

FOOD EXPENDITURES
BY MEMBERS OF A FOOD COOPERATIVE

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We hereby recommend that the _____ thesis _____ prepared under
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CHAPTER I

INTRODUCTION

Consumer food expenditures are changing. Life-style changes such as the increase in married employed women, smaller families, changing social values, and the growth of restaurants and fast-food outlets have encouraged the change in consumer food expenditures (Linden, 1977). In 1975 food prices began to rise faster than the gains in income (Roger and Green, 1978). Consumers began to increase efforts to economize.

As the consumer's purchasing dollar shrinks ("Food Consumption, Prices, and Expenditures", 1981), alternative consumption methods are explored (Sommer, Wing, and Aitkens, 1980). One such method is a food cooperative. The United States Department of Agriculture defines a food cooperative as:

a voluntary contractual organization of persons having a mutual ownership interest in providing themselves a needed service on a nonprofit basis. In a cooperative, the investment and operational risks, benefits gained, or losses incurred are shared equitably by its members... . A cooperative is democratically controlled by its members... ("Cooperative Criteria", 1965)

Food cooperatives meet consumers' needs by providing an organizational structure where people can pool their energy and economic resources (Kirkland and Mohn, 1976).

People can collectively purchase, order, and distribute more productively and with much less loss than an individual ("Buy it for less at a co-op?", 1980). The Economics, Statistics, and Cooperative Services of the United States Department of Agriculture reported that the United States has over 1,000 consumer-goods cooperatives with total membership of 1.2 million people ("Cooperative Facts", 1978).

Statement of the Problem

According to current estimates by the United States Department of Commerce, 21.7% of Americans' total consumption was for food, beverages and tobacco. Housing followed at 15.3% and transportation at 14.3%. Food, beverage and tobacco consumption by far represented the largest consumer expenditure of \$261.8 million ("Statistical Abstract", 1979). Partially because of this large expenditure, there is a growing interest in food cooperative memberships ("Cooperative Facts", 1978; Kirkman and Mohn, 1976). There exists a lack of information on what characterizes the food cooperative member. What influences this consumer's decisions, shopping behavior and eating patterns? What are this consumer's food consumption concerns?

This study could indicate for consumer specialists the primary influences on food purchasing decisions of these consumers. The food industry might gain insight into how

these consumers needs could be better met. For example, the impact of price, advertising, purchasing agent, shopping frequency, food preferences, and use of convenience foods by this segment of consumer are examined. Cooperative management could examine the demographic characteristics of the consumers who are now members of the cooperative. Using the resultant profile of a food cooperative member, the food cooperative manager could be able to identify target areas for future food cooperative activities. The cooperatives could better serve their identified clientele and could attempt to extend their appeal to other consumers.

Purpose of the Study

The purpose of the study was to examine the demographic characteristics of food cooperative members and analyze the influences on consumption decisions made by food cooperative members. Distinguishable traits of food cooperative members in North Texas are documented. This study has produced insights into the factors that affect how the food cooperative members' food dollars are spent.

Objectives

The objectives of this study were the following:

1. Evaluate selected demographic and decision-influencing factors which may affect the cooperative member's food consumption
2. Examine how the food dollar is being spent by the food cooperative member.
3. Develop a profile of a North Texas food cooperative member.

Hypotheses

The hypotheses to be tested were based upon the relationship between the dependent variable of the amount of food expenditures for members of a food cooperative to the independent variables of 1) age, 2) education completed, 3) family size, 4) residence either rural or city, 5) employment status of both male head of household and female head of household, 6) income, 7) race, 8) authority figure's recommendation, 9) family and peer influence, 10) price, 11) advertising, 12) influence of concern about health, 13) purchasing agent, 14) frequency of shopping, 15) use of convenience foods, 16) eating away from home, 17) the percentage of the food dollar spent at the food cooperative.

The following null hypotheses related to demographic variables were investigated:

H₀₁ There is no significant relationship between the amount of income spent on food and age.

H₀₂ There is no significant relationship between the amount of income spent on food and the education completed.

H₀₃ There is no significant relationship between the amount of income spent on food and the family size.

H₀₄ There is no significant relationship between the amount of income spent on food and residence.

H₀₅ There is no significant relationship between the amount of income spent on food and the employment status of a) male head of household and b) female head of household.

H₀₆ There is no significant relationship between the amount of income spent on food and income.

H₀₇ There is no significant relationship between the amount of income spent on food and race.

The hypotheses related to external influences on decisions are:

H₀₈ There is no significant relationship between the amount of income spent on food and authority figures' recommendation.

H₀₉ There is no significant relationship between the amount of income spent on food and family and peer influence.

H₁₀ There is no significant relationship between the amount of income spent on food and price.

H₁₁ There is no significant relationship between the amount of income spent on food and advertising.

The hypotheses related to behavioral influences on decisions are:

H₁₂ There is no significant relationship between the amount of income spent on food and the influence of concern about health.

H₁₃ There is no significant relationship between the amount of income spent on food and the purchasing agent.

H₁₄ There is no significant relationship between the amount of income spent on food and the frequency of shopping.

H₁₅ There is no significant relationship between the amount of income spent on food and the use of convenience foods.

H₁₆ There is no significant relationship between the amount of income spent on food and eating away from home.

H₁₇ There is no significant relationship between the amount of income spent on food and the percentage of the food dollar spent at the food cooperative.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this chapter is to review the literature concerning consumers' expenditures for food including available research on such spending by members of food cooperatives. The identification of consumer food spending concepts provided a basis for the design of this research study. The areas selected to be investigated were certain external influences on decisions, behavioral influences on decisions, and demographic factors. An organizational framework of the variables can be found in Appendix A.

External Influences on Decisions

External influences on decisions have been shown to impact consumers' purchases. These influences include recommendations by authority figures, family and peer influences, price considerations, and the influence of advertising.

Authority Figure's Recommendation

Consumers' authority figures such as family doctors, teachers, legislators, and researchers have been found to be influential upon their spending for food ("A Summary Report", 1980; Melson, 1980). Nutritionists, dietitians, and physicians were regarded as the best source of accurate food and nutritional information.

The government was also considered a credible source on food purchasing information.

Family and Peer Influence

Peer influence from informal social groups and the strong impact one's family makes on decisions was documented by Ford and Ellis (1980). In a survey 70% of the respondents listed sociability as a prime reason to belong to a food cooperative ("People Power", 1980). Margolis (1972) accredited the social context within which food cooperatives operate to their success and growth. This social context can lead to peer influence on the cooperative members' food purchases.

The largest market of all, the 18 to 24-year-old group, was concerned with peer acceptance and peer approval of their expenditures (English, 1980). Significant people in consumers' lives, whether it is someone respected, a peer, or a family member, were highly influential upon the consumers' spending for food.

Price

Price is another well-documented area of influence on decisions concerning expenditures for food. Reck (1972) found that price was perceived as quality. Similarly McConnell (1968) and Pollak (1977) felt Americans accept as truth the saying "you get what you pay for". Krietner's

food cooperative survey found that price control was an important aspect of food cooperative membership (1977). Dietrich (1980) contended that during inflationary times nutrition concerns are replaced by price considerations. In other words, for a higher quality product consumers seem resigned that the price will be higher and price--not concerns for nutritional needs--influences consumer' decisions.

Advertising

The last external influence on consumers' decisions regarding food purchases was advertising. Advertisers admit that the youth market must be reached early "before they establish their own brand preferences" (English, 1980, p. S-24). Jacoby (1977) told advertisers that nutritional information is a highly requested piece of information by consumers. Jacoby warned that if the advertiser did not present the nutritional information in an easily understood form, the consumer would not benefit. One report stated that poorly informed consumers relied on television advertising for nutritional information ("A Summary Report", 1980). These studies indicated that advertisers who are aware of the needs of their market will have the most influence on purchasing.

Behavioral Influences on Decisions

Behavior influences consumer's expenditures for food.

Behavioral influences can be segmented into shopping behavior, spending behavior, and eating patterns.

Shopping Behavior

The behavior exhibited by the consumer in the market place at the point of purchase influences the purchases made. The primary topics in the research are the influence of concern for health, purchasing agent influences, and the frequency of shopping.

Influence of concern for health. The influence of concern for health is well documented for food cooperative members. Kreitner (1977) found that food cooperative shoppers listed "natural" or "healthful" food as one of the main motivators for cooperative membership (p.17). Economic savings were listed as often as concern for health as a primary reason for cooperative membership. Cooperative consumers had a concern for health that was equal to economic concerns. In 1980 Sommer, Wing, and Aitkens found that the cooperative shopper's main concern was high quality food.

Increased interest in dating codes indicated to one researcher that consumers want to be sure they are buying high quality and freshness (Dietrich, 1980). Dietrich indicated that nutritionists feel restricted budgets mean restricted access to soft drinks, snacks, and candy (1980).

Sproles, Geistfeld, Badenhop (1978) found that "consumer information enhanced the likelihood that consumers will make efficient choices of products" (p. 88). Friedman (1977) suggested an information overload for consumer decisions and found that consumers use few of the informational data available. Researchers have indicated that, in general, consumers' economic concerns have preempted nutritional concerns and that much information that is available is not used.

Purchasing Agent. A second area of behavioral influence on decisions is the purchasing agent. The purchasing agent filters decisions on purchases through "cultural patterns of the family, climate, geographic conditions" (Lau, Hanada, Kaminskyj, Krondl, 1979, p. 68). Cultural influences were shown to be an on-going, underlying influence on behavior.

Men have been found by some researchers to spend less time and money than do women in purchasing food. The purchasing agent has been identified as female 85% of the time, and 40% of the time she was accompanied by children. In contrast, couples shopped for food more leisurely and thoroughly than individuals alone or with children (Consumer Behavior, 1975). According to Shapiro and Bohmbeck (1978) pessimism about the future economic conditions characterized

the current purchasing agent.

The purchasing agent, as a food cooperative member, lost time as well as convenience of shopping by making purchases at the food cooperative ("Buy it for less", 1980). The research reviewed revealed that females reflecting cultural influences made up the majority of purchasing agents.

Frequency of Shopping. The third segment of behavioral influences on decisions was frequency of shopping by the consumer. Greater shopping frequency increased price knowledge. Goldman (1977) found that the major factor affecting the ability to make price comparisons was the time available to the consumer. Pommer, Berkowitz, and Watton (1980) argued that scanners, electronic terminals at the supermarket check out that read the Universal Product Code on foods, will assist the frequent shopper by decreasing check-out time and providing a detailed receipt tape which can be used for price comparisons. The researchers suggested that knowledge of accurate prices will increase the more frequently a consumer shops, especially when aided by the technology of scanners.

Eating Patterns

Eating patterns is another category that researchers have concluded is an influence on consumer's purchasing of

food. The use of convenience food and frequency of eating away from home are both types of eating patterns.

Researchers studying family eating patterns have determined that taste is a relatively important aspect of food choice. Parents are seen as "gate keepers" with much control over what their children eat. "Selection determinants" reported Lau, Hanada, Kaminskyj, and Krondl (1979, p. 66) are viewed as a screen through which consumers make decisions and selections. Ford and Ellis (1980) and Ruiecken and Samli (1981) indicated that spouse and children are a strong source of influence on eating patterns. The consumer acts upon family's requests that are a result of their own set of influences. Brand preferences are passed from mother to daughter according to English (1980). Families are observed as one of the first arenas for the development of the consumers' eating patterns. Parents, particularly mothers, filter and process their family's input for the development of eating patterns.

Convenience foods. The use of convenience foods has been attributed to many diverse factors, such as the increased number of women in the labor force, the trend to smaller families, and an increased per capita income ("Supermarkets Fight Back", 1980). Smallwood and Blaylock (1980) reported that at-home food consumes 74% of the food dollar.

They further reported:

As income increases, the amount spent on such products as pork, eggs, and cereals declines. But households with higher incomes spend more on such items as beef, beverages, bakery products, and vegetables (p. 1).

Food cooperative members feel that convenience foods are not as healthy a selection as natural foods, those foods which have not been processed in any way ("A Summary Report", 1980). However, the use of convenience foods has increased.

Eating away from home. Eating away from home has increased for those food cooperative members surveyed ("A Summary Report", 1980). Eating away from home consumed a larger share of the food cooperative member's food dollar. A Bureau of Labor Statistics survey revealed that with an increase in income the percentage of money spent for food eaten away from home increases twice as much as food at home, for lower to middle income consumers. Food eaten away from home increased 11.2% according to the Consumer Price Index from 1978 to 1979 (Food Consumption, Prices, and Expenditures, 1981). Rogers and Green felt that "discretionary" (p. 15) food purchases went to restaurants instead of grocery stores. While food costs at home increased 29% in the last 10 years, food eaten away from home increased 278% (1978).

An increasingly larger percentage of food was consumed away home.

Spending Behavior

A comparison of the Bureau of Labor Statistic's Consumer Expenditure Diary Survey (1974) for 1960-1961 to 1972-1974 revealed that expenditures for food prepared at home dropped for 80% to 73%. Food cooperatives estimated the low income members spend more than one-third of their income on food (People Power, 1980). In the \$10,000 to \$12,000 annual income bracket families spent 26% of their income of food, and in the \$25,000 and over bracket larger families spent 17% of their total income on food. However, food expenditures for a family-of-three were only 17% in the \$10,000 to \$12,000 income range and 11% in the \$25,000 and over income range (Rogers and Green, 1978). Food expenditures were found to be related to family size and income level.

Statistics on the amount of income spent at the food cooperative and the percentage of the food dollar spent at the cooperative were unavailable to this researcher. Cooperatives were estimated to have saved consumers 15% to 50% on food costs ("Buy it for less", 1980). Gene Clifford of the Cooperative League of the USA estimated a savings of 25% of food costs by members of food cooperatives. A trade off was made by the food cooperative shopper.

Less convenience and lost time were the costs for more control over price and perceived better quality.

Demographic Factors

Spending for food has been documented in current literature to be affected by demographic characteristics. Age, education completed, family size, residence either rural or city, employment status of the male head of household and female head of household, income, and race are among those characteristics.

Age

A person's age has been found to relate to purchasing behavior (Dietrich, 1980). Cooperatives offer an aged consumer on a fixed income the opportunity to maintain a nutritious diet ("People Power", 1980). It was often difficult for these consumers to purchase the variety and quality of food necessary for good health. Smith, Brown, and Weimer (1979) reported that people under 65 years of age use food shopping aids more consistently than people over 65 years of age. The cost of these aids is shared by all consumers. English (1980) emphasized that youth, partially because more mothers are employed outside the home, eat away from home more often. This research suggested that consumers at both the young and older extremes of age respond to food expenditures differently.

Education completed

Level of education is paramount in consumer information processing (Jacoby, 1977). Some college education was reported by 80% of the respondents in a food cooperative survey (Krietner, 1977). Jacoby stated, "a necessary prerequisite for effectively interpreting and using information is prior relevant education" (p. 127). Goldman (1977) tied educational attainment and age together as reasons for more effective price comparisons and comparative shopping. Education of the head of the family "allowed for higher levels of consumption" (Jackson, 1978, p. 78). More education of the head of the family gave better perception of their consumption documented Jackson (1978). Nutrition courses, reported Melson (1980), improved knowledge but did not change food behavior except in the very young child. Education had a strong positive effect as consumers processed and perceived information more accurately.

Family size

Smallwood and Blaylock (1981) determined that larger families spent less per person for both at-home and away-from-home food purchases than smaller families. Food at home accounted for 74% of the food dollar. The trend to smaller family size has increased away-from-home food consumption ("The Supermarkets Fight Back", 1980).

In the Consumer Expenditure Diary Survey (1974) conducted by the Bureau of Labor Statistics, a comparison of families of three members to families of six or more members revealed that a greater percentage of a large family's income is spent for food. Large families eat a large percentage of their meals at home. Rogers and Green (1978) interpreted this study saying that family size was one of the most important factors affecting food consumption. Large families spend more of their income on food and eat away from home less frequently.

Residence

Food costs were lower in rural areas reported Rogers and Green (1978), because of the availability of locally grown food which could be purchased relatively cheaply. Metropolitan area residents ate away from home more often and had less locally farm-grown food available. These researchers also cited life-style differences as influences upon food expenditures. City residents spent more income on food and ate away from home more often than rural families.

Employment Status

Hayghe, Johnson, and Hoyle (1978) documented that 58% of the families had two or more wage earners. In March, 1978 never-married men and women comprised 23% of the labor force.

This group of single workers accounted for 60% of the increase that year. This social change, reported Dun's Review (1980), created a consumer need for more convenience eating. With increased per capita income came the alternative for more convenience (Shapiro and Bohmbach, 1978). Food, specifically convenience foods, expenditures increased for employed women (Strober, 1977). Life-style changes altered by employment status have affected spending for food.

Income

Income level, reported Goldman (1977), was low for those consumers with the most price knowledge. High income consumers were less knowledgeable about low cost, easily purchased food. When Linden (1977) analyzed consumer expenditures for 1973, he found that moving from the middle (\$10,000 to \$20,000) to upper income (\$20,000 and over) brackets, consumption expenditures rose 55% but food spending rose only 35%. As consumer income increased, both price knowledge and percentage of income spent on food decreased.

Race

According to a Statistical Abstract published by the United States Department of Commerce in 1977, blacks and other non-white races accounted for 11.7% of the population. The median income for all families was \$16,000, but for blacks and other non-white races it was \$10,142.

Since blacks have a much lower median income, a greater percentage of their income is spent for food (Rogers and Green, 1978).

Anthropologists suggested that cultures transfer learned behavior from generation to generation (Henry, 1976). These learned cultural patterns would influence consumer behavior.

Demographic factors which were identified by the recent literature as having a measureable impact on food expenditures are age, education completed, family size, residence--either rural or city--employment status of male head of household and female head of household, income and race. Identifying these variables as they relate to individuals in a survey can be used as indicators of food expenditure habits.

CHAPTER III

RESEARCH PROCEDURES

This section presents the plan followed for conducting the research. Topics discussed are sample population, instrument development, administering the instrument, data analysis, and definition of terms.

Sample Population

The sample for this study was the membership of the North Texas food cooperative, People Buying Together, Inc. People Buying Together (PBT) began in 1968 and today includes members in Denton, Tarrant, and Dallas counties. In 1980 the sales volume for PBT was \$430,000.

There are approximately 1,000 "buying units" in the 26 food cooperatives which make up PBT. A buying unit may be a single elderly person living alone or a group of neighbors who buy together. The average PBT individual cooperatives range in size from approximately 12 buying units to 100 in the largest cooperative.

Each of the approximate 800 families, or buying units, that placed food orders on October 10, 1981, received a questionnaire. Forty percent (319) of the 800 questionnaires distributed were returned.

Orders are taken from the individual members by telephone, food orders are combined and food is purchased and distributed. Food prices are determined by the whole-sale cost plus nine percent for PBT. An additional percentage is added depending on the costs assessed by the individual cooperative. This assessment ranges from one percent to eight percent with the larger cooperatives levying the greater percentages for funding of partial store-front operations. A \$10.00 yearly membership fee is required as well as participation in the labor required to fill the food orders. The amount of time required of volunteer labor is dependent on the size of the individual cooperative (Pierce, note 1).

Instrument Development

A self-administered questionnaire distributed by the cooperative management and returned by mail was used to collect data. A review of the literature did not reveal any existing instrument for measuring food spending by food cooperative members. An original instrument was developed.

Instrument Design

The questionnaire determined the significance of selected independent variables upon the dependent variable of food expenditures by members of a food cooperative.

The questionnaire contained two sections: a) demographic data and b) external and behavioral influences upon decisions. Appendix A contains a diagram of the organizational framework used in this research study.

Description of Variables

The variables selected for this study were based upon information identified from the literature. The independent variables were selected demographic characteristics and selected aspects thought to be influences upon decisions. The dependent variable was spending for food by members of a food cooperative.

Independent variables. The independent variables were identified in questionnaire items related to the demographic characteristics of the subjects and influences upon the subject's decisions. The variables investigated were:

- I. Demographic data
 - A. Age
 - B. Education
 - C. Family size
 - D. Location of residence
 - 1) Rural
 - 2) City
 - E. Employment status
 - 1) Male head of household

2) Female head of household

F. Income

G. Race

II. Influences on decisions

A. External influences

1) Authority figures' recommendation

2) Family and peer influence

3) Price

4) Advertising

B. Shopping behavior

1) Degree of concern for health

2) Purchasing agent

3) Frequency of shopping

C. Eating patterns

1) Use of convenience foods

2) Eating away from home

Refer to Appendix B for a chart of the questionnaire item development which identifies questionnaire items measuring the variables for each category of the organizational framework. Appendix C contains the questionnaire.

Dependent variable. The dependent variable in this study was food spending by members of a food cooperative.

Questionnaire Evaluation

Demographic data were used to categorize and describe characteristics of the subjects and develop a profile of a food cooperative shopper. Each response was analyzed to determine the significance of its relationship to the food expenditures of members of a food cooperative.

Reliability and Validity of the Instrument

A group of professionals in the consumer field and the management of the food cooperative entitled People Buying Together judged the representativeness of each questionnaire item to determine content validity. Modifications were made in some items for question validity.

A pilot test of the instrument was conducted among students at Texas Woman's University, Denton, Texas, to determine reliability. The questionnaire was revised according to the results of the pilot test. The revised questionnaire was then pre-tested by the 20 members of the executive board of the Ryan Place Improvement Association, Fort Worth, Texas. This board represents a sample of consumers. They responded to the questionnaire so that reliability could be tested. The questionnaire was modified based upon pre-test results and administered to the sample population.

Administering the Instrument

A copy of the questionnaire, a postage-paid envelope, cover letter, and stamped post card were placed in each cooperative member's food order. The cover letter explained the purpose of the research study, the enclosed questionnaire, and post card requesting research results.

The questionnaire was the instrument from which the data was obtained. The post card provided a means for the subjects to request a brief copy of the results of the study. Appendix D contains examples of correspondence used in this study. As each member's order for a designated week was filled and boxed, the questionnaire and envelope were also placed in the box.

Data Analysis

Means, medians, frequency distributions and standard deviations were calculated for each of the independent variables. The Spearman rank-order correlation was used to compare food expenditures by members of the food cooperatives and the independent variables to determine significant relationships.

Definition of Terms

This section includes precise definitions of terms related to food expenditures. Terms used in this study were:

1) Cooperative - a jointly owned, democratically controlled organization for the distribution of food, operated by the consumers for their mutual benefit.

2) Preprepared or Convenience foods - foods that have been partially or fully processed to save or simplify work or time of the ultimate consumer, these two terms are used interchangeably.

3) Buying unit - one membership in a food cooperative; this could vary from one person, to a family, or several individuals who order as one and share the labor requirement of cooperative membership.

4) Name brands - products within a grocery outlet which are advertised, widely available, not generic or store-owned brands.

CHAPTER IV

RESULTS

This chapter contains a description of the subjects, a description of the data collected, and the results of the statistical analysis of the data. The Spearman correlation coefficient was used to determine significant relationships between the independent and dependent variables.

Description of the Subjects

Tables 1 and 2 contain a detailed description of the 319 food cooperative member households that served as subjects for this study. The data was obtained from the "Food Expenditures by Members of a Food Cooperative" questionnaire.

TABLE 1

DEMOGRAPHIC PROFILE OF FOOD COOPERATIVE MEMBERS: PART 1

Variable	Size	Mean	Standard Deviation
Family size	319	3.46 people	1.35
Income	319	\$25,000-\$29,999	-
Age (heads of households)		34.5 years	7.33

The average family size of the sample was 3.46 people with the largest percentage, four family members, composing

35.7% of the return. The average age of the heads of household was 34.6 years. Approximately 40% of the respondents annual income fell within the \$25,000 to \$39,999 range. The mean income level was \$25,000 to \$29,999.

TABLE 2
DEMOGRAPHIC PROFILE OF
FOOD COOPERATIVE MEMBERS: PART 2

<u>Variable/Classification</u>	<u>Frequency</u>	<u>Percentage</u>
Employment status:		
Male head of household		
less than one year	4	1.3
one to four years	25	7.8
five to nine years	56	17.6
ten to twenty years	146	44.8
more than twenty years	62	19.4
no response	29	9.1
Female head of household		
less than one year	7	2.2
one to four years	70	21.9
five to nine years	89	27.9
ten to twenty years	85	26.6

Continuation of Table 2

<u>Variable/Classification</u>	<u>Frequency</u>	<u>Percentage</u>
Employment status		
Female head of household (continued)		
more than twenty years	12	3.8
no response	56	17.6
Education:		
Male head of household		
no formal schooling	0	0.0
grade school	1	0.3
some high school	3	0.9
high school degree	14	4.4
some college	51	16.0
college degree	108	33.9
graduate degree	117	36.7
no response	25	7.8
Female head of household		
no formal schooling	1	0.3
grade school	1	0.3
some high school	2	0.6
high school degree	18	5.6
some college	74	23.2

Continuation of Table 2

Variable/Classification	Frequency	Percentage
Education		
Female head of household (continued)		
college degree	124	38.9
graduate degree	82	25.7
no response	17	5.4
Location of Residence:		
Rural	8	2.5
Less than 50,000 population	49	15.4
50,000 to 99,999	32	10.0
More than 100,000	226	70.8
No response	4	1.3
Race:		
Black	2	0.6
Hispanic	9	2.8
Anglo	300	97.5
Oriental	1	0.3
Other	3	0.9
No response	4	1.3

In reference to education, 117 (36.7%) of the male heads of household held graduate degrees with 108 (33.9%) holding undergraduate degrees. Female heads of household had 124

(38.9%) with undergraduate degrees and another 82 (25.7%) with graduate degrees. More than 226 families (70.8%) responded that they lived in a city of more than 100,000 people. Only 49 (15.4%) households responded as living in a city with a population less than 50,000 and only 8 (2.5%) households were classified as rural. Over 97.5% (311) of the subjects were Anglo, and the other respondents' races were divided among these other ethnic groups: 9 (2.8%) Hispanic subjects; 2 (0.6%) black subjects; 1 (0.3%) Oriental subjects; and 3 (0.9%) other ethnic groups. Four subjects chose not to answer this question.

The responses to the questionnaire reflected that 81.5% (260) of the male heads of household were employed full time and 33.9% (108) of the female heads of household were employed full time. Part time employment is held by 5.3% (17) of the male heads of household and 26.6% (85) of the female heads of household. Approximately 44.8% (143) of the male heads of household indicated paid employment for ten to twenty years with 27.9% (89) of the female heads of household listed paid employment for five to nine years.

Description of Data

Data obtained from the questionnaire on how the food cooperative member's food dollar is spent is described.

External influences on decisions and behavioral influences on decisions are included in these results.

External Influences on Decisions

A majority of the subjects indicated that they "always" have good health as well as good taste as a concern when purchasing food. Almost half (47.3%) of the sample indicated that they frequently follow the advice if a doctor, teacher, or researcher recommends avoidance of certain foods or materials, spouses influence their purchases (46.1%), and family preferences influenced food purchases (45.1%). Half of the sample listed as sometimes influential on food purchases the following: friends (53.6%), purchasing food the family enjoyed regardless of price (50.2%), considering price reduced food a good buy (53.0%), and purchasing name brand foods (55.3%).

Shopping Behavior

The respondents indicated that their spouses "seldom" to "never" (35.1% to 39.2%) request advertised items and spouses act as the purchasing agent "seldom" to "never" (31.7% to 16.9%). "Always" and "frequently" are given for the following: food additives and preservatives are a concern (33.9% and 38.2%), advertisements are read for sales and specials (30.7% and 32.9%), prices are compared before buying (39.8% and 42.0%).

Shopping was documented as occurring twice a week (23.8%) to weekly (57.1%). The family eating away from home as a group was divided evenly between weekly (23.8%), every two weeks (27.5%), and monthly (27.6%).

Eating Patterns

Ready-to-eat cereals are purchased "frequently" to "sometimes" (34.5% to 25.5%). Otherwise convenience and prepared foods are "seldom" to "never" purchased by this sample: 46.4% "seldom" choose prepared vegetables over raw, 61.1% "never" purchase pre-cut potatoes, 40.8% "seldom" select frozen or canned vegetables over fresh, 51.7% "never" buy frozen dinners, 45.1% "seldom" buy pre-cooked meats, and 59.9% "never" buy ready-to-eat cakes. Children were indicated as "never" (95.7%) being the purchasing agent. Approximately one-fourth of the school-age children and half of the male heads of household purchased a meal away from home.

Spending Behavior

Spending behavior was also documented. Approximately \$49.00 a week was the average amount spent for all food for the average family of 3.46 people. This represents 10.2% of the average total income. Of this \$49.00 spent weekly for food, approximately \$14.00 was spent at the food cooperative. The sample was very evenly distributed (93.4%) between \$21.00 to more than \$81.00 per week spent for food.

Looking at the amount of income spent weekly at the food cooperative, 86.9% fell from \$6.00 to \$25.00 per week.

Table 3 contains the detail distribution of food expenditure behavior by members of a North Texas food cooperative.

TABLE 3
SPENDING BEHAVIOR OF
FOOD COOPERATIVE MEMBERS

Spending behavior	Amount	Percentage
1) Amount of income spent	\$ 0-10	0.9
weekly for all food:	11-20	4.1
	21-30	11.6
	31-40	15.0
	41-50	10.0
	51-60	18.2
	61-70	14.2
	71-80	10.4
	81-more	14.1
	no response	1.6
2) Amount of money spent	\$ 0- 5	0.3
for food at the food	6-10	15.4
cooperative:	11-15	26.6
	16-20	27.0
	21-25	17.9
	26-30	6.3
	31-35	1.3
	36-40	2.8
	41-45	0.6
	46-50	0.6
	51-55	0.3
	56-more	0.3
	no response	0.6

Table 4 contains the detail of the decision-influencing factors which effect food consumption by members of a food cooperative.

TABLE 4

DECISION-INFLUENCING FACTORS AFFECTING CONSUMPTION OF
FOOD BY FOOD COOPERATIVE MEMBERS

		Percentages (Rounded)					
		Always	Frequently	Sometimes	Seldom	Never	Not Applicable
External Influences:							
1)	Authority figures' recommendation	11	47	38	2	1	1
2)	Family and peer influence						
	spouse	10	46	27	5	1	11
	children	4	17	30	17	3	29
	friends	0	14	54	28	3	1
	family preference	36	45	11	1	6	1
3)	Price						
	price comparison	40	42	13	4	1	0
	food family enjoys	7	27	50	14	2	0
	price reduced foods	4	25	53	13	4	0
4)	Advertising						
	influences children	3	12	24	23	6	32
	purchase name brands	2	23	56	18	1	0
	read advertising for sales	31	33	16	14	6	0
	spouse requests item advertised	0	2	12	25	39	12
Shopping Behavior:							
1)	Degree of concern for health						
	health concern when purchasing	60	36	3	0	0	0
	additives & preservatives a concern	34	38	20	7	1	0
	good taste a concern	60	35	5	0	0	0
2)	Purchasing agent						
	spouse does some shopping	4	14	20	32	17	13

Percentages (Rounded)

	Daily	Every other day	Twice a week	Weekly	Every two weeks	Monthly	Not Applicable
2) Purchasing agent children doing some shopping	0	0	0	0	2	2	6
3) Frequency of shopping	0	4	24	57	13	2	0
Eating Patterns:							
1) Eating away from home							
family as a group	1	2	6	24	28	28	11
female head daily	49	0	0	0	0	0	50
male head daily	66	0	0	0	0	0	34
school children daily	30	0	0	0	0	0	70
pre-school children daily	3	0	0	0	0	0	97
	one	two	three	none	N/A *		
Meals away from home each day:							
male head	46	2	0	45	7		
female head	18	1	0	73	8		
school children	24	2	0	59	15		
pre-school children	5	1	0	76	18		

*Not Applicable

Continuation of Table 4

	Percentages (Rounded)					
	Always	Frequently	Sometimes	Seldom	Never	Not Applicable
2) Use of convenience foods						
prepared vegetables over						
raw	1	4	25	46	24	0
purchases pre-cut pota-						
toes	2	2	12	21	61	2
family selects frozen						
or canned vegetables						
over fresh	0	2	17	41	33	4
purchases:						
ready-to-eat cereal	14	35	24	19	8	0
frozen dinners	0	1	7	40	52	0
pre-cooked meats	0	2	11	45	41	0
ready-to-eat cakes	0	1	8	31	60	0

Table 5, the "Profile of Decision-Influencing Factors Affecting Consumption of Food Cooperative Members" lists in descending order these factors showing their relative importance to the average member of a North Texas food cooperative.

Profile of
Decision-Influencing Factors
Affecting Consumption
of Food Cooperative Members

(Range: 1.00 = great concern to 5.00 = little concern)

Mean Score	Factor
1.42	Good health is a concern when purchasing food
1.44	Good tasting food is important
1.76	Family preferences are a concern
1.84	Prices are checked and compared
2.02	Food additives and preservatives are a concern
2.31	Advertising is read for specials and sales
2.32	Authority figure recommends avoidance of certain foods or materials
2.34	Spouse influences food purchases
2.70	Ready-to-eat cereals are purchased
2.78	Food the family enjoys is more important than price
2.88	Price reduced items are a good buy
2.93	Name brands are purchased
2.94	Children influence purchases
3.20	Friends influence purchases
3.24	Advertising influences children
3.50	Spouse does some shopping
3.89	Prepared vegetables are selected over raw
4.12	Family selects frozen or canned vegetables over fresh
4.24	Pre-cooked meats are purchased
4.25	Spouse requests advertised food
4.40	Pre-cut potatoes are purchased
4.50	Ready-to-eat cakes are purchased

Examination of Hypotheses

Data from the "Food Expenditures by Members of a Food Cooperative" questionnaire were statistically analyzed. The Spearman correlation coefficient was used to determine significant relationships between the dependent variable of the amount of expenditure for food and the independent

TABLE 6

Spearman Correlation Coefficients
for Variables relating to Food Expenditures by Food
Cooperative Members

Hypothesis	Variable	Obtained Correlation
1	Age	-0.2089
2	Education completed	
	Male head of household	-0.1079
	Female head of household	-0.0963
3	Family size	0.5876
4	Residence	0.0477
5	Employment	
	Male head of household	-0.3042
	Female head of household	0.1772
6	Income	0.5307
7	Race	
	Black	0.0857
	Hispanic	0.0016
	Anglo	-0.0208
	Other ethnic groups	-0.0780
8	Authority figure's recommendation	0.0307
9	Family and peer influence	0.3149
10	Price	-0.0236
11	Advertising	
	Factor 1	0.4375
	Factor 2	0.1704
12	Influence of concern about health	0.0746
13	Purchasing agent	0.1621
14	Frequency of shopping	-0.0132
15	Use of convenience foods	
	Factor 1	-0.1363
	Factor 2	-0.1677
16	Eating away from home	
	Factor 1 (entire household)	0.0102
	Factor 2 (male head of household)	0.2029
	Factor 3 (female head of household)	-0.0343
	Factor 4 (school age children)	0.2834
	Factor 5 (pre-school children)	0.0449
17	Percentage of the food dollar spent at the food cooperative	0.4230

variables. The hypotheses and the related statistical analysis are presented.

Hypothesis 1

There is no significant relationship between the amount of income spent on food and the age of the family heads.

Based on the data in Table 4, Hypothesis 1 was rejected. The obtained Spearman correlation coefficient of -0.2089 was significant at the .05 level which indicates a significant relationship exists between the amount of income spent on food and the age of the family heads. As the family heads' ages increased, the amount spent for food increased.

Hypothesis 2

There is no significant relationship between the amount of income spent on food and education completed.

Based on the data in Table 4, Hypothesis 2 was rejected. The obtained Spearman correlation coefficient of 0.0963 for the female head of household was significant at .05 level which indicates a significant relationship exists between the amount of income spent on food and education completed by the female head of household. The obtained Spearman correlation coefficient of 0.1079 for the male head of household was significant at the .05 level which

indicates a significant relationship between the amount of income spent on food and education completed by the male head of household. As education of the family heads increased, the amount spent for food increased.

Hypothesis 3

There is no significant relationship between the amount of income spent on food and the family size.

Based on the data in Table 4, Hypothesis 3 was rejected. The obtained Spearman correlation coefficient of 0.5876 was significant at the .05 level which indicated a significant relationship between the amount of income spent on food and the size of the family. As the number increased within the family, the amount of income spent for food increased.

Hypothesis 4

There is no significant relationship between the amount of income spent on food and residence either rural or city.

Based on the data in Table 4, Hypothesis 4 was accepted. The obtained Spearman correlation coefficient of 0.0477 was not significant at the .05 level which indicates no significant relationship between the amount of income spent on food and the location of residence being either rural or city.

Hypothesis 5

There is no significant relationship between the amount of income spent on food and the employment status of a) the male head of household and b) the female head of household.

Based on the data in Table 4, Hypothesis 5 was rejected. The obtained Spearman correlation coefficient of -0.3042 for the male head of household was significant at the .05 level which indicates a significant relationship between the amount of income spent on food and the male head of household's employment status. The obtained Spearman correlation coefficient of 0.1772 for the female head of household was significant at the .05 level which indicates a significant relationship between the amount of income spent on food and the female head of household's employment status. As the family heads became employed the amount spent on food increased.

Hypothesis 6

There is no significant relationship between the amount spent of food and income.

Based on the data in Table 4, Hypothesis 6 was rejected. The obtained Spearman correlation coefficient of 0.5307 was significant at the .05 level which indicates a significant relationship between the amount of income spent on food and family income. As income increased the amount spent of food increased.

Hypothesis 7

There is no significant relationship between the amount of income spent on food and race.

Based on the data in Table 4, Hypothesis 7 was accepted. The obtained Spearman correlation coefficients of 0.0857 for Blacks, 0.0016 for Hispanics, -0.0208 for Anglos, and -0.0780 for other ethnic groups were not significant at the .05 levels which indicates no significant relationship between the amount of income spent on food and race.

Hypothesis 8

There is no significant relationship between the amount of income spent on food and authority figures' recommendation.

Based on the data in Table 4, Hypothesis 8 was accepted. The obtained Spearman correlation coefficient of 0.0307 was not significant at the .05 level which indicates no significant relationship between the amount of income spent on food and authority figures' recommendation.

Hypothesis 9

There is no significant relationship between the amount of income spent on food and family and peer influence.

Based on the data in Table 4, Hypothesis 9 was rejected. The Spearman correlation coefficient of 0.3149 was significant at the .05 level which indicates a significant relationship between the amount of income spent on food and

family and peer influence. As family and peer influence increased the amount spent on food increased.

Hypothesis 10

There is no significant relationship between the amount of income spent on food and price.

Based on the data in Table 4, Hypothesis 10 was accepted. The obtained Spearman correlation coefficient of -0.0236 was not significant at the $.05$ level which indicates no significant relationship between the amount of income spent on food and price

Hypothesis 11

There is no significant relationship between the amount of income spent on food and advertising.

Based on the data in Table 4, Hypothesis 11 was rejected. The obtained Spearman correlation coefficient of 0.4375 for factor 1 was significant at the $.05$ level and -0.1704 for factor 2 was significant at the $.05$ level which indicated a significant relationship between the amount of income spent on food and advertising. As the influence of advertising increased the amount spent on food increased.

Hypothesis 12

There is no significant relationship between the amount of income spent on food and the influence of concern about health.

Based on the data in Table 4, Hypothesis 12 was accepted. The obtained Spearman correlation coefficient of 0.0307 was not significant at the .05 level which indicates no significant relationship between the amount of income spent on food and the influence of concern about health.

Hypothesis 13

There is no significant relationship between the amount of income spent on food and the purchasing agent.

Based on the data in Table 4, Hypothesis 13 was rejected. The obtained Spearman correlation coefficient of 0.1621 was significant at .05 level which indicates a significant relationship between the amount of income spent on food and the purchasing agent. As spouse or children act as the purchasing agent the amount of income spent on food increases.

Hypothesis 14

There is no significant relationship between the amount of income spent on food and the frequency of shopping.

Based on the data in Table 4, Hypothesis 14 was accepted. The obtained Spearman correlation coefficient of -0.0132 was not significant at the .05 level which indicates no significant relationship between the amount of income spent on food and the frequency of shopping.

Hypothesis 15

There is no significant relationship between the amount of income spent on food and the use of convenience foods.

Based on the data in Table 4, Hypothesis 15 is rejected. The obtained Spearman correlation coefficient of -0.1363 for factor 1 was significant at the .05 level and -0.1677 for factor 2 was significant at the .05 level which indicates a significant relationship between the amount of income spent on food and the use of convenience foods. As the use of convenience foods increased the amount of income spent on food increased.

Hypothesis 16

There is no significant relationship between the amount of income spent on food and eating away from home.

Based on the data in Table 4, Hypothesis 16 was accepted for the entire household. The obtained Spearman correlation coefficient of 0.0102 was not significant at the .05 level which indicates no significant relationship between the amount of income spent of food and the entire household eating away from home.

When this variable was factored into male head of household, female head of household, school age children, and pre-school age children the hypothesis was rejected by two factors. Male head of household purchasing meals

away from home obtained a Spearman correlation coefficient of 0.2029 which was significant at the .05 level which indicates a significant relationship between the amount of income spent on food and the male head of household purchasing meals away from home. School age children purchasing meals away from home obtained a Spearman correlation coefficient of 0.2834 which was significant at the .05 level which indicates a significant relationship between the amount of income spent on food and the school age children purchasing meals away from home. As the male head of household and school age children purchased meals away from home the amount of income spent on food increased.

Hypothesis 17

There is no significant relationship between the amount of income spent on food and the percentage of the food dollar spent at the food cooperative.

Based on the data in Table 4, Hypothesis 17 is rejected. The obtained Spearman correlation coefficient of 0.4230 was significant at the .05 level which indicates a significant relationship between the amount of income spent on food and the percentage of the food dollar spent at the food cooperative. As the percentage of the food dollar spent at the food cooperative increased the amount of income spent on food increased.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

This chapter contains a summary of the research procedure and the findings of the hypotheses testing. Recommendations and limitations based on the findings are described.

Summary

The purpose of the study was to examine the demographic characteristics of food cooperative members and analyze the influences on consumption decisions made by food cooperative members. Distinguishable traits of food cooperative members in North Texas were documented. Data were collected using a questionnaire developed by the researcher. People Buying Together, Inc., a North Texas food cooperative, served as the sample. Questionnaires went to all members who placed food orders one particular week. Forty percent of the questionnaires were returned with 319 households participating. Seventeen hypotheses were tested with both descriptive and inferential statistics.

Findings

Findings from the analysis of the data were as follows:

1. There was a significant relationship between the amount of income spent on food and the age of the family head as indicated by the Spearman correlation coefficient of -0.2089 . This increase in spending with age might also be correlated with employment status and family size. This relationship agrees with the findings of Smith, Brown, and Weimer (1979).
2. There was a significant relationship between the amount of income spent on food and education completed as indicated by the Spearman correlation coefficient of 0.1079 for the male head of the household and 0.0963 for the female head of the household. This finding is similar to findings of Krietner (1977), Jacoby (1977), and Jackson (1978).
3. There was a significant relationship between the amount of income spent on food and the size of the family as indicated by the Spearman correlation coefficient of 0.5876 . Rogers and Green (1978) agreed that family size was one of the most important factors affecting food expenditures.
4. There was no significant relationship between the amount of income spent on food and the location of residence either rural or city as indicated by the Spearman correlation

coefficient of 0.0477. The literature suggests that rural families spent less on food. Such a small sample of North Texas food cooperative members are rural residents that this point is difficult to discuss from this data.

5. There was a significant relationship between the amount of income spent on food and the employment status of a) male head of household and b) female head of household as indicated by the Spearman correlation coefficients of -0.3042 for the male head of household and 0.1772 for the female head of household. Hayghe, Johnson, and Hoyle (1978) as well as Strober (1977) documented similar findings.

6. There was a significant relationship between the amount of income spent on food and household income as indicated by the Spearman correlation coefficient of 0.5307. A smaller percentage of household income is spent on food as income increases. The increase in amount of food expenditures are not proportional to the increases in total household income.

7. There was a significant relationship between the amount of income spent on food and the race as indicated by the Spearman correlation coefficients of 0.0857 for Blacks, 0.0016 for Hispanics, -0.0208 for Anglos, and -0.0780 for other ethnic groups. Since the sample contained so few subjects of minority races, this finding did not agree

with the literature which described minority consumers as spending a greater percentage of their income on food.

8. There was no significant relationship between the amount of income spent on food and authority figures' recommendation as indicated by the Spearman correlation coefficient of 0.0307. This finding was not in agreement with the literature. Possibly because of the sample's high level of educational attainment. These consumer feel they can make accurate and informed food and nutritional decisions.

9. There was a significant relationship between the amount of income spent on food and family and peer influence as indicated by the Spearman correlation coefficient of 0.3149. Ford and Ellis (1980) and Margolis (1972) also put importance on significant people and their influence on consumers' food expenditures.

10. There was no significant relationship between the amount of income spent on food and price as indicated by the Spearman correlation coefficient of -0.0236. Food cooperative members seem not to perceive price as quality as the literature suggests of most consumers. As price increases the food cooperative member find alternatives.

11. There was a significant relationship between the amount of income spent on food and advertising as indicated by the Spearman correlation coefficients. This significant

relationship is reinforced in the literature by Jacoby (1977) and in "A Summary Report" (1980).

12. There was no significant relationship between the amount of income spent on food and the influence of concern about health as indicated by the Spearman correlation coefficient of 0.0307. The literature (Krietner, 1977; Sommer, Wing, and Aitkens, 1980) documented healthful and high quality food as important to cooperative members. This sample also listed wholesome food as important but did not perceive this as an influence on a concern for health.

13. There was a significant relationship between the amount of income spent on food and the purchasing agent as indicated by the Spearman correlation coefficient of 0.1621. Lau, Hanada, Kaninsky and Krondl (1979) and Shapiro and Bohmbeck (1978) also found this significant relationship.

14. There was no significant relationship between the amount of income spent on food and the frequency of shopping as indicated by the Spearman correlation coefficient of -0.0132. The findings of this sample did not agree with the literature (Goldman, 1977; Pommer, Berkowitz, and Watson, 1980) that frequency of shopping increased spending.

15. There was a significant relationship between the amount of income spent on food and the use of convenience foods as indicated by the Spearman correlation coefficient

of -0.1363 for factor 1 and -0.1677 for factor 2. Those cooperative members who bought convenience foods increased spending was predicted in the literature.

16. There was no significant relationship between the amount of income spent on food and eating away from home for the entire household as indicated by the Spearman correlation coefficient of 0.0102 . There was significant relationship between the amount of income spent on food and the male head of household purchasing meals away from home as indicated by the Spearman correlation coefficient of 0.2029 . There was a significant relationship between the amount of income spent on food and school age children purchasing food away from home as indicated by the Spearman correlation coefficient of 0.2834 . The food cooperative member's household is unusual compared to other consumers in that fewer meals are eaten away from home.

17. There was a significant relationship between the amount of income spent on food and the percentage of the food dollar spent at the food cooperative as indicated by the Spearman correlation coefficient of 0.4230 . The literature indicates that

Discussion

The variables identified as significant predictors of the amount of income spent for food by food cooperative members were age, education completed and employment status of the male and female heads of the household, family size, income, family and peer influence, advertising, purchasing agent, use of convenience foods and the percentage of the food dollar spent at the food cooperative. Analysis of the data revealed no significant relationship between the demographic variables of residence location and race with the amount of income spent for food by food cooperative members. Decision-influencing factors that were not significant were authority figure's recommendation, price, influence of concern about health, frequency of shopping, and eating away from home by the entire family with the amount of income spent for food by members of a food cooperative.

The average household size was fairly large with 3.46 people, and the mean age of 34.5 years of age for the heads of household was older than expected. As the variables of age, years of formal education completed, and length of time one had been employed full time increased, the food expenditures also increased. More surprisingly, the more family and peers influenced consumption, the higher the food expenditures. The total amount spent for food was proportional to both the percentage of income spent at the food

cooperative and to the total household income.

The food cooperative member is characterized by a high degree of formal education. The researcher speculated that a high degree of formal education develops problem solving skills. Individuals skilled in problem solving have found alternatives to the supermarkets and the food technology industry. Cooperative members are concerned about wholesome food, health, food additives and preservatives. These highly educated consumers are concerned about price, have the skills, and practice price comparisons. Advertising is read by these consumers for sales and specials. Over 42% report a yearly household income exceeding \$30,000.

How is the food dollar being spent by the food cooperative member? Prepared and convenience foods, with the exception of cereals, are low priority items. These were accepted both by the group that did buy convenience foods and the group that answered they "never" bought convenience foods. Food with additives and preservatives is avoided. Since the respondents also indicated good health as a primary concern the researcher assumes these concerns are the basis for avoidance of food additives.

The average member of a North Texas food cooperative is Anglo, 34 years of age, has a college degree and lives

in a city of more than 100,000 people. The member has been employed full time for five to nine years and has an income between \$25,000 - \$29,999. There are between three and four people in the average food cooperative member's household.

Recommendations

Based on the findings in this study the following recommendations are made:

1. The cooperative management could further investigate to determine the extent to which minority groups, low income, and rural consumers are being served by the food cooperatives. If they are not, management may seek ways to expand cooperatives appeal.
2. The food industry should be aware of several characteristics of the food cooperative member. Food cooperative members in North Texas have a high level of formal education. They are concerned about wholesome food. These consumers practice price comparison and read advertising. Over 42% report a yearly household income exceeding \$30,000.
3. Further research should investigate relationships between the variables which influence food expenditures of minority ethnic groups, low income consumers, and rural residents.

Limitations

The limitations of this research included:

1. Many respondents seem to be responding as though there were "right" answers. Sampling bias appeared as convenience foods were categorically rejected.

2. Food cooperative members with low or no reading skills or those unfamiliar with the English language probably did not return the questionnaire. The person who reads well and had available time returned the questionnaire.

APPENDIX A. ORGANIZATIONAL FRAMEWORK OF THE STUDY

ORGANIZATIONAL FRAMEWORK

Dependent Variable:

Food expenditures by members of a food cooperative

Independent Variables:

<u>Demographic Variables</u>	<u>External Influences on Decisions</u>	<u>Behavioral Influences on Decisions</u>
1. Age	8. Authority figures' recommendation	Shopping Behavior:
2. Education completed	9. Family and peer influence	12. Influence of concern for health
3. Family size	10. Price	13. Purchasing agent
4. Location of residence	11. Advertising	14. Frequency of shopping
a. Rural		Eating Patterns:
b. City		15. Use of convenience foods
5. Employment status		16. Eating away from home
a. Male head of household		Spending Behavior:
b. Female head of household		17. Amount of income spent for food
6. Income		18. Percentage of the food dollar spent at the food cooperative
7. Race		

APPENDIX B. QUESTIONNAIRE ITEMS WITH VARIABLES

QUESTIONNAIRE ITEMS WITH VARIABLES

<u>Category</u>	<u>Variables</u>	<u>Questionnaire Item Number</u>
Demographic Data	1. Age	21
	2. Education completed	22
	3. Family Size	21
	4. Residence	
	a. Rural	28
	b. City	28
	5. Employment	
	a. Male head of house- hold	23,29
	b. Female head of house- hold	23,29
	6. Income	24
	7. Race	27
External Influences on Decisions	8. Authority figures' recommendation	1
	9. Family and peer influence	2,5,6,17
	10. Price	7,9,13
	11. Advertising	3,8,10,14
Behavioral Influences on Decisions	Shopping Behavior:	
	12. Influence of concern for health	4,15,16
	13. Purchasing agent	19,33
	14. Frequency of shopping	32,33
	Eating Patterns:	
	15. Use of convenience foods	11,12,18,20
	16. Eating away from home	30,31,34
	Spending Behavior:	
	17. Amount of income spent for food	25
	18. Percentage of the food dollar spent at the food cooperative	26

APPENDIX C. QUESTIONNAIRE:
FOOD EXPENDITURES BY MEMBERS OF A
FOOD COOPERATIVE

PEOPLE BUYING TOGETHER, INC. COVER LETTER

PBT CO-OP INC.

1400 Hemphill-Ft. Worth, Tx. 76104-(817) 923-9091

FELLOW CO-OP MEMBERS-

Please take the time to fill out the attached questionnaire. The research is being done by Mary Ebert, a long-time member of the Inner City Co-op in Ft. Worth. Your co-operation is important to the success of her project and the information gleaned should be of interest to the co-op as a whole. Your participation is completely voluntary. I urge you to take the time and effort to complete the research questionnaire and drop it in the mail.

Thanks,



Roger A. Pierce
Coordinator

PEOPLE BUYING TOGETHER CO-OPERATIVE, INC.

QUESTIONNAIRE: COVER LETTER

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TEXAS WOMAN'S UNIVERSITY

DENTON, TEXAS 76204

COLLEGE OF NUTRITION, TEXTILES,
AND HUMAN DEVELOPMENT
PHONE (817) 382-4821

DEPARTMENT OF HOME ECONOMICS EDUCATION
AND CONSUMER SCIENCES
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October 1981

Food Cooperative Member
People Buying Together, Inc.
North Texas

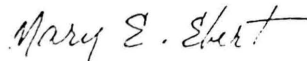
Dear Food Cooperative Member,

Will you please participate in this consumer research?
My objective is to learn if cooperative shoppers differ
from other shoppers, to identify influences on decisions,
and to learn how the food dollar is spent.

Will the person who has the major responsibility for food
buying please complete the questionnaire and return it in
the attached envelope? If you are interested in the
results of the survey, return the post card also.

Your information will be important to me. Thank you.

Sincerely,



Mary E. Ebert
Graduate Student

In compliance with the Human Subjects Review Committee at Texas
Women's University the following statements are required:

My return of this questionnaire constitutes my formal consent to act
as a subject in this research. No medical service or compensation
is provided to subjects by the University as a result of injury
from participation in research.

INFORMATION ON HOW MY FOOD DOLLAR IS SPENT

Please circle the appropriate letter to the right of each statement:

	ALWAYS	FREQUENTLY	SOMETIMES	SELDOM	NEVER	NOT APPLICABLE
1. If a doctor, teacher, researcher recommends avoidance of certain foods or materials, I usually follow the advice.	A	B	C	D	E	F
2. My spouse influences my food purchases.	A	B	C	D	E	F
3. Because of advertising, the children request particular brands.	A	B	C	D	E	F
4. Good health is a concern when making food purchases.	A	B	C	D	E	F
5. The children influence my food purchases.	A	B	C	D	E	F
6. I often buy items recommended by friends.	A	B	C	D	E	F
7. I check and compare prices before buying.	A	B	C	D	E	F
8. I purchase name brand foods.	A	B	C	D	E	F
9. I purchase the foods my family and I enjoy, regardless of price.	A	B	C	D	E	F
10. I read advertising for specials and sales.	A	B	C	D	E	F
11. Prepared vegetables are selected over raw vegetables.	A	B	C	D	E	F
12. I buy pre-cut potatoes for frying.	A	B	C	D	E	F
13. I consider price-reduced foods a wise buy.	A	B	C	D	E	F
14. My spouse requests advertised foods.	A	B	C	D	E	F
15. Food additives and preservatives are a concern when making food purchases.	A	B	C	D	E	F
16. Good taste is a concern when selecting food items.	A	B	C	D	E	F
17. Family preferences for food are a concern.	A	B	C	D	E	F
18. My family selects frozen or canned vegetables over fresh vegetables.	A	B	C	D	E	F
19. My spouse is responsible for some of the food shopping.	A	B	C	D	E	F
20. How often do you purchase the following:	A	B	C	D	E	F
ready-to-eat cereals	A	B	C	D	E	F
frozen dinners	A	B	C	D	E	F
precooked meats	A	B	C	D	E	F
ready-to-eat cakes	A	B	C	D	E	F

Information on the food cooperative member's household

21. List by age each member in your household:

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

22. Circle the letter that best indicates the highest level of education:

Male head of
household

- | | |
|---|---------------------|
| A | No formal schooling |
| B | Grade school |
| C | Some high school |
| D | High School degree |
| E | Some college |
| F | College degree |
| G | Graduate degree |
| H | Not applicable |

Female head of
household

- | |
|---|
| A |
| B |
| C |
| D |
| E |
| F |
| G |
| H |

Check the answers which most nearly describe your household:

23. Your family members' employment status:

Male head of
household

- | | |
|-------|----------------|
| _____ | Full time |
| _____ | Part time |
| _____ | Not employed |
| _____ | Not applicable |

Female head of
household

24. Approximate yearly household income:

- | | | |
|-------------------------|-------------------------|-------------------------|
| _____ Under \$5,000 | _____ \$20,000-\$24,999 | _____ \$35,000-\$39,999 |
| _____ \$5,000- \$9,999 | _____ \$25,000-\$29,999 | _____ \$40,000-\$44,999 |
| _____ \$10,000-\$14,999 | _____ \$30,000-\$34,999 | _____ \$45,000 or more |
| _____ \$15,000-\$19,999 | | |

25. Estimated amount of money spent per week for all food purchases:

- | | | |
|-----------------|-----------------|--------------------|
| _____ \$0-\$10 | _____ \$31-\$40 | _____ \$61-\$70 |
| _____ \$11-\$20 | _____ \$41-\$50 | _____ \$71-\$80 |
| _____ \$21-\$30 | _____ \$51-\$60 | _____ \$81 or more |

26. Estimated amount of money spent per week at the food cooperative:

- | | | |
|-----------------|-----------------|--------------------|
| _____ \$0- \$5 | _____ \$21-\$25 | _____ \$41-\$45 |
| _____ \$6-\$10 | _____ \$26-\$30 | _____ \$46-\$50 |
| _____ \$11-\$15 | _____ \$31-\$35 | _____ \$51-\$55 |
| _____ \$16-\$20 | _____ \$36-\$40 | _____ \$56 or more |

27. Racial makeup of your household:

- | | | |
|----------------|----------------|-------------|
| _____ Black | _____ Anglo | _____ Other |
| _____ Hispanic | _____ Oriental | |

___ Rural City: ___ Less than 50,000 people
 ___ 50,000 - 99,999
 ___ More than 100,000 people

<u>Male head of household</u>		<u>Female head of household</u>
_____	Less than one year	_____
_____	One to four years	_____
_____	Five to nine years	_____
_____	Ten to 20 years	_____
_____	More than 20 years	_____
_____	Not applicable	_____

☐ Female head of household
☐ Male head of household
☐ School-age children
☐ Children younger than school age
☐ Not applicable

<u>Male head of</u> <u>household</u>		<u>Female head of</u> <u>household</u>
_____	One a day	_____
_____	Two a day	_____
_____	Three a day	_____
_____	None	_____
<u>School age</u> <u>children</u>		<u>Younger than</u> <u>school age children</u>
_____	One a day	_____
_____	Two a day	_____
_____	Three a day	_____
_____	None	_____

Please circle the letter that best completes each sentence:

		Daily	Every other day	Twice a week	Weekly	Every two weeks	Once a month	Not applicable
32.	Food shopping for the family is done.....	A	B	C	D	E	F	G
33.	The children buy food for the family.....	A	B	C	D	E	F	G
34.	The family as a group eats away from home.....	A	B	C	D	E	F	G



BUSINESS REPLY MAIL

FIRST CLASS

PERMIT NO. 13

DENTON, TX

POSTAGE WILL BE PAID BY ADDRESSEE

MARY E. EBERI
COLLEGE OF NUTRITION, TEXTILES,
AND HUMAN DEVELOPMENT
HECS DEPARTMENT
P. O. BOX 23975, TWU STATION
DENTON, TEXAS 76204

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



As a contributor to the research data on Food Cooperatives, I am interested in the results of this research and would like a brief summary of the findings.

My address is: _____
(street)

(City)

(state, zip code)

Thank you,

Mary E. Ebert

REFERENCE NOTE

1. Pierce, R. A. Personnal communication, August 25, 1981

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