

If studies of a continuous nature involving dynamic behavior are to be investigated over a long period of time, the use of a block or area sample appears advantageous. Panel operators have discovered that certain socio-economic classes are more difficult to recruit and maintain as active panel participants than others. It is possible that many of the problems of maintaining panel representativeness over a long period of time may be alleviated by utilizing

⁷Wasson, op. cit., p. 148.

clusters within stratified areas regardless of socio-economic quotas.

Wasson, in discussing the drawing of a sample, states:⁸

One application the author has never seen which seems worthwhile considering is that of the application of area or block samples to panel studies. One of the great weaknesses of every kind of consumer panel is the fact that, from the moment of its inception, no matter how representative at the start, it becomes progressively nonrepresentative. Each family becomes a day older every day and the age and sex population is thereby affected. It would seem reasonable that a sample consisting of blocks of dwellings in certain areas, regardless of their occupants, might, if workable, give a sample that would retain its representative character for long periods. Blocks or clusters from new construction area would have to be added as time went on. In any case, only some form of block or cluster sampling could hope to maintain representative character in a panel.

If an isolated market were to be investigated over a long period of time, a block or cluster design might be the only type providing desired panel representativeness over time. This investigation attempted to evaluate such a suggested sampling approach for panels, even though the time period was relatively brief. Some indication of the effectiveness of such methodology is obtained by comparing panel composition to the general areas from which clusters were drawn both for the initial composition of the panel and for the composition of panel members at the end of the ten week period. Such comparison of beginning and ending panel composition to the aggregate provides some indication of the possibilities such a sampling procedure offers. This is especially

⁸Wasson, op. cit., pp. 149-150.

appropriate when one considers that the largest number of panel members discontinuing panel membership occurs in the first few weeks of panel reporting. A later phase of this research was to be a comparison of personality differences between panel members, non-panel members, and those discontinuing panel membership and so no provision for panel replacements was made at this time.

Sample Census

The ideal source for providing information from which areas and clusters can be drawn would be a census tract for the community being investigated. Due to the unavailability of a census tract for this particular community, it was first necessary to construct a suitable map which could be utilized as a frame for sampling purposes. This map included all households within a radius of four miles from the center of town. This area extended beyond the immediate city limits from a minimum of one-half mile to a maximum of three miles.

Several sources were used for the development of this map. These were sectional maps provided by the electrical company, a city directory completed one-month prior to the research, and county and city assessor's property tax rolls. Sectional electrical maps were combined to make one large map of the desired area of investigation. This map contained all buildings supplied with electrical power for the area covered. This included public buildings, residences, business

establishments, and new construction. Each of these buildings was then cross referred with the city directory and assessor's tax rolls to determine omissions if present. Power company sectionals were current to the day they were furnished to the researcher. These sectionals were found to be the most complete source as several omissions were found in both the directory and tax rolls. In the latter case, these omissions resulting from the delay in posting to tax rolls those residences recently completed. By combining all three of these sources, a high degree of confidence was had that all households were included in the area. A total of 2616 households were included in the population.

Selecting Areas and Households

A stratified area probability sample was then drawn. Tax rolls and observation were used for determining areas appearing to be relatively homogeneous. Areas were observed and categorized by outside appearance. This was done with the knowledge that a large amount of subjectivity was present in this choice of areas. A total of eighty such areas, each including approximately thirty households were outlined and numbered on the map. Each area contained from twenty-six to thirty-seven households. In eighty per cent of the areas there were either thirty or thirty-one households. The variation in number of households resulted from the attempt not to split blocks between areas.

Areas could have been delineated by the super imposing of a grid overlay and numbering each grid. If such an overlay had been employed, the resulting grids would have been equal in geographical size but not representative as to the number of households contained in each. In addition, because rural and urban areas were included, many such grids would have contained a very minimum of households and in several cases none at all.

By use of a table of random numbers twenty-three areas were selected. All households in each of the selected areas was then sent a mail questionnaire. This questionnaire was to secure certain demographic and food shopping information for the area. Although the cover letter accompanying the questionnaire attempted to secure an indication of the respondent's interest in becoming a panel member, panel members were not selected from volunteers.

All households in each area were listed in sequence by systematically proceeding from the furthestmost northeastern household. Each household included in the area selected was assigned a number and one household was then chosen randomly as a starting point. The interviewer attempting to secure cooperating then contacted households in sequence by the listed ordering. The desired sample size of panel members was two hundred. Because of the difficulty in securing cooperation and of maintaining membership because of discontinuance of the part of some initial participants, over-sampling

was employed. Each interviewer was directed to obtain thirteen co-operators in each area, or a total of three hundred households.

Panel Recruitment

The one-interview approach was used in recruiting panel members. This approach was made after the study was put before the people of Foodtown by newspaper publicity and pre-recruitment letter accompanying the mailed questionnaire to all households in the selected areas from which panel members were to be drawn. (See Appendix A-2.) By utilizing a one-interview approach, the opportunity for interviewer rapport building before questioning panel participation was not possible. While a two-interview approach would provide the opportunity of securing certain household characteristics not available by mail questionnaire, other panel research suggests that a two-interview approach is actually less effective in recruiting panel members than the one-interview.⁹

Time spacing and budgetary limitations of the panel operation, in part, dictated a decision not to rework "no-contact" households. Other panel research findings were also considered in following such a policy. Although elements of contradiction are present, there

⁹Allison, Zwick, and Brinser, op. cit., pp. 377-390. In the Medford panel twenty-five percent of the families in the one-interview sample agreed to participate as panel members whereas a willingness to participate was shown by only eighteen percent of those in the two-interview sample.

are strong indications that reworking "no-contact" households for panel construction is inefficient.¹⁰

Interviews for securing panel participation were conducted by MBA students enrolled at Michigan State University in a graduate marketing research course. One interviewer was assigned the responsibility for recruitment in each area. Each interviewer was provided with the ordering of households for his area and told to go on to the next household in the case of "no-contact."

Because of the wide diversity of backgrounds among interviewers, it was necessary to train interviewers prior to field work.

Training consisted of nine hours and included the following topics:

1. An overview of the research project.
2. The theory, uses, and limitations of continuous panels.
3. The importance of this part of the project.
4. The sample methodology.
5. Establishing rapport.
6. Prior information available to households.
7. Diary construction.
8. Instructions and training to be given cooperators.
9. Likely problems to be encountered by interviewers.
10. Instruction sheets, premium schedule, and interview control.

As seen in Table 5, only six of the 23 interviewers obtained the desired 13 cooperators. This was the result of several factors. Because students volunteering time were used, each could

¹⁰Ibid. A "no-contact" was considered to be a not-at-home, not able to devote time to the interview, or a member of the household answering who was not relevant to the interview.

Table 5. --Number of households agreeing to panel membership and numbers of those returning diaries by area for the ten week period.

Area	Agreeing to Return	Number of Diaries Returned by Week									
		1	2	3	4	5	6	7	8	9	10
5	12	8	5	6	6	6	6	6	6	6	6
6	12	8	6	5	5	6	5	5	5	4	4
8	12	8	8	8	8	8	8	8	8	7	7
9	13	12	10	10	10	10	9	9	9	9	9
10	13	12	10	11	12	11	12	11	11	11	11
11	12	7	7	7	7	7	7	6	6	6	6
12	11	10	10	10	10	10	10	9	9	9	8
14	13	9	8	8	9	8	9	9	8	8	8
17	9	7	7	5	6	5	5	4	4	4	4
24	7	3	3	3	3	2	3	3	2	3	1
27	11	8	7	5	6	6	6	6	6	6	6
33	10	7	6	6	6	6	6	6	6	6	6
35	9	9	7	7	7	6	6	7	6	5	6
40	14	13	12	11	12	10	10	10	10	10	10
48	11	7	5	4	4	4	4	4	4	4	4
57	13	10	9	9	9	9	8	8	8	8	8
64	12	11	10	10	10	10	10	10	10	9	9
65	15	8	8	7	7	8	8	8	8	8	8
68	11	7	7	7	7	6	6	6	6	6	6
69	11	5	5	4	5	4	5	4	5	5	4
70	12	8	7	6	6	6	6	6	6	6	6
72	12	7	6	5	5	5	5	5	5	5	5
74	12	8	6	5	5	4	4	4	3	3	3
Total	267	192	169	160	165	157	158	154	151	148	145
Percent 100		71.9	63.2	59.9	61.8	58.8	59.1	57.6	56.8	55.4	54.3

devote a limited amount of time to this project. The number of co-operators is a direct reflection of the time available for interviewing in most cases. Nevertheless, it is well known that some field interviewers are more effective than others and this research was no

exception. Interviewers in areas seventeen and twenty-four encountered the largest percent of refusals of any of the areas. Of 325 contacts, there was an agreement to participate by 267 of these households, or eighty-one percent. This reply was looked at favorably, as a thirty to forty percent refusal rate had been anticipated.

Each interviewer after securing an agreement to participate then spent approximately twenty minutes instructing the cooperator in completing the diary. A diary and stamped envelope were left with the cooperator for the following week's report. Each cooperator was left a set of instructions for diary completion and a premium schedule. Those agreeing to participate were told that any questions they had could be asked on the back page of the diary, and new diaries would be mailed to them with a return envelope. If the cooperator had not completed and returned the mail questionnaire which had previously been sent, the interviewer obtained the necessary information at this time.

Panel and Area Demographic Comparisons

It was necessary to have information regarding income, education, and family size of panel members in relation to the area's population from which they were drawn to determine the representativeness of the panel. This information for the areas was not available from known sources. It was therefore necessary to secure the

information by questionnaire. This was to be of a very limited nature. The brevity of the questionnaire was desirable for two reasons. First, it was anticipated brevity would result in a higher rate of completed returns than a longer and more detailed questionnaire would bring; and, secondly, an extensive amount of information was later to be obtained from panel participants, as well as non-cooperators, in another phase of the overall project.

The demographic information sought was for use in comparison to census data available for Foodtown. Information sought regarding food store selection choices was desired to insure the isolated nature of the market under study. If a large number of those responding indicated they shopped elsewhere, then an alternative community would have been chosen.

Questionnaires were sent to all households in the twenty-three selected areas. A total of 753 questionnaires were mailed with 409 returned, or fifty-four percent. Of those received, 401 were usable, or fifty-three percent. Ten questionnaires were returned as unknown or moved. In spite of this high return, it was felt that a much higher return may have been obtained if the accompanying letter had requested completion of the questionnaire even if there was no interest in participating as a panel member. Although possible that this might have brought a higher return, a smaller rate of cooperation for panel participation may have resulted. By not indicating the

selective nature of the panel, some agreeing to participate might not have done so if they did not think this was to be a selective group.

No follow-up or secondary request for completion was used. A follow-up asking for a return, even though no interest in participating was present, would seem appropriate to investigate. Two types of accompanying letters could also be used with this type of sample. The rate of questionnaire return could then be measured with the degree of success in obtaining panel cooperation by use of a combination of cover letters sent to each area or similar areas. The high rate of cooperation obtained with inexperienced interviewers would seem to indicate that the accompanying letter may be an important factor in later securing panel cooperation and would warrant additional investigation.

Of the 401 usable questionnaires returned, 172 of these were returned by persons who later agreed to become panel co-operators. Completed questionnaires were obtained from those agreeing to participate but not having previously returned the questionnaire. A comparison between 192 households submitting at least one diary and all other households for which income information was available can be seen in Table 6.

Table 6. --Income for sampled areas and panel members* by percent.

Income	Sample Areas	Panel Members	Percentage Point Difference
Under \$1,000	2.7	1.0	-1.7
\$1,000 - \$2,999	11.3	9.3	-2.0
\$2,999 - \$4,000	11.3	11.4	+0.1
\$5,000 - \$5,999	18.7	19.6	+0.9
\$6,000 - \$6,999	16.3	19.1	+2.8
\$7,000 - \$9,999	26.0	23.8	-2.2
\$10,000 and over	13.3	15.5	+2.2

* Panel member is one who returned at least one diary.

Although the percentage point difference does not exceed 2.8 in any case, this does not compare as favorably when considered in relation to U. S. Census data for Foodtown and the county in which it is located. (See Table 7.) On the face of such a comparison one

Table 7. --Incomes for selected ranges expressed as percents.

Income	Foodtown	Foodtown County	23 Areas	Panel
Under \$3,000	19.8	21.9	14.0	10.3
Over \$10,000	13.1	8.9	13.3	15.5

Source: United States Census, 1960 and Mailed Questionnaires.

might easily conclude that both the areas chosen and the panel composition were weighted toward the higher income groupings. This is not necessarily the case, and may be explained partially by the

presence of a five year time difference in the data. The 1960 Census was taken at a time when the largest employer in this community was operating with a high percent of unused capacity. This employer, as well as several smaller ones, is engaged in manufacturing component parts for the automotive industry. At the time of the 1960 Census employees of these firms were scheduled on a 3-4 day work week. The improved economic conditions in the automotive industry had a direct reflection upon employment and income conditions for the period when questionnaire data was obtained. At this time, a five day work week was standard with approximately seventy-five percent of the labor force working some overtime. In addition, many previously not working were now employed. This change in economic conditions would result in a decrease in those in the under \$3,000 group and a slight increase in the over \$10,000 group. Editor and Publisher estimated income per household for 1965 for Foodtown to be \$6,693 as compared to a \$5,681 median income in the 1960 Census and a \$5,091 income for the county.¹¹ This would be a direct reflection of the change in economic conditions as Editor and Publisher draws heavily on U.S. Bureau of Census data.

A comparison between area and panel composition for level of education is seen in Table 8 and Table 9. The largest percentage point difference in level of education completed by both husband and wife was found in the twelve year category. The difference

¹¹ Editor and Publisher (New York, Jan., 1965), p. 230.

Table 8. --Husband and wife's education for sampled areas and panel*
by percents.

Education	Sampled Areas	Panel	Percentage Point Difference
Husband			
7th Grade or less	0.7	0.0	-0.7
8th Grade	12.0	11.6	-0.4
9th Grade	2.6	3.4	+0.8
10th Grade	8.2	8.7	+0.5
11th Grade	6.0	5.2	-0.8
12th Grade	45.2	48.2	+3.0
1 yr College	6.3	6.3	-0-
2 yr College	4.8	3.4	-1.4
3 yr College	1.1	1.1	-0-
4 yr College	6.3	6.9	+0.6
5 or more yrs College	5.2	4.6	-0.6
Wife			
7th Grade or less	2.8	1.5	-1.3
8th Grade	8.2	7.7	-0.5
9th Grade	4.7	5.1	+0.4
10th Grade	6.6	6.6	-0-
11th Grade	6.9	5.1	-1.8
12th Grade	47.4	52.0	+4.6
1 yr College	8.5	7.7	-0.8
2 yr College	4.4	3.6	-0.8
3 yr College	3.8	3.6	-0.2
4 yr College	4.7	5.1	+0.4
5 or more yrs College	1.5	1.5	-0-

* Panel member is anyone returning at least one diary.

between mean level of education for husband and wife for the twenty-three areas and panel members was insignificant. This data compares favorably to 1960 Census data which showed the median school years completed for Foodtown to be 12.0 years and for the surrounding country 10.4 years. By including several rural areas among the twenty-three areas from which the panel was obtained, one could expect the level to be slightly below that of the immediate city. Educational changes are not reflected as rapidly as income changes and this panel appears representative of the household population being sampled. As Census data does not give breakdowns by school years completed, except for persons 25 years of age or over, no comparisons by groupings have been made.

Table 9. --Mean education for sampled areas and panel* in years.

	Husband		Wife	
	<u>Sampled Areas</u>	<u>Panel</u>	<u>Sampled Areas</u>	<u>Panel</u>
Mean Education	11.8	11.8	11.6	11.7

*Panel member is anyone returning at least one diary.

Table 10 illustrates the size of family for the 23 sampled areas and the consumer panel. Although the panel household size is slightly above that of the county (3.46) and that of Foodtown (3.6),

the nature of panel membership may offer explanation for this difference. Those persons having larger households may view panel participation as a means of improving their food purchasing in light of the increased importance food purchases have to their total spending as the size of family increased. This may offer partial explanation as to the discrepancy between panel households and county and Foodtown population per household. However, even though there is a close approximation for household size between the panel and the areas from which panel members were recruited, the discrepancy existing between area and panel household size in relation to city and county figures is not explained. This discrepancy may possibly be present as the result of data errors from questionnaires or the lack of comparability between the data because of the use of 1960 Census information for county and city household size. Hopefully, some explanation might result from the later phase of this research, which is to explore the differences between cooperators and non-cooperators.

It is difficult to accurately determine if the panel composition was representative of the population because of the short period of panel reporting and only having area data available with which to make comparisons. Because the data that is available is not strictly comparable, it would be necessary to take a sample census of the Foodtown population. This sample census could be done by mail questionnaire and personal interview. The data obtained by such a random

sample could then be utilized as a base of comparison. At the close of the reporting period such a random sample was taken, but was not available to this researcher at the time of this writing.

Table 10. --Size of family for sampled areas and panel by percents

Number in Family	Sampled Area	Panel	Percentage Point Differences
1	8.4	5.6	-2.8
2	22.3	23.6	+1.3
3	16.6	17.5	+0.9
4	19.6	20.1	+0.5
5	17.2	17.0	-0.2
6	7.8	8.7	+0.9
7	4.0	4.1	+0.1
8	2.5	2.6	+0.1
9	0.3	0.0	-0.3
10	0.9	0.5	-0.4
Mean Family Size	3.7	3.8	

Panel Cooperation

During the ten week period of panel operation, a total of 1599 diaries were received from those initially recruited for panel membership. Slightly over fifty per cent of those cooperating returned all diaries for the total period involved. (See Table 11.) In addition to those that initially refused to participate as panel cooperators, approximately twenty-eight per cent of those that did agree to panel

membership never became active members. An active member was considered to be one who submitted one or more diaries. This number of non-active members exceeded the number of panel members later discontinuing reporting for the remainder of the period by 10.5 per cent. Although those submitting diaries for the entire period were greater than the return for many mail questionnaires, several recommendations for future panel operations of this type were discovered.

Table 11.--Panel members returning diaries
(by number returned and percent)

Number of Diaries Returned	Number of Panel Members Returning	Returns as Percent of Those Agreeing to Return
1 or more	192	71.9
2 or more	175	65.6
3 or more	172	64.4
4 or more	167	62.3
5 or more	164	61.4
6 or more	160	59.9
7 or more	157	58.8
8 or more	151	56.5
9 or more	142	53.1
10	135	50.5

Interviewers left only one diary and mailing envelope with each panel member at the end of the recruiting interview. Subsequent diaries were to be mailed weekly to active panel members. The dia-

ries for the second weekly reporting period were mailed only to those returning the previous weekly diary. Those persons agreeing to complete diaries but failing to return the initial diary were sent a follow-up post card which reminded them that the first weekly diary was overdue. If no diary was then received, the second and all subsequent diaries were not mailed. It is possible that a larger number of active panel members would have resulted if diaries had continued to have been mailed throughout the first several reporting periods. These may have reinforced the commitment for agreement by serving as a weekly reminder. Whether the additional active panel members resulting from such a procedure would have outweighed the additional associated costs with such continuance is questionable. Nevertheless, an investigation into this area would seem justified in light of the large number agreeing to participate but never becoming active panel members.

Budgetary considerations prevented the use of long distance telephone calls or the use of a full-time person to service panel members. Telephone or personal interviews would have resulted in a higher rate of cooperation. Questions arose among some agreeing to panel membership after the initial interview for cooperation was over. These unanswered questions resulted in a hesitancy on the part of some to send in the first diaries. This was brought out in the interviews conducted among non-cooperators at the end of the reporting period. Such

questions could not be anticipated or answered by postal follow-up, but a personal conversation could have well led to the alleviation of concern over participation on the part of some with the subsequent persuasion necessary to recruit these persons to active panel membership.

After the twenty-eight percent attrition of those not returning the first weekly diary, the largest discontinuance in panel reporting came at the end of the second week of panel operation. Approximately eight percent of the 267 who had agreed to cooperate at the end of the recruiting interview, dropped from panel membership at this time. Subsequent attrition of panel members averaged only one to two percent each week thereafter. By the end of the ten week panel period, seventy-five percent of those returning the first weekly diary remained as active panel members.

Panel Maintenance

Normal procedures for maintaining panel cooperation were followed. These included two newsletters to the panel, telephone calls, and return mail in answer to specific questions. It was felt that these combined to result in a close and personal working relationship with panel members. Telephone calls were made to five panel members weekly by each of those persons taking retail store audits. These calls were to further a harmonious working

relationship by asking about any problems or difficulties encountered in diary completion. Each person was encouraged to continue doing a complete task of recording. Several panel members wrote that they appreciated newsletters and telephone calls as it indicated to them a sincere interest on the part of panel operators in their recording work. Telephone calls were not used for securing additional information about the characteristics of each reporting household but they could have easily been used for this purpose.

One person working twenty-five hours weekly was required to receive and mail new diaries to panel members. Received diaries were checked for completeness and points earned. If omissions were observed, a note was sent requesting the necessary information. It would appear that those less conscientious in their reporting discontinued panel membership early. It is interesting to note that of the twenty-three panel members discontinuing reporting after the first week, fifteen of these had been sent notes concerning omissions. Several of these reported back that panel membership required more time than they had anticipated and that too much was expected as to completeness of diaries.

Recruiting Replacements

An attempt to recruit replacements by mail for those having discontinued panel membership was made during the fourth week. A letter outlining panel membership and a request for participation was sent along with the diary for the fifth week to seventy-seven households. Households were chosen randomly from those not having been previously contacted for panel cooperation in five different areas. The five areas chosen were those with the lowest number of active panel members at the end of the third week.

Three requests were returned as "not able to locate" and of the remaining seventy-four, only nine indicated a willingness to participate by returning a completed diary. Seven of these nine returned five or more diaries. Of the remaining two, one returned only the initial diary while the other returned one additional diary.

This attempt at mail recruiting resulted in only a twelve percent agreement from those contacted, with only nine percent remaining as active members for the remainder of the panel reporting period. If the results of this effort reflect upon recruiting an entire panel, almost every household in the community would have had to have been contacted for cooperation if the same size panel that was actually recruited was to result.

The letter of recruitment might have been the cause of such a low response for cooperation. A further consideration would be that this low reply resulted from these households being located in areas where other households were currently reporting. Having not been asked to participate at the same time when neighbors and friends had been might account for some portion of the poor response. Nevertheless, it appears that mail recruiting alone for panel membership in this type of community does not appear profitable.

At the end of the ten week period, panel members were sent a letter and enclosed post card with their point total and were asked to choose the appropriate premium from the merchandise list. Additional information concerning trading stamps was also sought at this time. An order for premiums was placed with a national mail order organization upon the receipt of all cards. Because of administrative problems on the part of the vendor, the mailing of premiums was delayed for two months. During this time an advertisement was placed in the daily newspaper informing panel members of the delay. This delay in premium shipment directly affected the willingness on the part of some panel members to supply additional information sought in the next phase of the total project.

CHAPTER VI

PANEL RELIABILITY FOR BRAND REPORTING

Introduction

The methodology utilized in the Foodtown study provides a rich source of data which is suitable for further analytical explorations. Data on demographic and personality attributes was available upon completion of the first two phases of the research. This data is valuable for future explorations into questions concerning brand and store loyalty patterns. In addition, simulation models describing food marketing in this community can be developed incorporating such factual information.

This investigation also provides necessary information for making explorations into the reliability of panel generated data. The need for such investigations has been called to attention by Boyd and Westfall who state that:¹

Much remains to be discovered as to what biases are present, the source of such biases, their impact on data reliability, and ways of minimizing the effect of these biases.

Data on panel reliability remains questionable because of the lack of verified facts against which the researcher can make panel comparisons.

¹Boyd and Westfall, op. cit., p. 20.

Because of this lack of verified factual data, little has been done to evaluate the reliability of panel data or investigate panel bias by means other than making comparisons to manufacturer's sales records.² The validation of panel members reporting by making comparisons to manufacturer's actual sales data leaves much to be desired. In most cases, previous investigations have compared projections of panel data to sales records on a national basis. These studies assume that if projected panel data and company sales information compare favorably, then other panel data is satisfactory. Because of the possibility of compensating biases this may not be true. It is possible that compensating errors in reporting may result in a fairly accurate panel projection at the national level, but leave much to be desired by the user of panel data concerning market penetration into local markets. Certain markets may over-report brands purchased, but may be offset by other markets under-reporting brands purchased. However, the opposite case may occur. The market area panel may over or under report purchases of particular brands and this error may not be offset by another area. The result may be a distorted picture.³ The user of such panel information may

² For an example of such an investigation into the reliability of panel generated data see Sudman, op. cit.

³ Robert N. Wadsworth, "The Experience of a User of a Consumer Panel," Applied Statistics, Vol. I, No. 3, (Nov., 1952), pp. 169-178. Mr. Wadsworth reports that favorable comparisons between panel projections and actual sales were present nationally,

or may not be reaching the target market which he has set out to obtain. In addition, manufacturers usually sell to a broader universe than that measured by the consumer panel, and considerable caution must be used in validating manufacturer's shipments for comparisons with panel projections.

The objective of the researcher in investigating consumer panels is not only to discover if the technique or method works but to explore the theoretical base of such a method. The procedure may be unsound and work as a result of compensating errors, or the procedure may be sound and work as an accurate predictor. Furthermore, the procedure may be sound and not work due to poor technique. It is not enough to discover whether or not reliable predictions result from panels. As has been previously explained, a better understanding of market behavior requires considerably more than just projections of total market volume or estimates of market share. If consumer panels are to be used as a method of marketing research, then additional work toward explaining and understanding the interrelated variables is necessary.

but comparisons of sales per person in seven regions with panel results was not too satisfactory. He attributes the over-statement present in several regions to the atypicality of panel cooperators and the small number of heavy users which distorted panel projections.

A pilot investigation into panel reporting accuracy is used in this study to serve as the base for such studies. Retail store audits for selected categories of products was used in the pilot study to make comparisons with consumer panel projections. The first step in the analysis consisted of making comparisons of Foodtown panel data with information on an aggregate dollar basis. Next, an investigation into the quantities of various brands reported by panel members was made to actual product movement obtained by store audits. This cross comparison required that some measure be made of the amount of purchases made in Foodtown by those outside the sampling frame. Information was then used for making inferences concerning the over or under-reporting of panel members.

Expenditure for Foodtown Panel
vs. Other Sources

Comparisons between other studies and Foodtown consumer panel reports can be made for the purpose of evaluating, to some extent, aggregate under-reporting or over-reporting which may have occurred. Comparisons were made with the Bureau of Labor Statistics' figures for the U. S. and North-Central region.⁴ BLS information was obtained by personal interview from a representative

⁴Fabian Linden, Expenditure Patterns of the American Family, (New York: National Industrial Conference, 1965).

cross section of the non-farm population during 1961 and the first half of 1962. The BLS data was adjusted by the Consumer Price Index to facilitate comparisons with the data generated by the Foodtown consumer panel in 1965.

Panel members who reported for all ten reporting periods were selected for comparison to BLS data for urban and rural areas.⁵ Panel members reported an average weekly expenditure of \$19.19 for all diary items. This figure compares favorably with the adjusted (by Consumer Price Index) national urban figure of \$19.50 as reported by the BLS. However, there are several factors that must be taken into consideration.

This adjusted BLS value of \$19.50 represents the expenditure for only food items by those sampled households in the United States. Several categories reported by the Foodtown panel, such as laundry aids and paper products, are not represented in the BLS \$19.50 figure. This \$19.50 amount is increased to \$20.73 when the expenditures incurred for household operations are included. This \$20.73 figure is 108 percent of that reported by the weekly Foodtown panel. This indicates a very close relationship; nevertheless, this national urban figure can be further reduced to facilitate comparisons

⁵Urban figures are those for places of 2,500 to 50,000 inhabitants. This information is available only on a national basis and not presently available by region.

with the Foodtown panel expenditures in relation to expenditures for urban households in the North-Central region.

The United States average weekly expenditure, adjusted by the Consumer Price Index to represent 1965 figures, for food and household operations as reported by the BLS was \$23.39. This amount included not only metropolitan areas but urban and rural areas as well. For the same period the North-Central adjusted weekly expenditure for food and household operations was \$22.32 or approximately 95 percent that of the national average. It was necessary to assume that North-Central urban expenditures were made in the same proportion to national urban expenditures as were total North-Central expenditures to total United States expenditures. North-Central urban adjusted expenditures were reduced to \$19.69. This figure was 103 percent of the expenditure reported by the Foodtown panel. The \$19.19 expenditure reported by the Foodtown panel was just over 97 percent of the North-Central urban adjusted figure of \$19.69.

An additional adjustment in the North-Central urban expenditures is possible. The BLS reported in 1961 that rural household expenditures were 86 percent of the national expenditure for food and household operations. The inclusion in the Foodtown panel of several rural households would further reduce the difference that existed between panel reports and BLS figures. The BLS uses the interview recall method for obtaining expenditure figures, and the

error associated with this method may account for the remaining difference. Several studies have indicated that the interview recall method tends to overstate purchases.⁶ One such study indicates that the recall procedure results in a twenty percent greater expenditure than that obtained by panels.⁷ This overstatement of the BLS statistics may offset any difference because of the size of households. The BLS average household size was 3.2 versus 3.8 for the Foodtown panel. Thus the data available indicates that the Foodtown panel reported expenditures closely approximating those expenditures reported in other sources. There is the possibility that due to non-response errors in panel cooperation the Foodtown panel was atypical for food and household operation expenditures. This fact may be an important area for research into the biases existing in the consumer panels.

⁶See Daniel B. Levine and Herman P. Miller, Response Variation Encountered with Different Questionnaire Forms, United States Department of Agriculture, Marketing Research Report no. 163. (Washington: U.S. Government Printing Office, April, 1957) pp. 16-18. Also see Joseph F. Metz, Jr., Accuracy of Response Obtained in a Milk Consumption Study (Ithaca: Cornell University, July, 1956), and J. Lansing, G. Ginsburg, and K. Braaten, An Investigation of Response Error (Urbana: Bureau of Economics and Business Research, University of Illinois, 1961).

⁷Quackenbush and Shaffer, op. cit., pp. 35-39.

The Reporting Accuracy for Brands
by Consumer Panels

The manufacturer of nationally branded products must have some measure of the responsiveness to his products within local markets as he often finds his strongest competition to be from items other than competing nationally branded goods. Retailers private brands provide the strongest competition to national brands in certain markets.⁸ Because the degree of brand preference and loyalty influences the manufacturer's marketing mix, it may be necessary for national brand manufacturers to utilize consumer panel techniques at other than the national level.⁹ It is necessary to validate the predictive power of the consumer panel for sales if it is to be utilized for determining penetration and interaction in local and regional markets. If is necessary to validate the predictive power of consumer panels, not only for national brands, but for local brands as well. Validation for local markets will require a different technique from the present simple comparison of panel projections to manufacturers shipments.

Several studies attempting to validate consumer panel reporting in comparison to other marketing research techniques have

⁸ John V. Ziemba, "Private Labels Climb into Key Marketing Positions" Food Engineering, (July, 1958) pp. 52-54. Also see: "Private Labels Peril Concept of Brand, GMA Told," Advertising Age (July 24, 1963) p. 3f.

¹⁰ E. B. Weiss, "Will Retailer- Controlled Brands Seek Broader Distribution?" Advertising Age, (September 23, 1957) pp. 106ff.

been conducted in the past.¹⁰ Some of these studies have been made in local and regional markets. These studies have been conducted in large metropolitan areas where consumer panels were operated. The most notable of these was conducted by Sudman. Sudman compared the accuracy of diary recording to the consumer survey recall method. Thirty-one food products and eleven non-food items were investigated for panel and recall performance in the Chicago Metropolitan area. Information obtained for the recall method was available from the Chicago Sun Times-Chicago Daily News Consumer Analysis, and compared to the Chicago Tribune consumer panel information for the same market. The comparisons were based on distributions of the ratios of recall brand shares to diary brand shares by brand groups.

Sudman concluded that nationally advertised brand shares were overstated by approximately fifty percent on recall surveys as compared to panel diary records. On the other hand, chain brands were substantially understated. It is unfortunate that no information is available comparing panel projections for the nationally advertised brands and other brands with actual sales for this period. The results indicate that panels may over-state or under-state brands, but possibly to a lesser degree than the consumer recall.

¹⁰ Sudman, op. cit., pp. 76-78.

A consumer panel operated by Marion Harper Associates, Incorporated in Harrisburg, Pennsylvania, was investigated as to the accuracy of brand reporting.¹¹ This investigation was made by comparing panel data to: home inventories of panel cooperators; brand preferences which were stated by cooperators; and recall of purchases by cooperators. These data indicated that panel reporters tended to under-report actual total weekly purchases, while at the same time, over-reporting certain brand products. There were wide discrepancies between the brands reported as bought most frequently, the brands revealed by pantry inventories, and the brands actually purchased as reported in panel diaries. One example of such discrepancies is found in the product category of cold ready-to-eat cereals. A leading cold cereal showed that 12.7 percent of the panel members preferred the brand. The home inventory showed that 23.5 percent of the same panel members had the brand in stock. The diary indicated that 31.3 percent of these same panel members purchased the brand. There were many such divergencies in this research, and the investigators concluded that surveys in which preferred brands, or first, second, and third choice brands are recorded do not reliably reflect the manufacturer's penetration into the market.¹²

¹¹ Raymond H. Ganley and Richard D. Crisp, "How Newspapers are Using the Consumer Panel," Printers's Ink, Sept. 12, 1947, pp. 53-58.

¹⁰ Ibid.

Studies such as those previously mentioned illustrate that certain errors are likely to occur regardless of the method employed. The awareness of the product by the panel reporter, errors attributed to memory, and the complexity of the diary are among those variables effecting the accuracy of panel reporting. The panel reporter may be more aware of certain types of products than of others, and certain product attributes affect her attitudes about the product thus subsequently influencing the panel cooperator's memory. This influence may be either favorable or unfavorable in relation to the panel member's reporting accuracy.

Regardless of instructions to enter results daily, many panel cooperators delay entering purchased items until some time later. The cooperators in the Michigan State University food panel, in reply to a questionnaire, indicated that over one-half of the panel members followed a practice of delaying their entry to some later date.¹³ Such a delay could conceivably result in errors similar to those occurring from other than interviewer bias in the recall method. The possibility of an over-statement of well known nationally advertised products is considered at this point.

When the panel reporter delays entry, there exists the possibility of reporting accuracy becoming subject to brand recall error. Even though the recall of many items can be verified by taking

¹³Quackenbush and Shaffer, op. cit., p. 30-31.

a shelf inventory, the extent of such checking is open to question, because some items may no longer be present at the time the check is made. Certain of these products may have been consumed during the elapsed time period. If multiple shopping trips have been made during the reporting week, the problem of brand reporting errors may be further magnified.¹⁴ Brands purchased but not recorded after earlier shopping trips may be listed as the same brands as those purchased for the last shopping trip.

Cross Referral of Foodtown Panel
with Retail Store Audits

In an attempt to measure the reporting accuracy of the Foodtown panel a comparison was made for specific brands between panel sales and store audit sales. This comparison was limited to a small number of nationally advertised brands and retailer's private brands. Several research questions were developed for investigation. Among these were:

1. Do panel members overstate well known national brands?
2. Are the brand shares of the best known national brands overstated as compared to the brand shares of retailer's private brands by panels?

¹⁴ Bernard Berelson and Gary A. Steiner, Human Behavior: An Inventory of Scientific Findings (New York: Harcourt, Brace & World, Inc., 1964), p. 183. Berelson and Steiner state that "events that stand in isolation are much better remembered than those followed by other events of a similar nature, and somewhat better remembered than events preceded by similar ones."

3. Does the status of the brand affect the degree of difference between reported panel sales and sales reported by retail store audits?

The above research questions directly relate to certain known principles of elementary learning theory. Nationally advertised brands are those assumed to be best known by panel cooperators. The cooperator's familiarity with such products results from the additional advertising of those brands to consumers. Such messages usually try and give some connotation of the quality associated with the national brand, and this may lead to overstatements of national brands by panel members. The housewife in her attempt to provide her family with the "best" may be willing to pay the additional costs associated with the nationally advertised brand.¹⁵ In her attempt to reduce the risk of buying poor quality products, she may equate the brand image with price.¹⁶ A positive relationship between price and quality may be developed, and since the housewife does not wish to deprive her family of the "best" she may purchase fewer low priced items. Because private brands are sold at a lower price than national

¹⁵ J. O. Peckham, Planning Your Marketing Operations for 1959...And the Years Ahead (Chicago: A. C. Nielson Co., 1958), p. 15.

¹⁶ See Raymond A. Bauer, "Consumer Behavior as Risk Taking," Dynamic Marketing for a Changing World, ed. Robert S. Hancock, (Proceedings of the 43rd National Conference of the American Marketing Association, June, 1950), pp. 389-398.

brands, the purchase of such brands may be considered a "deprivation" for her family.

Additional analysis could have been made if data obtained from the Foodtown panel and store audits had been available on punched cards. Due to the limitation of research funds this step was not accomplished until after the preliminary investigation. The researcher was, therefore, restricted to a workable number of questions that lend themselves to extrapolation without extensive data processing. Several additional questions relating to the frequency with which products are purchased could be investigated. For example, the difference between panel reports and audits may be greater for those products purchased less frequently than others. Such an exploration would assume that with other things remaining equal, the longer the period of time between purchasing experiences, the more difficult it would be to remember specific brands purchased.¹⁷ This type of exploration would be particularly appropriate for a reporting period on a monthly rather than weekly basis. Further breakdowns by type of product may also be made by panel reporting data comparisons to retail audit information.

¹⁷ Berelson and Steiner, op. cit., p. 178.

Method of Comparing Panel and Audits for Movement

Store audits provided a virtual census of product sales in Foodtown during the ten week panel reporting period. Approximately 250 different items were audited. These items included all brands and sizes in each of the nine product categories previously chosen. From these, twelve well known nationally branded items were picked for comparison. This selection was made on the basis of degree of distribution among audited stores. Only those brands carried by five or more cooperating stores were selected. An attempt was made to select for comparison a national branded item from each product category. This was impossible because of the structure of food retailing in this community. Many smaller outlets carried only one or two brands in some product categories, and often these were brands not carried by other retailers. Seven product categories were represented in the sample of national brands selected for analysis.

Retailer's brands were stocked by four of the eleven audited stores. These private brands were carried by two stores of a voluntary cooperative, one national chain, and one local chain. The only other private brand was carried by a non-cooperating retailer who carried his national chain's brand. Six private brands were selected for making comparisons between panel and audit sales figures. Private brands were not represented among all the nine product

categories audited. The six brands selected represented only four product categories.

Weekly store audit figures, for selected national and private brands, were summarized. The total for each brand showed product movement for the ten week time period. Some estimate of the amount of sales accounted for by those households outside the panel sampling frame was necessary. This estimate was required due to the panel's selection from only a part of the community's retail trade area. The sampling frame from which the panel was selected was originally based on time and distance considerations.¹⁸ The sampled area for panel members was later found to be too limited because of the nature of this community and an adjustment was necessary.

Foodtown is the county seat for a predominately rural county. Typical of many such rural communities, Foodtown draws a large number of shoppers from outside its corporate limits. It was observed during the study that a large proportion of outside sales occurred on the weekend. Originally, it had been thought that migration into the community for food needs would be minimal because of the presence in the county of several small communities. Later investigation showed that the only supermarkets and national chains available to residents of this area were located in either Foodtown,

¹⁸ See: Chapter 3, p. 60 and Chapter 5, pp. 141-142.

Jonesville (located at the extreme Northern end of the county), or the two nearest metropolitan areas. These metropolitan areas were located twenty and fifty miles away from Foodtown. Jonesville was located approximately twenty-five miles to the North of Foodtown.

Aggregate brand movements obtained from audits were adjusted to reflect sales made to households within the sampling frame. This adjustment allowed comparisons between audits and panel projections for the area sampled to be made. A comparison could have been made between panel projected sales and audit figures without such an adjustment, but the results would not have been as realistic. The adjustment was not necessary because the only comparison made was between how the panel reported national and private brands when compared to audit figures rather than made to evaluate the precision of panel projections. However, if the adjustment had not been made, the difference between panel projections and actual movements would have been much greater due to the outside influence.

The audits were adjusted in the following manner:

1. One hundred and thirty-one panel members reporting for all ten periods were chosen for comparison to audits.
2. The 131 panel members' weekly average expenditure of \$19.19 was projected to the 2616 households in the sampled area. This amounted to a \$502,787 expenditure for the ten week period.
3. Panel member's diaries indicated approximately five percent of their purchases were made in stores other than those cooperating in audits. In all but one case, these were purchases made within Foodtown.

4. The \$502,787 expenditure for households within the sampled area was reduced by five percent. This reduction was made to account for expenditures made in other than audited stores. The total expenditure for audited stores by the sampled area then became \$477,647.
5. Available sales figures from audited stores indicated total sales of \$1,229,372 for the same period.
6. A deflation figure to be applied to audits was obtained by determining the percentage of the total store sales figure accounted for within the sampled area. The difference between total store sales and sampled area's expenditures was that attributed to outside the sampled area purchases. Outside sales were determined to be sixty-one percent of the total sales. This figure was used for reducing audits.

Several assumptions were necessary for the adjustment.

It was assumed that the purchases of selected items by panel members was in the same ratio to total item sales as was the aggregate panel expenditures proportion to total store sales. This need not be the case. Panel members may be atypical in respect to certain items purchased. The possibility exists that those agreeing to cooperate may be heavy or light users of certain categories of products. This variance could occur as a result of the difference in personality configurations of panel members and non-panel members. Certain personality types may purchase more-or-less of certain products than others. Those items used in household operations might be such an example.

The five percent reduction in the original panel expenditure was made to account for purchases made in non-audited stores. The assumption was made that the same types of products are pur-

chased in these stores as are purchased in audited stores. Observation of completed diaries indicated this to be the case. In addition, none of the four non-audited stores was known to be outstanding in respect to certain types of products. Panel members were not likely to buy all the items selected for analysis at one store and other products, such as meat or produce, at audited stores. However, there is always the possibility that this may have taken place. If the distribution of types of items purchased was not evenly spread among stores by panel members, the figure used for adjusting audits may be subject to slight error.

Test of Paired Comparisons

Purchases of the twelve selected national brands made by panel members were projected for the sampled areas in the same manner described for total dollar expenditure. Panel movements for the ten week period were then compared to the adjusted audit figure. (See Exhibit 2.) This was done by computing the differences between panel and audit movements in units. For seven of the twelve brands, the projected panel sales were greater than audit figures. Panel projections exceeding audit figures were in a range of two percent to 137 percent. Panel movements were less than the audited sales amount for four of the selected brands. Panel projections understating audit figures were in a range of twenty-one percent to eighty-two percent.

Exhibit 2. --Test of paired comparisons between store audit figures and panel data for twelve national brands.

National Brand	Audit Actual	Adjusted Audit	Projected Panel	d Difference	d ²
Maxwell House 2 oz. Coffee	1167	455	120	-335	112225
Maxwell House 6 oz. Coffee	1183	461	360	-101	10201
Sanka 2 oz. Coffee	604	236	240	+ 4	16
Chase & Sanborn 6 oz. Coffee	754	294	320	+ 26	676
Heinz Catsup 14 oz.	1129	440	440	0	0
DelMonte Catsup 14 oz.	1865	727	440	-287	82369
DelMonte Peas 303	1059	414	440	+ 16	256
Chicken-O-Sea Tuna 6 1/2 oz.	2553	996	1300	+304	92416
Mazola Corn Oil	409	160	380	+220	48400
Saran Warp	696	271	440	+169	28561
Gaines Dog Food 5#	300	117	20	- 97	9409
Purina Dog Food 5#	692	270	500	+230	52900
				<u>(+423)</u>	

Hypothesis μ_d between store audit figures and panel data for twelve national brands = 0.

$$Q_d = \sqrt{\frac{\eta \epsilon d^2 - (\epsilon d)^2}{\eta(n-1)}} \quad \bar{x}_d = \frac{\epsilon_d}{\eta} \quad \sigma_{\bar{x}_d} = \frac{Q_d}{\sqrt{\eta}}$$

$$t = \frac{\bar{x}_d - \mu_d}{\sigma_{\bar{x}_d}} = \frac{\bar{x}_d}{\sigma_{\bar{x}_d}}$$

Where: η = number of brands, $df = 11$.

In the case of one brand there was no difference between the panel sales figure and that of the audit.

The mean difference between panel movements and audit movements was assumed equal to zero. The sum of the differences was computed for all selected national brands by the panel. The test for paired differences was computed for the sample of national-brand sales by audit and panel.¹⁹ The relative over-statement of panel projections was substantially less than could be expected at the ten-percent level of significance which was used because of the small sample size. The t value of .215, which was obtained, indicated that this difference could be expected to occur by chance between eighty-five and ninety percent of the time.²⁰ Because of recall error, national brands were expected to be overstated by panel members in relation to audit figures. However, the test of paired differences portrays the relative over-statement as not large enough to indicate a significant difference between panel and audit figures.

¹⁹ Pairing observations is used when sampling from two populations. Extraneous factors may cause a significant difference in the means, whereas there was no difference in the effects to be measured. The student's t test was used because of the small size of the two populations and an unknown variance.

²⁰ Frederick E. Croxton and Dudley J. Cowden, Applied General Statistics, (Englewood Cliffs, N. J.: Prentice-Hall Inc., 1955) pp. 750-751.

Total panel movement in units for the six selected private brands were computed for the sampled area (Exhibit 3). The difference between panel and audit movements was computed for the ten week period. For five of the six brands, projected panel sales exceeded audit figures. Panel projections exceeded audit figures in a range of twenty-one percent to eleven hundred percent. The panel projection understated the audit figure for one brand by fifty-three percent.

The sum of the differences computed displayed an aggregate over-statement of panel sales in relation to audit figures. The test of paired differences was then computed for the sample of private brand sales by audit and panel. The t statistic of 2.00 indicated this difference existing between panel and audit sales to be significant at the ten percent level. One could expect such a difference to occur by other than chance ninety percent of the time.

Explanation of Results

Partial answers were obtained for questions relating to panel reporting of national vs. private brands. Because of the possibility of recall recording errors, it was expected that national brands would be overstated by the panel. No further attempt was made to validate the precision of the panel's sales figure except by comparison to audits. Aggregate sales were over-stated for national brands by

Exhibit 3. --Test of paired comparisons between store audit figures and panel data for six private brands.

Private Brand	Audit Actual	Adjusted Audit	Projected Panel	d Difference	d ²
Brand A 10 oz. Coffee	121	47	180	+133	17689
Brand B 14 oz. Catsup	938	366	1560	+1194	1425636
Brand C 20 oz. Catsup	1265	493	600	+107	11449
Brand D 20 oz. Catsup	439	171	80	- 91	8281
Brand E-303 YCS Peaches	142	55	660	+605	366025
Brand F Cooking Oil	148	58	380	+322	103684
				(+2270)	

Hypothesis μ_d between store audit figures and panel data for six private brands = 0.

$$s_d = \sqrt{\frac{\eta \epsilon d^2 - (\epsilon d)^2}{\eta(n-1)}}$$

$$\bar{x}_d = \frac{\epsilon_d}{\eta}$$

$$\sigma_{\bar{x}_d} = \frac{s_d}{\sqrt{\eta}}$$

$$t = \frac{\bar{x}_d - \mu_d}{\sigma_{\bar{x}_d}} = \frac{\bar{x}_d}{\sigma_{\bar{x}_d}}$$

Where: η = number of brands, $df = 5$.

the panel, but the amount of this over-reporting was not significant. It was difficult to determine which specific product categories accounted for the overstatement because of the small number of brands selected. A further investigation into the data may reveal whether the aggregate over-statements are confined to a few product categories. There were both over- and under-statements by the panel in two of the product categories where more than one brand was selected for comparison.

The panel reported national brand shares relatively more accurately than private brand shares. Although both national and private brands were over-stated, the over-statement for private brands was much greater than expected. In four of the twelve selected national brands, the amount of the over-reporting amounted to less than eight percent. In no case was the over-statement of private brands this small. For four of the six selected private brands, the panel sales figure even exceeded actual sales before the adjustment for outside purchases was made. These facts indicated that the adjustment procedure used for audit figures did not account for the over-reporting. There are several possible reasons that might account for such an over-statement of private brands shares as compared to those of national brands. Among these could be included inaccuracies in audits, exposure by panel members to products, and the conditioning or learning effect on the panel reporter.

Audit errors, such as those previously described in Chapter II, may have occurred.²¹ The results indicate these errors may have been present more often in the auditing of private brands than national brands. The experience and background of field investigators may have accounted for an under-statement of private brand sales. The occurrence of such errors would most likely appear in the weekly check of invoices. There was a large number of invoices for those stores carrying private brands, and the auditor may have on occasion, overlooked the private brand. It must be remembered that auditors were more familiar with national brands from prior experience. None of the private brands were well known outside the region. The recording, counting, and computational errors would, in all likelihood, be offsetting for national brands and private brands.

Some of the panel over-reporting of private brands may result from the lack of exposure to national brand advertising by panel members. Private brands were advertised extensively during the research period in both local newspapers. Most panel members subscribed to either one or both newspapers and consequently were exposed to private brands advertising. However, there were no measures obtained for magazines entering the household, televisions and radio exposure, or other media featuring national brand advertising.

²¹ See Chapter 2, p. 50.

Although the possibility is slight, panel members may have been atypical in regards to exposure to and subsequent familiarity with national brands. The strength of the franchise held in the local market by two outlets featuring private brands appears to offer better explanation for the divergence between private and national brand shares. These are the two outlets utilizing local newspaper advertising to the greatest extent, and it was observed this advertising was oriented toward the emphasis of private brands.

The accuracy of the consumer panel's purchasing behavior, in relation to that of the population from which it was drawn, is open to question. The large over-statement of private brands when compared with actual sales casts serious doubt as to the panel's effectiveness in this market for brand prediction. There exists the possibility that the panel's poor performance for predicting private brand sales resulted partly from panel biases. A limited amount of published information is available relating to this type of panel bias.²² One of the more recent of such studies relates to the tenure of panel membership and its effect upon purchasing behavior.²³ In this study, Morrison, Frank, and Massy reached the tentative conclusion that panel longevity

²² Donald G. Morrison, Ronald E. Frank, and William F. Massy, "A Note on Panel Bias," Journal of Marketing Research, Vol. III (Feb., 1966), pp. 85-88.

²³ Ibid.

has an effect upon the number of brands purchased. Panel tenure may also offer explanation for some of the over-reporting of private brands by panel members.

Respondents, by their agreement to participate, may distort the representativeness of the panel. Many persons upon seeing the detail and amount of work involved in panel membership refuse to cooperate. A serious question arises as to the typicality of those agreeing to panel membership when compared to the population sampled. Further biases may develop upon the completion of the first diary and increase with each diary completed. As the panel member completes the diary, and her purchases are reviewed, she becomes conscious of sizes, products, and prices. This consciousness may reflect upon her purchasing behavior. She may become more conscious of alternatives when making her shopping decisions. Several panel cooperators indicated at the end of the study that panel membership helped them improve their shopping. This improvement was usually referred to as "getting more for my money" than before membership. Most such reports indicated a new consciousness of prices not existing before panel membership.

Private brands normally are sold at lower prices than national brands. The panel member in reporting each week becomes more conscious of this difference. This differential may result in a change in the reporter's purchasing behavior. She may, in fact, buy

more private brands or, because viewing herself in the role of a housewife obtaining the most for her money, report brands previously purchased but forgotten at the time of diary completion, as private brands which she remembers as being lower priced. The assumption is that the small price difference of private brands must offset any quality difference of national brands.

In addition, several private brands of goods were featured at sale prices during the panel reporting period. If the panel reporter has many of these featured items on the pantry shelf, they may serve as a reminder in diary completion. The continual observation of these items on her shelf increases the likelihood of mis-reporting brands when recall is necessary. When a delay in diary completion occurs, the large number of features available may cause her to report the purchase of these private brands even though more recently some other brand was purchased. For this to happen, sales featuring private brands would have to occur more frequently than those of national brands. This fact was observed to be the case during the ten week period.

Any of the previously discussed explanations for over-reporting of private brands could have taken place. Of these, audit errors and conditioning of panel members appear to warrant further investigation. Because of the short duration of this panel, the effect of panel tenure on brand reporting was difficult to investigate.

Nevertheless, such an explanation seems warranted in light of the findings. Panel projections may be made and compared to audits for both private and national brands on a weekly basis. The relationship between weeks may then be explored to determine if over-reporting increases with panel tenure. This appears to have a direct relationship to findings that indicate the number of brands purchased decreases with panel tenure.²⁴ There is the possibility that the actual number of brands does not decrease but only the reporting of brands.

Summary

The representativeness of the consumer purchase panel has been the subject of question for several reasons. These questions usually center around the possibility of distortions occurring from sampling, mortality, the refusal to cooperate, the effects of incentives, and the conditioning effects resulting from panel tenure.²⁵ Before additional studies into possible panel biases can be made, it is first necessary to determine which panel generated data areas such biases affect. Because panel purchasers rely heavily on panel information for brand share measurements, this analysis investigated panel reporting by brands.

²⁴ Ibid.

²⁵ For a summary of such biases see: Francesco M. Nicosia, "Panel Designs and Analysis in Marketing," Marketing and Economic Development, ed. Peter D. Bennett, Proceedings of the 1965 Fall Conference American Marketing Association, (Chicago: American Association, 1965) pp. 222-253.

Store audits provided sales data against which panel purchases were compared. Comparisons between panel and audit figures were made for both private brands and national brands. Panel data reflected an aggregate over-statement for both private and national brands when compared to actual sales data. However, further tests indicated that the difference was not significant for national brands, but was for private brands at the ten percent level.

Several factors causing this difference are possible. Audit errors may have been present. These errors may have resulted from the use of inexperienced auditors. This inexperience may have had the effect of understating actual sales of private brands. In addition, panel participation may have increased the panel member's consciousness of purchase behavior.²⁶ This consciousness may not only have influenced the choice of the items under investigation, but also resulted in the presence of response error. Because panel reporting may over-tax the ability of the respondent to remember accurately, "item-choices" may have been mis-stated.

The panel performed relatively better for national brand sales as compared to private brands, but not to the level necessary to erase questions existing in the researcher's mind. Primary among these questions are those relating to possible compensating errors at

²⁶C. H. Saudage "Do Research Panels Wear Out?" Journal of Marketing, (April, 1956), pp. 397-401.

the regional or national level. If the user of panel data is to utilize panel information to the fullest extent, he must be able to determine his market penetration in local markets. For each local market overstating purchases, there may be another which understates, and the result may be an accurate reflection of sales on a regional basis. Because certain characteristics of panel members are known, the panel may provide the information necessary for improving the panel user's performance in local markets. However, other characteristics may be present in the panel and distort panel results. This analysis indicates that further investigation into panel biases is needed if effective controls for distorting factors are to be developed.

CHAPTER VII

SUMMARY AND CONCLUSIONS

Introduction

Recently an increasing amount of attention has been directed toward studying the processes underlying the behavior of participants in the marketing system. Many of these investigations have utilized longitudinal approaches and techniques in their data collection and analytical procedures.¹ However, these studies have been limited in their attempts to conceptualize marketing in terms of consumer decision making by a lack of empirical studies of continuing marketing behavior. Many of these studies have made use of consumer panel and retail store audit data provided by commercial research organizations, but it appears that appropriate means of combining these

¹For an example of some recent studies where where the underlying rationale for purchasing decisions is being investigated see: Donald H. Granbois and James F. Engel, "The Longitudinal Approach to Studying Marketing Behavior," Marketing and Economic Development, ed. Peter Bennett, (Chicago: American Marketing Association, 1965), pp. 205-2231, and Ronald P. Willett and David T. Kollat, "Impulse Purchasing as a Special Case of Customer Decision Making," Reflections on Progress in Marketing, ed. L. George Smith, (Chicago: American Marketing Association, 1964), pp. 212-228.

techniques are needed if generalizations are to be made and hypotheses tested. This research implemented a methodology appearing useful in studying marketing behavior present in one community.

Several questions directly relating to the objectives of the research have been formulated. A discussion of the following questions will serve to review, evaluate, and summarize the research:

1. Are more complete methods of investigating food marketing possible?
2. Why are more complete studies needed in food marketing?
3. What strengths, weaknesses, and limitations are present in the research?
4. What areas of the research require refinement or elimination?
5. What are areas warranting further investigation?

Answers, or partial answers, were obtained for those questions and are reviewed in this chapter.

Are More Complete Methods of Investigating Food Marketing Possible?

The Foodtown research explored a method of obtaining customer, store, product, and promotional information related to food marketing. This exploratory study indicates that the methodology used appears an appropriate means of acquiring information necessary for making more complete investigations into food marketing interaction. The research methodology was implemented as follows:

1. A town isolated from other towns for food shopping was selected for the research.
2. Consumer panel diaries, retail store audit forms, and classification questionnaires were developed.
3. Nine product categories of dry groceries were selected for store auditing.
4. Permission to allow weekly audits was obtained from eleven of the fifteen grocery stores serving the community.
5. Areas from which panel members were to be drawn were selected and all households in each area were sent questionnaires.
6. A consumer panel was recruited and operated for a ten week period.
7. Retail store audits were taken in eleven stores during the time panel members were reporting purchases.
8. Food promotion in the community was monitored during the ten-week period.
9. Panel members, non-panel members, and a random sample of the community were interviewed for personality and demographic information at the completion of consumer panel reporting.

The following information was available at the completion of the first two phases of the research:

1. Consumer Information
 - a. Purchases of all grocery products by brand, size, price, amount, and special promotion as reported by panel members.
 - b. Spatial location of panel members in relation to grocery stores.
 - c. Demographic information about family size, ages, income, education, and location.

- d. Limited measures of values, needs, images held of grocery stores, and food shopping habits.
- 2. Store and Product Information
 - a. Brand movements, prices, shelf facings for nine product categories available from stores accounting for ninety-five percent of food store sales in the community.
 - b. Weekly dollar sales figures for seven of the eleven audited stores and estimates of all others.
 - c. In-store promotion for nine product categories audited.
 - 3. Promotional Information
 - a. Newspaper grocery store advertising for all stores in this community.
 - b. Weekly sales plans for the three largest grocery stores.
 - c. Radio and television advertising done by local stores.
 - d. Record of panel members saving trading stamps and the kinds they saved.

Although the information obtained was not complete in all respects, it does appear to provide an adequate basis for future studies attempting to delineate the more pertinent dimensions of food marketing. The reasons underlying actions and changes in food marketing can only be explained after the important dimensions needing investigation have been discovered. This research design appears to be an appropriate means of obtaining much of the necessary information.

Need for More Complete Studies
of Food Marketing

The need for obtaining more generalized knowledge about persons, when acting in the role of purchasers, has been largely ignored by marketing research. Marketing research studies have been concentrated primarily upon obtaining quantitative measurements at the expense of building a body of causal relationships pertaining to buying behavior.² However, the emerging behavioral disciplines have brought about a new interest in investigating human choice and decision making as variables influencing changes in marketing. Various observational and survey approaches have been used to investigate those variables, and there has recently been an increased amount of research using experimental methods. If the interaction present between buyers and sellers is to be investigated, it appears that a combination of research methods is necessary. Some measure of the changes of individual patterns over time is necessary if interactions are to be explored. Additional investigations about the relationships between variables can only be made after information about the patterns of change taking place has been obtained. It is recognized that all marketing research methods used in exploring change have certain limitations and advantages in both design and application, and rely on survey or observational methods depending upon the problem investigated.

² John A. Howard, Marketing: Executive and Buyer Behavior, (New York: Columbia University Press, 1963), pp. 1-8.

Probably the greatest advantage of using survey research is its versatility. Information relative to the problem under investigation can sometimes be obtained by survey methods but not by observation. Attitudes, opinions, and intentions are not open to observation, but some information pertaining to these is available by use of certain survey techniques. However, surveys have several important limitations restricting their use. Some respondents are unwilling or unable to provide the information requested. Word meanings, subconscious motivations, and the inability to remember events having previously occurred all place restrictions on the uses of survey methods.

Observational methods of research are limited by their lack of versatility. Attitudes, plans, and past actions cannot be obtained by observation. However, observational methods are advantageous, and find frequent use, in the recording of events as they occur, even when formal respondent cooperation may not be available.

Members of the food industry each year purchase marketing information costing millions of dollars from commercial research organizations. Foremost among these firms supplying information to the food industry are the A. C. Nielsen Company and Market Research Corporation of America. These two firms employ various extensions of observational and survey research methods in their collection of food marketing information. Where the Nielsen organization uses primarily observational methods in the form of retail store auditing, the MRCA consumer purchase panel relies primarily on survey methods.

Most of the information provided by commercial organizations is descriptive and usually analyzed as time series or trend data. Little, if any, information is available to members of the food industry relating to the effect of promotional changes on purchasing behavior. Brand distribution reports, such as Nielsen provides, furnish little assistance to the food executive in increasing his share of a competitive market other than by informing him of his present position. Little information is available to the executive which can be used for better understanding how particular markets are segmented. If more adequate knowledge about market segments and a better understanding of why shifts in patronage occur among products and stores were available, this could lead to more effective promotional decisions.

The awareness of the need for more sophisticated techniques useful for obtaining the necessary information for promotional decisions has recently been acknowledged by the food industry. Research such as that sponsored by Progressive Grocer and Kroger in Cleveland, the proposed MRCA Boston study, and the recent formation of commercial companies to purchase product movement data from grocery warehouses, indicates this growing awareness. These studies and organizations all intend to trace the movement of food items from wholesaler into the household. In most cases, some combination of both store audits and consumer panel methods are proposed. Where

members of the food industry at one time placed great reliance on store audit information or consumer panel data separately to assist in decisions, they are now more cognizant of the need for integrating the two approaches.

Food stores today are knowledgeable in the mechanics of operation. Matters such as store location, stock arrangements, pricing, displays, and contribution to sales and margins by product category and department are widely understood and applied. Food store operators realize that more attention must be paid to the needs of various types of consumers, and more information is needed about the differences in consumer characteristics and their effect upon reactions to the firm's marketing mix. Because markets for food goods are dynamic and changing, it is necessary to utilize research designs such as the Foodtown study used if a better understanding of the food marketing process is to take place.

The approach used in the Foodtown study may be considered almost experimental in design and has several advantages over panel and audit studies when used alone. Much of the information necessary to study the causal relationship between people and goods is available by using audits to obtain a virtual census of store and product sales data and a sample of consumers to furnish buyer information. The information obtained by observation, verbal, and written responses

in the Foodtown study may later lead to more appropriate strategies and decision premises for food marketers.

Strengths, Weaknesses, and Limitations of Foodtown Research

The Foodtown research design called for store audits, consumer panel, and promotional monitoring to be conducted concurrently over a ten week period. Strengths, weaknesses, and limitations discovered must be discussed at two different levels. First, these strengths, weaknesses, and limitations must be related to similar studies operated by commercial and educational groups. Second, the strengths, weaknesses, and limitations must be discussed as they specifically applied to certain aspects of the Foodtown research.

Strengths of the Study

The major advantage of the study may be directly attributed to the degree of cooperation extended by members of the community. This fact allowed for a virtual census of retail sales and product information to be taken at the same time that a sample of consumers were reporting purchases. Stores, household members, community leaders, and warehouses groups all contributed substantially to the project. The willingness to cooperate was reflected in the number of stores allowing audits to be taken, the returns on

questionnaires, and panel member participation. This cooperation can probably be attributed to the familiarity with the University by persons contacted. Similar studies, if conducted by other than educational institutions, may not find the same degree of cooperation.

The costs associated with the Foodtown research were both a strength and limiting consideration. Because portions of the research complemented graduate classes, the costs associated with this study are not normally what could be expected under different circumstances. However, it appears that similar studies using the same research methodology would compare favorably to the cost of a national brand movement report for one product group for a year. This cost is a very nominal figure in respect to the potential information and knowledge such research can provide.

Weaknesses and Limitations

Probably the greatest weakness of the study, and one that consistently appeared, was the lack of adequate financial support. This resulted in limitations on the amount of information obtained and some of the methods by which it was acquired. There was not as much follow-up as desired in operating the consumer panel or taking retail store audits. Panel members who were poor reporters or who made slight reporting errors were not monitored as closely as they would have been with additional finances. Additional studies

of this type would want to have a minimum of one person residing in the community to monitor and service panel members. The use of inexperienced personnel may have resulted in some weaknesses in the research. Store auditors were not trained in sufficient detail and, on occasion, made minor errors in audits. The researchers own lack of experience resulted in several omissions being made which more experienced personnel in store auditing and consumer panel operations would not have made. Among these would be included the omission of space for panel reporting of where purchases of bread and milk were made. This limitation places restrictions on later analyses, because these products usually are purchased more from certain types of stores than others. In addition, households were initially sent a questionnaire and cover letter asking for an expression of interest in becoming a panel member and submitting the classifying information. The rate of return would have probably been higher if those persons receiving the questionnaire had been asked to return it regardless of their interest in panel membership.

Approximately seventy percent of those persons agreeing to panel participation returned diaries the first week. No further diaries were mailed to persons who had not returned the initial diary. Diaries should have continued to have been mailed for the first few weeks of the research. These diaries may have served as a reminder, and a greater number of active panel members may have resulted.

Because of the follow-up questionnaire to be given to panel members at the end of the panel reporting period, the amount of information secured from panel members and others at the beginning of the research was limited. Additional information would be desirable for those house holds in areas from which panel members were recruited.

The amount of promotional activity in the community was not as great as had been anticipated. Only four cooperating stores advertised in Foodtown, and one of these stores accounted for approximately forty percent of total food sales. Greater promotional rivalry would be desired. In addition, promotional monitoring of all in-store promotion and measures of magazines or radio and television exposure by panel members were not made.

In spite of the shortcomings of the research, the amount and type of information obtained appears substantial for initial analyses exploring causal relationships. A limited investigation into panel reporting by brands when compared with audit information was made. This area appears to warrant additional investigation using information from the first and second phases of the project.

Research Areas Requiring Refinement or Elimination

Several areas needing refinement or elimination were discovered. These can be considered in two general categories: (1) research design; and (2) research implementation.

Research Design

The research design used in this study was what may be described as a natural design. The use of a natural design permitted only the observation and recording of events resulting from natural conditions. Disturbances in the community or promotional treatments were not varied by the researcher during the test period. The employment of this type of design allows for the development of evaluative, prescriptive, and explanatory type questions. However, the large number of variables present places limitations upon the researcher in his attempt to extricate those directly responsible for changes that may have taken place.

The alternative to such a design may be described as quasi-experimental. If such a design were used, the number of variables present could be reduced considerably, but it would then be necessary to introduce certain stimuli. Among such stimuli could be included variations in promotional treatments and product offering. However, a design dependent upon the introduction of stimuli also requires that some measurement of the exposure to the stimuli be obtained. Obtaining cooperation from retailers to introduce promotional and product variations would be difficult, if not impossible, to obtain. Nevertheless, it appears that if it were possible to limit the number of variables and introduce some at the researcher's discretion, that more adequate measures of response and subsequent explanations of interaction might result.

The sampling procedure followed for panel recruitment was not a strict random sample. Initial comparisons indicate that the panel was representative for the areas from which panel membership was drawn, but the discrepancies present in reporting of private brands raises some question as to panel composition. It may be that the panel was not representative of the Foodtown population but only of the areas from which members were drawn. The research should be refined to include a sample census of the Foodtown population compiled randomly of all households. The sample census would furnish the information necessary in the detail desired to evaluate the panel's composition.

The panel established in Foodtown was not represented by households throughout the communities retail trading area but only a portion, and additional and more complete methods of delineating the retail trading areas should be used in panel rescruiting. To obtain a more adequate knowledge of food marketing present in Foodtown would require that panel members be drawn from throughout the entire trading area.

Implementation

Several problems were encountered in the implementation of the research methodology. The diary format used in the Foodtown study was probably the one single area needing most additional

refinement. Panel members reported all food purchases even though only nine product categories were being audited for movement and promotion. Eliminating some of the specific products reported and combining these into groups in journal form would reduce the complexity of the diary. More complete reporting of those products being investigated may result. However, the number of products reported would have to be large enough so that panel members would not be aware of the products being observed.

If the task of reporting products is reduced, it appears possible to solicit information otherwise not obtained in this research. Included could be such information as the days that shopping trips were made, traffic route taken to selected store indicating those nearer stores passed, and the amount of printed media entering the household. The reduction in panel reporting burden would also allow for a longer research period. The ten week period is not adequate for the observation of many trends which are probably present. A longer period of time would also allow for panel members to complete several diaries before being moved to regular panel membership.

The incentive program should be modified to limit the excessive time required in administration. A prize catalog should be developed with premiums available in categories representing a range of points. Some measure of risk taking by panel members could be obtained by providing for the choice of either a set premium or a chance at a more valuable item by lottery.

Most of the areas needing refinement do not appear to present any great amount of difficulty. These areas would seem to require only more time and greater attention to detail, and do not appear to be major impediments.

Recommendations for Further Research

An investigation of panel reporting by brands was made using limited information. Comparisons were made between panel and audit figures for twelve national and six private brands. Preliminary investigation indicates panel members over-reported aggregate purchases of both national and private brands. Private brand reporting by panel members showed a significant difference when compared to store audit figures. This exploratory investigation indicates that additional comparisons appear warranted for panel reporting by brands.

Approaches to investigating discrepancies may initially use comparisons between panel and audit product movements for all of the approximately 250 brands observed rather than just a limited selection. Additional comparisons by product categories could be made. These comparisons may lead to the discovery of differences present in products purchased more or less frequently than others. Additional investigations into panel reporting by demographic segments using similar brand reporting comparisons appears possible. Panel

members may be segmented on the basis of personality configurations and cross-classified with demographic attributes to evaluate panel brand reporting. If comparisons with audits were made for brand movements as reported by panel members by product, demographic, and personality groupings, the isolation of certain groups or types of panel members responsible for over or under reporting may be discovered. Later adjustments to the panel composition could be made to compensate for certain groups.

If firms are to develop efficient logistical systems of food distribution, it is first necessary that more adequate means of obtaining timely market information be developed. Commercial organizations, using store audits and consumer purchase panels, provide means of partially overcoming problems associated with the time lag present in the distribution system. However, the information contained in panel and audit reports is one to three months old when received by the food executive. To the manufacturer introducing new products and making marketing decisions needing timely information, this time lag in reports becomes critical. New product risks are great and the need for timely and accurate information is of paramount importance. The differences in the time lag between present bi-monthly audits and monthly panel reports appears to be an area of which little is known and yet one of great importance.

The Foodtown study provides some of the information necessary for investigations into the time lag of audit and panel information. Additional investigations taking a random combination of stores and time periods and making projections for new products introduced in this market during the period of the research should be made. Projections would also be made using panel information. The question of whether store audits or panels more quickly and accurately reflect early penetration of new products may be partially resolved by such investigations.

Promotional, product, and demographic characteristics of market segments provides information useful in explicating the nature of the Foodtown food marketing system. Additional investigations should be directed toward modeling food marketing in this community. Modeling the decisional system of food marketing in Foodtown could lead to later evaluations for the costs associated with various promotional alternatives. Such studies could initially concentrate on grocery store variability in sales for product categories and items in respect to demographic attributes of shoppers. Tests of significance could be made for high and low brand switching consumer segments and product and item variability in sales.

Concluding Remarks

Although this research was concerned with just one approach to the study of food marketing, it should be emphasized that other methods also have much to offer. The research design used in this study seemed the most appropriate means of collecting data useful for proposed later investigations. Alternative designs and methods which may have been less expensive in terms of absolute cost may have been used to collect data. However, in terms of relative cost, it is questionable whether other designs and methods would provide comparable information. Nevertheless, it should be emphasized that this research is not viewed as a panacea for obtaining the information necessary for determining the underlying conditions responsible for changes occurring in food marketing. Instead, this research was approached throughout as an exploratory investigation of a methodology seeming to offer great potential for obtaining some of the information needed if changes occurring in one community's food marketing system are to be explained.

In view of the emphasis placed upon limitations and problem areas of the research, it may appear to the reader that this research has been fraught with error. This is not the case even though some errors were present. Limitations of the study have been emphasized so that future researchers conducting similar studies may learn by the writers's experience. It is the firm belief of the writer

that complete studies investigating marketing behavior using similar designs are needed, and furthermore, will increase in number in the near future. However, if additional total market investigations are to contribute toward a better understanding of the underlying causes of change, several prerequisites are necessary. Members of the food industry must be willing to provide the great amount of cooperation necessary for such investigations by allowing their retail outlets to serve as laboratories, and there must be a sharing of data and results by competitors and non-competitors alike feasible only through an independent research institute.

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APPENDIX A

Communications for Panel Recruitment, Maintenance, and Operation

- A-1 Pre-Recruitment Letter to Area Households
- A-2 Mail Questionnaire to Area Households
- A-3 Newspaper Publicity Prior to Panel Recruitment
- A-4 Control Form for Panel Recruiters
- A-5 Premium Schedule
- A-6 Panel Maintenance Letter
- A-7 Reminder for Late Diaries
- A-8 Panel Member's Points Earned and Premium Choice Card
- A-9 Panel Maintenance Postcard
- A-10 Advertisement Explaining Premium Delay
- A-11 Panel Recruiting by Mail Letter
- A-12 Consumer Panel Diary

Pre-Recruitment Letter to Area Households

MICHIGAN STATE UNIVERSITY EAST LANSING • MICHIGAN 48823

GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

DEPARTMENT OF MARKETING AND TRANSPORTATION ADMINISTRATION • EPPLEY CENTER

February, 1965

Dear Mrs. Smith:

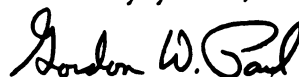
As part of a research project here at Michigan State University, a number of Foowtown families will have the opportunity to become members of a food purchasing panel. This panel will consist of a carefully selected group of families who will regularly report certain of their purchases. Your panel participation will provide valuable information to our educational program at the University in addition to aiding the food industry in better supplying your needs.

The reporting of your food purchases will involve a small amount of your time and so it is only fair that you be paid for performing this valuable service. By such payment we hope to emphasize the value of such a study and an appreciation for your cooperation.

It is only fair to tell you that not everyone who applies for membership on the panel can be selected. If the panel quota for your area of type of family is filled, we may not be able to enroll you. Before final selection of our panel can be completed, it is necessary for us to obtain some additional information about you. By promptly returning the enclosed confidential classification form in the envelope provided, your chances of being selected will be improved.

There is no money to pay and nothing to buy, and you can cancel your panel membership at any time with no obligation. Your name and any information you provide us will not be given to anyone. We hope you will want to become a member of our panel, if selected, and together we may operate a very useful research project.

Sincerely yours,



Gordon W. Paul

Mail Questionnaire to Area Households

Confidential Classification Data

I. NAME & ADDRESS (as you receive your mail)

(Miss)

(Mrs.) _____

Street _____

Do you live within the city limits of city of Foodtown?

YES ___ NO ___

Do you live on a farm?

YES ___ NO ___

II. TOTAL NUMBER IN YOUR FAMILY _____

Family Member's Name

AGE

Yourself

Husband

III. OCCUPATIONAL STATUS

(If you are a housewife and also work full or part time, please check both housewife and employed full or part time.)

Housewife

Employed full time _____

Employed part time _____

Unemployed _____

Retired _____

Other _____

IV. Please circle the highest grade of school you and your husband completed.

	Grammar School								High School				College					
Yourself	0	1	2	3	4	5	6	7	8	1	2	3	4	1	2	3	4	5
Husband	0	1	2	3	4	5	6	7	8	1	2	3	4	1	2	3	4	5

V. Do you own or rent a home?

Own _____
 Rent _____

VI. What newspapers do you usually read?

Foodtown Sentinel Standard _____
 The Foodtown County News _____
 The Grand Rapids Press _____

VII. Where do you usually do your grocery shopping?

- _____ A & P
- _____ Al's C & M Market
- _____ City Fruit Market
- _____ Falsetta's Superette
- _____ Farmer's Market
- _____ Fate's Food Market
- _____ Fred's Super Market
- _____ Gordon's Cash Market
- _____ Kroger
- _____ Meijer's Super Market
- _____ Mileski's Grocery
- _____ O'Connor Grocery
- _____ Piselli's Grocery
- _____ West End Grocery
- _____ Wilson's Food Market
- _____ Other

VIII. Where did you purchase your groceries last?

- _____ A & P
- _____ Al's C & M Market
- _____ City Fruit Market

- Falsetta's Superette
- Farmer's Market
- Fate's Food Market
- Fred's Super Market
- Gordon's Cash Market
- Kroger
- Meijer's Super Market
- Mileski's Grocery
- O'Connor Grocery
- Piselli's Grocery
- West End Grocery
- Wilson's Food Market
- Other

IX. For statistical purposes only, would you please check the yearly income group in which your family belongs.

- Under \$1,000
- \$1,000-\$2,999
- \$3,000-\$4,999
- \$5,000-\$5,999
- \$6,000-\$6,999
- \$7,000-\$9,999
- \$10,000-\$14,999
- \$15,000 and over

Newspaper Publicity Prior to Panel Recruitment

Text of an Article Appearing on the
Front Page of the Foodtown Weekly
Newspaper

A SURVEY!

A letter this week from Gordon W. Paul, of the M. S. U. College of Business, asked that we pass along some information to residents of Foodtown.

The Department of Marketing and Transportation Administration at M. S. U. is conducting a research project which involves food purchasing in the City of Foodtown. A limited number of householders will be selected to comprise a consumer panel. Graduate students are currently in the process of calling on these selected householders to enlist them in the project. All of these gentlemen will carry proper identification, which they will show upon request.

There is no obligation on the part of any of those householders contacted, but it is hoped that there will be a good response. Those selected would simply keep a food purchase diary, recording weekly grocery purchases. Participants will be rewarded with their choice of certain merchandise items.

We urge any Foodtown resident contacted to cooperate with the project.

It would be just as well if they didn't invite this editor to join in. It might be embarrassing to record all those purchases of beans and stew meat week after week. (Whoops! Sorry, Barb, guess we do eat better than that around the editorial domicile.)

Text of an Article Appearing on the
Front Page of the Foodtown Daily
Newspaper

Michigan State University is conducting an extensive research project involving food purchasing in the City of Foodtown, Gordon W. Paul, project director in the business college department of marketing and transportation administration announced Wednesday.

Director Paul announced that as part of the project, store audits of grocery stores in the city are being conducted and "The cooperation we have received to this point has been excellent, both from your merchants and your Chamber of Commerce."

In addition to the store audits, Paul said, the group plans to select a limited number of householders to comprise a consumer panel. The panel work is to consist of recording grocery purchases weekly in a food purchase diary and in exchange for time and effort by the panel members, participants will be rewarded with their choice

of merchandise items. One of the purposes of the study, the M.S.U. project director declared, will be to look at the interactions that occur as a result of advertising and various merchandising efforts and an audit of all community promotions.

The project members are sending out a questionnaire as a pre-sample of the population and this week plan to solicity householders to become members of the panel. The solications are to be done by graduate students of the College of Business Administration as part of their work. All will carry identification cards which will be shown on request, Director Paul explained. Several Foodtown area students will be among the solicators.

The project is expected to take about ten weeks.

Control Form for Panel Recruiters

Information for Interviewers

1. Introduction

- A. I'm _____ from Michigan State University. We're beginning work on a project involving grocery purchases and related factors all over the city of Ionia.

2. Information

- A. The project is being conducted by the Department of Marketing in the Graduate School of Business at the college.
- B. Related characteristics between purchases and family characteristics such as size of family and education are to be some of the things considered.
- C. How people can spend their money more efficiently and budget their money more wisely. Give producers and distributors a better understanding of their market and aid them in better supplying the needs of the housewife.

3. What you would have to do as a panel reporter

- A. Fill out diary each week.
- B. At end of the project exchange points for merchandise.
- C. Little effort on your part.
- D. Would be aiding the University and ultimately yourself.

4. Need following information if not sent in.

- A. Questionnaire.

Cell # _____
Address _____

Interviewer _____

Day of Completed Interview.

- 1. Monday
- 2. Tuesday
- 3. Wednesday
- 4. Thursday
- 5. Friday
- 6. Saturday
- 7. Sunday

Time of day of completed interview.

- 1. Morning _____
- 2. Afternoon _____
- 3. Evening _____

Why Refused _____

Diary Number Left _____

Cell # _____
Address _____

Interviewer _____

Day of Completed Interview.

- 1. Monday
- 2. Tuesday
- 3. Wednesday
- 4. Thursday
- 5. Friday
- 6. Saturday
- 7. Sunday

Time of day of completed interview.

- 1. Morning _____
- 2. Afternoon _____
- 3. Evening _____

Why Refused _____

Diary Number Left _____

Cell # _____
Address _____

Interviewer _____

Day of Completed Interview.

- 1. Monday
- 2. Tuesday
- 3. Wednesday
- 4. Thursday
- 5. Friday
- 6. Saturday
- 7. Sunday

Time of day of completed interview.

- 1. Morning _____
- 2. Afternoon _____
- 3. Evening _____

Why Refused _____

Diary Number Left _____

Premium Schedule

Merchandise List

<u>Item No.</u>		<u>Points</u>
1.	Linen table cloth--51 x 52 in. gold, olive green burnt orange, pink, or antique white	600
2.	Desk lamp--6 1/2 in. shade, flexible arm	600
3.	Pearl necklace--2 strand, 15 in.	400
4.	Pearl clipback earrings	400
5.	Flashlight with red glow lens cap and 3 position switch	95
6.	Bath towels--one-half dozen, 20 x 38 in., choice of yellow, blue pink, or white	395
7.	Guest towels, 11 x 18 in., choice of yellow, blue, pink, or white	195
8.	Automatic toothbrush--4 snap in brushes	580
9.	Box camera--takes 12 black & white or color pictures	370
10.	Baseball bat--made by "Louisville Slugger"-- Ash wood	330
11.	League baseball--official size	130
12.	2-way paper dispenser, hand or stand	390
13.	4-piece canister set--flour, sugar, coffee, tea	510
14.	Cake cover--5 in. high with lock on serving tray	530
15.	Hardwood stool--folds, canvas seat	160

<u>Item No.</u>		<u>Points</u>
16.	Hardwood chair--back rest, canvas seat	280
17.	Wastebasket--13 in high, choice of pink, white or black	380
18.	Folding baby walker--washable cotton with plastic casters	560
19.	Fitted sheets for 6-year crib--sanforized bottom sheets fit 28 x 52 in. mattress, rainbow stripes, ordinary print	195
20.	Sleeve board--use for ironing sleeves † hard to reach places, silicone treated cover over cotton pad	590
21.	Garment bag--quilted vinyl front, clear inside view, choice of aqua, gold, or pink--holds 16 garments	570
22.	Corduroy pillows--covers are machine washable, choice of square or round in blue, gold, nutmeg, green, brown or red	390
23.	4-piece screwdriver set--includes 4 in. † 6 in. standard round, 6 in. electricians, and 3 in. crosspoint	380
24.	Hanging planter basket--includes wire hanger	400
25.	Machine wasable blanket--double 80 x 90 in. choice of yellow, green, pink, blue, beige, or bleached white	490
26.	Machine washable blanket--twin 66 x 90 in., same colors as above	390
27.	Hassock--green ivory, or saddle tan	760
28.	House scale--weighs up to 260 pounds, available in pink, black, or white	680
29.	Shower caddy--keeps soap, shampoo, washcloth at your fingertips, snaps on over fixture	335
30.	Woman's hood scarf--rayon and silk chiffon, hand washable, blue or black	395

Point Schedule

Each completed diary is worth	20 points
Each diary with your signature on page is worth an additional	10 points
Each diary mailed on Sunday or Monday is worth an additional	10 points
Bonus for completion of 5-7 diaries	100 points
Bonus for completion of 8-10 diaries	200 points

Panel Maintenance Letter

East Lansing, Michigan
May 1, 1965

Dear Panel Member:

Once again I would like to thank you for the cooperation and help which you have given to us over the past ten weeks. It would have been impossible to conduct this research project without your assistance, and this has been greatly appreciated.

I am enclosing a post card with your total number of points earned and would like to have you place the number from the merchandise list originally sent you in the appropriate space. Those panel members that participated in the six week panel can ignore this as the appropriate gift will be sent you. If you have misplaced the merchandise list, just drop us a note and we will be glad to send you another. We would like you to provide us with any suggestions or comments you have regarding this project and your participation. If such a project is later repeated in some other community this would be of benefit to those participating. Also, would you please tell us if you save trading stamps and if so, what kind.

Because we will have to wait until we receive every participants choice and then compile your requests and order the gifts, there will be a short delay until you receive your gift. I hope you will show us the same patience here as you must have shown when filling out your weekly diaries. At the time the gifts are delivered to you, we would like to complete our project by asking you a few questions which would take very little of your time. If you have any questions about the number of points earned just put them on the enclosed post card.

Again, let me thank you for your splendid cooperation. I think you can honestly feel that you have contributed a part to a better understanding of food marketing.

Sincerely yours,



Gordon Paul

Late Diary Reminder

Dear Mrs. Smith:

I would like to personally thank you for taking your time to talk to our field interviewer. Perhaps the time has slipped by and you have overlooked sending in your food purchase diary for the past week. Even though you may feel your purchases are unimportant, let me emphasize that each diary is important to us. If you have misplaced your diary, please drop us a note and we will gladly see that you receive another. I hope that you will continue to give us your cooperation for the short period of time we would like to operate our Foodtown panel. We sincerely appreciate the time and effort that goes into each diary we receive, and hope that together we may realize results important to you as a consumer.

Gordon Paul

Panel Member _____

Number of Points Earned 600

Number of Prize Desired _____

Alternative Prize Desired _____

Do you save trading stamps?

Yes _____ No _____

What kind(s) do you save?

Comments or Suggestions:

Panel Maintenance Postcard

Dear Panel Member:

I am sorry that it has taken us so long to assemble and order your prize. Joanne had a baby girl a week ago, and I am discovering that she is much more efficient than I. Now that we have everyone's choice of prize, it will only be a short time until you receive your premium by mail. Again, let me thank you for the patience you have shown.

We will shortly complete our project with some interviews of panel and non-panel members. One of our interviewers will want to ask you a few questions which should take very little of your time. I hope that you will be able to give them your cooperation. Again, I want to thank you for your cooperation and patience and your contribution has been deeply appreciated.

Gordon Paul

Advertisement Explaining Premium Delay

Test of Advertisement Placed Due
to Delay of Panel Premiums

FOODTOWN CONSUMER FOOD PANEL

We regret the delay in shipment of prizes to you for your cooperation in our project. Unfortunately, this delay resulted from administrative problems on our part, but has been rectified, and your merchandise is now being processed for delivery. I would like to apologize to you for this delay, especially in light of the splendid cooperation you extended to us.

Gordon Paul

(This five inch display advertisement ran two days followed by two days of eighteen line classified advertisement.)

Panel Recruiting by Mail Letter

MICHIGAN STATE UNIVERSITY EAST LANSING

COLLEGE OF BUSINESS

DEPARTMENT OF MARKETING AND TRANSPORTATION ADMINISTRATION

March 15, 1965

Dear Homemaker:

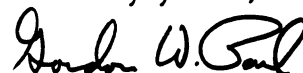
As you may have heard from friends or read in the Sentinel-Standard, we are in the midst of conducting a research project concerning food shopping patterns in your community. A selected number of householders have been chosen to be panel members who weekly report their food purchases in a food diary provided for this purpose.

Past experience has indicated that panel members who keep food purchase diaries feel that this has resulted in a considerable increase in their knowledge of food prices. In addition, most panel members feel this experience has increased their ability to do a better job of food buying.

I am writing you to request your participation as a panel member for a period of six weeks. After once becoming familiar with the reporting diary you will find that it requires little of your time. Because this does take some of your time we would like to give you a small token of appreciation for your cooperation. The panel members who started at an earlier date receive points which can be redeemed for certain merchandise items. If you decide to participate for the six week panel we would give you an item of proportional value. In all likelihood, this would be something such as a table top phone directory or index-tab note pads for shopping convenience.

I would like to assure you that there is no obligation on your part and any information you provide us will be held in strictest confidence. Enclosed is a confidential personal data sheet which we will need if you choose to become a member of our panel. The cooperation and interest we have received from our Foodtown participants has been excellent and we certainly hope that you will decide to participate for the short period of time involved. We feel that this is an important part of our work here at the University and hope that you will want to become a part of it.

Sincerely yours,



Gordon W. Paul
Project Director

Consumer Panel Diary

MICHIGAN STATE UNIVERSITY
WEEKLY CONSUMER FOOD PURCHASE DIARY

This diary is for recording all food purchases for the week of
 through.....

1. May we emphasize that each of your diaries is important to us, whether your food purchases are many or few. Your diaries will be of most value if made out accurately and returned promptly.
2. We suggest that you enter food items in the diary each day as you make the purchase.
3. If a food item that you use is home-grown or a gift, show this by writing "home-grown" or "gift" in the price column.
4. If you don't know under which heading to enter a food item, you can list it in one of the blank spaces on page 19.
5. At the end of the week check through the diary to make sure you haven't forgotten any purchase or made any incomplete entries.
6. As you are checking the diary also the squares (None) if appropriate.

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DAIRY PRODUCTS**MILK**NONE

FRESH		Number of Quarts	Price per Quart	Total Amt. Paid	Brand	Where Purchased*	Special Price? Coupon? Describe	
Homogenized—Vit. D.	1100	1110						
Multiple Vitamin Milk — (Brown Bottle)	1111							
Homogenized—Plain	1120							
Regular Pasteurized	1130							
Jersey or Guernsey	1140							
Buttermilk	1150							
Chocolate	1160							
Skim Milk	1170							
Sour Milk, Yoghurt, etc.	1180							
Egg Nog, etc.	1181							
Other Milk	1190							
Half & Half	1192							
CREAM	NONE <input type="checkbox"/>	1400	Number of ½ Pints	Price per ½ Pint	Total Amt. Paid	Brand	Where Purchased*	Special Price? Coupon? Describe
Coffee Cream	1410							
Whipping Cream—bottle or carton	1421							
Whip. Cream—can (Reddi-Whip, etc.)	1422							
Sour Cream—½ Pint Size	1430							

CANNED (Liquid)		Number of Cans	Weight of Each Can	Total Amt. Paid	Brand	Where Purchased	Special Price? Coupon? Describe
Evaporated—Unsweetened	1200	1210					
Condensed—Sweetened	1220						
Canned Skim	1230						
Canned—Baby Formulas	1240						
DRIED		Number of Pounds	Price per Pound	Total Amt. Paid	Brand	Where Purchased	Special Price? Coupon? Describe
Powdered—Skim Milk	1300	1310					
Powdered—Whole Milk	1320						
Powdered—Baby Formulas	1330						
Ice Cream Mix	1340						
Sherbet Mix	1341						
Malted Milk Powder	1321						
Pream (Powdered Cream)	1350						

DAIRY PRODUCTS (cont.)

(3)

ICE CREAM	NONE <input type="checkbox"/>	1500	Number of Pints	Price per Pint	Total Amt. Paid	²¹⁻²² Brand	²³ Where Purchased	Special Price? Coupon? Describe
Hand Packed Ice Cream		1510						
Pre-Packaged Ice Cream		1520						
Other Ice Cream		1530						
Sherbets and Ices		1540						
Dairy Queen, Frostie, etc.		1550						
CHEESE	NONE <input type="checkbox"/>		Number of Lbs., Ozs.	Price per Pound	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe	
Natural American (Cheddar, etc.)		1610						
Processed American (Velveta, etc.)		1620						
Swiss Cheese		1730						
Cheese Spread		1720						
Cream Cheese (Philadelphia, etc.)		1750						
Other Cheese		1740						
Cottage Cheese		1820						

FATS AND OILS

FATS	NONE <input type="checkbox"/>	2100	Number of Pounds	Price per Pound	(Brand) or (Name)	²⁴ Where Purchased	Special Price? Coupon? Describe
Butter		2110					
Oleomargarine		2120					
Lard		2130					
Swifming		2131					
Vegetable Shortening (Crisco, Spry, etc.)		2140					
Other Fats (name kind)		2150					
OILS	NONE <input type="checkbox"/>	2200	Number of Pints or Ozs.	Price per Unit	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
Cooking Oils		6					
Mayonnaise		2220					
Salad Dressing		2221					
Roquefort Dressing		2222					
Salad Oils, etc.		2230					
Other Oils		2240					
French Dressing, etc.		2231					
Sandwich Spreads, Tartar Sauce		2242					
Whips (name kind)		2250					

(4)

FRUITS

	AMOUNT BOUGHT EXAMPLES	Total Amt. Paid	Fresh		(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
			Prepd.	Bulk			
BERRIES NONE <input type="checkbox"/> 3100	1 gallon 1-1 lb. 6 oz. can 1/2 bu. 1 large 3 medium 2-8 oz. jars						
Blueberries qts. fresh							
Cranberries							
Currants qts. fresh							
Dewberries and Blackberries qts. fresh							
Raspberries qts. fresh							
Strawberries qts. fresh							
Other Berries (name kind)							
Berry Juice (kind)							
CITRUS NONE <input type="checkbox"/> 3200							
Grapefruit no. fresh							
Grapefruit Juice							
Lemons no. fresh							
Lemonade							
Lemon Juice							
Limes no. fresh							
Lime Juice							
Limeade							
Oranges no. fresh							
Frozen Orange Juice							
Orange Juice (not frozen)							
Orange Drink (Hi-C, etc.)							
Tangerines no. fresh							
Tangerine Juice							
Other Citrus (name kind)							
Other Citrus Juice (name kind)							
Mixed Citrus Fruit							
Mixed Citrus Juices							
OTHER FRUITS NONE <input type="checkbox"/> 33-35							
Apples							
Applesauce and Applebutter							
Apple Cider							
Apple Juice							
Apricots							

In reporting Fruits and Vegetables please indicate the actual amount bought in weight or liquid measure, EXCEPT for those fresh Fruits and Vegetables indicated with qts., no., heads, bunches after the name of the product it is all right to express the amount bought in these units.

FRUITS (cont.)

(5)

	AMOUNT BOUGHT EXAMPLES 3 pints 3-6 oz. cans 1-12 oz. pkg. 2 lb. & 3 oz. 8 qts. (est.) home grown	Total Amt. Paid	Fresh		(Brand or Name)	Where Purchased	Special Price? Coupon? Describe
			Prepd.	Bulk			
OTHER FRUITS Cont.							
Apricot Nectar	3329						
Avocados	3330						
Bananas lbs. fresh	3340						
Cherries—Maraschino	3350						
Cherries—Sour	3351						
Cherries—Sweet	3352						
Dates	3360						
Figs	3370						
Grapes	3380						
Grape Juice (single strength)	3389						
Grape Juice (concentrated)	3388						
Cantalope and Muskmelon no. fresh	3411						
Watermelon	3412						
Nectarines	3420						
Olives	3435						
Persimmons	3430						
Peaches	3						
Pears	3450						
Pineapple	3460						
Pineapple Juice	3469						
Plums	3470						
Prunes	3480						
Prune Juice	3489						
Raisins	3510						
Rhubarb	3520						
Hawaiian Punch Base	3540						
Mixed Fruits (except citrus)	3590						
Fruit Cocktail	3591						
Fruit Pie Mix (kind)	3592						
Mixed Fruit Juices	3542						
Fruit Gelatin Salad—prepared	3570						
Powdered Juice (kind)	3550						
Candied Fruit (kind)	3560						
Fruit Pickles (kind)	3580						
All Other Fruit Juice (kind)	3549						
All Other Fruit (name kind)	3530						

Please don't forget to enter home grown, and gift items.

(8)

MEAT

BEEF NONE <input type="checkbox"/>			Number of Lbs., Ozs.	Price per Pound	Total Amt. Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
		5100						
Canned Beef		5110						
Corned Beef		5120						
Chipped Beef		5121						
Ground Beef, Hamburger		5130						
Ground Round Steak, Lean Gr. Beef		5131						
Beef Liver and Baby Beef Liver		5141						
Heart, Tongue, other Organ Parts		5142						
Chuck Roast (Pot Roast)		5164						
Rib Roast	<input type="checkbox"/> Bone Removed <input type="checkbox"/> Bone In	516						
Other Roast	<input type="checkbox"/> Bone Removed <input type="checkbox"/> Bone In	516						
Round and Swiss Steak		5170						
Sirloin Steak		5171						
Porterhouse and T-Bone Steak		5172						
Other Steak		5173						
Stewing Beef (Boneless)		5181						
Boiling Beef or Short Ribs		5183						
All Other Beef (name kind)		5190						
<hr/>								
PORK NONE <input type="checkbox"/>			Number of Lbs., Ozs.	Price per Pound	Total Amt. Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
		5300						
Bacon		5311						
Canadian Bacon		5312						
Canned Pork		5320						
Chops		5330						
Steaks		5335						
Ham—Center Slice		5340						
Ham—Whole or Half	<input type="checkbox"/> Bone Removed <input type="checkbox"/> Bone In	534						
Ham—Canned		5343						
Ham—Other	<input type="checkbox"/> Bone Removed <input type="checkbox"/> Bone In	534						
Picnic Ham, Cured Butts		5346						
Pork Liver		5351						
Heart, Tongue, other Organ parts		5352						
Roast—Fresh		5370						
Sausage—Link		5380						
Sausage		5381						
Spareribs		5382						
Side or Salt Pork		5391						
Other Pork (name kind)		5390						

MEAT (cont.)

(9)

LAMB-MUTTON NONE <input type="checkbox"/> 5200	Number of Lbs., Ozs.	Price per Pound	Total Amt. Paid	(Brand or (Name)	Where Purchased	Special Price? Coupon? Describe
Chops-Steaks	5220					
Roast (Leg, etc.)	5260					
Other Lamb-Mutton (kind)	5280					
VEAL NONE <input type="checkbox"/> 5400	Number of Lbs., Ozs.	Price per Pound	Total Amt. Paid	(Brand or (Name)	Where Purchased	Special Price? Coupon? Describe
Cutlets, Chops, Steaks	5420					
Ground Veal	5430					
Calf Liver	5441					
City Chicken	5443					
Roast <input type="checkbox"/> Bone Removed <input type="checkbox"/> Bone In	546					
Stewing, Soup Veal	5470					
Other Veal (name kind)	5490					
OTHER MEAT AND MEAT MIXTURES NONE <input type="checkbox"/> 5500	Number of Lbs., Ozs.	Price per Pound	Total Amt. Paid	(Brand or (Name)	Where Purchased	Special Price? Coupon? Describe
Wieners and Franks, etc.	5510					
Bologna—Ring or Large Round	5511					
Other Cold Cuts	5513					
Other Cold Cuts	5513					
Prem, Spam, Treet, etc.	5514					
Rabbit, Domestic	5520					
Venison and Other Game Animals	5530					
Chop Suey Meat and Kabobs	5540					
Bouillon Cubes	5596					
Beef Stew	5594					
Chile Con Carne	5591					
Hash	5592					
Mincemeat	5593					
Meat Balls and Spaghetti	5595					
Ravioli and Tamales	5598					
Chop Suey, Chow Mein with Meat	5599					
Potted Meat	5560					
Meat Spreads	5570					
Pork and Beans	4701-3					
Other	5550					

(10)

POULTRY, FISH, EGGS

POULTRY NONE <input type="checkbox"/> 5600			Number of Lbs., Ozs.	Price per Pound	Total Amount Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
CHICKEN								
Broilers or Fryers		5611						
Roasters		5612						
Stewing		5613						
Barbecued Chicken		5614						
TURKEY		5620						
DUCK		5630						
OTHER POULTRY (kind)		5640						
Game Birds		5650						
MIXTURES—CHIEFLY CHICKEN		5690						
Chicken Noodle Dinner		5691						
Chicken a la King		5692						
Chicken Chop Suey, etc.		5694						
Other (kind)		5696						
EGGS NONE <input type="checkbox"/> 5700			Number of Dozen	Price per Dozen	Total Amount Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
FISH AND SEA FOOD NONE <input type="checkbox"/>			Number of Pounds and/or Ozs.	Price per Pound	Total Amount Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
Tuna		5						
Salmon		5812						
Fish Sticks		5814						
Other Fish (kind)		5813						
Lobster, Lobstertail		5819						
Oysters		5820						
Oyster Stew		5821						
Scallops		5830						
Shrimp		5840						
Tuna Pie or Casserole		5891						
Sardines in Oil		5892						
Sardines in Sauce		5893						

LAUNDRY AIDS, SOUP, MEAT PIES, DINNERS (11)

SOAPS, DETERGENTS STARCH, ETC. None <input type="checkbox"/>	Code	Number of Cans or Pkgs	Weight Each Can or Jar	Total Amt. Paid	(Brand or (Name)	Where Purchased	Special Price? Coupon? Describe
Soaps-Liquids, Powder, Flakes	3110-5						
Soap Pads-Brillo, S.O.S.etc	3120-5						
Laundry Rinses and Softener	3121-5						
Bluing	3140-5						
Bleach and Disinfectants	3150-5						
Ammonia	3160-5						
Starch-Dry or Liquid	3240-5						
Starch-Pressurized Can	7						
Floor Waxes; Polishes	3310-5						
Oven Cleaners	3320-5						
Toilet Bowl Cleaners	3351-5						

SOUP, BROTH, CONSOMME, ETC. None <input type="checkbox"/>	Code S	Number of Cans or Pkgs.	Weight Each Can or Pkg.	Total Amt. Paid	(Brand or (Name)	Where Purchased	Special Price? Coupon? Describe
Tomato Soup	4874						
Vegetable Soup	4991						
Vegetable and Meat Soup	5580						
Chicken Soup or Broth	5693						
Mushroom Soup	4781						
Pea Soup	4532						
Other <input type="checkbox"/> Asparagus <input type="checkbox"/> Bean <input type="checkbox"/> Celery <input type="checkbox"/> Onion	4421 4702 4131 4813						

MEAT PIES None <input type="checkbox"/>	Code	Number Bought	Weight of Each	Total Amt. Paid	(Brand or (Name)	Where Purchased	Special Price? Coupon? Describe
Beef Pie	5597						
Chicken Pie	5695						
Turkey Pie	5621						
Pizza Pie Mix	5581						
Pizza Pie—Prepared or Frozen	5582						

DINNERS — Brought Home None <input type="checkbox"/>	Code	Number Bought	Price of Each	Total Amt. Paid	(Brand or (Name)	Where Purchased	Special Price? Coupon? Describe
Chicken-in-the-Rough	0100						
T.V. Dinner	0100						
Other (kind)	0100						

BAKERY AND CEREAL PRODUCTS

(13)

BREAD	None <input type="checkbox"/>	No. of Leaves	Lbs., Oz., Each Loaf	Total Amt. Paid	Special Price? Coupon? Describe
White Enriched Bread	6101				
White Enriched Bread	6101				
White Non-Enriched Bread	6102				
Whole or Cracked Wheat Bread	6104				
Rye Bread	6105				
Raisin Bread	6106				
Cinnamon Bread	6107				
Diet Bread	6112				
Half and Half Bread	6117				
Other	08 <input type="checkbox"/> Vienna, French 09 <input type="checkbox"/> Boston Brown	10 <input type="checkbox"/> Date Nut 11 <input type="checkbox"/> Bran	03 <input type="checkbox"/> Potato 03 <input type="checkbox"/> Salt Rising	61	
Other	13 <input type="checkbox"/> Pumpernickel 14 <input type="checkbox"/> Zwieback	15 <input type="checkbox"/> Rusk 16 <input type="checkbox"/> Toast	<input type="checkbox"/>	61	

BUNS, ROLLS, CAKES	None <input type="checkbox"/>	No. Pkgs.	No. in Each Pkg.	Lbs., Oz., Each Pkg.	Total Amt. Paid	Special Price? Coupon? Describe
Biscuits	1 <input type="checkbox"/> Oven Ready 2 <input type="checkbox"/> Refrig. (can or tube) <input type="checkbox"/>	620				
Buns	1 <input type="checkbox"/> Hamburg 2 <input type="checkbox"/> Wiener <input type="checkbox"/>	621				
Buns	1 <input type="checkbox"/> Hamburg 2 <input type="checkbox"/> Wiener <input type="checkbox"/>	621				
Breakfast Rolls	1 <input type="checkbox"/> Raisin 3 <input type="checkbox"/> Nut Covered 5 <input type="checkbox"/> Plain Frosted 2 <input type="checkbox"/> Cinnamon 4 <input type="checkbox"/> Butterscotch <input type="checkbox"/>	622				
Breakfast Rolls	1 <input type="checkbox"/> Raisin 3 <input type="checkbox"/> Nut Covered 5 <input type="checkbox"/> Plain Frosted 2 <input type="checkbox"/> Cinnamon 4 <input type="checkbox"/> Butterscotch <input type="checkbox"/>	622				
Dinner Rolls	1 <input type="checkbox"/> Parkerhouse 2 <input type="checkbox"/> Poppy Seed 3 <input type="checkbox"/> Brown and serve	623				
Dinner Rolls	1 <input type="checkbox"/> Parkerhouse 2 <input type="checkbox"/> Poppy Seed <input type="checkbox"/>	623				
Other Rolls	1 <input type="checkbox"/> Whole Wheat <input type="checkbox"/>	624				
Muffins	1 <input type="checkbox"/> Plain 3 <input type="checkbox"/> English 5 <input type="checkbox"/> Corn 2 <input type="checkbox"/> Bran 4 <input type="checkbox"/> Blueberry <input type="checkbox"/>	625				
Coffee Cake		6260				
Angel Food Cake	1 <input type="checkbox"/> Iced 2 <input type="checkbox"/> Not Iced	630				
Cheese Cake		6310				
Layer Cake	1 <input type="checkbox"/> Plain Frosting 2 <input type="checkbox"/> Choc. Frosting	632				
Cup Cakes	1 <input type="checkbox"/> Chocolate, Frosted 3 <input type="checkbox"/> Chocolate Not Frosted 2 <input type="checkbox"/> Plain, Frosted 4 <input type="checkbox"/> Plain Not Frosted	633				
Fruit Cake		6340				
Loaf Cake	1 <input type="checkbox"/> No Frosting 3 <input type="checkbox"/> Chocolate Frosting 2 <input type="checkbox"/> Plain Frosting <input type="checkbox"/>	635				
Sponge Cake	1 <input type="checkbox"/> No Frosting 2 <input type="checkbox"/> With Frosting	636				
Jelly Roll		6370				
Cream Puffs		6375				
Eclairs		6378				

(14) BAKERY AND CEREAL PRODUCTS (cont.)

COOKIES		None <input type="checkbox"/>	No. Pkgs.	Lbs., Oz., Each Pkg.	Total Amt. Paid	Special Price? Coupon? Describe	
Cookies—Plain or sugared		6410					
Cookies—Plain with Frosting or Marshmallow		6411					
Cookies—Chocolate		6412					
Cookies—Chocolate with Frosting or Marshmallow		6413					
Cookies—Fruit Filled		6414					
Cookies—Assorted		6415					
DOUGHNUTS, PIES		None <input type="checkbox"/>	No. Pkgs.	No. in Each Pkg.	Lbs., Oz., Each Pkg.	Total Amt. Paid	Special Price? Coupon? Describe
Doughnuts—Raised	1 <input type="checkbox"/> Frosted or Sugared 2 <input type="checkbox"/> Not Frosted or Sugared	642					
Doughnuts—Cake Type	3 <input type="checkbox"/> Frosted or Sugared 4 <input type="checkbox"/> Not Frosted or Sugared	642					
Doughnuts—Bismarks		6426					
Pies	1 <input type="checkbox"/> Cream 3 <input type="checkbox"/> Mincemeat 5 <input type="checkbox"/> Chiffon 2 <input type="checkbox"/> Custard 4 <input type="checkbox"/> Pumpkin	650					
Pies—Fruit	10 <input type="checkbox"/> Apple 12 <input type="checkbox"/> Blackberry 14 <input type="checkbox"/> Boysenberry 11 <input type="checkbox"/> Apricot 13 <input type="checkbox"/> Blueberry 15 <input type="checkbox"/> Cherry	65					
Pies—Fruit	16 <input type="checkbox"/> Peach 18 <input type="checkbox"/> Raisin 20 <input type="checkbox"/> Rhubarb 17 <input type="checkbox"/> Pineapple 19 <input type="checkbox"/> Raspberry 21 <input type="checkbox"/> Strawberry	65					
Pies—Fruit	22 <input type="checkbox"/> Apple-Blueberry 24 <input type="checkbox"/> Strawberry-Rhubarb 23 <input type="checkbox"/> Apple-Cherry	65					
MIXES		None <input type="checkbox"/>	No. Pkgs.	Lbs., Oz., Each Pkg.	Total Amt. Paid	Special Price? Coupon? Describe	
Cake Mix	1 <input type="checkbox"/> White 3 <input type="checkbox"/> Chocolate 5 <input type="checkbox"/> Spice 2 <input type="checkbox"/> Yellow 4 <input type="checkbox"/> Angel Food	661					
Cake Mix	1 <input type="checkbox"/> White 3 <input type="checkbox"/> Chocolate 5 <input type="checkbox"/> Spice 2 <input type="checkbox"/> Yellow 4 <input type="checkbox"/> Angel Food	661					
Cookie Mix	1 <input type="checkbox"/> Plain 2 <input type="checkbox"/> Chocolate	662					
Hot Roll or Biscuit Mix	1 <input type="checkbox"/> Hot Roll 2 <input type="checkbox"/> Biscuit	663					
Bread Mix	1 <input type="checkbox"/> Corn 3 <input type="checkbox"/> Plain 2 <input type="checkbox"/> Bran	664					
Muffin Mix	1 <input type="checkbox"/> Corn 3 <input type="checkbox"/> Plain 2 <input type="checkbox"/> Bran	665					
Pie Crust Mix		6660					
Complete Pie Filling and Crust Mix		6661					
Pancake or Waffle Mix	1 <input type="checkbox"/> Buckwheat 2 <input type="checkbox"/> Plain	667					
Other Mix (kind)		668					
FLOUR, CORN MEAL		None <input type="checkbox"/>	No. Pkgs.	Lbs., Oz., Each Pkg.	Total Amt. Paid	Special Price? Coupon? Describe	
Cake Flour		6690					
Graham Flour		6691					
White Flour	2 <input type="checkbox"/> Enriched 3 <input type="checkbox"/> Non-Enriched	669					
Corn Meal		6694					
Corn Starch		6695					
Other Flour	99 <input type="checkbox"/> Whole Wheat 87 <input type="checkbox"/> Barley 97 <input type="checkbox"/> Buckwheat 96 <input type="checkbox"/> Rye	66					

BAKERY AND CEREAL PRODUCTS (cont.) (15)

CRACKERS		None <input type="checkbox"/>	No. Pkgs.	Lbs., Oz., Each Pkg.	Total Amt. Paid	Special Price? Coupon? Describe
Soda Crackers, Others Similar	6280					
Other Salted Crackers	6281					
Graham Crackers	629	1 <input type="checkbox"/> Chocolate Covered 2 <input type="checkbox"/> Not Choc. Covered				
Other Crackers (kind)	6295					
Cracker Meal	6296					

SPAGHETTI, ETC.	Check One			Check One Here Too							No. Pkgs. or Cans	Lbs., Oz., Each Pkg. or Can	Total Amt. Paid	Special Price? Coupon? Describe
	Box	Can	Bag, Sect	Plain	Meat	Gravy or Meat Sauce	Cheese	Tomato	Other					
Spaghetti or Macaroni	67													
Spaghetti or Macaroni	67													
Noodles	68													
Rice	69													
Minute Rice										6917				
Tapioca										6959				

BREAKFAST CEREAL		None <input type="checkbox"/>	60	No. Pkgs.	Lbs., Oz., Each Pkg.	Total Amt. Paid	Special Price? Coupon? Describe
Ready-to-Serve (kind—Wheaties, etc.)							
Ready-to-Serve (kind)							
Ready-to-Serve (kind)							
To Be Cooked (kind)							
To Be Cooked (kind)							

APPETIZERS, ETC.		None <input type="checkbox"/>	69	No. Pkgs.	Lbs., Oz., Each Pkg.	Total Amt. Paid	Special Price? Coupon? Describe
Crackerjacks, Karmel Corn	6970						
Cheese Twist, Cheese Sticks, Corn Pone, Etc.	6971						
Popped Corn, Fritos	6972						
Pop Corn—Raw	6973						
Pretzels	6974						
Cones for Ice Cream	6977						
Other (kind)							

OTHER GRAIN PRODUCTS		None <input type="checkbox"/>	No. Pkgs.	Lbs., Oz., Each Pkg.	Total Amt. Paid	Special Price? Coupon? Describe

(16)

SUGAR, SWEETS, CANDY

SUGAR	NONE <input type="checkbox"/>	7100	Number of Pounds	Price per Pound	Total Amt. Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
White or Powdered		7100						
Dextrose, Maltose		7110						
Brown		7120						
Maple		7130						
SYRUP AND HONEY	NONE <input type="checkbox"/>	7200	Number of Pounds and Ozs. or Pts.	Price per Unit	Total Amt. Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
Corn Syrup		7210						
Cane Syrup		7220						
Maple Syrup		7230						
Molasses		7240						
Sorghum		7250						
Other Syrup		7260						
Toppings for Ice Cream		7265						
Honey		7270						
CANDY & SWEETS	NONE <input type="checkbox"/>	7300	Number of Pounds and Ounces	Price per Pound	Total Amt. Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
Fondant, Mints, Marshmallow		7310						
Cream—Chocolate Covered		7320						
Cream—Fruit, Nut		7330						
Cream—Chocolate, Fruit, Nut		7340						
Solid Chocolate		7350						
Other Candy or Sweets		7360						
PREPARED DESSERT MIXES	NONE <input type="checkbox"/>	7400	Number of Packages	Lbs., Oz., Each Pkg.	Total Amt. Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
Gelatin—Unflavored		7410						
Flavored Gelatin (Jello, Royal, etc.)		7415						
Puddings or Pie Fillings—Dry Mix		7420						
Candy Mix		7440						
Frosting Mix		7450						

PAPER and PLASTIC PRODUCTS

NONE <input type="checkbox"/>	35-37	Number of Lbs., Oz., Feet	Price per Unit	Total Amt. Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
Paper Towels & Napkins	751						
Waxed & Plastic Wraps	8						
Aluminum Foils	7532						
Paper & Plastic Cups	754						
Paper Bags	755						
Toilet Tissues	756						
Facial Tissues	757						
Other	758						

Have you included all of the food purchases by other members of the household?

BEVERAGES

(17)

NONE <input type="checkbox"/>	8000	Number of Bottles, Pkgs.	Size of Unit Specify Ozs., Lbs., etc.	Price per Unit	Total Amount Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
Beer	8110							
Liquors (Whiskey, Gin, Rum, etc.)	8220							
Wine	8230							
Cocoa <input type="checkbox"/> Mix <input type="checkbox"/> Plain	831							
Coffee—Ground	8420							
Coffee—Instant	1							
Tea <input type="checkbox"/> Bags <input type="checkbox"/> Loose <input type="checkbox"/> Instant	853							
Soft Drinks—bottled	8610							
Soft Drinks—Liquor Mixes	8611							
Soft Drinks—powdered	8720							
Postum	8810							
Ovaltine	8811							
Other (kind)								

COOKING AIDS

NONE <input type="checkbox"/>	9300	Number of Units	Lbs., Oz., Each Unit	Price per Unit	Total Amount Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
Baking Powder	9311							
Baking Soda	9312							
Canning Aids (Certo, etc.)	9369							
Chocolate—Baking, Chocolate Chips	9321							
Extracts (name kind)	9330							
Junket Tablets	9345							
Mustard—Prepared	9436							
Meat Sauces (name kind)	9340							
Meat Tenderizer	9375							
Salt	9350							
Spices (name kind)	9360							
Pepper	9361							
Vinegar	9371							
Yeast	9372							
Cream of Tartar	9374							

FOOD, VITAMINS, MINERALS for DOGS and CATS

None <input type="checkbox"/>	Quantity Purchased	Size	Price unit	Total Amount Paid	(Brand) or (Name)	Where Purchased	Special Price? Coupon? Describe
Dog-Canned Food							
Dog-Dry, Meal, Pellets, etc.	9						
Cat-Canned Food							
Cat-Dry, Meal, Pellets, etc.							
Cat & Dog-Vitamins & Minerals							

(18) **Directions for Keeping Your Diary**

1. Special Instructions for the Previous Pages
 - a. Please enter all purchases of the items listed.
 - b. Please include all diary items bought in food stores, discount houses, variety stores etc., or by mail or phone orders or from delivery men.
 - c. Please report all diary items purchased for use at home, or use at work or elsewhere.
 - d. At the end of the week, please review each diary section to be sure that all purchases have been entered. Check the "none" box when no purchase has been made in a diary section.
2. When to Report Items in Your Diary
 - a. Please record items which you purchase on the day they are purchased.
 - b. Record gift items on the day they are received.
 - c. Please be careful not to report any items twice.
 - d. Products which you had on hand before you became a panel member are not to be recorded.
3. Special Points on Reporting
 - a. Extra space on page 19 should be used if you don't have enough space on the other pages or if you have any questions, comments, etc.-also-if you cannot find a place to enter a purchase which you think should be in the diary, please enter it here.
 - b. Describe any special sale, coupon, price or offer in the space provided. For example-an item labled with a certain number of cents-off-regular price, a coupon worth a certain amount toward the purchase of an item, or extra stamps.
 - c. To obtain extra points mail on Sunday or Monday each week.

I can assure you that ALL of the purchases that were made during the past week by each member of my household of the products listed in the diary have been entered.

(Sign here for extra points)

APPENDIX B

RETAIL AUDIT TRAINING AND AUDIT FORMS

B-1 Special Problem Areas in Audits

B-2 Retail Store Audit Used for Foodtown Study

Special Problem Areas in Audits

Audit Training

Several problems encountered in taking retail store audits were presented in the form of practice audits to auditors. These were discussed from the viewpoint of their effect on sales. Problems effecting audits were covered from three viewpoints: (1) those errors causing over-statement of sales; (2) those errors causing an under-statement of sales; and (3) those errors effecting sales too high or too low. The following errors and their affect on sales were covered:

1. Errors causing under-statements in sales
 - a. Missed invoices or records of items purchased.
 - b. No record was obtained of inter-store transfers coming into the audited store.
 - c. More of an item was returned than was sold.
2. Errors causing over-statements in sales
 - a. Counted invoice for goods received in previous week.
 - b. Did not obtain records for returns, out-going inter-store transfers, or drop shipment returns.
3. Errors causing either over or under statements in sales.
 - a. Faulty addition or subtraction.
 - b. Miscounts or misentry on the audit form.
 - c. Wrong previous inventory figure.

Retail Store Audit Form Used for Foodtown Study

Week _____
Store _____

Product Classification--Catsup

Brand																					
Size																					
Inventory Units																					
Total																					
Prev																					
Change																					
Purchases																					
Sales																					
Price	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Number of Facings																					
Display																					
Special Price	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

APPENDIX C

Questionnaire for Panel Members,
Non-Cooperators, and Random Sample
of Community Households

INTERVIEW CONTROL SHEET

I. Interviewer's Name _____ Control Number _____

II. Respondent's Name _____ Date _____

Address _____ Time _____

Control Number _____

III. Interview Completed _____

Interview Not Completed _____

Reason:

Not at home _____

Refused _____

Why? _____

V - 0. Show respondent card #1. Ask respondent to select the three occupations that she things are most important.

1. _____ Volunteer church worker (R)
2. _____ Banker (E)
3. _____ Doctor (S)
4. _____ Head of a company (E)
5. _____ Social worker (S)
6. _____ Principal of a school (S)
7. _____ Real estate developer (E)
8. _____ Sunday school teacher (R)
9. _____ Clergyman (R)

INSTRUCTIONS - PART I

Please indicate for each of the following statements that point on the scale which best describes you.

Example: I enjoy outdoor sports.

<u>very</u> much like me	<u>somewhat</u> like me	<u>neither</u> like me nor unlike me	<u>somewhat</u> unlike me	<u>very</u> much like me
-----------------------------	----------------------------	---	------------------------------	-----------------------------

If you enjoy outdoor sports very much, you would check Point 1 on the scale.

very much
like me

If you sort of dislike outdoor sports, you would check Point 4 on the scale.

somewhat unlike
me

If you do not care one way or another about outdoor sports, you would check Point 3 on the scale.

neither like me
nor unlike me

1. I have a definite day each week to do my washing and ironing.

<u>very</u> much like me	<u>somewhat</u> like me	<u>neither</u> like me nor unlike me	<u>somewhat</u> unlike me	<u>very</u> much unlike me
-----------------------------	----------------------------	---	------------------------------	-------------------------------

2. I try to find ways to improve my housekeeping.

<u>very</u> much like me	<u>somewhat</u> like me	<u>neither</u> like me nor unlike me	<u>somewhat</u> unlike me	<u>very</u> much unlike me
-----------------------------	----------------------------	---	------------------------------	-------------------------------

3. When there's a choice, I would rather work with other people than work alone.

<u>very</u> much like me	<u>somewhat</u> like me	<u>neither</u> like me nor unlike me	<u>somewhat</u> unlike me	<u>very</u> much unlike me
-----------------------------	----------------------------	---	------------------------------	-------------------------------

4. I look to others to help me decide things about my home and family.

<u>very</u> much like me	<u>somewhat</u> like me	<u>neither</u> like me nor unlike me	<u>somewhat</u> unlike me	<u>very</u> much unlike me
-----------------------------	----------------------------	---	------------------------------	-------------------------------

5. I settle arguments and disputes between others.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

6.. I'm excited by new fads and fashions.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

7. I can "tell off" other people in public.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

8. I do exactly what I want to do.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

9. I come and go as I choose.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

10. I get other people's opinions before I decide.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

11. I like being the center of attention.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

12. I solve difficult puzzles and problems.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

13. I keep bills, letters, and other things according to a system.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

14. I take trips to places I know well.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

15. I often participate in friendly groups.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

16. I tell others off when I disagree with them.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

17. I try new things and experiment with new things.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

18. I tell amusing jokes and stories.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

19. I follow instructions exactly.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

20. I'm independent of others in making decisions.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

21. I prepare meals at the same time every day.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

22. I contact friends frequently by mail or telephone.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

23. I'm a leader in groups to which I belong.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

24. I share things with friends.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

25. I'm reluctant to take on tough jobs.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

26. I take trips to new and different places.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

27. I prefer to have someone else in charge of group activity.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

28. I argue for my point of view.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

29. I do new and different things.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

30. I talk about personal accomplishments.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

31. Household chores always seem to pile up.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

32. I plan a weekly meal menu.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

33. I accomplish tasks that others recognize as requiring skill and effort.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

34. I rarely contact friends by mail or telephone.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

35. I like responsibilities and obligations.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

36. I say witty and clever things.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

37. I supervise and direct the actions of others.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

38. I get "back at" others for insults.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

39. I get angry easily.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

40. I tell others that they have done a good job.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

41. I pay very little attention to instructions on food packages.

<u> </u> very much like me	<u> </u> somewhat like me	<u> </u> neither like me nor unlike me	<u> </u> somewhat unlike me	<u> </u> very much unlike me
---	--	---	--	---

42. I'm reluctant to criticize other people.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

43. I'm uncomfortable when I'm the center of attention.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

44. I accept and perform difficult jobs.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

45. I avoid responsibilities and obligations.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

46. I am one of the first to buy new brands of foods.

very much
like me

somewhat like
me

neither like me
nor unlike me

somewhat unlike
me

very much
unlike me

INSTRUCTIONS - PART II

Please indicate the extent to which you agree or disagree with each of the following statements.

Example: Giving to the United Fund.

strongly agree agree undecided disagree strongly disagree

If you strongly agree with giving to the United Fund, place a check () above "strongly agree."

strongly agree agree undecided disagree strongly disagree

If you just disagree with giving to the United Fund, place a check () above "disagree."

strongly agree agree undecided disagree strongly disagree

If you just agree with giving to the United Fund, place a check () above "agree."

strongly agree agree undecided disagree strongly disagree

1. Volunteer social or public service work.

strongly agree agree undecided disagree strongly disagree

2. Watching movies and TV programs about business.

strongly agree agree undecided disagree strongly disagree

3. Going to church every Sunday and every religious holiday.

strongly agree agree undecided disagree strongly disagree

4. Government control of business.

strongly agree agree undecided disagree strongly disagree

5. Watching movies and TV programs about nursing and the medical profession.

strongly agree agree undecided disagree strongly disagree

6. Shopping only at stores that offer the best prices.

strongly agree agree undecided disagree strongly disagree

7. Defending religious and racial freedom.

strongly agree agree undecided disagree strongly disagree

8. Religious training in the home.

strongly agree agree undecided disagree strongly disagree

9. Contributions to religious causes.

strongly agree agree undecided disagree strongly disagree

10. Acquiring wealth.

strongly agree agree undecided disagree strongly disagree

11. House visits from the clergy.

strongly agree agree undecided disagree strongly disagree

12. Helping other people with their problems.

strongly agree agree undecided disagree strongly disagree

13. Being successful in business.

strongly agree agree undecided disagree strongly disagree

14. Religious discussions with family or friends.

strongly agree agree undecided disagree strongly disagree

15. Contributions to community activities such as Boy Scouts or the United Fund.

strongly agree agree undecided disagree strongly disagree

Show respondent card #2. Ask respondent to indicate in rank order those five characteristics from the following list of characteristics which she thinks are most important for a food store to have. If she thinks it is most important for a food store to be "clean and neat," put a #1 next to "clean and neat." If "modern" is the next most important characteristic, put a #2 next to "modern." The respondent's last selection will be indicated by the #5.

- | | |
|---|---|
| <input type="checkbox"/> Clean and neat | <input type="checkbox"/> Large |
| <input type="checkbox"/> Friendly | <input type="checkbox"/> Modern |
| <input type="checkbox"/> Well-established | <input type="checkbox"/> A lot of price specials |
| <input type="checkbox"/> Reliable | <input type="checkbox"/> Wide assortment of merchandise |
| <input type="checkbox"/> Low prices | <input type="checkbox"/> Easy to shop at |

Show respondent card #3. Ask respondent to select the three stores which she likes to shop at most. Indicate preferences by the initial M.

1. Mileski's Grocery
2. Gordon's Cash Market
3. Fred's Super Market
4. A & P (NC)
5. West End Grocery (NC)
6. Fate's
7. Kroger's
8. O'Connor's
9. City Fruit Market
10. Falsetta's Superette
11. Wilson's Grocery
12. Meijer's
13. Al's C & M Grocery
14. Piselli's Grocery (NC)
15. Farmer's Market (NC)
16. Safeway

Now ask respondent to indicate those three stores which she likes to shop at least. Indicate respondent's preferences by the initial L.

Please indicate how you feel about each of the following characteristics of those stores which you like to shop at most.

Explanation: If you think a store is more "old-fashioned" than "modern," you would put a check (✓) in a space (: ✓ :) which is closer to the word "old-fashioned" than it is to the word "modern."

Example 1.

Modern: ___:___:___:___: ✓ :___:___:Old-fashioned

If you think a store is very "old-fashioned," you would put a check in a space which is very close to the word "old-fashioned."

Example 2.

Modern: ___:___:___:___:___: ✓ :___:Old-fashioned

Please do this for all the following pairs of words.

Modern: ___:___:___:___:___:___:___:Old-fashioned

Clean and neat: ___:___:___:___:___:___:___: Dusty and unorganized

Unfriendly: ___:___:___:___:___:___:___: Friendly

High prices: ___: ___: ___: ___: ___: ___: ___: Low prices

Small: ___:___:___:___:___:___:___: Large

Well-established: ___:___:___:___:___:___:___: Newcomer

Few price specials: ___:___:___:___:___:___:___: A lot of price specials

Hard to shop at: ___:___:___:___:___:___:___: Easy to shop at

Reliable: ___:___:___:___:___:___:___: Unreliable

Wide assortment: ___:___:___:___:___:___:___: Narrow assortment of
of merchandise merchandise

Please indicate how you feel about each of the following characteristics of those stores which you like to shop at least.

- Modern: ___:___:___:___:___:___:___:___:Old-fashioned
- Clean and neat: ___:___:___:___:___:___:___:___: Dusty and unorganized
- Unfriendly: ___:___:___:___:___:___:___:___: Friendly
- High prices: ___:___:___:___:___:___:___:___: Low prices
- Small: ___:___:___:___:___:___:___:___: Large
- Well-established: ___:___:___:___:___:___:___:___: Newcomer
- Few price specials: ___:___:___:___:___:___:___:___: A lot of price specials
- Hard to shop at: ___:___:___:___:___:___:___:___: Easy to shop at
- Reliable: ___:___:___:___:___:___:___:___: Unreliable
- Wide assortment of merchandise: ___:___:___:___:___:___:___:___: Narrow assortment of merchandise

Please indicate the kind of people you think shop at the store which you like to shop at most.

- Energetic: ___:___:___:___:___:___:___:___: Lazy
- Thrifty shoppers: ___:___:___:___:___:___:___:___: Spenders
- Old-fashioned: ___:___:___:___:___:___:___:___: Modern
- Close family ties: ___:___:___:___:___:___:___:___: Family members come and go
- Enjoy cooking: ___:___:___:___:___:___:___:___: Cook because they have to
- Live in expensive homes: ___:___:___:___:___:___:___:___: Live in average homes
- Younger people: ___:___:___:___:___:___:___:___: Older people
- Smart food shoppers: ___:___:___:___:___:___:___:___: Buy on impulse
- Nice people: ___:___:___:___:___:___:___:___: Snobs
- Shop because they have to: ___:___:___:___:___:___:___:___: Enjoy food buying
- Take life easy: ___:___:___:___:___:___:___:___: Always on the go

Please indicate the kind of people you think shop at the stores which you like to shop at least.

Energetic: ___:___:___:___:___:___:___:___:Lazy

Thrifty shoppers: ___:___:___:___:___:___:___:___:Spenders

Old-fashioned: ___:___:___:___:___:___:___:___:Modern

Close family ties: ___:___:___:___:___:___:___:___:Family members come and
go

Enjoy cooking: ___:___:___:___:___:___:___:___:Cook because they have to

Live in expensive homes: ___:___:___:___:___:___:___:___:Live in average homes

Younger people: ___:___:___:___:___:___:___:___:Older people

Smart food shoppers: ___:___:___:___:___:___:___:___:Buy on impulse

Nice people: ___:___:___:___:___:___:___:___:Snobs

Shop because they have to: ___:___:___:___:___:___:___:___:Enjoy food buying

Take life easy: ___:___:___:___:___:___:___:___:Always on the go

S.1. Do you usually read food store advertisements?

Yes _____ No _____

If NO, ask Question #S.2.

If YES, ask:

S.1.1. What do you look for in these advertisements?

S.1.2. What do you like most about these advertisements?

S. 1.3. What do you dislike most about these advertisements?

S.2. How many times a week do you shop?

_____1 _____2 _____3 _____4 or more

S.3. Do you make all your food purchases at one store?

Yes _____ No _____

If YES, proceed using Schedule B. Ask Question #S.4.B.

If NO, proceed using Schedule A. Ask Question #S.4.

SCHEDULE A

S.4. When making food purchases, how many stores do you shop at?

____ 2 ____ 3 ____ 4 ____ 5 or more

S.5. Do you buy your meat in the same store in which you buy other grocery items?

Yes ____ No ____

S.5.1. For either answer, ask "Why?"

S.5.2. If NO, ask: "Where do you purchase meat?"

store name _____

store name _____

S.6. Do you tend to shop at different food stores for different types of products? For example, would you purchase canned goods in one store, produce items in another store and packaged groceries in another?

Record total answer: _____

S.7. Which stores do you shop at most frequently? (Rank in decreasing frequency.)

most frequent _____

less frequent _____

less frequent _____

less frequent _____

S.8. Who among your close friends shop at (name of store most frequently shopped at from Question #S.5.)?

name _____

name _____

name _____

S.9. Do you know anyone else who shops there?

Yes _____ No _____

name _____

name _____

S.10. How often have you seen advertisements for this food store?

- 1 _____ every day
- 2 _____ twice a week
- 3 _____ once a week
- 4 _____ occasionally
- 5 _____ never

S.11. What do you like most about these advertisements?

S.12. Why do you shop most frequently at (name of most frequent store in Question #S.5.)? Respondent may use more than one category. Use these items on 3 x 5 cards.

- 1 _____ Quality of food
- 2 _____ Appearance - clean, neat
- 3 _____ Friendly
- 4 _____ Low prices
- 5 _____ Wide assortments of merchandise
- 6 _____ Well-established
- 7 _____ Modern
- 8 _____ Price specials
- 9 _____ Easy to get to
- 10 _____ Easy to shop at
- 11 _____ Other: (Ask for OTHER responses)

S.13. Why do you shop less frequently at (name of least frequent store in Question #S.5.)? Respondent may use more than one category.

- 1 _____ Quality of food is sometimes questionable
- 2 _____ Not clean and neat appearing all the time
- 3 _____ Not too friendly
- 4 _____ Prices are above average
- 5 _____ Not a broad enough selection of merchandise
- 6 _____ It's a new store in town
- 7 _____ Not very modern
- 8 _____ Not enough price specials
- 9 _____ Not too easy to get to
- 10 _____ Not too easy to shop at
- 11 _____ Other: (Ask for OTHER responses)

S.14. Who among your close friends shop there?

name _____

name _____

name _____

S.15. Do you know of anyone else who shops there?

name _____

name _____

name _____

S.16. How often have you seen advertisements for this food store?

- 1 _____ every day
- 2 _____ twice a week
- 3 _____ once a week
- 4 _____ occasionally
- 5 _____ never

S.17. What do you like or dislike about these advertisements?

S.18. During the last four months or so, have you shopped at any food stores other than the food store at which you shop most frequently?

Yes _____ No _____

S.18.1 If YES, which ones?

(Interviewer: You will have to remember the name(s) of this store (these stores) for forthcoming questions).

If NO, ask Question S.27.

S.19. Was it the first time you had ever shopped there?

Yes _____ No _____ Other _____

S.20. What prompted you to change food stores?

S.21. Who among your close friends shop there?

name _____
name _____
name _____

S.22. Do you know of anyone else who shops there?

name _____
name _____
name _____

S.23. Before you switched to this new food store, was there anything about the store that attracted you?

S.24. Did anyone recommend the new store to you?

Yes _____ No _____

S.24.1 If YES, who was it?

name _____

name _____

S.24.2 If YES, what did they say?

S.25. How often have you seen or heard advertisements for this store? Would you say...

- 1 _____ everyday
- 2 _____ twice a week
- 3 _____ once a week
- 4 _____ occasionally
- 5 _____ never

S.26. What do you like most about these advertisements?

S.27. Does anyone help you with the food shopping?

Yes _____ No _____

S.27.1 If YES, who?

relative (ask relationship) _____

friend - name _____

S.28. Does anyone accompany you when you shop?

Yes _____ No _____

S.28.1 If YES, how often? _____

S.28.2. If YES, who?

relative (ask relationship) _____

friend - name _____

S.29. Do you usually prepare a shopping list?

Yes _____ No _____

If YES, ask Question #S.30.

If NO, ask Question #S.32.

S.30. Do food advertisements help you in preparing a shopping list?

Yes _____ No _____

S.30.1. For either answer, ask "Why?"

S.31. On your shopping list do you indicate the items you want by brand name? (For example, do you indicate "Peaches" or "Libby Peaches?")

By item _____ By brand _____

S.32. Do you find that food store advertisements which you have seen or heard are helpful while you are in the store shopping?

Yes _____ No _____

S.32.1. For either answer, ask "Why?"

S.33. If you wanted to find out any information about a particular brand of food or a food store, who would you be most likely to ask?

name _____

address _____

S.34. How long has she lived in this community?

_____ years

S.35. Do you know her personally?

Yes _____ No _____

S.35.1. If YES, how did you happen to meet her?

S.36. What is her husband's occupation?

S.37. Does she work?

Yes _____ No _____

S.37.1 If YES, ask "What does she do?"

S.38. Do you know approximately how old she is?

SCHEDULE B

S.4.B. Which food store do you shop at?

S.4.B Who among your close friends shop there?

name _____

name _____

name _____

S.6.B. Do you know of anyone else who shops there?

Yes _____ No _____

name _____

name _____

S.7.B. How often have you seen advertisements for this food store?

- 1. _____ every day
- 2. _____ twice a week
- 3. _____ once a week
- 4. _____ occasionally
- 5. _____ never

S.8.B. What do you like most about these advertisements?

S.9.B. Why do you shop at (name of store)? Respondent may use more than one category.

- 1. _____ Quality of food
- 2. _____ Appearance - neat, clean
- 3. _____ Friendly
- 4. _____ Low prices
- 5. _____ Wide assortments of merchandise
- 6. _____ Well-established
- 7. _____ Modern
- 8. _____ Price specials
- 9. _____ Easy to get to
- 10. _____ Easy to shop at
- 11. _____ Other: (Ask for OTHER responses)

S.10.B. Does anyone help you with the food shopping?

Yes _____ No _____

S.10.B. If YES, who?

relative (ask relationship) _____

friend - name _____

S.11.B. Does anyone accompany you when you shop?

Yes _____ No _____

S.11.B.1. If YES, how often? _____

S.11.B.2. If YES, who?

relative (ask relationship) _____

friend - name _____

S.12.B. Do you usually prepare a shopping list?

Yes _____ No _____

If YES, ask Question S.13.B.

If NO, ask Question S.15.B.

S.13.B. Do food advertisements help you in preparing a shopping list?

Yes _____ No _____

S.30.1 For either answer, ask "WHY?"

S.14.B. On your shopping list do you indicate the items you want by brand name? (For example, do you indicate "Peaches" or "Libby Peaches?")

By item _____ By brand _____

S.15.B. Do you find that food store advertisements which you have seen or heard are helpful while you are in the store shopping?

Yes _____ No _____

S.15.B.1. For either answer, ask "WHY?"

S.16.B. If you wanted to find out any information about a particular brand of food or a food store, who would you be most likely to ask?

name _____

address _____

S.17.B. How long has she lived in this community?

_____ years

S.18.B. Do you know her personally?

Yes _____ No _____

S.18.B.1. If YES, how did you happen to meet her?

S.19.B. What is her husband's occupation?

S.20.B. Does she work?

Yes _____ No _____

S.20.B.1. If YES, ask "What does she do?"

S.21.B. Do you know approximately how old she is?

Questions R.1. and R.2. - to be completed by interviewer

R.1. Sex: M _____ F _____

R.2. Type of dwelling:

House _____ Apartment _____ Trailer _____

R.3. For interviewees residing in a house ask:

Do you own or rent this house?

Own _____ Rent _____ Other _____

R.4. Are you married?

Yes _____ No _____

If YES, omit Question #R.5. and ask Question #R.6.
If NO, ask Question #R.5.

R.5. Have you ever been married?

Yes _____ No _____

If YES, ask Question #R.6.
If NO, ask Question #R.7.

R.6. How many children do you have?

None _____ 1 _____ 2 _____ 3 _____ 4 _____ over 4 _____

R.7. In what year did you complete your last year of school?

R.8. What is the occupation of the head of the house? (Interviewer -
If household head is not the husband, please indicate who it is.)

Occupation _____

R.9. Does your husband (or head of house) work at more than one job?

Yes _____ No _____

If YES, what is the other job?

R.10. Do any members of your family or your husband's family live here
with you?

Yes _____ No _____

If YES, what is the relationship?

R.11. How many members of your family or your husband's family who live here work?

What do they do?

JOB

RELATIONSHIP

R.12. Would you please tell me the highest grade in school that you and your husband have completed? (Encircle grade)

YOU (WIFE)

Grade School 1 2 3 4 5 6 7 8

High School 1 2 3 4

College 1 2 3 4 5 6 or more

HUSBAND

Grade School 1 2 3 4 5 6 7 8

High School 1 2 3 4

College 1 2 3 4 5 6 or more

R.13. Which local organizations or clubs do you belong to?

R.14. Do you belong to any national organizations or clubs?

Yes _____ No _____

Which ones?

R.15. What is your religious preference?

Catholic _____ Jewish _____ Protestant _____

If Protestant, ask: What is your church preference?

R.16. Do you own a car?

Yes _____ No _____

If YES, what

Year _____ Make _____ Model _____

R.17. Do you own more than one car?

Yes _____ No _____

How many? _____

R.18. How long have you lived in this community?

_____ years

R.19. How long has your husband lived in this community?

_____ years

R.20. How many other cities have you lived in during the last ten (10) years?

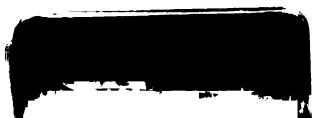
1 _____ 2 _____ 3 _____ 4 or more _____

R.21. For statistical purposes, would you please indicate from the following categories the total household income of all families who reside here?

1. Under \$1,000 _____
2. \$1,000 to 2,999 _____
3. 3,000 to 4,999 _____
4. 5,000 to 5,999 _____
5. 6,000 to 6,999 _____
6. 7,000 to 9,999 _____
7. 10,000 to 14,999 _____
8. 15,000 and over _____

R.22. Is your age:

- _____ under 20
 _____ 21 to 30
 _____ 31 to 40
 _____ 41 to 50
 _____ over 50



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