RELATIONSHIPS BETWEEN ROLE AND SELF
PERCEPTIONS, FAMILY CHARACTERISTICS,
SHOPPING ATTITUDES AND FOOD
PURCHASE BEHAVIOR

Thesis for the Degree of M. S.
MICHIGAN STATE UNIVERSITY
David Hollingsworth Spaeth
1960

SUPPLEMENTARY
MATERIAL
IN BACK OF BOOK

RELATIONSHIPS BETWEEN ROLE AND SELF PERCEPTIONS,

FAMILY CHARACTERISTICS, SHOPPING ATTITUDES

AND FOOD PURCHASE BEHAVIOR
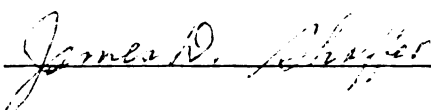
By

DAVID HOLLINGSWORTH SPAETH

AN ABSTRACT

Submitted to the College of Agriculture of Michigan
State University of Agriculture and Applied
Science in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE

Department of Agricultural Economics

1960

Approved _____

David Hollingsworth Spaeth

ABSTRACT

The objectives of the study were:

1.   To find whether or not statistically significant relationships exist among observed shopping behavior, verbalized attitudes toward shopping, role and self perceptions of the homemaker, socio-economic characteristics of the family, and the expenditures for or quantities of specific foods purchased.

2.   To explore the notion that the decision-making process is a user of a finite quantity of energy such that the decision-maker finds it necessary to ration this energy among decisions. The existence of a biological relationship to this energy was also hypothesized.

3.   To demonstrate the usefulness and shortcomings of a bivalued cross-sectional, analytical procedure in dealing with intercorrelated survey data and variables not quantifiable in a cardinal sense.

The investigation proceeded as follows:

1.   A sample of 211 Lansing families was investigated. These families were members of the Michigan State University Consumer Panel, reported their food expenditures and other data each week for 52 weeks in 1958, and responded to a special questionnaire dealing with role and self concepts and buying attitudes in January, 1959.

2.   Each family was described as being in a high or low value class for each of variables considered to have relevance to the decision-making process in shopping for food.

3.   These variables were paired in all possible combinations by means of 2 x 2 tables of frequency and tested for significance.

4.   Differences in the use of specific replies to the role-self questionnaire were recorded at the .05 level of significance.

5.   Socio-economic subgroups were defined within the 211 family sample and a specific hypothesis relating role-self conflict scores to,(a) food purchasing behavior,(b) attitudes toward shopping for food and (c) per capita expenditure for food was tested. A second hypothesis was tested in the subgroup analysis relating per capita milligrams of thiamin in the food purchased to, (a) role-self conflict score, (b) attitudes toward shopping for food, and (c) food purchasing behavior.

In the analysis of all possible pairs of variables significant relationships were found among observed shopping behavior, attitudes toward shopping, role and self-perceptions of the homemaker, socio-economic characteristics of the family, and expenditures for or quantities of specific foods purchased.

Expenditure levels for a number of food groups were found to be associated with per capita income, percent of income spent for food, and variety of food purchased in terms of per capita number of different items purchased and percent of total different items purchased only once during 1958.

Role-self conflict score was related to attitudes toward

shopping for food, food purchasing behavior, per capita income, family composition and per capita milligrams of thiamin in food purchased, but not to the food expenditure variables.

Per capita milligrams of thiamin in the food purchased was related to role-self conflict score and attitudes toward shopping, but not to the shopping behavior variables.

A complex of consistent relationships was observed in which a homemaker with a low conflict score also tended to show low orientation toward price calculations, included relatively few items in 50 percent of the food bill and purchased a low level of thiamin. This same homemaker was also under income restriction and pressed for time in the home. The association of low conflict score with these variables supported an inference that the low role-self conflict score is a result of a low energy availability and pre-occupation with household duties that compete with food purchasing activities for the homemaker's time and attention. These observations lend support to a hypothesis that a rationing of energy among decisions may take place and that it is associated with the physiology of nutrition.

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I wish to express my appreciation to the Department of Agricultural Economics for the means and the academic freedom to pursue this course of investigation.

I am particularly grateful to Dr. James D. Shaffer for the rather liberal use of his time spent in the informal conversation necessary to the development of this kind of work.

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CHAPTER I

OBJECTIVES AND APPROACH

The primary investigation in this thesis is directed toward the question: Does a relationship exist among (a) observed purchasing behavior, (b) verbalized shopping attitudes, (c) role and self perceptions of the homemaker, (d) socio-economic characteristics of the family, and (e) the expenditures for or the quantities of foods or food classes purchased?

A second question, which carries with it implications concerning the nature of the decision-making process, asks whether or not decision-making is an energy-consuming process such that the decision-maker finds it necessary to ration his expenditure of this energy among decisions.

This study can do no more than suggest answers to these questions within the limitations of the data presented here, but evidence to support affirmative answers to both questions will be presented.

A third point of emphasis in the course of discussion is the method used to detect the presence or absence of significant relationships in the data.

The content of the primary question above is similar to that of questions faced when coping with problems determining the content and direction of advertising and the marketing of a commodity.

An elementary procedure and kind of relationship is the identification

of unique sets of characteristics which are characteristic of families

at particular expenditure levels for food, and who show various kinds

of purchasing behavior. The initial objective, therefore, is to sketch

a profile of the families possessing these expenditure and behavior

characteristics.

Extending the idea of unique relationship further, there

is reason for suggesting that there is a biological basis for expenditure

levels of food being related to role and self perceptions assuming that

expenditure and quantity are correlated and to the extent that role and

self perceptions are unique properties of individuals. Such relation-

ships are suggested by experimental evidence that the nature of the

food eaten by an individual can affect that individual's behavior and

attitudes. Two examples of such studies are, first, a U.S.D.A.

investigation[1] which related level of breakfast protein intake to sub-

sequent blood-sugar levels and associated states of fatigue, nervousness,

irritability, or, in contrast, feelings of well-being. The second was

an experiment in which a group of hospital employees volunteered to

live on a diet in which the thiamin content had been reduced to .22 mg.

per day per person, although adequate in other respects. These hospital

employees showed marked changes in behavior and personality.[2]

[1]Orente-Keiles, E. and Hallman, L. F. The Breakfast Meal in Relation to Blood Sugar Values, U.S.D.A., Circular No. 827, 1949.
[2]Williams, R. D., Mason, H. L. Smith, B. F., Wilder, R. M. "Induced Thiamin Deficiency in Man," Archives of Internal Medicine, Vol. LXIX, 1942, p. 721.

It is not the purpose of this study to deal with nutritional deficiency. Rather, the attempt is to establish whether or not there is statistically significant evidence that the nutritional components of the food purchased can be associated with shopping attitudes, observed shopping behavior, and role and self-perceptions as defined herein. The question of causal relationship must be left to more precisely controlled study than is possible with the data at hand, but a relationship is suggested in the conclusions which is consistent with the findings. The matter of whether this suggested causal scheme is more valid than another, equally consistent, cannot be handled here. The kind of relationships sought to explore this area involved the calculation of the thiamin in the food purchased, per capita, per day, and the comparison of this to a role-self conflict score and various measures of shopping behavior. Expenditures for principal sources of protein were compared with psychological variables in the attempt to find significant relationships.

METHOD

It is obvious that the relationships that are sought are subtle and that they involve complexes of a large number of variable characteristics. The problems of intercorrelation and nonquantifiable variables had to be faced. To deal with such problems a cross-section type of analysis was used in the following sense. The sample under analysis consisted of families participating in the Michigan State University Consumer Panel. Each family was described with respect

to each variable used in this study, e. g. per capita income, per

capita expenditures for foods, psychological scores, etc. Each variable

was permitted two values. With respect to the variables which were

characterized by ordered number scales, each was designated as

being high or low (e. g. high per capita income means greater than

$2199.99, low per capita income means less than $2200.00, after

federal income taxes in 1958). In the case of the psychological variables,

number systems were devised and high and low classes defined as

with the cardinally measurable variables. In the case of describing

family composition with respect to children, the classes were simply,

present or absent. No claim is made for this bivalued aggregation

device other than as a probe for uncovering possible relationships.

Rather broad outlines are suggested in the context of discovery and

although validation procedures are used, each relationship uncovered

should be tested more rigorously and in other populations. The bi-

valued aggregation has the very great advantage of simplicity, a

considerable feature when handling large numbers of variables

simultaneously.

A second device is used to provide some insight as to the

nature of the value classes for each variable. The frequency with

which the value classes for each variable used specific phrases and

adjectives in reply to the role-self questionnaire[3] was noted and

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[3]These adjectives and phrases are the replies to questions
in parts II and III, 3rd Special Panel Questionnaire, see Appendix p.

expressed as a percentage of the number of respondents in the value

class. The percentages of frequency for the two value classes for a

given variable were compared and significant differences were reported.

THE DECISION ENERGY CONCEPT

The second question advanced for study deals with the

concept of a decision energy. This is the intuitive notion that people

generally find it very difficult to deal with two important decisions of

divergent content simultaneously. The idea of a finite quantity of a

mental energy is not new to psychology. It is implied in a number

of theories as an explanation of the motivating force or drive which

produces physical activity. In psychoanalytic theory a kind of stable

output of energy has been implied such that if its expression in one

form is suppressed, it is released in another form of behavior. A

current explanation of neurotic behavior employs the idea that neurotic

conflict consumes energy required for normal, flexible reaction to en-

vironment. The disproportionate use of energy in implementing various

defense mechanisms leads to fatigue and/or, the rigid inappropriate

behavior characteristic of neuroses.[4]

The presence of decision energy in making economic

decisions is implied in current views held in theory of consumption

behavior. Both the equimarginal principle and the indifference

approach to consumer behavior assume that the individual is a precise

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[4] White, Robert W. The Abnormal Personality. New York: Ronald Press Co., 1956, p. 257.

and sensitive calculator possessed of perfect knowledge and foresight.

Stigler, however, comments:

> The inertia that prevents instantaneous readjustment
> of the consumer's behavior is not necessarily irrational.
> The consumer may deem the effort to readjust his purchases
> excessive in the light of probable reward--decision-making
> is not a free good--so he develops stable patterns of be-
> havior (habits) in dealing with the relatively stable environ-
> ment in which he lives. [5]

Shaffer, in describing habit, states:

> In a modern economy, the number of alternative
> commodities which might be purchased is so great that it
> is impossible for one person to consider more than a
> small fraction of them. The consumer must develop
> techniques for making consumption decisions which will
> economize time and effort. [6]

Such statements imply that a person tends to make one

decision at a time and that the process exacts a time and energy cost.

The pervasive use of habit is more striking if one tries to imagine the

overt behavior of an individual devoid of reliance on habit, who pre-

ceded each action with a specific deliberated decision.

It is seen that the energy concept leads to consideration in

detail of habitual behavior. A first definition of habit may be repeated

performance of an act, such as, the repeated purchase of a specific

brand of merchandise. This is not adequate since the price and other

knowledge concerning the article in question may be such that the

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[5]Stigler, George J. The Theory of Price. New York:
The Macmillan Co., 1957, p. 46.

[6]Shaffer, J. D. Notes for Agr. 240, Chapter 8. Vincent
(Ed.), Department of Agricultural Economics, Michigan State University,
1959, Mimeo.

repetition would be indicated under a behavioral model as sensitive

as that assumed under the indifference or equimarginal approaches.

What is really meant by habit is then a certain insensitivity to change

resulting from an unwillingness or inability to reassess reality.

Schreier asserts that observed repetition is not a sufficient basis

for prediction and comments on habit as follows:

> Repetition of an action . . . , is not the criterion of a
> habit . . . . The statement that "he has a specific habit"
> means that he has acted by making certain assumptions
> which are reasons for his action; but only if we include
> in our prediction that the individual will continue his
> assumptions and not reëxamine them can we predict that
> the individual will continue to act in this way, repeat the
> habitual action.[7]

Similar notions are advanced as Norris'[8] "petty goods"

category of purchases, Katona's[9] "genuine decision" and Schreier's[10]

"founding decision."

The investigation of habit in this study is pursued by using

certain shopping attitude variables as measures of willingness to re-

assess reality and comparison of this to variables which may be logically

construed as measures or determinants of energy. The variables in

this study that are directed toward manifestation of habitual actions

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[7]Schreier, Fred T. Human Motivation. Glencoe, Illinois:
The Free Press, 1957, pp. 84-85.

[8]Norris, Ruby Turner. The Theory of Consumer's Demand.
New Haven: Yale University Press, Rev. Ed., 1952, p. 100.

[9]Katona, George. Psychological Analysis of Economic
Behavior. New York: McGraw-Hill Book Co., 1st Ed., 1951, pp. 49-50.

[10]Schreier, op. cit., p. 83.

are concerned with identifying patterns of repeated purchases.

These variables are (a) number of different items[11] purchased during

1958, (b) percent of the number of different items purchased during

the year 1958 which were purchased only once, and (c) the number

of different items which were included in 50 percent of the food bill.

These variables were coupled with verbalizations concerning attitudes

in shopping which were oriented toward price and convenience.

These specifically oriented shopping attitudes were derived

from questions implying a willingness to spend time in food preparation

and engage in associated calculations and decision-making activities.[12]

The decision energy concept is further explored by searching for

relationships between these aforementioned variables and the conflict

between role and self-perceptions. The nature and import of this

conflict will be discussed in defining the conflict score variable. The

idea is, that if it is true that an energy rationing is operative, and

that conflict between self and role perceptions are associated with the

energy available for decision-making, then it should be possible to

observe a set of relationships that will be consistent within some scheme

of causality.

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[11]Different item means a separate food item as indicated
by a different Consumer Panel Diary code number. See Appendix

[12]The meaning of these shopping attitudes may best be
seen by examining the questions used. These are listed in Appendix
p. 95.

PROCEDURE

The reader will quickly recognize that certain of the variables are highly interrelated, such as, per capita income with percent of income spent for food. It may be seen too that examining pairs of variables by means of 2 x 2 frequency tables may be misleading to the extent that a lack of relationship may arise from antagonistic effects from subgroups within the sample. An example of this would be contrasting attitudes toward price as expressed within a low per capita income class consisting of both young couples with no children, and older couples with no children but the latter possessed of habits of thrift ingrained by the rigours of raising a family and lower expectations of future income. In this case the group must be further subdivided by introducing the age of the homemaker as another relevant variable, in order to prevent cancellation of opinions. This requires joint classification in this example with respect to per capita income, age of homemaker, presence or absence of children in the home. This simple example leads to a description of the over-all procedure and the rationale of the method used in this study and a statement as to what may be expected in the way of a summary and the conclusions reached.

The investigation proceeded with the following steps:

1. A list of variables was made representing an a priori judgment of those factors which are important in determining which foods are purchased, by whom, and their importance with respect

to the budget. In addition variables were added to describe the more

subtle psychological characteristics of the homemaker. This original

list contained 35 variables.

2.   The a priori variables were paired in all possible com-

binations and tested for significant relationships.

3.   Those variables showing a high proportion of significant

relationships to other variables were selected, a few new variables

were formed as a result of questions raised by the tests in step 2,

and a second set of 19 variables was investigated with respect to

specific answers to the questionnaire exploring the role-self conflict.

The newly formed variables were also paired in all possible com-

binations with the a priori list.

4.   Noting the socio-economic variables which tended to display

a high degree of interrelationship, subgroups were formed which were

homogeneous with respect to these highly interrelated variables.

Specific comparisons were made within these subgroups to detect the

relationships predicted by the hypotheses formed from the thesis. This

step is the process of sorting out those subgroups the combination

of which could obscure relationships in the manner described above.

This step represents a device by means of which those subgroups

responsible for specific effects can be isolated. This is the method

of controlling variables in order to avoid the effects of intercorrelation.

It is tacitly assumed that if a subgroup is formed within the sample

that is homogeneous with respect to a number of the socio-economic variables, then in response to the pressures of similar environmental circumstance, a number of other attitudes and characteristics will be common to the subgroup.

The results and conclusions will be of four kinds. First, in the comparison of all possible pairs of the a priori variables with respect to the sample as a whole, both those relationships significant at the .10 or less level and those showing no significance at the .32 or less level are reported.

Secondly, differences between value classes with respect to specific answers to the role-self questionnaire are noted.

Third, there is the investigation of the decision energy concept and statements are made concerning the evidence for support or contradiction. As an extension to this energy concept, some notion as to the causal relationships will be advanced.

Among those foods which are investigated in detail are dairy products, fruits, and eggs, all important Michigan farm products. The replies to the role-self questionnaire tend to sketch verbal profiles of the families in the low and high expenditure classes for these commodities. Even the thiamin evaluation has specific application to Michigan agriculture when it is realized that among the better sources for this nutrient are wheat germ, dairy products, and dried beans.

Finally, a word will be said about the method used, its

advantages and disadvantages, its use in this study, and suggestions

concerning future use of consumer panel data.

DEFINITIONS AND DERIVATIONS
OF THE VARIABLES

The definitions of the terms used in this study are as follows:

1.   The Sample: The sample is a group of Lansing, Michigan

families who:

(a) Reported food expenditures each week for the calendar

year 1958 as members of the Michigan State University

Consumer Panel.   The diary kept by these families is

included in the Appendix.   The panel members were paid

to keep these diaries under a system that included bonus

payments for prompt mailing, thus minimizing recall effects.

The panel sample was designed to be representative of

Lansing area families.

(b)   Answered the Third Special Panel Questionnaire

(see Appendix).   The questionnaires were administered by

mail after the termination of panel activities, January 1, 1959.

2.   Family or Household: A group of people living together with

a common food budget.

3.   Homemaker: The respondent in the family to the Third

Special Panel Questionnaire.   It is assumed that the respondent is a

female adult except in the case of one person families.

4.   Class: This term is used to designate a group of families

of homogeneous value with respect to one or more variables used in

this investigation.

5.   Variable: A characteristic describing a family. It is

bivalued (high-low), (present-absent, with respect to presence of

specific age groups of children in the family).

Each family was designated as being in a high or low value

class with respect to each variable and each variable was examined

with respect to differences between value classes in the specific phrases

and adjectives used in reply to the role-self questionnaire.

The description of the variables will include the method

for deriving them and the value used to designate the high or low value

classes.

The number of people in the family, used in deriving the

per capita expenditure figure and the size of family, was computed

by dividing the sum of the number of people reported each week in the

panel diary, by 52 weeks. It is, therefore, the average number of

people in the household during 1958.

The general method for determining the value used to

designate the value classes was to calculate the arithmetic mean and

use it as the lower bound for the high value class. This procedure is

not followed in all cases. Where the data is limited such as that for

per capita expenditures for prepared dinners (T. V. dinners), an

arbitrary division point was selected which avoided dividing the sample

at the level of expenditure showing maximum frequency. In this case

there was a large frequency at a very low level of expenditure but a

number of families who had expenditure levels through a wide range

of higher values. The arithmetic mean fell in the narrow range of

high frequency at low expenditures. It was decided to treat this

"cluster" of families at the low expenditure level as a group and divide

the variable into its value classes somewhat above the mean.

The following describes the variables used in both steps

1 and 3 of the study:

Socio-Economic Variables

(a)   Per capita income: Per capita income after federal income

taxes in 1958; high, $2200 or more per year.

(b)   Per capita expenditure for food in 1958; high $287.20 or

more.

(c)   Age of homemaker: High, 50 years or more. This is not

the mean of the sample. This point was selected to maximize inter-

correlation with the presence of young children in the household.

(d)   Education of homemaker: High, 12 years or more. This

is not the sample mean. It is a concession to what appears as a natural

bound.

(e)   Per capita meals at home: High, 1061 meals or more.

This variable was included to detect possible false inference due to

(k)   Number of different items included in 50 percent of the total food bill: High, 16 or more. This variable was derived by ordering the number of different items purchased in descending order of size of expenditure for the item and then counting the number of items necessary to accumulate 50 percent of the total expenditure for food.

Food Quantity and Expenditure Variables

(l)   Per adult expenditure for both ground and soluble coffee: High $16.21 or more.

(m)   Per capita expenditure for refined sugars: High, $7.07 or more. This group does not include molasses or honey but does include candy and confections.

(n)   Per capita dozens of eggs purchased: High, 24.2 dozen or more.

(o)   Per capita expenditure for prepared dinners (hereinafter called T.V. dinners): High, $5.01 or more (not the mean).

(p)   Per capita expenditure for vitamin supplements: High, $4.97 or more. This dividing value is above the mean due to a high frequency within a narrow range of low values which included the mean.

(q)   Per capita expenditure for dairy products: High, $14.87 or more.

(r)   Per capita expenditure for fats and oils: High, $12.23 or more.

(s)   Per capita expenditure for fruits: High, $24.15 or more.

unreported food consumption arising from meals eaten away from home.

(f)   Presence of children age 0-9.

(g)   Presence of children age 10-19.

Shopping Behavior Variables

(h)   Percent of total different items that were purchased only once during 1958: High, 37 percent or more.

(i)   Number of different items per person in family purchased during 1958. A preliminary scatter indicated that the relationship between size of family and number of different items purchased was curvilinear. This is logical since the impact of additional children in the family, after the first one, would not be expected to add to the demands for variety to the extent of the first child. In view of this, a separate mean for the number of different items purchased was computed for each size of family category. The size of family was noted for each family and the appropriate mean used to classify it as being a purchaser of a high or low number of different items during the year. The means used are as follows:

No. in Family (± 1/2)	Mean	No. in Family (± 1/2)	Mean
1	185 items	4	264 items
2	219 items	5 or more	264 items
3	260 items		

(j)   Percent of total income spent for food: High, 18.84 percent or more.

(k)   Number of different items included in 50 percent of the total food bill: High, 16 or more. This variable was derived by ordering the number of different items purchased in descending order of size of expenditure for the item and then counting the number of items necessary to accumulate 50 percent of the total expenditure for food.

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(s)   Per capita expenditure for fruits: High, $24.15 or more.

(t)   Per capita expenditure for vegetables: High, $26.19 or more.

(u)   Per capita expenditure for meats: High, $94.78 or more.

(v)   Per capita expenditure for bakery and cereal products:

High, $37.79 or more.

(w)   Per capita milligrams of thiamin in food purchased: High,

1.24 mg. per day. Estimates of the mg. of thiamin per lb. in each food

item were made and multiplied by the number of lbs. of each food

purchased by each family. The mean above is approximately the minimum

daily requirement for the active male adult. Requirements are a

function of body size, activity, and caloric intake.

Psychological Variables

Source: Third Special Panel Questionnaire (the role-self

questionnaire referred to in this study in parts II and III of the Third

Special Panel Questionnaire).

(aa)   Conflict score: High, 10 conflicts or more. In the first

half of the role-self questionnaire the questions essentially asked,

"What kind of home should a homemaker run and what activities should

she consider important?" In the second half the questions asked, "What

kind of home do you run and what activities do you consider to be

important?" The replies in each case were selected from a list of

ten adjectives or phrases that followed each of a total of 16 questions

(see Appendix p. 108). The respondent was requested to select the

four most appropriate adjectives or phrases. The questions and

answers in each of the two parts of the role-self questionnaire were

matched although the adjectives and phrases were not in the same

order for the matched questions. In deriving this variable, each

instance in which the adjective used to describe the role (first section)

was not used to describe the self (second section) was scored as a

conflict. The total of conflicts of this nature was summed for each

respondent and assigned as the conflict score of the respondent's family.

The arithmetic mean of these scores was used as the high-low dividing

value.

This conflict score as developed here is the same as that

used by Trier.[13] In his study he evaluated this measure in terms of a

personality inventory scale applied jointly to another sample of Lansing

homemakers.[14] Trier concluded that:

> The greater the amount of conflict in role perceptions,
> it was found, the poorer the personality picture. Wives with
> more role conflicts were found to be more pessimistic, more
> emotional, more disorganized, and less self-confident.[15]

In developing this measure, Trier, in his thesis, cites other

studies which associate high role conflict with neurotic tendencies. If

it is asserted that personality traits associated with high conflict scores

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[13]Trier, Howard E. "Sociological Variables, Personality
Traits, and Buying Attitudes Related to Role Perception and Conflicts:
Among 242 Michigan Housewives," Unpublished Ph. D. thesis, Michigan
State University, 1959.

[14]This sample of 242 homemakers was drawn from a larger
random sample of 1200 Lansing, Michigan, housewives. The homemakers
were surveyed by personal interview in the summer of 1958.

[15]Trier, op. cit., pp. 120-21.

represent variations in energy that might be used in decision-making,

then it should be possible to support hypotheses associating conflict

scores with shopping attitudes or behavior that imply active decision-

making.

To indicate more clearly what is meant by "role" and "self"

the following are quoted:

From Mowrer,

> Role refers to that pattern or coordination of attitudes
> and habits through which the individual secures and maintains
> status in a particular group. Since an individual belongs to
> many groups, in each of which he plays a different role, his
> personality is made up of many roles.[16]

From Snygg and Combs, in discussing the self concept,

> What a person does and how he behaves is determined
> by the concept that he has of himself and his abilities. It (the
> self) gives consistency to his behavior. It is the only frame
> of reference that the individual possesses.[17]

(bb)   Social score: High, 7 or more. This characteristic is

subjective in nature and derived internally from replies to the role-self

questionnaire. It was noticed in examining the replies to the questions

that 5 or 6 adjectives were used by all of the homemakers for a majority

of the answers. The use of atypical answers was assumed to be of

possible import and these were isolated. Upon isolation it was noticed

that the atypical answers or phrases were generally associated with

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[16]Mowrer, Harriet. Personality Adjustment and Domestic Discord. New York: American Book Co., 1935, as quoted in Trier thesis.

[17]Snygg, D. and Combs, A. W. Individual Behavior. New York: Harper & Bros., 1949, as quoted in Trier thesis.

interests and activities outside of the home, or bringing into the home persons from outside the family. Examples of such replies are as follows:

(a)   I run a fashionable home.

(b)   Entertaining friends and associates should be an important activity of the homemaker.

(c)   Helping my husband advance in his job is one of my important duties.

(d)   I spend much of my time participating in civic activities. The adjectives that did not conform to this vein of thought were dropped, the number of remaining atypical adjectives or phrases used were counted for each respondent, and the total frequency of use of atypical adjectives and phrases was assigned to the family as the social score.

Variables Indicating Attitudes toward Shopping:
Source Part I of Third Special Panel Questionnaire

These questions explore the attitude of the homemaker toward shopping for food. The questions are oriented toward the 10 shopping decision components indicated below. The answers to the questions from which the scores are derived are a series of statements ranging in meaning from a strongly positive attitude to a strongly negative one. The replies were coded by means of the numbers 1 to 5 as the replies progressed from strongly negative to strongly positive. The score for each family with respect to each variable was computed by summing the 5 code numbers representing replies. A high sum

indicated a preponderance of positive attitudes, a low sum indicated relatively negative replies. The mean of the scores for all families for each variable was computed and used to establish the high and low value classes. The attitudes and dividing scores are as follows:

(cc)   Price oriented: High, 17 or more.

(dd)   Quality oriented: High, 16 or more.

(ee)   Convenience oriented: High, 9 or more.

(ff)   Pre-planning oriented: High, 16 or more.

(gg)   Information-seeking oriented: High, 14 or more.

(hh)   Calculation oriented: High, 15 or more.

(ii)   Other (people) oriented: High, 14 or more.

(jj)   Wife oriented: High, 11 or more.

(kk)   Husband oriented: High, 5 or more.

(ll)   Parent oriented: High, 12 or more.

The general import of these questions and the associated variables is most efficiently drawn by reading the questions. A list of these questions organized with respect to the intended orientation is included in the appendix for this purpose. In addition, in front of each question a percentage figure is given indicating the frequency of replies to each as found in the replies of another sample of Lansing families (cf. footnote 14, p. 18). This is included to indicate the reaction to these questions by a random sample drawn from the same population as the sample used in this study. As an example of the derivation of

the above shopping attitudes; highly price oriented shopping attitudes were derived from statements to the effect that the homemaker is highly aware of the prices of food items and is sensitive to price change. Highly convenience oriented shopping attitudes are derived from a high incidence of affirmative or positive answers to questions asking whether or not time and effort saving in meal preparation is a criterion for the purchase of food.

TESTS FOR SIGNIFICANCE

The use of a bivalued classification system leads to the use of the binomial probability distribution as the appropriate statistical model on which to base the decision rules for acceptance or rejection of hypotheses and the tests for significance.

The description of a family with respect to n characteristics each with two values, yields a sample space equivalent to that of n trials with two outcomes. This is the multivariate binomial distribution and the probability associated with a given description or combination of values is the product of the relevant marginal probabilities, if the characteristics are independent of each other. To illustrate the functioning of this type of model in its simplest form, and in a form which is used in the analysis of subgroups within the sample, the construction and testing of 2 x 2 tables follows:

If a population of 100 families is considered jointly with respect to per capita income and per capita expenditure for food and

only two-values are admitted for each of these characteristics the possible combinations of these two variables may be represented by the cells in the table below. (By using 100 families the frequencies which appear as the lowest figure in the cell, become the percent of the sample possessing the joint characteristics which the cell represents.)

Per Capita Income

		low	high	
		low, low p = .20 40	high, low p = .30 10	50% p = .50
		low, high p = .20 0	high, high p = .30 50	50% p = .50
		40% p = .40	60% p = .60	Marginal Probabilities

Per Capita Expenditure for Food — low, high (row labels)

The above table demonstrates a significant relationship between low per capita income and low per capita expenditures for food. Since a sample of 100 families has been used, the values of p in each cell multiplied by 100 are the expected frequencies if the two variables are completely unrelated. The value of p is the probability that a family in the sample will possess the characteristics indicated by the cell specifications. Note that with the size of the sample and the marginal probabilities given,

a single entry determines the whole table. No further information is needed to complete it.

The investigation of all possible pairs of the original 35 a priori variables led to potential formation of 595 tables of dimension 2 x 2. To reduce the work involved in computing all four cells for each and the chi-square tests for each of these tables, the fact that the table, with given marginal probabilities, is completely determined by a single entry, was used. As the total frequency of such a table increases,the binomial distribution lying behind its construction approaches the normal distribution. Hence in the analysis of the sample as a whole, only the low, low cell was observed, its expected frequency computed (p x No. in sample) and the deviation of frequency of the observed cell measured according to the following formula:

$$Z = \frac{Sn - np}{(npq)^{1/2}}$$

Where: Z :: Number of standard deviations

In the preceding table:

n :: number in the sample

n = 100   np = 20

p :: joint probability associated with the (low, low) cell

p = .20

$$Z = \frac{40 - 20}{(16)^{1/2}} = 5$$

q :: (1 - p)

q = .80

np :: expected frequency in the (low, low) cell

Sn = 40

Sn :: observed frequency in the (low, low) cell

Consulting a table of the normal distribution p(Z) < .0001

Decision rule: The hypothesis that the variables are independent is rejected if:

Z > 1.645 at the .10 level of significance

Z > 1.960 at the .05 level of significance

Z > 2.575 at the .01 level of significance

Unless otherwise specified the term significant will mean significance at the .10 or less level.

In the analysis of the subgroups within the total sample, since the numbers of families under analysis was smaller, the chi-square test was used. Chi-square was computed by means of the following formula containing the h correction:

$$\chi^2 = \frac{(|ad-bc|-1/2n)^2 n}{(a+b)(a+c)(b+d)(c+d)} \text{ if the cells are } \begin{array}{c|c} a & b \\ \hline c & d \end{array}$$

Decision rule: Reject the hypothesis that the variables are independent if: (one degree of freedom)

χ^2 > 2.706 at the .10 level of significance

χ^2 > 3.841 at the .05 level of significance

χ^2 > 6.635 at the .01 level of significance

The term significant will mean significant at the .10 level unless otherwise specified. Asterisks (*) will be used to denote levels of significance of lesser numerical value than .10 and are uniform for all analyses in this study. The use of these will be demonstrated in subsequent footnotes.

ASSUMPTIONS IN THE STUDY

Certain limitations in the data place restrictions on the inference which may be made from observed relationships. The following observations and assumptions indicate where the bounds to such inferences lie:

1.   There is the question of why expenditure rather than quantity data were used for the food consumption variables. The first answer is simply that with quantity data for diverse foods the measure becomes meaningless. Secondly, and more to the point, shopping implies a decision related to allocation of money income, hence the variables are indicated in monetary terms.

2.   The consumption data are a total of expenditures for a whole family reporting to the M. S. U. Consumer Panel but only the homemaker answered the Third Special Panel Questionnaire used to assess role-self characteristics and attitudes toward shopping. The inference that food purchased is associated with psychological scores through a relationship in common with the nutritional content of the food, requires the assumption that the homemaker's diet is either similar to the diet of the family as a whole or deviates from the diet of the balance of the family in a consistent manner within a given socio-economic subgroup of the sample. The inclusion of such an assumption is not as damaging as it might seem. Much of human behavior is directed toward or is in reaction to the behavior of other people and

hence the wife would not behave as if insulated from the balance of the family. Since the immediate concern is the identification of differences rather than causality, all that is necessary is the reflection of differences in the families' behavior and attitudes in the homemakers' responses to the questionnaire.

3.   Another assumption is concerned with the fact that the data were gathered for the year 1958 while the questionnaire from which the psychological variables were derived was mailed and returned in January, 1959. It is assumed that the properties of the variables derived from the expenditure data and the role-self and attitude questionnaire are sufficiently stable to establish continuity between the two sets of data.

4.   It is assumed that the verbalizations in the questionnaire are meaningful such that answers by an individual would be consistent if repeated without memory, and that the interpretation of a particular question within homogeneous subgroups is similar.

CHAPTER II

RESULTS OF THE ANALYSIS OF

THE FULL SAMPLE

As outlined in the previous introductory statements, the search for the kinds of relationships indicated by the initial questions which define the problem area proceeded in two steps. The first of these was the examination of all possible pairs of variables, including the ones formed after the a priori group, with respect to the full sample. In addition there was a simultaneous examination of the differences in specific replies to the role-self questionnaire between high and low value classes for each variable.

There are two purposes for conducting this first phase of the investigation. The first is to find and report those relationships which are relevant to the thesis and true for the sample as a whole. The second purpose is to determine those demographic relationships that are highly interrelated and which will form the groups of variables used in constructing meaningful subgroups, the analysis of which is reported in the next chapter. As will be seen, these variables in general define specific groups of families with respect to temporal position in the life cycle of family formation, development, and maturation.

The exact form and order of reporting is as follows:

1.   Each variable is considered in turn.   Each relationship
except for a few highly interrelated shopping attitude variables is
reported twice, once for each variable involved in the pairing.

2.   The second result reported is the differences in replies
to the role-self questionnaire between the value classes for the variable.
Significance was established by the application of the t test.   Those
relationships reported are significant at the .05 or less level.   More
emphasis means that more than the expected number of homemakers
used a given phrase or adjective.   Less emphasis means that fewer
than the expected number of homemakers used the phrase or adjective.
Considerable caution should be used in interpreting these differences
in emphasis.   Where an adjective or phrase is given less emphasis
it does not mean that there is a positive denial of the appropriateness
of this adjective or phrase.   It means that other replies are more
appropriate.   More explicitly, an example of an equivalent composite
statement would be, "It may be that I run a quiet home but I think the
words comfortable, modern, fashionable, efficient are more appro-
priate in describing my home. "

3.   The second group of relationships reported for each variable
is the existence, or lack of existence of, significant association between
the value classes of all possible pairs of variables.

Since the results are derived from 2 x 2 tables the opposite
of relationships resulting from examining a low (present) class will be

true for the high (absent) value class for the same variable.

Examples

(a)   Adjectives or phrases in the role-self questionnaire which are given more emphasis by a low value class are given less emphasis by the high value class.

(b)   If the low value class of variable A is significantly related to the low value class of variable B, then the high variable class for A will be significantly related to the high value class of B.

(c)   If the low value class of variable A is significantly related to the high value class of variable B, then the high value class of A is significantly related to the low value class of B.

PER CAPITA INCOME

The low per capita income class contains families of two typical sizes. The following table shows the frequency distribution for both value classes of this variable by size of family.

Average Family Size	Number Families High	Number Families Low
.50-1.49	16	10
1.50-2.49	33	42
2.50-3.49	14	19
3.50-4.49	3	37
4.50-5.49	0	24
5.50 or more	0	11

It is seen that in the low value class that two and four person families predominate. In addition, the two person low income

family group contains both elderly couples, presumably on retirement

incomes, and younger couples who normally have their peak income

rates ahead of them. The tendency of these subgroups to present

conflicting relationships, will, to some degree tend to obscure some

of the unique aspects of the low per capita income class. The analysis

of these subgroups in isolation is the subject matter of the next chapter.

The other remark necessary with reference to the discussion

of income classes, is the disparity of economic restriction on families

of different size within the same per capita income class. As an

example, an income of $4400 per year for two persons does not usually

result in the same standard of living as $11,000 per year for two adults

and three children. Keeping these characteristics of this income

aggregation in mind, the results of the tabular analysis were as follows:

In replying to the role-self questionnaire, low income

families gave more emphasis to:[18]

Role[19]	Self[20]
Disciplining the children	Disciplining the children
Skill at baking	Skill at canning
Spending time keeping the house clean.	Enjoyment of raising children
	Enjoyment of children
	Spending time with children.

---

[18]More emphasis by low income class means less emphasis
by high income class. Less emphasis by low income class implies more
emphasis by high income class. Role-self reporting for all variables is
at the .05 level of significance.

Low income families gave less emphasis to:[21]

Role	Self
Helping husband's career	Being intelligent
Being intelligent	Entertaining friends
Being informed on new ideas	Skill at baking
Spending time keeping own appearance trim	Being informed on new ideas
	Spending time earning additional family income
	Keeping own appearance trim

The replies to the role-self questionnaire indicate that the low income class is compositely occupied with child rearing. Equating skills at canning and baking, the only conflicts appearing in the role concept vs. the self is over the matter of spending time cleaning house and helping husband's career, since these appear in the role but not the self concept.

Relating per capita income to the other variables resulted in the following:

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[19] In interpreting "role" the central idea is the phrase "A homemaker should . . . ." This is an assessment of what values the homemaker considers appropriate to the role of homemaker.

[20] Interpreting "self" is best understood by using these phrases as direct description by the homemaker of herself, classified as "more" or "less" appropriate.

[21] More emphasis by low income class means less emphasis by high income class. Less emphasis by low income class implies more emphasis by high income class. Role-self reporting for all variables is at the .05 level of significance.

Low per capita income families were significantly associated with:

Low per capita expenditure for food*

Presence of children age 0-9*, 10-19

Low per capita number of different items purchased

Low per capita expenditure for fruits, vegetables, meat*

Low per capita mg. thiamin in food purchased

High percent of income spent for food. *

Neither value class for per capita income was associated with the following at the .32 or less level of significance:[22]

Expenditure for: coffee, vitamin supplements, T.V. dinners, dairy products, bakery goods

Dozens of eggs purchased

Conflict score

Shopping attitudes oriented toward: price, quality, convenience, wife, husband.

The results indicate that per capita income is related to expenditures for some, but not all, classes of foods. Among those listed as not related are two principal sources of protein, dairy products and eggs. The relationship of low per capita income to high percent of income spent for food will be used in the subgroup analysis to follow

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*.01 level of significance.

[22]Those variables not listed as significantly related, or unrelated at the .32 or less level, fall between .10 and .32 levels of significance.

in which percent of income spent for food is used as an alternative indicator of economic pressure on the food budget. The observation that price, quality and convenience oriented shopping attitudes are unrelated to per capita income will be seen to be the result of sub-groups holding conflicting attitudes, thus cancelling relationships.

PER CAPITA EXPENDITURE FOR FOOD

The frequency distribution with respect to family size follows:

Family Size	Number of Families High	Number of Families Low
0.50-1.49	17	9
1.50-2.49	46	29
2.50-3.49	27	6
3.50-4.49	25	15
4.50-5.49	5	19
5.50 or more	1	9

Examining replies to the role-self questionnaire indicated that the class, low per capita expenditure for food, gave more emphasis to:[23]

Role (A homemaker should)	Self (I am)
Disciplining children	Disciplining children*
	Being planful
	Enjoyment of raising children*
	Spending time with children.

---

[23] .05 level of significance.

* .01 level of significance.

The class low per capita expenditure for food gave less emphasis to:[24]

Role (A homemaker should)	Self (I am)
Enjoyment of purchasing food.	Being calm
	Keeping own appearance trim.

The above relationships imply that the high value class for per capita expenditure for food gives increased emphasis to enjoyment of shopping for food in the role concept but not in the self concept. The increased emphasis given to being planful in the self concept of the low value class, coupled with a lack of relationship between the low value class and pre-planning oriented shopping attitudes, indicates that planful assumes a meaning broader than budgeting food purchases. This same apparent contradiction appears with respect to the variables, age of homemaker, and per capita number of different items purchased.

Relating per capita expenditure for food to the other variables, low per capita expenditure for food was significantly associated with:

Low per capita income*

Low age of homemaker

Low number of different items purchased

Low per capita expenditure for: sugar, * dairy products, fats and oils, * fruits, * vegetables, * meats*

---

[24].05 level of significance.

*.01 level of significance.

Low per capita dozen of eggs purchased

Low per capita mg. of thiamin in food purchased*

High calculation oriented shopping attitudes*

High percent of income spent for food. *

Neither value class for per capita expenditure for food was related to the following at the .32 or less level of significance:

Education of homemaker

Per capita meals served at home

Expenditure for coffee

Conflict score

Social score

Shopping attitudes oriented toward: convenience, pre-planning, information-seeking, other (people), husband, parents.

All of the food expenditure classes were related to per capita expenditure for food except coffee. Although low per capita expenditure for food is related to highly calculation oriented shopping attitudes there was no significant association with attitudes oriented toward pre-planning or information-seeking. This, in the light of the above self concept of being planful seems to indicate that the food shopping decision is made largely in the store.

---

*.01 level of significance.

AGE OF HOMEMAKER

The frequency distribution by family size follows:

Family Size	Number of Families High	Number of Families Low
0. 50-1. 49	22	4
1. 50-2. 49	61	14
2. 50-3. 49	12	21
3. 50-4. 49	3	37
4. 50-5. 49	4	20
5. 50 or more	0	11

In replying to the role-self questionnaire the younger homemakers gave more emphasis to:

Role	Self
Disciplining the children	Disciplining the children
Being planful	Being planful
Being progressive	Running a relaxed home
Being a sexual companion to husband	Being a companion to children
Being a companion to children	Enjoyment of raising children
Enjoyment of raising children	Enjoying children
Enjoying children	Spending time with children.
Spending time with children.	

The younger homemakers gave less emphasis to:[25]

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[25]Differences in replies to role-self questionnaire significant at the .05 level.

Role	Self
Mending clothes	Running a quiet home
Kindness	Being self-controlled
Handling family finances	Entertaining friends
Skill at baking	Handling family finances
Skill at canning	Being calm
Enjoying shopping for food	Enjoying shopping for food
Sewing.	Spending time shopping for bargains
	Spending time planning meals.

The class of homemakers under 50 years of age is a distinct one in terms of differences in adjectives and phrases used to describe role and self concepts. Ten of the fifteen phrases given greater emphasis mention children directly. Being planful is given greater emphasis by the younger homemakers in both the role and self. They give lesser emphasis to handling family finances and enjoyment of shopping for food in the role concept, and handling family finances, enjoyment of buying food, spending time shopping for bargains, and planning meals in the self concept. This supports an assertion that planfulness involves a concept of strategy other than short term allocation of money and time with respect to food and finances. It was also observed that a cluster of activities, sewing, mending clothes, skill at baking, and skill at canning are given less emphasis by the younger homemakers. This, taken together with the lack of significant relationship between age of

homemaker and price, calculation, or convenience oriented shopping attitudes, would indicate that the younger homemakers are willing to purchase such household services. Finally, the younger homemaker does not see herself to be self-controlled, or calm, when compared to the concepts held by the older homemaker.

With respect to the other variables, the class of home-makers less than 50 years of age was significantly associated with:

Low per capita expenditure for food

Low number of meals eaten at home

Children present, age 0-9,* 10-19*

Low percent of total items purchased only once

Low per capita expenditure for: sugar, fats and oils, fruits, vegetables, bakery goods*

Low per capita dozen of eggs purchased

Low per capita mg. of thiamin in food purchased*

High education of homemaker. *

Neither value class for age of homemaker was related to the following at the .32 or less level of significance:

Expenditures for T.V. dinners, dairy products, meat

Shopping attitudes oriented toward: price, quality, convenience, pre-planning, information-seeking, calculation, other (people), husband, parents.

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*.01 level of significance.

The pattern of expenditure for food by the younger home-makers resembles that for families with low per capita income, high percent of income spent for food, and children age 0-9 in the household. It is along these lines that the subgroups in Chapter 3 are formed.

EDUCATION OF HOMEMAKER

This variable showed little significant relationship to the other variables in the investigation and was not examined with respect to the role-self questionnaire. In general, those persons with less than completed high school educations, were elderly people in the low per capita income class and this group was numerically small. Where a significant relationship does occur, it is noted in the discussion of the other variable.

NUMBER OF MEALS SERVED AT HOME

This variable was also dropped after a priori consideration and was not related to the role-self questionnaire. In relating this variable to the other variables it was found that those families serving less than 1061 meals at home during 1958 were significantly associated with:

Low percent of income spent for all food

Low age of homemaker

Presence of children age 10-19

Low expenditure for bakery goods

Low per capita mg. of thiamin in the food purchased

High education of homemaker

Neither value class for this variable was related at the .32 or less level of significance to any of the remaining variables <u>except</u> those listed as significant above and:

Per capita expenditures for sugar

Per capita dozen of eggs purchased

Shopping attitudes oriented toward wife, parents.

The general lack of relationships for this variable leaves only a hint as to its nature. The dividing value is at an average of 2.85 meals per day, and the low value class aligns itself with the group of homemakers under 50 years of age with children 10-19 in the household. The low value class for this variable is also associated with low per capita expenditure for bakery goods. Since the low value class is formed at values that are considerably above two meals per day, and observing the age of the children, it could well be that the variation in number of meals served at home reflects an occasional meal skipped on school days.

PRESENCE OR ABSENCE OF CHILDREN AGE 0-9

The frequency distribution for this variable with respect to family size was:

Size of Family	Number of Families Children Absent	Number of Families Children Present
0.50-1.49	26	0
1.50-2.49	75	0
2.50-3.49	24	9
3.50-4.49	14	26
4.50-5.49	4	20
5.50 or more	0	11

Examination of the replies to the role-self questionnaire showed that the class of homemakers with children age 0-9 in the household give more emphasis to (.05 level of significance):

Role	Self
Disciplining the children	Disciplining the children
Being planful	Being a companion to the children
Being a companion to the children	Enjoyment of raising children
Enjoyment of raising children	Enjoying children
Spending time with children	Spending time with children

The homemaker with children age 0-9 in the household gave less emphasis to (.05 level of significance):

Role	Self
Mending clothes	Running a cheerful home
Enjoyment of cooking	Running an efficient home
Kindness	Importance of meal planning
Spending time planning meals	Being self-controlled
Spending time keeping own appearance trim	Entertaining

<u>Role</u>	<u>Self</u>
Enjoyment of buying food	Being calm
	Enjoyment of cooking
	Spending time shopping for bargains
	Spending time earning extra family income
	Spending time planning meals
	Spending time keeping own appearance trim.

The principal features of these observations are the predominance of the mention of children in the phrases given increased emphasis, and the predominance of the mention of time and household chores in the phrases given lesser emphasis. These homemakers do not see themselves as being calm or self-controlled, nor did they tend to use the words cheerful or efficient to describe the way they run their homes. Note that this group was also significantly associated with low conflict scores below.

In relating this variable to other variables, those families with children age 0-9 in the household were significantly associated with the following:

Low per capita income*

Low per capita expenditure for food*

Low age of homemaker*

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*.01 level of significance.

Presence of children age 10-19*

Low percent of different items purchased only once

Low per capita expenditure for: sugar, fats and oils, fruit, * vegetables, meat, bakery goods

Low per capita mg. of thiamin in the food purchased

Low conflict score

Low social score

High education of homemaker*

Shopping attitudes highly oriented toward: preplanning, husband. *

Neither value class for this variable was related to the following variables at the .32 or less level of significance:

Number of different items included in 50 percent of the food bill

Per capita expenditure for: T. V. dinners, coffee, dairy products

Per capita dozen eggs purchased

Shopping attitudes oriented toward: price, quality, convenience, information-seeking, calculation, other (people).

Here as in the analysis of the class, low age of homemaker, being planful is given more emphasis by the homemakers in the low value group. With this variable, presence of children, it does not appear in the self concept. On the other hand, unlike the low age of homemaker class, the homemakers with young children show pre-planning oriented shopping attitudes. Information seeking and calculation oriented attitudes are not significantly associated with these homemakers.

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* .01 level of significance.

Again the term planful seems to have somewhat disjoint meaning from meal planning or budgeting. The husband oriented shopping attitude is consistent the the role concept giving a lesser emphasis to enjoyment of shopping. The relationship to eggs, dairy products, and meat are the same as for the low per capita income class.

The obvious interrelationship among this variable, age of homemaker, per capita income and per capita expenditure for food, is the basis for subgroup formation.

PRESENCE OR ABSENCE OF CHILDREN AGE 10-19

This variable was not examined with respect to the role-self questionnaire. The relationship to the other variables was such that the families with children age 10-19 in the household were significantly associated with:

Low per capita income

Low age of homemaker*

Low number of meals served at home

Presence of children 0-9

Low percent of different items purchased only once

Low per capita expenditure for fruits

High per adult expenditure for coffee.

Neither value class for this variable was related to the following variables at the .32 or less level of significance:

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*.01 level of significance.

Per capita number of different items purchased

Percent of income spent for food

Number of different items included in 50 percent of the food bill

Per capita expenditure for: T. V. dinners, dairy products, vegetables, meat

Per capita dozen eggs purchased

Conflict score

Social score.

The unique features are the previously noted relationship to meals served at home, and the relationship to expenditures for coffee. The latter indicates the effect of the children starting to participate in the drinking of this beverage. The presence of the children age 10-19 unlike the variable presence of children 0-9, is not significantly related to most per capita food expenditures.

PERCENT OF TOTAL NUMBER OF DIFFERENT FOOD ITEMS THAT WERE PURCHASED ONLY ONCE IN 1958

This variable was formed to identify families in terms of a workable measure of the pattern rather than just the number of repeated purchases. In joint classification with the value classes of the variable, per capita number of different items purchased, it is possible to identify families whose purchases tend to be composed of a large number of singly purchased items. These variables, jointly with the variable per capita expenditure for food, would indicate a degree of concentration of expenditures on relatively few items.

This procedure is used in the subgroups to try to identify habitual purchasing activities.

In using the variable, percent of different items purchased only once, singly, and with respect to the sample as a whole, one must recognize that a large percent of items purchased only once, could arise from a large number of different items purchased, sensitivity to price movements, or a tendency on the part of the homemaker to do experimental buying. The results in this study describe the performance of this variable as much as they furnish a basis for the empirical measurement of habitual shopping behavior.

In reply to the role-self questionnaire those homemakers who purchased the lower percent of items only once, gave more emphasis to (.05 level of significance):

Role	Self
Companionship to husband	Disciplining the children
	Being a sexual companion to husband
	Being ambitious
	Enjoyment of raising children
	Spending time with children

The homemakers who purchased a lower percent of items only once gave less emphasis to (.05 level of significance):

Role	Self
Mending clothes	Running a quiet home
Helping husband on job	Being informed on new ideas
Skill at baking.	Spending time shopping for bargains.

These replies resemble those of the younger, low per capita income, homemaker with the younger children in the household.

In examining this variable with respect to the other variables it was found that the homemakers who purchased the lower percent of total items only once were associated with the following value classes:

Low age of homemaker

Presence of children 0-9, 10-19

Low social score

High percent of income spent for food

Highly price oriented shopping behavior.

The value classes for this variable were unrelated to the following variables at the .32 or less level of significance:

Per capita expenditure for all foods except: sugar, coffee, dairy products

All shopping attitude variables except: price oriented

Conflict score

Per capita mg. of thiamin in food purchased

Per capita number of different items purchased

Number of items included in 50 percent of food bill.

The relationship of this variable to price oriented shopping attitudes tends to discourage the hypothesis that a high percentage of items purchased only once is due to price sensitivity.

The relationships above indicate that the homemaker who purchases a large percent of items only once is the older homemaker with no children in the household and whose interests lie outside of the home environment.

NUMBER OF DIFFERENT ITEMS PURCHASED

As outlined in defining this variable the number of different items purchased was observed to be a positive curvilinear function of family size with a maximum at the four person family level. The high vs. low dividing value was the mean as determined within each size of family group.

The families in which a low per capita number of different items were purchased were found to be significantly associated with replies to the role-self questionnaire giving more emphasis to (.05 level of significance):

Role	Self
Being planful	Being planful
Handling family finances	Shopping for bargains
Planning meals.	Planning meals.

The homemakers in the class, low per capita different number of items purchased, gave less emphasis to (.05 level of significance):

Role	Self
Being intelligent	Running an orderly home
	Being self-controlled
	Keeping own appearance trim.

Families purchasing a low per capita number of different items were seen to be associated with role and self concepts which gave more emphasis to planning. The kinds of phrases given less emphasis were similar to those of the younger homemaker with young children. Relationships below, however, indicate that this emphasis on planning was not corroborated by association of the same value class with shopping attitudes oriented toward, price, preplanning, calculation, or information-seeking. Again planning seems to carry rather broad meaning.

With respect to the other variables the class, low per capita number of different items purchased, was significantly associated with:

Low per capita income

Low per capita expenditure for food

Low number of different items included in 50 percent of the food bill

Low per capita expenditure for: sugar, vegetables. *

Neither value class for this variable was associated with the following variables at the .32 or less level of significance:

Age of homemaker

Number of meals served at home

Presence of children age 10-19

Percent of different items purchased only once

Per capita expenditures for: coffee, vitamin supplements, T.V. dinners, dairy products, fruits, bakery goods

Shopping attitudes oriented toward: price, convenience, pre-planning, information-seeking, calculation, husband, wife, parents

Per capita dozen of eggs purchased

Social score

Conflict score.

This variable is characterized by a general lack of relationship to the other variables noting particularly that it is unrelated to the percent of items purchased only once. It is significantly related to per capita income and per capita expenditure for food.

PERCENT OF INCOME SPENT FOR FOOD

Examination of the replies to the role-self questionnaire indicated that the homemakers who spent a low percent of income for food gave more emphasis to (.05 level of significance):

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*.01 level of significance.

Role	Self
Running a relaxed home	Being thrifty
Serving a variety of meals	Being informed on new ideas.
Enjoy buying food	
Keeping own appearance trim.	

The homemakers who spent a low percent of income for food gave less emphasis to (.05 level of significance):

Role	Self
Skill at baking	Running a quiet home
Skill at canning.	Enjoyment of raising children.

The phrases used in reply to the role-self questionnaire indicate that homemakers who spend a low percent of income on food are not under severe budget pressure, but they use the term thrifty to describe themselves. They also give increased emphasis to being informed on new ideas but there is a lack of relationship below to shopping attitudes oriented toward information-seeking.

With respect to the other variables, the class low percent of income spent for food was associated with the following:

Low number of meals served at home*

High per capita income*

High per capita expenditure for food

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*.01 level of significance.

High education of homemaker*

High percent of items purchased only once

High number of items included in 50 percent of the food bill

High per capita expenditure for fruits.

Neither value class for this variable was associated with the following variables at the .32 or less level of significance:

Age of homemaker

Presence of children age 10-19

Per capita expenditure for foods except: fruits, vegetables, bakery goods

Social score

Conflict score

Shopping attitudes except those oriented toward calculation.

The above relationships indicate that the class, low percent of income spent for food, consists of families in the higher income brackets. The relationship to fruit expenditures is typical of the older homemaker. The association of low percent of income spent for food with low number of meals served at home, and lack of association with social score, suggests that meals not served were simply skipped, since phrases leading to a high social score had to do with activities away from the home.

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*.01 level of significance.

NUMBER OF ITEMS INCLUDED IN
50 PERCENT OF THE FOOD BILL

This is the fourth variable under the general classification, shopping behavior, and designed to explore the notion of habit.

In replying to the role-self questionnaire the only replies showing significant differences between the high and low value classes were the following.

Homemakers from families with a low number of items included in 50 percent of the food bill gave more emphasis to (.05 level of significance):

Self: Enjoyment of raising children.

The same class of homemakers gave less emphasis to (.05 level of significance):

Self: Being ambitious.

With respect to the other variables, low number of items included in 50 percent of the food bill, was significantly associated with:

Low number of different items purchased

Low per capita expenditure for vegetables

High education of homemaker

High percent of income spent for food.

Neither value class was associated at the .32 or less level of significance with:

Per capita expenditure for food

Age of homemaker

Number of meals eaten at home

Presence of children age 0-9, 10-19

Percent of different items purchased only once

Per capita expenditure for all food classes except: sugar, dairy
    products, vegetables, bakery goods

Per capita mg. of thiamin in food purchased

Social score

All shopping attitude variables.

This variable showed few significant relationships and
those that did appear are similar to those for number of different items
purchased.

PER ADULT EXPENDITURE FOR COFFEE

The only phrase for which a significant difference (.05 level)
was found in replies to the role-self questionnaire by the value classes
for this variable was a lesser emphasis given mending clothes in the
self concept for the low value class.

Neither value class for per adult expenditure for coffee,
was significantly related at the .32 or less level to any of the other
variables except:

Presence of children age 10-19. (Significant at .05 level.)

Age of homemaker

Percent of different items purchased only once

Per capita mg. of thiamin in food purchased

Per capita expenditure for meats

Shopping attitudes oriented toward: price, wife.

There is little basis for identifying a "typical" coffee drinker. Presence of children 10-19 was related to high per adult expenditure for coffee. This was the only variable related to per capita coffee expenditure at the .10 or less level of significance.

PER CAPITA EXPENDITURE FOR SUGAR AND CONFECTIONS

In replying to the role-self questionnaire, homemakers in the low value class gave more emphasis to (.05 level of significance):

Role	Self
Disciplining the children	Disciplining the children
Being calm.	Enjoyment of raising children
	Enjoyment of socializing with the neighbors
	Spending time with the children.

The low value class gave less emphasis to (.05 level of significance):

Role	Self
(No significant differences.)	Being self-controlled
	Being calm
	Spending time keeping own appearance trim.

Role conflict appears over the term calmness, and the homemaker in the low expenditure class does not tend to use the terms calm and self-controlled in describing herself.

The class, low per capita expenditure for sugar and confections, was significantly related to:

Low per capita expenditure for food

Low age of homemaker

Presence of children age 0-9

Low number of different items purchased

Low per capita expenditure for: fats and oils, * fruits, * vegetables, meats, * bakery goods. *

Neither value class was related at the .32 or less level of significance with:

Education of homemaker

Per capita expenditure for: coffee, vitamin supplements, T. V. dinners

Social score

All shopping attitudes except husband oriented.

It will be seen in the reports on the per capita expenditures for food which follow that, in general, low per capita expenditure classes for a food item are related to low per capita income, low per capita expenditure for food, low age of homemaker, presence of children age 0-9, and the low per capita expenditure classes for the other food

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*
.01 level of significance.

classes. The per capita expenditure for sugar and confections follows this pattern.

PER CAPITA DOZENS OF EGGS PURCHASED

In replying to the role-self questionnaire, homemakers from families who purchased a high number of dozens of eggs per capita gave more emphasis to (.05 level of significance):

Self: Handling family finances, decorating the home.

This type of reply supports the prior assertion that high per capita egg purchases associates with older homemakers, in the higher income brackets. This is further supported in the following observations.

The class, high number of dozens of eggs purchased, was significantly associated with:

High per capita expenditure for food

High age of homemaker

High per capita expenditure for: fruits, meat

High per capita mg. of thiamin in food purchased. *

Neither value class was associated with the other variables at the .32 or less level of significance <u>except</u> for those listed above and the following:[26]

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[26]Where the list of unrelated variables is extensive the exceptions to the condition, unrelated at the .32 or less level, will be reported. These include those significant at the .10 or less level and those showing significance at levels between .32 and .10.

*.01 level of significance.

Number of meals eaten at home

Per capita expenditure for: sugar, dairy products, fats and oils, fruits, vegetables, meats

Shopping attitudes oriented toward: calculation, convenience.

PER CAPITA EXPENDITURES FOR
VITAMIN AND MINERAL SUPPLEMENTS

In replying to the role-self questionnaire the class, low

per capita expenditures for vitamin supplements, gave more emphasis

to (.05 level of significance):

Role	Self
(No significant differences.)	Disciplining the children
	Enjoyment of raising children
	Spending time with the children
	Serving a variety at meals
	Enjoyment of socializing with neighbors.

The same low value class gave less emphasis to (.05

level of significance):

Role	Self
Mending clothes.	Running a cheerful home
	Keeping social responsibilities.

The above pattern is that of a young homemaker with

children.

The class, low per capita expenditure for vitamin supplements, was significantly associated with:

Low per capita mg. of thiamin in food purchased

Low per capita expenditures for dairy products.

The value classes for this variable were unrelated to the other variables except for those listed above and the following, at the .32 or less level of significance:

Per capita expenditure for food

Age of homemaker

Presence of children age 0-9, 10-19

Per capita expenditure for fruits

Social score

Shopping attitudes oriented toward price.

Note that the families characterized by high per capita mg. of thiamin in the food purchased are also characterized by high per capita expenditures for vitamin and mineral supplements.

PER CAPITA EXPENDITURES FOR T. V. DINNERS

The value classes for this variable were examined with respect to the other variables only, and no significant relationships were found. The value classes were unrelated to the other variables at the .32 or less level except for shopping attitudes oriented toward price.

PER CAPITA EXPENDITURES FOR DAIRY PRODUCTS

In replying to the role-self questionnaire the homemakers in the class, low per capita expenditure for dairy products, gave more emphasis to (.05 level of significance):

Role	Self
Skill at baking.	Enjoyment of buying food
	Spending time planning meals.

The same class of homemakers gave less emphasis to (.05 level of significance):

Role	Self
Enjoyment of raising children.	Enjoyment of interest in husband's work.

It is difficult to derive a picture of this group from the above replies. The pattern above infers that the low expenditure group is that of the older homemaker without children, but this is not substantiated in the relationships to follow.

The class, low per capita expenditure for dairy products, was significantly associated with the following:

Low per capita expenditures for food

Low per capita mg. of thiamin in food purchased*

Low per capita expenditures for: vitamin supplements, fats and oils, fruit.

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*.01 level of significance.

There were no relationships between the value classes for this variable and the following variables at the .32 or less level of significance:

Age of homemaker

Education of homemaker

Number of meals served at home

Presence of children age 0-9, 10-19

Number of different items purchased

Percent of income spent for food

Per capita expenditures for: coffee, T.V. dinners

Conflict score

Social score

All shopping attitudes except those oriented toward: price, information-seeking.

There is a lack of a significant relationship between the value classes for this variable with those for per capita income and percent of income spent for food. There is, however, association of low per capita expenditure for food with low per capita expenditure for dairy products. This suggests low price and income elasticities for dairy products and that dairy products are a stable component of the diet in terms of expenditure levels. Note that there is a lack of relationship to age of homemaker and the presence of children of both age categories.

PER CAPITA EXPENDITURE FOR FATS AND OILS

This variable was examined only with respect to the other variables. The class, low per capita expenditure for fats and oils, was significantly related to the following:

Low per capita expenditure for food*

Low age of homemaker

Presence of children age 0-9

Per capita expenditure for: sugar, dairy products, fruits,* vegetables,* meats,* bakery products

Per capita mg. of thiamin in food purchased. *

Neither value class was related to the following variables at the .32 or less level of significance:

Education of homemaker

Number of meals served at home

Percent of different items purchased only once

Per capita expenditure for: coffee, vitamin supplements, T.V. dinners

Conflict score

Social score

All shopping attitudes except those oriented toward: price, husband, wife

Percent of income spent for food

Number of different items included in 50 percent of the food bill.

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* .01 level of significance.

This variable shows a stability toward measures of economic restriction on food purchases that is similar to that of dairy products. The low value class of this variable is associated with young home-makers with young children.

PER CAPITA EXPENDITURE FOR FRUITS

In replying to the role-self questionnaire the homemakers from the class, low per capita expenditure for fruit, gave more emphasis to (.05 level of significance):

Role	Self
Disciplining the children	Skill at canning
Enjoyment of sewing	Disciplining the children
Spending time cleaning house	Spending time with children

The same class of homemakers gave less emphasis to (.05 level of significance):

Role	Self
Mending clothes	Being calm
Being intelligent	Being self-controlled
Handling family finances.	Planning meals.

The pattern of replies above agrees with the relationships below indicating that the class, low per capita expenditure for fruits, to be under noticeable income restriction and to be the younger

homemaker with children. Seventy-one of the 118 families in the class, high per capita expenditure for fruits, were one or two person families. Only 23 families in the high value class had four or more persons.

When examined with respect to the other variables the class, low per capita expenditure for fruits, was significantly associated with:

Low per capita income*

Low per capita expenditure for food*

Low age of homemaker

Presence of children, 0-9, 10-19

Low per capita expenditure for: sugar,* dairy products, fats and oils, vegetables,* meats,* bakery products*

Low per capita dozen of eggs purchased

Low social score

Low shopping attitudes toward: quality, wife (dominant in shopping decisions)

High percent of income spent for food.

Neither value class for this variable was associated with the following variables at the .32 or less level of significance:

Education of homemaker

Number of meals served at home

Percent of different items purchased only once

_____

*.01 level of significance.

Per capita expenditures for: coffee, T.V. dinners

Conflict score

All shopping attitudes except those oriented toward quality, wife, husband

Number of different items purchased

Number of different items included in 50 percent of the food bill.

The above relationship to both per capita income and the expenditure for food indicates that the demand for fruit should display rather high income elasticity. It should be kept in mind, however, that this expenditure data and the lower income families could be purchasing at quantity discounts. The increased emphasis on canning in the self concept supports this. This is the only food class with a significant association with quality oriented shopping attitudes.

PER CAPITA EXPENDITURE FOR VEGETABLES

This variable was examined only with respect to the other variables. The low value class was associated with the other variables as follows:

Low per capita income

Low per capita expenditure for food*

Low age of homemaker

Presence of children age 0-9*

Low number of different items purchased

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*.01 level of significance.

Low number of different items included in 50 percent of the food bill

Low per capita expenditures for: sugar, fats and oils,* fruits,* meats,* bakery goods*

Low per capita mg. of thiamin in food purchased

Low value, wife oriented shopping attitudes.

Neither value class was associated with the following variables at the .32 or less level of significance:

Education of homemaker

Presence of children age 10-19

Percent of different items purchased only once

Expenditures for: coffee, T.V. dinners, vitamin supplements

Conflict score

All shopping attitudes except those oriented toward: quality, wife, husband.

Comparison of the relationships of this variable to those of per capita expenditure for fruit suggests that there is less relationship between this variable and income and that the effect of the older children age 10-19 is indicated as they make adult-type demands under the lesser economic restrictions of the older wage earner.

PER CAPITA EXPENDITURE FOR MEATS

This variable was examined only with respect to the other variables. The low value class was significantly associated with:

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*.01 level of significance.

Low per capita income*

Low per capita expenditure for food*

Presence of children*

Low per capita expenditure for: sugar,* fats and oils,* fruit,* vegetables,* bakery goods*

Low per capita dozen of eggs purchased*

Low mg. of thiamin in food purchased. *

Neither value class was associated with the following variables at the .32 or less level of significance:

Age, education of homemaker

Number of meals served at home

Presence of children age 10-19

Percent of income spent for food

Percent of items purchased only once

Number of different items included in 50 percent of the food bill

Per capita expenditures for: vitamin supplements, T. V. dinners

Conflict score

Social score

All shopping attitudes except those oriented toward price.

The per capita expenditure for meats was highly related to per capita income and per capita expenditure for food but not related to percent of income spent for food at the .32 or less level of significance or price oriented shopping attitudes at the .10 or less level of significance.

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*.01 level of significance.

PER CAPITA EXPENDITURE FOR BAKERY GOODS

This variable was examined only with respect to the other variables. The class, low per capita expenditure for bakery goods was significantly related to the following:

Low per capita expenditure for food*

Low number of meals served at home

Presence of children age 0-9

Low per capita expenditures for: sugar, fruits,* vegetables,* meats, fats and oils.

Neither value class for this variable was associated with the following variables at the .32 or less level of significance:

Per capita income

Age of homemaker

Percent of different items purchased only once

Number of different items purchased

Per capita expenditures for: coffee, vitamin supplements, T.V. dinners

Per capita dozens of eggs purchased

Conflict score

Social score

All shopping attitudes except those oriented toward price.

The per capita expenditure for bakery products was associated with per capita expenditure for food but not with per capita income.

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*.01 level of significance.

Sub-sorting the population into groups homogeneous with respect to per capita income, and per capita expenditure for food, the above relationship was found to be the reflection of the presence of a class of 47 families with high per capita expenditure for food, high per capita expenditure for bakery goods, low per capita income. The group, high per capita income, low per capita expenditure for food, high per capita expenditure for bakery goods, was nonexistent. The group, low per capita income, low per capita food expenditures, high per capita expenditures for bakery goods, contained 24 families. The largest group, 61 families, was characterized by joint membership in the low value classes for all three variables. The frequencies in these subgroups support the assertion that bakery goods figure substantially in the higher levels of expenditure for food by low income families. This is also an example of the use of subgroup analysis.

PER CAPITA MILLIGRAMS OF
THIAMIN IN FOOD PURCHASED

In replying to the role-self questionnaire the homemakers from the low value class gave more emphasis to (.05 level of significance):

Role	Self
(No significant differences.)	Disciplining the children
	Enjoyment of raising children
	Spending time with the children.

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The same low value class gave less emphasis to (.05 level of significance):

Role	Self
Mending clothes.	Running a quiet home
	Interest in husband's business.

The above pattern is typically that of the young homemaker with young children in the household.

The class, low per capita mg. of thiamin in food purchased, was significantly associated with the following:

Low per capita income

Low per capita expenditure for food*

Low age of homemaker*

Low number of meals served at home

Presence of children age 0-9*

Low per capita expenditure for: sugar, * vitamin supplements, dairy products, * fats and oils, * vegetables, * meats, * bakery goods*

Low per capita dozens of eggs purchased*

Low score with respect to attitudes implying wife dominance in shopping decisions

High education of homemaker.

Neither value class was associated with the following variables at the .32 or less level of significance:

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*.01 level of significance.

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Percent of different items purchased only once

Number of different items included in 50 percent of the food bill

Per capita expenditure for: T.V. dinners, fruit

All shopping attitudes except those oriented toward wife, husband.

These relationships indicate that the amount of thiamin purchased is highly related to the expenditure levels for a broad group of foods and food classes, per capita income, and the per capita expenditure for food. The low score with respect to wife oriented shopping attitudes is typical of the young housewife with young children. Since thiamin requirements vary as a function of body weight, activity, and calory intake, no inference can be made from this data with respect to deficiency.

CONFLICT SCORE

In replying to the role-self questionnaire, homemakers with low conflict scores gave more emphasis to (.05 level of significance):

Role	Self
Housekeeping	Serve a variety at meals
Skill at canning	Enjoy raising children
Spending time cleaning house.	Spending time with the children.

The homemakers with low conflict scores gave less emphasis to (.05 level of significance):

Role	Self
Helping in husband's job	Running a cozy home
Being ambitious	Spending time cleaning house.
Being charming.	

The above pattern resembles that of the housewife with young children in the home as is corroborated below.

The homemakers with low conflict scores were from families associated with:

Presence of children age 0-9

Low social score

High education of homemaker.

Neither value class was associated with the following variables at the .32 or less level of significance.

Per capita income

Per capita expenditure for food

Number of meals served at home

Presence of children age 10-19

Percent of different items purchased only once

Number of different items purchased

Per capita expenditure for all foods except: sugar, coffee

Percent of income spent for food

All shopping attitude variables

Per capita mg. of thiamin in food purchased.

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This variable is characterized by a lack of relationship with respect to the sample as a whole. Since there is a relationship between conflict score and the presence of young children in the household, when conflict score is used to test hypotheses, it will be tested within groups homogeneous with respect to the presence or absence of children, age 0-9.

SOCIAL SCORE

The derivation of this variable has been discussed. It is, in general, a measure of the extent to which the homemaker's interests extend outside the home or to people outside of the immediate family. In replying to the role-self questionnaire, homemakers with a low role score gave more emphasis to (.05 level of significance):

Role	Self
Disciplining the children	Running a comfortable home
Housekeeping	Disciplining the children
Being a companion to the children	Being calm
Enjoyment of raising children	Serving a variety at meals
Spending time cleaning house.	Skill at baking
	Enjoyment of buying food
	Enjoyment of raising children
	Spending time with the children.

The homemakers with low role scores gave less emphasis to (.05 level of significance):

Role	Self
Helping husband's career	Running a quiet home
Helping on husband's job	Being informed on new ideas
Keeping social responsibilities	Socializing with the neighbors
Skill at canning	Interest in husband's work
Enjoyment of budgeting finances	Earning additional family income.
Helping husband on job.	

This pattern indicates that those homemakers with low role scores stay at home, care for the children, and keep house. The homemakers with high role scores are occupied away from home, primarily with income earning activities, and with social responsibilities.

The class, low role score, was significantly associated with the following:

Presence of children age 0-9

Low percent of different items purchased only once

Low per capita expenditure for fruit

Low conflict score.

Neither value class was associated with the following variables at the .32 or less level of significance:

Per capita expenditure for food

Education of homemakers

Number of meals served at home

Presence of children age 10-19

Per capita expenditure for: coffee, sugar, T.V. dinners, dairy products

Per capita dozens of eggs purchased.

From these relationships one can only infer that the presence of younger children in the household hinders social and income earning activities by the homemaker. There is no significant relationship to the number of meals served at home. Using the implied relationship to high role score, it was observed that high per capita expenditure for fruit and high percent of total items purchased only once are associated with homemakers who have high role scores.

PRICE ORIENTED SHOPPING ATTITUDES

In replying to the role-self questionnaire the homemakers with low scores with respect to price oriented shopping attitudes gave more emphasis to being friendly in the role concept and less emphasis to skill at canning in the self concept (.05 level of significance).

There was a significant association between the low value class for price oriented shopping attitudes and the low value class for convenience oriented shopping attitudes.

Neither value class for price oriented shopping attitudes was associated with the following variables at the .32 or less level of significance:

Per capita income

Age of homemaker

Number of meals served at home

Presence of children age 0-9, 10-19

Per capita mg. of thiamin in food purchased

Per capita expenditures for: sugar, fruit

Per capita dozens of eggs purchased

Conflict score

Social score

Number of different items purchased

Percent of income spent for food

Number of different items included in 50 percent of the food bill

All shopping attitudes except those oriented toward preplanning.

This variable and the variable, convenience oriented shopping attitudes, are included in the subgroup analysis. Upon viewing the questions from which the values for these variables are derived, it will be seen that the general tenor of the questions implies a fair degree of decision-making. Differences between high and low value classes for this variable are assumed to indicate differences in willingness to make decisions.

CONVENIENCE ORIENTED SHOPPING ATTITUDES

In replying to the role-self questionnaire, homemakers in the low value class gave more emphasis to (.05 level of significance):

Role	Self
Skill at baking	Running a quiet home
Skill at canning.	Enjoyment of shopping for food.

The same class of homemakers gave less emphasis to
(.05 level of significance):

Role	Self
Budgeting family finances.	Socializing with the neighbors.

There was a significant association between the low value
class for this variable and:

Low value, shopping attitudes oriented toward: preplanning,
information-seeking, calculation, other (people), wife.

Neither value class for this variable was associated with
the following variables at the .32 or less level of significance:

Per capita income

Per capita expenditure for food

Age, education of homemaker

Number of meals served at home

Presence of children, age 0-9, 10-19

Percent of different items purchased only once

Number of different items purchased

Percent of income spent for food

Number of different items included in 50 percent of the food bill

Per capita expenditures for all food classes except: coffee, vitamin
supplements

Per capita dozens of eggs purchased

Conflict score

Role score.

Using the implied statement about the high value class for this variable, it was found that homemakers who were highly oriented toward convenience in their shopping attitudes were also highly oriented toward preplanning, information-seeking and calculation. There is no significant relationship to the socio-economic variables.

The remaining shopping attitude variables will not be listed separately and were not examined with respect to the role-self questionnaire. It was found in general that preplanning, information-seeking, and calculation oriented shopping attitudes were interrelated with each other as were the questions from which they were derived.

CHAPTER III

SUBGROUP ANALYSIS

This chapter focuses on certain well-defined subgroups within the sample of 211 families investigated in the previous chapter. Significant relationships were sought between specified variables within subgroups that were homogeneous with respect to several socioeconomic variables.

The preceeding results of examining all possible pairs of variables for significant relationships, indicated that per capita income, age of homemaker, per capita expenditure for food, percent of income spent for food, and the presence of children age 0-9, are highly interrelated. In addition it was noted that the conflict score was related to the presence of children 0-9. In the subgroup analysis to follow, conflict score and per capita milligrams of thiamin in the food purchased are examined rather closely. To isolate the relationship between these and other variables from the simultaneous intercorrelation between socio-economic variables, subgroups were formed which were homogeneous with respect to these interrelated socio-economic variables.

The procedure used was to sort the families with respect to the socio-economic variables to be held constant and discard those subgroups containing fewer than 10 families. The following pairs of relationships were then examined:

Conflict score in relation to:

    Percent of different items purchased only once

    Number of items included in 50 percent of the food bill

    Convenience oriented shopping attitudes

    Price oriented shopping attitudes

    Per capita dozens of eggs purchased

    Per capita expenditures for: sugar, fruit, dairy products.

Per capita mg. of thiamin in food purchased in relation to:

    Percent of items purchased only once

    Number of different items included in 50 percent of the food bill

    Conflict score

    Convenience oriented shopping attitudes

    Price oriented shopping attitudes.

Two kinds of tests for relationships in the subgroup analysis are reported. The first is for the pairs of relationships above. The second is a report for differences in the values of the variables listed above between two subgroups that differ by only one socio-economic variable.

To phrase this differently, conflict score and the level of thiamin purchased were examined within the subgroups. These variables and the others listed above were observed in relation to socio-economic differences between subgroups.

The following specific hypotheses derived from the initial questions in this thesis were tested:

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1.   There are significant relationships between conflict score

and (a) shopping behavior variables, (b) attitudes toward shopping, and (c)

per capita expenditures for specific food classes.

2.   There are significant relationships between the level of

thiamin intake and (a) conflict score, (b) shopping attitudes, and (c) shopping

behavior variables.

The relationships sought in observing differences between

groups that differed only with respect to one socio-economic variable,

are important to demand analysis and in relating the thesis to economic

theory. Specifically the differences in per capita expenditure levels

will be noted between groups that differed with respect to one of the

socio-economic variables for which each subgroup is homogeneous. In

this manner the expenditure levels for dairy products, fruit, sugar, and

the quantity of eggs purchased may be associated with the value classes

for per capita income, age of homemaker, per capita expenditure for

food, or the presence of children age 0-9. Significance was established

by means of the chi-square test, with 1 degree of freedom.

RELATIONSHIPS WITHIN SUBGROUPS

In the group, low per capita income, high age of homemaker,

high per capita expenditure for food, no children age 0-9 (30 families):

Low conflict was associated with high convenience oriented shopping
attitudes (.10 level of significance).

Low per capita mg. of thiamin in food purchased was associated
with high convenience oriented shopping attitudes (.05 level of
significance).

In the group, high per capita income, low age of homemaker,

high per capita expenditure for food, no children age 0-9 (16 families):

    Low conflict score was associated with low number of different
    items included in 50 percent of the food bill (.10 level of
    significance).

In the group, low per capita income, high age of homemaker,

high per capita expenditure for food, no children age 0-9, with the added

restriction to families of size 1.5-2.5 average persons (18 families):

    Low conflict score was associated with high convenience oriented
    shopping attitudes (.10 level of significance).

    Low per capita mg. of thiamin in food purchased was associated
    with low conflict score (.10 level of significance).

In the group, high age of homemaker, high per capita

expenditure for food, low percent of income spent for food, no children

age 0-9 (37 families):

    Low per capita mg. of thiamin in the food purchased was associated
    with low price oriented shopping attitudes (.05 level of significance).

RESULTS OF ANALYSIS OF SUBGROUPS WITH RESPECT TO SOCIO-ECONOMIC VARIABLES

Within the group low per capita income, low age of homemaker,

children present age 0-9 (58 families):

Low per capita expenditure for food was associated with:

    Low per capita dozens of eggs purchased*

    Low per capita expenditure for dairy products*

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    *.01 level of significance.

Low per capita expenditure for sugar and confections**

Low per capita expenditure for fruit (.05 level of significance).

Within group, low per capita income, high age of homemaker, no children age 0-9 (59 families): Low per capita expenditure for food was associated with:

High percent of items purchased only once**

Low per capita expenditure for fruit.**

Within group, high age of homemaker, high per capita expenditure for food, no children age 0-9 (67 families): Low per capita income was associated with:

Low percent of different items purchased only once (.10 level of significance).

Within group, high per capita income, high per capita expenditure for food, no children 0-9 (53 families): Low age of homemaker was associated with:

High convenience oriented shopping attitudes.*

Within group, low per capita income, high age of homemaker, no children age 0-9, size of family, 1.5-2.5 average persons (38 families): Low per capita expenditure for food was associated with:

High number of items purchased only once (.05 level of significance)

Low per capita expenditure for fruit.**

Within group, high age of homemaker, high per capita expenditure for food, no children age 0-9, size of family 1.5-2.5

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*.01 level of significance.

**.001 level of significance.

average persons (39 families): Low per capita income was associated

with:

High conflict score (. 02 level of significance).

Between groups homogeneous with respect to high per capita

income, high age of homemaker, high per capita expenditure for food,

no children age 0-9, but differing with respect to family size, less than

1. 5 average persons vs. 1. 5-2. 5 average persons, the smaller size of

family was associated with the high conflict score. *

Within group, low age of homemaker, low percent of income

spent for food, low per capita expenditure for food (42 families): The

presence of children age 0-9 was associated with:

Low per capita expenditure for fruits (. 10 level of significance)

Low conflict score (. 10 level of significance).

Within group, low age of homemaker, low percent of income

spent for food, no children age 0-9 (35 families): Low per capita

expenditure for food was associated with:

Low per capita expenditure for sugar and confections. *

Within group, low age of homemaker, high percent of income

spent for food, children age 0-9 present (31 families): Low per capita

expenditure for food was associated with:

Low per capita expenditure for dairy products (. 02 level of
  significance)

Low per capita expenditure for sugar and confections. **

---

    *. 01 level of significance.
    **. 001 level of significance.

Within group, high age of homemaker, low percent of income spent for food, no children age 0-9 (54 families): Low per capita expenditure for food was associated with:

Low per capita expenditures for dairy products**

Low per capita expenditure for sugar (.10 level of significance)

Low per capita expenditure for fruits.**

Within group, high age of homemaker, high percent of income spent for food, no children age 0-9 (44 families): Low per capita expenditure for food was associated with:

High percent of items purchased only once*

Low per capita dozens of eggs purchased*

Low per capita expenditures for dairy products (.05 level of significance)

Low per capita expenditure for fruits.**

Within group, high age of homemaker, high per capita expenditure for food, no children age 0-9 (67 families): Low percent of income spent for food was associated with:

High percent of different items purchased only once. *

These relationships in the sections dealing with both the analysis within groups with respect to conflict score, and the level of thiamin intake, and between socio-economic subgroups is a list of all relationships existent for the given set of variables and groups of size more than 10 families at the .10 or less level of significance.

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* .01 level of significance.

* .001 level of significance.

SUMMARY OF FINDINGS

1.   Per capita expenditure for food was widely and significantly related to the food expenditure variables as would be anticipated.

2.   High percent of items purchased only once was associated with:

Low per capita expenditure for food (in 3 groups)

High per capita income

Low percent of income spent for food.

The relationship of high percent of items purchased only once to low per capita expenditure for food is in contradiction to the observations in the analysis of the whole sample. It will be noticed, however, that this was observed in groups in which the age of home-maker was high and the per capita income low, or percent of income spent for food was high. It may well be that for this subgroup of older homemakers, a high percent of items purchased only once, is a reflection of price sensitivity and "close shopping."

3.   Low conflict score was associated with:

Low number of different items included in 50 percent of the food bill

High convenience orientation

Low mg. of thiamin in food purchased

High per capita income

Two person rather than single person families

Presence of children age 0-9.

Hypotheses (p. 8 2),   1 (a), 1 (b), and 2 (a) are supported.

There is no support for the hypothesis that conflict score is related

to level of expenditure for specific foods or food classes.

4.   Low per capita mg. of thiamin in food purchased was related to:

High convenience orientation

Low conflict score

Low price orientation.

Hypotheses (p. 82) 2 (a) and 2 (b) are supported. No

relationship was found between level of thiamin in food purchased and

shopping behavior variables.

5.   High convenience orientation in shopping attitudes was

related to:

Low conflict score

Low mg. of thiamin in food purchased

Low age of homemaker.

6.   High price orientation was related to:

High per capita mg. of thiamin in food purchased.

The above complex of relationships runs contrary to a line

of reasoning that asserts that high conflict score is indicative of a

condition such that there is reluctance to make decisions or that it is

associated with the lower thiamin levels. An inference that does bring

the whole complex of relationships into a consistent framework is the

assertion that high role conflict is an active decision state or that low

role conflict is the result of a state such that a person is highly

convenience oriented, shows a low orientation toward price calculation, includes only a low number of items in 50 percent of the food bill, is on a lower level of thiamin intake, under income restriction, and pushed for time with young children in the home. This scheme is highly conjectural but at least consistent.

CHAPTER IV

SUMMARY AND CONCLUSIONS

The problem area was initially stated in the form of the question: Does a relationship exist among, (a) observed purchasing behavior, (b) verbalized shopping attitudes, (c) role and self perceptions of the homemaker, (d) socio-economic characteristics of the family, and (e) expenditures for quantities of foods or food classes purchased? Examples of relationships of all possible pairs of the above were found at levels of .10 or less significance. It was possible to relate specific answers of the role-self questionnaire to specific characteristics of families. These patterns of significant replies form profiles of the families in each food expenditure class, and those families exhibiting particular patterns of food purchasing behavior and attitudes toward purchasing food.

In the subgroup analysis two hypotheses were formed from the assertions made in Chapter I.

1. Conflict score is significantly related to: (a) shopping behavior, (b) attitudes toward shopping, and (c) per capita expenditures for specific food classes.

2. Per capita of thiamin in the food purchased is significantly related to: (a) conflict score, (b) shopping attitude, (c) shopping behavior.

Hypotheses 1, (a), (b) and 2, (a), (b), were supported. Hypotheses 1 (c), and 2 (c) were not supported at the .10 level of significance.

The relationship between the analyses conducted in this thesis and the general investigation of the nature of the consumers of food is plain. The decision-energy concept is more subtle but no less important. The equimarginal or indifference approaches to the explanation of consumer behavior assert that the consumer will respond to small changes in information received concerning proposed allocation of personal resources. If there is a limit to the capacity to evaluate incoming information, or a refusal to deal with incoming information, conscious or unconscious, the failure to respond results in what is normally termed irrational behavior. If the feelings of well-being affect the willingness to assess incoming information concerning food, and this feeling of well-being is a function of the nutritional content of the food, a circular relationship results. This may or may not constitute an area for fruitful investigation, by home economists. Apart from this, however, the investigation of habit and partial use of information in decision-making should be fruitful in forming more realistic decision models.

An important point to be made in the light of the preceeding study is that the life cycle generates distinct types of families. The sorting procedures used in this study, when carried to formation of subgroups homogeneous with respect to 4 variables, typically yielded

5 or 6 groups of size, 10 families or more, and the remaining 9 or

10 possible subgroups either were nonexistent or had few families

in them. Sorting to 2 or 3 additional variables generally eliminated

all but 2 groups of sufficient size within the sample of 211 families to

yield meaningful data. It can be observed that analyses that combine

groups of families from divergent periods in the life cycle can be

misleading. The case of the cancellation of attitudes between younger

and older homemakers within a given income class was discussed.

The recommendation is that panels designed to evaluate consumer

attitudes or psychological relationships should either be very large

or confined to a few well-defined groups of families; the families in

each group being very similar with respect to a large number of socio-

economic characteristics.

There is a comment to be made concerning the binary

aggregation system used in this study. The statement can be made

that such a bivalued system describes a family in terms that say that

it is, or is not, a member of a class of families of given characteristics.

Each family is an individual unit and is recognized as such and the

aggregation process deletes those characteristics which are estimated

to have no bearing on the relationship under investigation. The bi-

valued system used in this study is an effective technique for checking

which characteristics are in fact not related to the investigation. It

is an effective device for handling nonquantifiable variables since

assignment of value requires only consistent identification. The technique is limited in usefulness as a precise prediction device.

Looking forward, the next step in investigation of the decision energy concept is the drawing together of information that has been developed within several disciplines. The idea of decision energy lies close to the attention-getting and holding that preoccupy both the education and advertising world. There is work in existence relating to habits. There are some data existent in panels that probe the interpretation of consumer grades by consumers, that, although designed for other purposes, yield good information, obtained under closely controlled conditions. There is a body of information theory that can be brought to bear on the problem.

It is obvious that the line between such investigation and the disciplines of psychology, communications, and political science are not well-defined, indicating that the implications and applications of such study are broad. Within economics the applications are not confined to management of personal resources but are of relevance to the management aspects of production and marketing, and the communications aspects of policy and extension activities.

APPENDIX

DECISION-MAKING SCALE BY CATEGORY

Price oriented: One who bases his food purchase decisions primarily on the cost of the item, irrespective of the time needed for preparation, the taste of the item, or a pre-established habit of food eating.

30.   I read the newspapers to find which food stores are having specials and I shop at those stores which are having an attractive offer.

    41%   (1) a. Rarely or almost never true
    12%   (2) b. Sometimes but infrequently true
    20%   (3) c. Occasionally true
    12%   (4) d. Very often true
    15%   (5) e. True most of the time

31.   I follow the prices of foods very closely. I know when the basic foods have either increased or decreased even by only a few cents.

    16%   (1) a. Rarely or almost never true
     9%   (2) b. Sometimes but infrequently true
    11%   (3) c. Occasionally true
    24%   (4) d. Very often true
    40%   (5) e. True most of the time

39.   Often before I buy a certain brand of food item, I compare the various sizes to determine the actual cost per ounce of each size.

    28%   (1) a. Rarely or almost never true
    10%   (2) b. Sometimes but infrequently true
    19%   (3) c. Occasionally true
    22%   (4) d. Very often true
    21%   (5) e. True most of the time

27.   Before I go to the store I figure which foods I can buy that will cost the least amount of money.

    22%   (1) a. Rarely or almost never true
    15%   (2) b. Sometimes but infrequently true
    21%   (3) c. Occasionally true
    20%   (4) d. Very often true
    22%   (5) e. True most of the time

9.   I buy something else when the price of a food item I usually buy goes up.

18%   (1) a. Rarely or almost never true
15%   (2) b. Sometimes but infrequently true
22%   (3) c. Occasionally true
23%   (4) d. Very often true
22%   (5) e. True most of the time

Quality oriented: One who bases his food purchase decisions primarily on the appearance, flavorfulness, healthfulness, and kinesthetic qualities of the items considered regardless of cost, or facility of preparation.

1.   In buying foods I figure the amount of calories and nutrients they contain.

44%   (1) a. Rarely or almost never true
12%   (2) b. Sometimes but infrequently true
16%   (3) c. Occasionally true
14%   (4) d. Very often true
14%   (5) e. True most of the time

3.   The food decisions I make before going to the store are based primarily on the flavorfulness and healthfulness of the food.

13%   (1) a. Rarely or almost never
 9%   (2) b. Sometimes but infrequently true
16%   (3) c. Occasionally true
26%   (4) d. Very often true
36%   (5) e. True most of the time

7.   I listen to the information services offered on the radio to find out which foods are good and nutritious.

46%   (1) a. Rarely or almost never
14%   (2) b. Sometimes but infrequently true
19%   (3) c. Occasionally true
12%   (4) d. Very often true
 9%   (5) e. True most of the time

10.   I can tell very quickly when the flavor, freshness, or appearance of food that I have been buying regularly changes.

 5%   (1) a. Rarely or almost never
 6%   (2) b. Sometimes but infrequently true
12%   (3) c. Occasionally true
31%   (4) d. Very often true
46%   (5) e. True most of the time

32.   When I buy food, I buy the very best quality no matter what the price.

     22%   (1) a. Rarely or almost never true
     22%   (2) b. Sometimes but infrequently true
     23%   (3) c. Occasionally true
     18%   (4) d. Very often true
     15%   (5) e. True most of the time

Convenience oriented: One who bases his food purchase decisions primarily on the time and facility of preparation regardless of the cost or quality of the item.

8.   I look in the food pages of the newspapers for food items that can be quickly and easily prepared.

     37%   (1) a. Rarely or almost never true
     15%   (2) b. Sometimes but infrequently true
     22%   (3) c. Occasionally true
     14%   (4) d. Very often true
     12%   (5) e. True most of the time

24.   I compare instructions on various food packages so that I can calculate which food will be easiest and quickest to prepare.

     35%   (1) a. Rarely or almost never true
     16%   (2) b. Sometimes but infrequently true
     23%   (3) c. Occasionally true
     15%   (4) d. Very often true
     11%   (5) e. True most of the time

28.   I figure out in advance before going to the store foods and meals that can be quickly and easily prepared.

     28%   (1) a. Rarely or almost never true
     13%   (2) b. Sometimes but infrequently true
     35%   (3) c. Occasionally true
     16%   (4) d. Very often true
      8%   (5) e. True most of the time

35.   I like to spend as little time as possible preparing meals, that is why I buy the good, frozen, ready-made dishes that can be prepared quickly.

     59%   (1) a. Rarely or almost never true
     17%   (2) b. Sometimes but infrequently true
     16%   (3) c. Occasionally true
      6%   (4) d. Very often true
      2%   (5) e. True most of the time

Repla
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A. 1

B. E

C. 1

E

36.   I seldom spend more than 30 minutes in preparing the day's largest meal.

      51%   (1) a. Rarely or almost never true
      21%   (2) b. Sometimes but infrequently true
      12%   (3) c. Occasionally true
       9%   (4) d. Very often true
       7%   (5) e. True most of the time

Preplanning oriented: One who, prior to reaching the site of purchase, knows what foods he is going to purchase and how and when such foods will be used.

3.   The food decisions I make before going to the store are based primarily on the flavorfulness and healthfulness of the food.

      13%   (1) a. Rarely or almost never true
       9%   (2) b. Sometimes but infrequently true
      16%   (3) c. Occasionally true
      26%   (4) d. Very often true
      36%   (5) e. True most of the time

6.   Before I go to the market I make out a complete grocery list.

      22%   (1) a. Rarely or almost never
       6%   (2) b. Sometimes but infrequently true
      12%   (3) c. Occasionally true
      13%   (4) d. Very often true
      47%   (5) e. True most of the time

23.   I plan my menu, meal for meal, a couple of days in advance.

      32%   (1) a. Rarely or almost never true
      16%   (2) b. Sometimes but infrequently true
      16%   (3) c. Occasionally true
      12%   (4) d. Very often true
      24%   (5) e. True most of the time

27.   Before I go to the store I figure which foods I can buy that will cost the least amount of money.

      22%   (1) a. Rarely or almost never true
      15%   (2) b. Sometimes but infrequently true
      21%   (3) c. Occasionally true
      20%   (4) d. Very often true
      22%   (5) e. True most of the time

28. I figure out in advance before going to the store foods and meals that can be quickly and easily prepared.

    28%   (1) a. Rarely or almost never true
    13%   (2) b. Sometimes but infrequently true
    35%   (3) c. Occasionally true
    16%   (4) d. Very often true
     8%   (5) e. True most of the time

Information-seeking oriented: One who actively and purposefully seeks facts from various agencies and services pertaining to price, quality, or convenience of various food items.

7. I listen to the information services offered on the radio to find out which foods are good and nutritious.

    46%   (1) a. Rarely or almost never true
    14%   (2) b. Sometimes but infrequently true
    19%   (3) c. Occasionally true
    12%   (4) d. Very often true
     9%   (5) e. True most of the time

8. I look in the food pages of the newspapers for food items that can be quickly and easily prepared.

    37%   (1) a. Rarely or almost never true
    15%   (2) b. Sometimes but infrequently true
    22%   (3) c. Occasionally true
    14%   (4) d. Very often true
    12%   (5) e. True most of the time

13. I read many magazine articles concerning foods and meals.

    18%   (1) a. Rarely or almost never true
    11%   (2) b. Sometimes but infrequently true
    19%   (3) c. Occasionally true
    28%   (4) d. Very often true
    24%   (5) e. True most of the time

29. I read Consumer's Union, Consumer's Research, Changing Times, government publications or consumer's service publications to get ideas on buying foods.
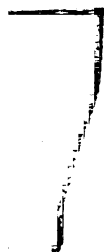
    71%   (1) a. Rarely or almost never true
    11%   (2) b. Sometimes but infrequently true
    10%   (3) c. Occasionally true
     4%   (4) d. Very often true
     4%   (5) e. True most of the time

30.   I read the newspapers to find which food stores are having specials
      and I shop at those stores which are having an attractive offer.

      41%   (1) a. Rarely or almost never true
      12%   (2) b. Sometimes but infrequently true
      20%   (3) c. Occasionally true
      12%   (4) d. Very often true
      15%   (5) e. True most of the time

Calculation oriented: One who carefully weighs and measures all the
information that he has in order to aid him in making a food purchase decision.

 1.   In buying foods I figure the amount of calories and nutrients they
      contain.

      44%   (1) a. Rarely or almost never true
      12%   (2) b. Sometimes but infrequently true
      16%   (3) c. Occasionally true
      14%   (4) d. Very often true
      14%   (5) e. True most of the time .

17.   When I go food shopping I take time and use a pencil and paper or
      some other device to aid in figuring.

      69%   (1) a. Rarely or almost never true
       8%   (2) b. Sometimes but infrequently true
       9%   (3) c. Occasionally true
       4%   (d) d. Very often true
      10%   (5) e. True most of the time

24.   I compare instructions on various food packages so that I can
      calculate which food will be easiest and quickest to prepare.

      35%   (1) a. Rarely or almost never true
      16%   (2) b. Sometimes but infrequently true
      23%   (3) c. Occasionally true
      15%   (4) d. Very often true
      11%   (5) e. True most of the time

26.   The meat that I decide to buy is often determined by the number of
      servings and meals which I have figured it will supply.

      12%   (1) a. Rarely or almost never true
       5%   (2) b. Sometimes but infrequently true
      10%   (3) c. Occasionally true
      33%   (4) d. Very often true
      40%   (5) e. True most of the time

39.   Often before I buy a certain brand of food item, I compare the various sizes to determine the actual cost per ounce for each size.

    28%   (1) a. Rarely or almost never true
    10%   (2) b. Sometimes but infrequently true
    19%   (3) c. Occasionally true
    22%   (4) d. Very often true
    21%   (5) e. True most of the time

Other oriented: One whose food purchase decisions, practices, and philosophies are influenced by neighbors, friends or associates.

2.   I have received some excellent ideas about food buying from our friends.

    42%   (1) a. Rarely or almost never true
    20%   (2) b. Sometimes but infrequently true
    19%   (3) c. Occasionally true
    15%   (4) d. Very often true
     4%   (5) e. True most of the time

15.   The meals that we eat are very similar to the meals that our friends eat.

    30%   (1) a. Rarely or almost never true
    15%   (2) b. Sometimes but infrequently true
    25%   (3) c. Occasionally true
    21%   (4) d. Very often true
     9%   (5) e. True most of the time

18.   I pretty well know what my friends like or dislike.

    20%   (1) a. Rarely or almost never true
    14%   (2) b. Sometimes but infrequently true
    15%   (3) c. Occasionally true
    26%   (4) d. Very often true
    25%   (5) e. True most of the time

14.   Conversations with my friends have changed some of my food buying habits.

    45%   (1) a. Rarely or almost never true
    18%   (2) b. Sometimes but infrequently true
    25%   (3) c. Occasionally true
     9%   (4) d. Very often true
     3%   (5) e. True most of the time

34.   My friends and I discuss menus, meals, and foods with each other.

     18%   (1) a. Rarely or almost never true
     18%   (2) b. Sometimes but infrequently true
     32%   (3) c. Occasionally true
     23%   (4) d. Very often true
      9%   (5) e. True most of the time

Parent oriented: One whose food purchase decisions, practices, and philosophies are influenced by his or his spouse's parents.

5.   My parents have given my many recipes and/or other ideas on food buying.

     43%   (1) a. Rarely or almost never true
     14%   (2) b. Sometimes but infrequently true
     16%   (3) c. Occasionally true
     15%   (4) d. Very often true
     12%   (5) e. True most of the time

12.   My spouse's parents have given me many recipes and/or other ideas on food buying.

     63%   (1) a. Rarely or almost never true
      9%   (2) b. Sometimes but infrequently true
     13%   (3) c. Occasionally true
     10%   (4) d. Very often true
      5%   (5) e. True most of the time

19.   The meals that my family eats are very similar to the meals that my spouse's parents eat or ate.

     45%   (1) a. Rarely or almost never true
     17%   (2) b. Sometimes but infrequently true
     16%   (3) c. Occasionally true
     12%   (4) d. Very often true
     10%   (5) e. True most of the time

25.   The meals that my family eats are very similar to the meals that my parents eat or ate.

     27%   (1) a. Rarely or almost never true
     15%   (2) b. Sometimes but infrequently true
     25%   (3) c. Occasionally true
     19%   (4) d. Very often true
     14%   (5) e. True most of the time

33. The size of the meals and the kinds of food that we eat are entirely different from those of our parents.

    30%   (1) a. Rarely or almost never true
    14%   (2) b. Sometimes but infrequently true
    28%   (3) c. Occasionally true
    13%   (4) d. Very often true
    15%   (5) e. True most of the time

Dominance: One who makes the decisions on where to shop, what to buy, and how much money to spend for food.

Wife

22. In our home, I am the boss of the kitchen and how much and what foods are purchased is my concern.

    14%   (1) a. Rarely or almost never true
     4%   (2) b. Sometimes but infrequently true
    10%   (3) c. Occasionally true
    16%   (4) d. Very often true
    56%   (5) e. True most of the time

37. I decide how much money our family can or will spend for food.

    30%   (1) a. Rarely or almost never true
     5%   (2) b. Sometimes but infrequently true
     9%   (3) c. Occasionally true
    15%   (4) d. Very often true
    41%   (5) e. True most of the time

38. My husband wants nothing to do with the food buying or deciding what to eat.

    40%   (1) a. Rarely or almost never true
    12%   (2) b. Sometimes but infrequently true
    14%   (3) c. Occasionally true
    10%   (4) d. Very often true
    24%   (5) e. True most of the time

Husband

4. My husband is the business man in this family. I let him work out the budget and amount we have available for food.

61%   (1) a. Rarely or almost never true
6%   (2) b. Sometimes but infrequently true
7%   (3) c. Occasionally true
8%   (4) d. Very often true
18%   (5) e. True most of the time

16.   My husband tells me how much money can be spent for food.

71%   (1) a. Rarely or almost never true
7%   (2) b. Sometimes but infrequently true
7%   (3) c. Occasionally true
4%   (4) d. Very often true
11%   (5) e. True most of the time

20.   My husband tells me what I should buy at the store.

78%   (1) a. Rarely or almost never true
8%   (2) b. Sometimes but infrequently true
10%   (3) c. Occasionally true
3%   (4) d. Very often true
1%   (5) e. True most of the time

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Pane. No._____

PART I

. The following is a list of 39 statements about food buying. After each question are the numbers from 1 to 5. Please indicate the degree to which the statement applies to you and your family by circling the number according to the following:

> 1 - means rarely or never true
>
> 2 - means sometimes but not often true
>
> 3 - means occasionally true
>
> 4 - means very often true
>
> 5 - means true most of the time

1. In buying foods I figure the amount of calories and nutrients they contain.
    1 2 3 4 5

2. I have received some excellent ideas about food buying from our friends.
    1 2 3 4 5

3. The food decisions I make before going to the store are based primarily on the flavorfulness and healthfulness of the food.   1 2 3 4 5

4. My husband is the business man in this family, I let him work out the budget and amount we have available for foods.   1 2 3 4 5

5. My parents have given me many receipes and/or ideas on food buying.
    1 2 3 4 5

6. Before I go to the market I make out a complete grocery list.
    1 2 3 4 5

7. I listen to the information services offered on the radio to find out which foods are good and nutritious.   1 2 3 4 5

8. I look in the food pages of the newspapers for food items that can be quickly and easily prepared.   1 2 3 4 5

9. I buy something else when the price of a food item I usually buy goes up.
    1 2 3 4 5

10. I can tell very quickly when the flavor, freshness, or appearance of a good food that I have been buying regularly changes.   1 2 3 4 5

11. My spouse's parents have given me many receipes and/or ideas on food buying.
    1 2 3 4 5

12. I read many magazine articles concerning foods and meals.   1 2 3 4 5

13. Conversations with my friends have changed some of my food buying habits.
    1 2 3 4 5

14. The meals that we eat are very similar to the meals that our friends eat.
    1 2 3 4 5

1 - means rarely or never true
2 - means sometimes but not often true
3 - means occasionally true
4 - means very often true
5 - means true most of the time

15. My husband tells me how much money can be spent for food.　1　2　3　4　5

16. When I go food shopping I take and use a pencil and paper or some other device to aid in figuring.　1　2　3　4　5

17. I pretty well know what foods my friends like or dislike.　1　2　3　4　5

18. The meals that my family eats are very similar to the meals that my spouse's parents eat or ate.　1　2　3　4　5

19. My husband tells me what I should buy at the store.　1　2　3　4　5

20. In our home, I am the boss of the kitchen and how much and what foods are purchased is my concern.　1　2　3　4　5

21. I plan my menu, meal for meal, a couple of days in advance.　1　2　3　4　5

22. I compare instructions on various food packages so that I can calculate which food will be easiest and quickest to prepare.　1　2　3　4　5

23. The meals that my family eats are very similar to the meals that my parents eat or ate.　1　2　3　4　5

24. The meat that I decide to buy is often determined by the number of servings and meals which I have figured it will supply.　1　2　3　4　5

25. Before I go to the store I figure which foods I can buy that will cost the least amount of money.　1　2　3　4　5

26. I figure out in advance before going to the store foods and meals that can be quickly and easily prepared.　1　2　3　4　5

27. I read Consumers Union, Consumers Research, Changing Times, government publications, or consumer service publications to get ideas on buying foods.　1　2　3　4　5

28. I read the newspapers to find which food stores are having specials and I shop at those stores which are having an attractive offer.　1　2　3　4　5

29. I follow the prices of foods very closely. I know when the basic foods have either increased or decreased even by only a few cents.　1　2　3　4　5

30. When I buy food, I buy the very best quality no matter what the price.　1　2　3　4　5

31. The size of the meals and the kinds of foods that we eat are entirely different from those of our parents.　1　2　3　4　5

1 - means rarely or never true

2 - means sometimes but not often true

3 - means occasionally true

4 - means very often true

5 - means true most of the time

32. My friends and I discuss menus, meals and foods with each other.

1 2 3 4 5

33. I like to spend as little time as possible preparing meals, that is why I buy the good, frozen, ready-made dishes that can be prepared quickly.

1 2 3 4 5

34. I seldom spend more than 30 minutes in preparing the days largest meal.

1 2 3 4 5

35. I decide how much our family can or will spend for food.   1 2 3 4 5

36. My husband wants nothing to do with the food buying or deciding what to eat.

1 2 3 4 5

37. Often before I buy a certain brand of food item, I compare the various sizes to determine the actual cost per ounce for each size.   1 2 3 4 5

PART II

Instructions: Following are lists of adjectives or phrases describing
behaviors and characteristics of a homemaker. From each
group of words or phrases we would like you to select
the most important four which picture how you feel a
homemaker under economic circumstances similar to
your own should behave.

I   What kind of a home should the homemaker run? Pick 4

___ cheerful   ___ cozy
___ relaxed   ___ efficient
___ clean   ___ fashionable
___ modern   ___ comfortable
___ orderly   ___ quiet

II. What should be the most important duties to the homemaker? Pick 4

___ mending of clothes   ___ being a companion to the husband
___ helping her husband's career ___ cooking
___ dish washing   ___ buying of clothes
___ entertaining   ___ meal planning
___ disciplining the children   ___ housekeeping

III. Which of the following characteristics would be most desirable in a
homemaker? Pick 4

___ good-natured   ___ progressive
___ kind   ___ planful
___ intelligent   ___ ingenious
___ modest   ___ self-controlled
___ practical   ___ thrifty

IV. Which of the following activities should the homemaker consider to be the
most important? Pick 4

___ a helper in her husband's job
___ an earner of outside income to help support the family
___ a keeper of the family social responsibilities
___ an organizer of the household
___ a painter, decorator, and beautifier of the home
___ an entertainer of friends and associates
___ a sexual companion to her husband
___ an establisher of a comfortable home
___ a handler of the family finances
___ a companion to her children

V. Which of the following attributes should a homemaker have? Pick 4

___ ambitious
___ charming
___ energetic
___ good at baking
___ serves variety of meals

___ calm
___ cooperative
___ friendly
___ good canner of fruits, vegetables, etc.
___ being informed on new ideas

VI. Which of the following activities should the homemaker enjoy performing? Pick 4

___ buying foods
___ sewing
___ budgeting finances
___ keeping up own appearance
___ cooking

___ raising children
___ socializing with neighbors
___ being interested in husband's work
___ decorating the home
___ earning own spending money

VII. Which of the following qualities would be most advantageous for the homemaker to have? Pick 4

___ sense of humor
___ careful shopper
___ socially popular
___ good cook
___ nice looking

___ efficient manager
___ financially independent (of husband)
___ enjoys children
___ quick shopper
___ strict disciplinarian of children

VIII. Which of the following duties should the homemaker spend most of her time performing? Pick 4

___ keeping her husband happy
___ working in local civic enterprises (PTA, Red Cross, etc.)
___ shopping for bargains
___ earning additional family income
___ spending time with the children
___ doing things to help her husband in his job
___ planning meals
___ cleaning the house
___ preparing and serving meals
___ keeping own appearance trim

PART III

Instructions: Following is a similar list of adjectives or phrases
describing behaviors and characteristics of a homemaker.
From each group of words or phrases we would like you
to select the four which most accurately picture yourself.

I. What kind of a home do you run? Pick 4

___ fashionable   ___ comfortable
___ orderly   ___ quiet
___ cozy   ___ modern
___ efficient   ___ comfortable
___ relaxed   ___ clean

II. What do you feel are your most important duties? Pick 4

___ cooking   ___ being a companion to the husband
___ buying of food   ___ entertaining
___ disciplining the children   ___ helping your husband's career
___ housekeeping   ___ dish washing
___ mending of clothes   ___ meal planning

III. Which of the following are most characteristic of you? Pick 4

___ kind   ___ self-controlled
___ practical   ___ good-natured
___ intelligent   ___ progressive
___ modest   ___ thrifty
___ ingenious   ___ planful

IV. Which of the following activities do you consider to be the most
important? Pick 4

___ an entertainer of friends and associates
___ an earner of outside income to help support the family
___ a keeper of the family social responsibilities
___ a handler of the family finances
___ a helper in your husband's job
___ a sexual companion to your husband
___ an establisher of a comfortable home
___ a painter, decorator, and beautifier of the home
___ a companion to your children
___ an organizer of the household

V. Which of the following attributes do you have? Pick 4

  ___ cooperative   ___ being informed on new ideas
  ___ friendly   ___ serves variety of meals
  ___ calm   ___ good canner of fruits, vegetables,
  ___ ambitious   etc.
  ___ charming   ___ energetic
                    ___ good at baking

VI. Which of the following activities do you enjoy performing? Pick 4

  ___ cooking   ___ keeping up own appearance
  ___ socializing with neighbors   ___ raising children
  ___ budgeting finances   ___ earning own spending money
  ___ decorating the home   ___ buying foods
  ___ sewing   ___ being interested in husband's
                       work

VII. Which of the following qualities are your greatest asset. Pick 4

  ___ efficient manager   ___ nice looking
  ___ quick shopper   ___ strict disciplinarian with children
  ___ good cook   ___ financially independent (of husband)
  ___ enjoys children   ___ careful shopper
  ___ socially popular   ___ sense of humor

VIII. Which of the following duties do you spend most of your time performing?
  Pick 4

  ___ keeping your own appearance trim
  ___ keeping your husband happy
  ___ cleaning the house
  ___ working in local civic enterprises (PTA, Red Cross, etc.)
  ___ shopping for bargains
  ___ spending time with the children
  ___ preparing and serving meals
  ___ earning additional family income
  ___ planning meals
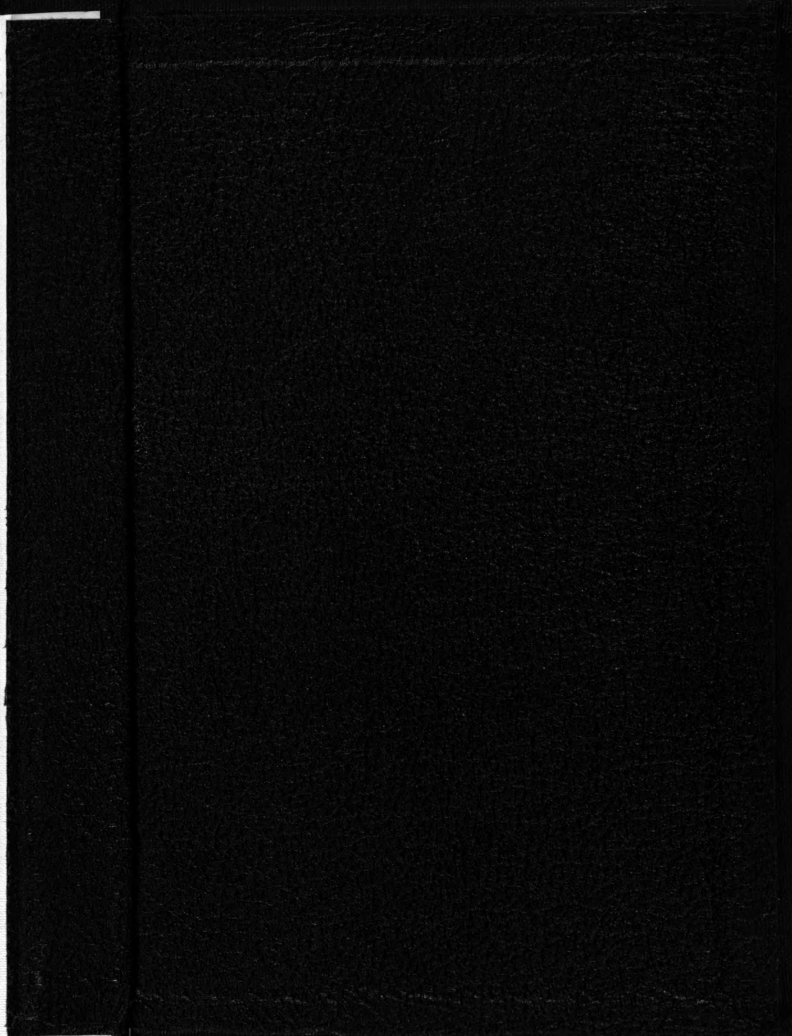 ___ doing things to help your husband in his job.

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