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Food-Related Behavior of Young Childless Couples

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To the Graduate Council:

I am submitting herewith a dissertation written by Diane S. Traver entitled "Food-Related Behavior of Young Childless Couples." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Human Ecology.

Marjorie P. Penfield, Major Professor

We have read this dissertation and recommend its acceptance:

Jean D. Skinner, Alan Lasater, Daniel Hubbard, Roger Swagler

Accepted for the Council:

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Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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We have read this dissertation
and recommend its acceptance:

Jean D. Stevens

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Vice Chancellor
Graduate Studies and Research

THE FOOD-RELATED BEHAVIOR OF YOUNG, CHILDLESS COUPLES

A Dissertation

Presented for the

Doctor of Philosophy

Degree

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Diane S. Traver

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ABSTRACT

Socio-cultural, cognitive-affective, and situational variables affecting the food-related behavior of young, childless, Southern couples were explored. Couples were married less than 18 months. Each spouse was less than 34 years of age; neither had been previously married.

Seventy couples were interviewed; 55 couples completed diaries on the cost, types, and amounts of food purchased. Husbands and wives each completed questionnaires on food-related values, attitudes, and beliefs; food preparation and buying knowledge; food-related decision-making and tasks; and meal practices.

Wives' food preparation knowledge scores were higher than husbands' scores; both were related negatively to expenditure for convenience foods. Food-related decisions and tasks were more apt to be shared than were non-food-related decisions and tasks. Before marriage, the frequency of meal consumption was higher among husbands than among wives; snack consumption did not differ. Wives' frequency of meal consumption increased after marriage.

Ten attitude dimensions were factored from 89 statements. Husbands' index scores differed from those of wives on the aesthetics-pleasure, utility, and food preparation skills dimensions. Both husbands' and wives' attitude indices and food preparation knowledge scores were found to be indicators in regression models of the average weekly expenditure, percentages of the food dollar, and average cost per market unit of 10

major food groups and of food-away-from-home. Estimated expenditures for items other than food tended to be negatively related to expenditures for food.

Aesthetics-pleasure, nutrition, and convenience dimensions were common indicators of food expenditures; economy and "natural-health" foods dimensions were not. The aesthetics-pleasure dimension was a positive indicator of vegetable expenditure and a negative indicator of milk products expenditure. The familiarity dimension was negatively related to vegetable expenditure.

About 39% of the food dollar was spent for food-away-from-home and about 61% for food-at-home. About 25.5% of the at-home food expenditure was for meat and meat substitutes, 12.6% for grain products, and 6.5% for fruit. Convenience products, as a separate, composite group, made up 12.6% of the food dollar. Food consumption and use patterns of young couples differ from those of single young adults and families with children. Both cognitive-affective and situational variables are important indicators of food expenditures.

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I. INTRODUCTION

Young couples are the initial family unit. When they marry, two individual food patterns are integrated into a single pattern that is more or less a satisfying compromise of each spouse's food preferences and acceptances. The result is the dietary basis for the new family unit. Because of recent changes in the U.S. population composition and American lifestyles, there is need for current data on the food patterns of young couples.

Between 1970 and 1980, the number of persons aged 18-24 years increased 19.8%. The number within the age range of 25-34 years increased 41%. Together these groups accounted for 29.4% of the total U.S. population (Zitter, 1980).

The total number of young couples also has increased not only because of the young adult population growth but also because many young couples are postponing having children (Glick, 1975). The lengthened duration of this young couple stage may increase the potential for stabilization of the patterns established during this time.

The dietary patterns of today's young couples reflect their lifestyles. These lifestyles have been precipitated by changes in the education, values, norms, and available resources of young adults. For example, 68% of all women, aged 18-24 years, worked outside the home in 1978 (Leon and Rones, 1980; Bureau of Labor Statistics, 1980). Young adults have the highest consumption rate of food-away-from-home (NRA, 1981). Household decision-making and tasks tend to be shared among

young couples (Szinovacz, 1979) and despite inflation, today's young couples acquire more durable goods early in marriage than did preceding generations (Herrmann, 1970).

Given the social, technological, and economic changes of the 1970's, it is questionable as to how and to what extent generalizations from earlier data describe today's young couples. Recent research suggests that nutrition, health, and economy may be secondary to time-saving, convenience, and other goals (Kahn, 1976; Yetley and Roderick, 1980). Goals and consumption patterns change over the life span (Wells and Gubar, 1966; Stampfl, 1979; Murphy and Staples, 1979). Economic behavior probably is affected more by life span stage than be demographic variables.

Food expenditure may account for a substantial proportion of household expense but, to a limited extent, is maniputable. Satisfactory family financial status depends on careful management of each component of household finances. Conjectures about the food purchasing patterns of young couples, in particular, can be extrapolated from general expenditure data and from knowledge of the consumption and lifestyle characteristics of young couples. However, understanding factors that influence spending patterns remains elusive without examination of the situational variables that affect young couples and the values, attitudes, and beliefs of both spouses.

The diet of the family is influenced by each family member, yet few attempts have been made to study food-related behavior at this stage of the life span stage or to examine how food-related behavior within a social unit is influenced by individual members (Foley et al., 1979; Hertzler and Vaughn, 1979). Seldom has there been concurrent research

on family members' salient food-related parameters. To increase the effectiveness and success of food and nutrition education programs, educators must be able to identify the salient food-related parameters of individuals, understand how such parameters influence food preferences and acceptances, and understand how two or more individuals interact to influence revised food patterns. With such profiles, educational efforts directed toward helping families improve their diets, successfully manage their resources, and make smoother transition in life stages may be enhanced.

Conceptual Framework

The conceptual framework for this study is multidisciplinary. It was developed from theoretical and empirical investigations of family studies, marketing, psychology, sociology, education, food science, and nutrition.

The early childless stage of marriage is a time of adjustment, transition, patterning, and role formation (Rapoport, 1964; Ryder, 1970). Ryder et al. (1971) have theorized that the unity of the dyadic relationship and maintenance of one's individuality are alternately emphasized during this transition process. The heightened awareness, characteristic of this stage, makes it an excellent time to study behavior patterns, which are being formed, altered, or maintained.

Deliberate behavior is patterned by an individual's frame-of-reference. Sherif and Sherif (1969) theorized that an individual's frame-of-reference is determined by the interaction of the internal and external components of life. The internal components are physiological and personal needs; the external components are socio-demographic and

environmental elements. In order to be processed, information must fit an individual's frame-of-reference. A challenge to researchers is that of determining the relevant components or factors that influence the frame-of-reference.

A schematic, generalized representation of influences of food-related behavior is presented in Figure 1. This model is a variation of that developed by Penfield (1978) and adapted by others (Axelson, 1979; Calkins, 1979). The model was evolved after consideration of research, models, and theories presented by several investigators (Lund and Burk, 1969; Sims et al., 1972; Sims and Morris, 1974; Yetley, 1974; Bayton, 1966; and Steelman, 1976). According to the model, socio-cultural (background) and cognitive-affective (personal) influences determine food preferences. Food preferences are modified to food acceptances by the effect of situational variables, such as available resources and social lifestyles. Food acceptances directly affect consumer welfare because the foods chosen are the source of nutrients. The transition of food preferences to acceptances is difficult, if not impossible, to measure, particularly if little or no baseline data on either exist. The foods selected for consumption represent food acceptances. It is assumed that the foods purchased are those that can be prepared and consumed in some acceptable manner by someone in the social unit.

This study was planned to be exploratory and descriptive of the food-related behavior of young married couples. For this reason, broad objectives were chosen, many variables were included, and the hypotheses were limited.

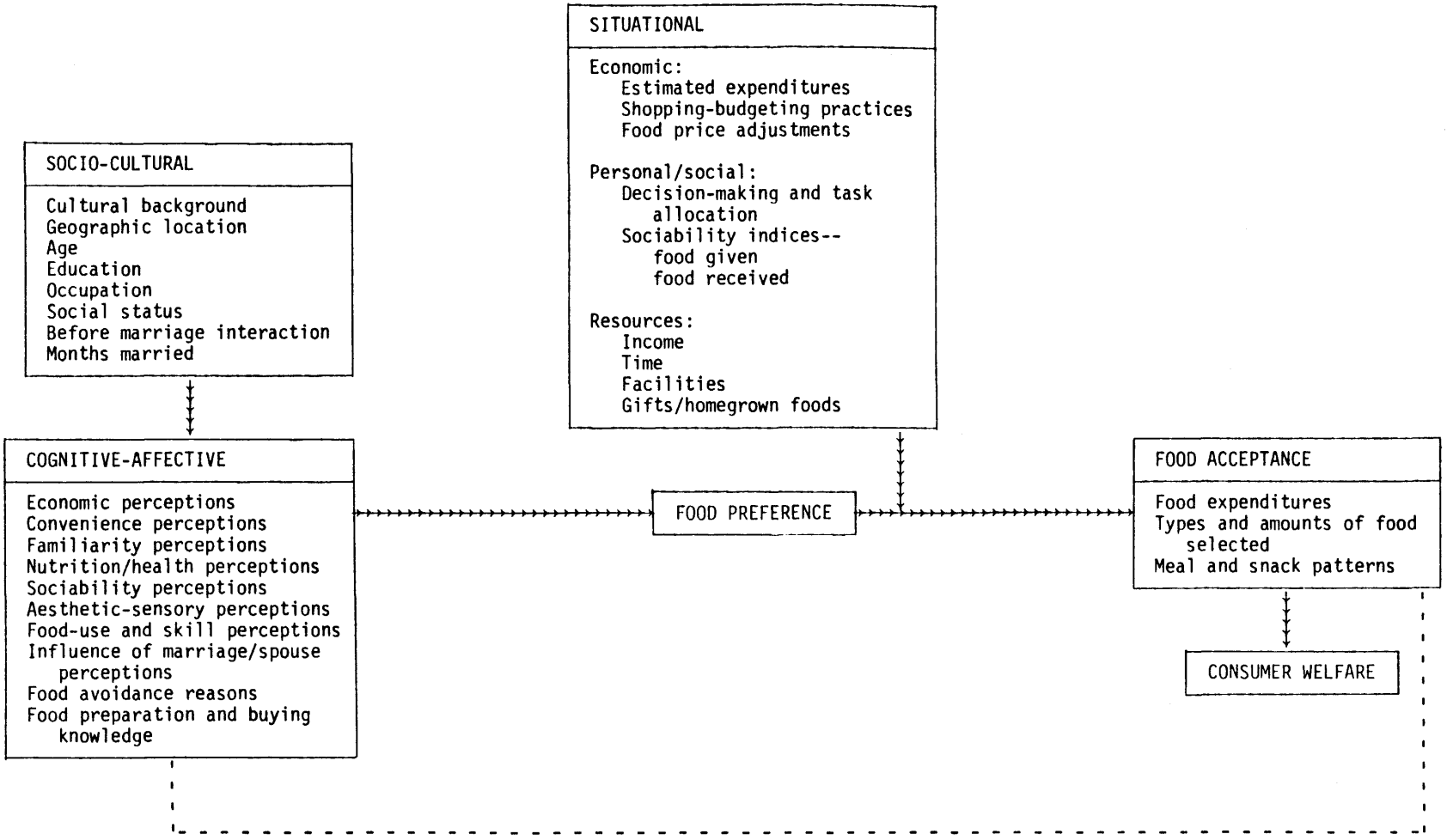

Figure 1. Conceptual model illustrating factors affecting food acceptance of young couples.

Assumptions

Assumptions underlying the objectives and hypotheses were:

1. Food-related behavior is complex. Concurrent measurement of socio-cultural, cognitive-affective, and situational variables can enhance understanding of food acceptance patterns.

2. The food-related parameters of this study include important influences of food preferences and acceptances of young couples.

3. Young married couples are in a state of transition and adjustment, which is accompanied by changes in each spouse's frame-of-reference and heightened awareness of personal values, attitudes, and beliefs.

4. Although the food patterns of a young couple may differ somewhat from those that later evolve, the interaction and compromising of each spouse's food preferences and acceptances form the basis of future food acceptance patterns.

5. The food purchased and recorded represents food acceptances of the couple.

6. Recording food purchases will not cause a couple to substantially alter the types and quantities of food that they buy.

7. At any one time, food purchases are affected by the particular market constraints beyond the control of all consumers.

8. The units on the scale used to measure the attitude parameters are equal; the units on different scales (attitude statements) are equal; and the judgments on one scale are independent of another scale (Fewster et al, 1973).

Objectives

Objectives of this study were:

1. To identify relevant food-related attitude dimensions of husbands and wives of young couples.

2. To characterize the food purchasing and consumption patterns of young couples.

3. To relate the relevant food-related parameters of the husbands and wives, and the selected socio-cultural and situational variables of the couples to their food purchasing patterns.

Hypotheses

Most of the hypotheses of this study were limited to variables that researchers of other groups have identified as related to dietary practices. The hypotheses were:

1. Food purchasing patterns will differ by income and social status. Couples with more income will spend more for food than will those with less income. Couples of higher social status will spend more for food-away-from-home than those of lower social status, but the difference in the number of occurrences will not be significant.

2. Expenditures for convenience foods and food-away-from-home will be higher for those couples in which both spouses are working full-time (30 hours per week or more) than those in which one spouse works less than full-time.

3. There will be an inverse significant relationship between the amount of knowledge that wives have with regard to food preparation and buying and the amount spent for convenience foods. There will be no significant relationship between husband's knowledge and convenience food expenditure.

4. Food purchasing patterns will vary with differences in food-related values, attitudes, and beliefs. There will be a significant relationship between both the husbands' and wives' attitude indices and the amount of expenditure for various food groups.

5. Food expenditure associated with the husband's scores on attitude indices will increase as the husband's perceived participation in household decisions and tasks increases.

6. The perception of spouse influence on food patterns will be inversely related to the number of meals shared prior to marriage.

Variables

Socio-cultural variables are associated with general dietary patterns and may be related to situational variables. The socio-cultural variables investigated in this study included cultural group, childhood geographic location, education, occupation, and social status. Variables specific to the background of young couples also were included, i.e., interactions before marriage and the months married.

The cognitive-affective variables chosen for investigation related to values, attitudes, and beliefs about food; perceptions about the influence of marriage and spouse on the individual food patterns; and knowledge about food preparation and buying. Because cognitive-affective dimensions are individual, husbands and wives completed questionnaires separately on each of the areas. Husbands and wives also were asked to list any foods they avoided and the reasons for the avoidance. This was included for descriptive purposes and to control for extreme non-conformists with regard to diet.

Values, attitudes, and beliefs about food were measured by statements pertaining to six dimensions generally agreed to be major influences of food selection and thought to be important to young couples. Additional statements were included about changes in food consumption since marriage, influence of the spouse, and satisfaction with personal skills of food buying and preparation. The latter was included for the purpose of relating it to knowledge about food buying and preparation. Such knowledge also was hypothesized to relate to the use of convenience foods. Time limitation might not be solely responsible for the use of these products by young couples.

Situational variables are useful for profiling differences in household food purchasing and consumption patterns. Situational variables related to economic, personal and social factors, and available resources were included. Expenditure patterns were examined because young couples tend to have high purchasing rates and the amount spent on any household area directly affects what remains for other expenditures and savings. Food shopping and budgeting practices have a direct effect on the efficiency of shopping and the amount of food value received for the food dollar. Measurement of those characteristics was included to examine their relationship to food purchasing patterns.

Personal and social factors give indications of the effect of lifestyle. Spouses' perceptions of who makes household decisions and who performs household tasks were examined. Also, data were collected on the number of meals and snacks shared with others (sociability indices).

Four resources were examined: time, income, space and equipment, and home-grown food. Storage, treatment, and the amount of food purchased are affected by these resources.

Food acceptances of the couple were measured by expenditures for food at-home and away-from-home. At-home food expenditure was detailed into the amount spent for 10 major and 24 subgroups of food. The amount spent was divided into percentages for high-, medium-, and low-price items within each food group. Food-away-from-home expenditure included the number of occasions and the amount spent.

Although individual diets cannot be examined using food purchase data, a more accurate estimation of the types and amounts of food used within a social unit over an extended time is possible than with individual recalls or food records. Direct examination of the relationships among economic and other factors and food acceptance also is possible.

A present challenge in food-related behavioral research is the development of holistic, integrated research approaches, such as the one attempted in this study. Review of the empirical and theoretical bases of previous research provided the background for integrating conceptual frameworks and approaches.

II. LITERATURE REVIEW

In a recent examination of nutrition education approaches and their shortcomings, Hochbaum (1981) noted that "no single theory can encompass what we call nutrition behavior." The research and understanding of food-related nutrition and behavior have been impeded by the slow development of multidisciplinary approaches. With the development of multivariate statistical applications for the social sciences (Hair et al., 1979; Hays, 1973; Kim and Mueller, 1978; Rummel, 1969; Tatsuoka, 1971) and computing facilities, the analysis of integrated, multivariate research becomes a possibility.

This literature review is an exploration of the basis for a multivariate approach for researching the food-related behavior of young couples. This segment of the life span has been virtually ignored in previous food-related research. Conceptual frameworks, theories, and research from several disciplines will be examined in relation to the socio-cultural, cognitive-affective, and situational variables that may influence a young couple's food purchases.

Development of Conceptual Frameworks

In 1943 the National Research Council (NRC) focused attention on the problem of changing food habits. The NRC Committee on Food Habits recognized the need for an integrated approach that cut across disciplinary lines (NRC, 1943). Margaret Mead (NRC, 1943) presented a model that depicted an individual as interacting with the environment through the food production and distribution system and through the foods chosen

for consumption. The latter included recognition of the cultural and physiological influences of choice. Lewin (NRC, 1943) theorized that the homemaker was the "gatekeeper" of a household. She controlled the type and flow of food from the production and distribution system in response to her family's food needs and desires. Thus the homemaker became the target of food and nutrition education efforts.

Thirty years later, Grivetti and Pangborn (1973) summarized the advantages and limitations of seven major food habit research approaches that were used in the biological, behavioral, medical, and social sciences. Varied approaches evolved partially because of the four different research levels, i.e., cultural, societal, family, and individual. They noted that no one approach was satisfactory, but "several in combination offer exciting new dimensions for food habit research."

In contrast to segmenting research into static categories, general systems theory emerged as a conceptual framework for viewing any unit in dynamic interaction with its environment. The actions or behaviors of a unit are the result (output) of that unit's processing of environmental and intra-system stimuli (input). In the human ecosystem model (Bubolz et al., 1979), the human environed unit (HEU) is depicted as the nucleus within three concentric circles. The three circles represent three expanding environments: the human behavioral (HBE), the human constructed (HCE), and the natural (NE). Interaction occurs among all four components. Seemingly irrational functioning of the HEU may become more sensible when the interactive effect of all environments is considered. To explore a complex research problem, relationships are examined among the HEU and elements selected from each environment. Because the HEU

has most control over elements of closest proximity, it is these that particularly interest behavioral scientists and educators.

In the model (Figure 1, page 5), elements representing each of the environments are diagrammed according to their hypothesized manner of effect on food-related behavior. Background research and theories will be discussed relative to this model.

Socio-Cultural

Socio-cultural characteristics such as those shown in Figure 1, page 5, serve as the basis for classifying people for further analysis of their behavior. Foodways, i.e., the general ways that people select, procure, prepare, eat, and dispose of a food, are influenced by socio-cultural factors. What foods are considered acceptable and how they should be prepared and served are moderated by the values and customs of the cultural groups to which one belongs (Lowenberg et al., 1979). Sometimes the supremacy or prohibition of some foods is clearly defined as, for example, by certain religions, but the unique characteristics of U.S. geographic or ethnic group food patterns are becoming increasingly blurred. The general American value for variety, the high level of communication in American society (Lowenberg et al., 1979), mobility and changes in education, status, and lifestyle are all influences that counter retention by an individual of the foodways prevalent in the family of orientation (Gifft et al., 1972). While food patterns may be becoming more individual and less ethnically or regionally determined, the influence of socio-cultural factors cannot be ignored in a comprehensive study of food-related behavior.

Many young adults have moved to a different region of the country or even to a different country at least once in their lives because of parental relocation, college, or their own employment. It is not uncommon for a young couple to reside in a geographic area that is different from that of the childhood residency of one or both spouses. Cultural foodways tend to be retained within a social unit if resources and availability permit but exposure to new foods and food patterns constantly occurs (Gifft et al., 1972). In the last decade, the proliferation of restaurants specializing in ethnic or geographic cuisines attests to the willingness, if not the preference, of the American public to consume a variety of foods prepared in many different ways. Young adults purchase more meals and snacks away from home than any other sector of the population (NRA, 1981; USDA, 1980a).

Several authors have projected potential changes in American lifestyles (Parrish, 1971; Helmick, 1978; Eagle, 1980). Consumption of food-away-from-home, demands for time-saving methods and products, household task-sharing between spouses, and the importance of snacks in meeting nutritional needs are expected to increase. The number of shopping trips, the amount of food grown and prepared at home, time spent on household chores, and the percent of income for food are projected to decrease. The effect of the changes will be most evident among young couples. Kahn (1976) reported that young and older two-person households differed markedly in opinions and practices regarding food. Young couples were geared toward simplicity, time-saving, and lack of tradition. The practices, knowledge, and attitudes that young

couples have about food differ from those of preceding generations and probably from single adults or families.

Cognitive-Affective

While socio-cultural variables identify patterns across a culture, psychological factors characterize individuals. Identifying relevant cognitive (knowledge) and affective (attitude) elements of individuals contributes to understanding the food-related behavior of segments of society.

Attitudes are predispositions to behavior. The nature of the relationship among values, attitudes, and beliefs has been argued but all are considered to be part of the affective dimension. Attitudes are thought to represent values and beliefs. Attitudes have certain characteristics; they are learned, vary in intensity, saliency, and action-orientations, and have functions and components. The components are affective, cognitive, and behavioral, i.e., an attitude represents how a person feels (affective) about a known element (cognitive) and suggests that person's action toward the element (behavioral) (Lemon, 1973).

Schafer and Yetley (1975) applied Sherif and Sherif's (1969) frame-of-reference model of observed behavior to food-related behavior. An assumption for this model is that the interaction of the internal (physiological and cognitive-affective) and external (socio-cultural and environmental) components of life determine an individual's frame-of-reference, which modulates behavior. Because the individual's predisposition for alternate behavior is enhanced when the equilibrium of the frame-of-reference is disrupted, Schafer and Yetley (1975) proposed that

persons may be more receptive to food and nutrition information when food-related behavior is subjected to change, as when two people marry.

Food and nutrition education efforts traditionally have been based on an information-processing paradigm, but the unreliable relationship between an individual's knowledge and diet is evidence of affective influence. Several investigators have attempted to identify the relationship among food-related knowledge, attitudes, and practices.

Schwartz (1975) found no differences in nutrition knowledge between young women who had high school nutrition education and those who did not. Significant correlations were found between knowledge and attitudes, and between attitudes and practices, but not between knowledge and practices. Schwartz proposed that attitudes are mediators between knowledge and practices.

Sims investigated the relationship between nutrition knowledge and attitudes of three different groups. Attitudes were as important as education, income, or occupation in determining the nutrition knowledge of mothers (Sims, 1976). Data from senior citizens supported Swartz's model when evaluated using correlations, chi-square, and one-way ANOVA (Grotkowski and Sims, 1978), whereas data from lactating mothers, evaluated using path analysis, did not (Sims, 1978a). Instead, more significant beta correlations were found in a model in which knowledge mediated the influence of attitudes on practices. It is unclear whether the incongruence of Sims findings occurred because of differences in the groups, analytical procedures, or the particular characteristics studied.

Yetley (Yetley, 1974; Yetley and Roderick, 1980) found that the relationships among dietary intake, nutritional knowledge, and attitudes

of young husbands and wives were spurious. Four general attitude sets (mastery, risk, means, and modernism) were used instead of food-related attitudes. The attitudes studied by Sims and Swartz were limited to nutrition/health or meal planning/preparation; Yetley's attitudes were not specifically related to food. Dietary intake was the dependent variable representing food practices. Thus, while some of the dissonance of the findings may be attributable to data measurement and reduction techniques, it is likely that other unmeasured attitudes or factors contributed to the variances.

The psychosomatic relationships of attitudes and behavioral factors to biochemical parameters were explored by Baird and Schutz (1980) because dietary intakes do not correlate well with in vivo nutrient levels. Baird and Schutz applied factor analysis to a group of demographic and attitudinal variables and derived four lifestyle patterns that related to differences in dietary levels and some in vivo nutrient levels. The four lifestyle patterns were characterized by differences in psychological-emotional states. They concluded that although their interpretations and labeling of the patterns should be treated with caution, the findings provided evidence of the mediating effect of psychosomatic factors on dietary status. Their research supports the need for identifying affective influences on food-related behavior.

Schafer (1979) found a positive correlation between self-concept and diet quality and a negative correlation between self-concept and the influence of information source among women less than 36 years of age. He theorized that as self-esteem increased, reliance on others' opinions

and time and energy devoted to ego-maintenance decreased. The homemaker could then concentrate these resources on food-related and other areas.

Bayton (1966) defined seven basic food-related dimensions thought to underly food choices. Each represented a set of related concepts. Steelman (1976) proposed six dimensions; Krondl and Lau (1978) listed nine "food selection determinants." All researchers listed dimensions related to food cost, convenience, health, and social factors. There is need for empirical evidence to support these dimensions. Bayton (1977) proposed that factor analysis be used to evaluate food demand by psychological segmentation. Subsequent study of the related demographic characteristics of people in a given segment would produce "people profiles."

Interpretations of attitude measurements and of their correlations with behavior are simplified if statements are unidimensional, i.e., represent a single concept. Factor or path analysis applied to a set of food-related attitude statements can separate statements that measure common dimensions from those that do not (Carruth and Anderson, 1977). It is up to the researcher to determine what the dimensions represent.

Axelson (1979) identified four interpretable factors from a set of food-related attitudes composed of Steelman's (1976) statements and others. The factors were labeled "frugal-utilitarian," "social-adventuresome," "qualitative-pleasurable," and "nutritious-healthful." It should be noted that Steelman hypothesized her attitude parameters a priori and conducted separate principal component analysis on each attitude set. Axelson, however, analyzed all statements together. While her factors are similar to Steelman's, some statements from

factors proposed to be different by Steelman factored together, i.e., "convenience-frugality." The "qualitative-pleasurable" factor attested to the importance of food aesthetic qualities. Axelson's respondents were senior citizens; Steelman's were middle-aged women.

The value-orientations, attitudes, and beliefs of vegetarians and non-vegetarians were examined by Sims (1978b). Mean age of the group was 21 years and 50% were students. Significant differences were found for food-related value-orientations for health, religion, and ethics. No significant differences were found for economics, familism, social-psychological, aesthetic, or creativity orientations, although non-vegetarians scored higher on the first three. Sims's value-orientations were similar to the attitude dimensions defined and used by others. The attitudes used by Sims in this and previous studies related specifically to nutrition, the value and safety of food, or body weight.

Raeburn et al. (1979) related availability, convenience, price, and prestige to the food-use frequencies of 52 foods by low-income Canadian mothers ages 19-35 years. Positive or negative correlations between a food and an attitude indicated possible changes in the uses of the foods with a shift in attitude. For example, a negative correlation between orange juice use and the attitude about price indicated a possible increase in orange juice purchase with a decrease in price. Respondents' comments revealed that perceptions were dependent upon other factors such as quantity and form used, familiarity, and enjoyment of food preparation.

Using the same type of instruments and data reduction, Lau et al. (1979) investigated preferences (hedonic ratings) and use of ten common

foods by Toronto low-income single parents ages 25-35 years. Food use frequencies were regressed against ratings of the foods on seven parameters: taste, tolerance, prestige, price, convenience, health beliefs, and familiarity. From the results, it was suggested that the influence of a parameter may be food-dependent.

Sims (1978b), Steelman (1976), and Axelson (1979) used Likert-type scales anchored by "strongly agree" and "strongly disagree" to gauge attitudes. The bipolar scales used in the Canadian studies (Raeburn et al., 1979; Lau et al., 1979) were similar to the semantic differentials used by Fewster et al. (1973) to investigate the connotative meanings of foods among low- and high-income women. Polar adjectives were selected to reflect 12 assumed categories of meanings. The hypotheses that differences in meanings were measurable between foods and between populations were supported.

Calkins (1979) used the semantic differential technique and found that young adults classified as conformists or non-conformists (with regard to diet) differed in the connotative meanings assigned to foods. Also, these young adults associated "superior-inferior" with health/nutrition perceptions rather than with social status as did the respondents of Fewster and coworkers (1973).

Attitudes can reveal what cognitive-affective parameters underly food choice. Food-use classifications can reveal what foods are perceived appropriate or desirable (or the opposite) for particular situations or uses.

Schutz et al. (1975) investigated how women in Boston, Atlanta, Chicago, and Los Angeles scaled 56 foods on appropriateness for 48 uses.

Results were factor-analyzed for foods across all uses and uses across all foods. The purpose was to examine how consumers, rather than food specialists, classified food uses and foods.

The four use factors that emerged were termed "utilitarian," "casual," "satiating," and "social." The "utilitarian" factor included items related to age, temperature (weather), or convenience. The "casual" factor had items such as "when riding in a car" or "when unhappy." The "satiating" factor was characterized by such phrases as "when really hungry" or "a main dish." The "social" factor pertained to parties, friends, and guests.

The five food factors were labeled "high-calorie treat," "specialty meal item," "common meal item," "refreshing healthy foods," and "inexpensive filling foods." The foods and uses of both factor sets varied somewhat by city.

In 1977, Schutz et al. used multiple regression to examine the relationships between two large sets of food-related variables. The 25 independent variables included food-use perceptions, food-related attitudes, and demographic characteristics. The 72 dependent variables included purchase frequencies of 17 foods, food-use frequencies of 39 foods, frequencies of eating out, meal practices, and shopping habits. The respondents were women. Four food-use perceptions and 12 attitude factors were determined. Psychographic variables (attitudes and perceptions) were the only variables that fit into the regression model for 29 of the dependent variables.

Axelson (1979) also used multiple regression to predict the percentage of the food dollar spent for several categories of food and the

total dollars spent for food both at and away from home by the elderly. Attitudes were found to be predictors of the percentage spent for milk products, meats, and fruits.

Gender differences in attitudes and their relationship to food preferences (Calkins, 1979) and dietary intake (Yetley, 1974) have been found. In the majority of studies, however, the respondents were women. The differences between men and women's food-related attitudes have not been explored thoroughly.

Situational

In Figure 1, page 5, socio-cultural and cognitive characteristics are shown as determinants of food preferences, i.e., the foods that would be chosen if no limitations existed. Situational variables modify the translation of food preferences to food acceptances and affect how food is chosen, procured, prepared, and consumed. Three types of situational variables are economic, personal-social, and availability of resources.

Life span stage is a useful concept for examining and predicting consumption patterns of individuals and social units. Wells and Gubar (1966) presented a consumer life stage model that was later updated by Stampfl (1978, 1979) and Murphy and Staples (1979). The basic assumption is that each stage is characterized by particular consumption patterns. Economic behavior probably is affected more by life span stage than by demographic variables (Rollins and Feldman, 1970; Burr, 1970).

The childless young couple stage can be a time of relative affluence but young couples may have trouble meeting financial goals because they lack experience and basic skills in financial management (Herrmann, 1970). For those in low-paying occupations, incomes from both spouses

may be necessary to meet basic expenses. Food expenditure is a major portion of household expenses. Control of food expenditure can contribute to satisfactory financial management but young couples may lack the experience or willingness to do so. Coughenour (1972) reported that adaptive behavior was lowest during the early stage of marriage. Adaptive behavior includes shopping for specials, making a shopping list, buying in quantity, asking family members for food suggestions, seeking information about food, comparing prices, and reading labels.

Newly-married couples had higher purchase rates, particularly of durable goods, than those in other life stages (Wells and Gubar, 1966). Hill (1964) found that they were likely to achieve more ownership than preceding generations, possibly because more credit was used. Stampfl (1978) claimed that lack of financial planning was common among couples, but young couples surveyed by Davis (1973) reported having a budget of some type. Given the social and economic changes of the 1970's, generalizations from earlier data may not accurately describe today's young couples.

Several conceptual frameworks have been used to explain decision-making, power, and division of labor in the household (Safilios-Rothchild, 1970; Broderick, 1971). In all, behavior is viewed as the attempt to achieve some goal. Each framework contributes toward separating complex behavior dynamics into relative conceptual components. This facilitates formulation of research hypotheses and interpretation of results (Wheeler and Arvey, 1981).

Two unrelated units (husband and wife) form a continuing system or structure for meeting basic needs (structural-functionalism). The

division of labor and decision-making may be conducted in conformance with social-cultural mores (normative interaction) or according to the preferences, skills, and available time of each spouse (resource theory). Decision-making and task allocation change over the life span (family development theory) and probably become more polarized with time.

Empirical evidence tends to support increased sharing of decision-making in household management (Blood and Wolfe, 1960; Centers et al., 1971), but not necessarily of task implementation (Lovingood and Firebaugh, 1978; Szinovacz, 1979; Sanik, 1981). Cunningham and Green (1974) found that decisions involving major, one-time expenditures were more likely to be shared in 1973 than in 1955, but grocery expenditure was more wife-dominated. Decision-making was perceived to be shared more among couples who were younger and more educated and among those with savings goals (Cunningham and Green, 1975; Jeries, 1977). However, Davis and Rigaux (1974) found lack of agreement between husbands and wives about who made decisions; 43% of the decisions changed classification when only husbands' or wives' responses were examined.

The amount of time devoted to household tasks and its average distribution between husbands and wives has not changed substantially in the last 20 years according to Goebel, 1981; Hall and Schroeder, 1970; Nickols and Metzen, 1978; and Szinovacz, 1979. About 70% of the time was contributed by the wife. Husbands contributed about 17%; the rest is assumed by children or outside labor. The average total hours per day devoted to housework ranged from 6.5 to 8.0 hours. Working wives spent about one-third less time than did the unemployed. Husbands of

employed wives may assume different tasks, but they did not necessarily devote more time than husbands of unemployed wives (Goebel, 1981).

Whether these patterns persist among today's young couples is not known. Rapoport (1964) theorized that young couples share decision-making in the transition to a dyadic relationship but rely on traditional roles in behavior until a personal structure or system is formed.

Creative tasks (including food preparation) and tasks associated with family interaction (child care, family outings) were liked more by wives than were maintenance tasks (laundry, cleaning) (Stiedl, 1975) but norms may influence task allocation more than skills or preferences. Nye (1974) reported that few people said they would ostracize a woman who was not strongly committed to housekeeping roles. He hypothesized that tasks of meal preparation and housekeeping are becoming options rather than obligations. Despite these changes in attitudes, food-related activities appear to have remained wife-dominated over the last 20 years (Blood and Wolfe, 1960; Centers et al., 1971; Jeries, 1977; Lovingood and Firebaugh, 1978; Goebel, 1981).

Few studies have explored specifically the relationship between food-related behavior and family life stage or interaction among family members (Schafer, 1978). Cross et al. (1972) found that economizing was a major concern of young families while the major concern among single young women was convenience. Schafer and Keith (1981) found that the influence of various information sources was greatest among young families, but still was rated medium to low in importance. Spouses, children, health, and cost were the only influences of food-related decisions that husbands and wives rated important. Young couples were not investigated in

either study, but the respondents in both were young adults. The differences in relevant influences of food-related decisions underscore the invalidity of making assumptions about the food-related behavior of young couples based on the extrapolation of findings from other groups.

Despite the control of food-related decisions, wives were more likely to comply with husbands' wishes when disagreement over specific foods occurred than vice versa (Schafer and Bohlen, 1977). Implications are that personal-aesthetic preferences of family members may override nutrition or economic considerations of the wife-mother.

Axelson (1979) reported on sociability indices that reflected contacts with friends and relatives by senior citizens. The indices were among the best predictor variables of the senior citizens' food expenditure patterns. Generally, relative influence of family members has been insufficiently investigated.

Food Acceptances

Preliminary reports of data from the 1977 USDA Nationwide Food Consumption Survey (NFCS) have been published recently (USDA, 1980a). Shifts in consumption patterns within specific food groups have occurred. For example, the intake of milk products (among those 23-34 years of age) is about the same as in earlier studies, but more cheese and yogurt and less fluid milk are being consumed. Over all age groups, the average amount consumed has decreased in all food groups except beverages and meats, but the intake of fruits and vegetables has increased slightly among young adults. These consumption data agree in general with aggregate food disappearance data (USDA, 1980b).

As reported by Crocetti and Guthrie (1981), shifts also have occurred in meal and snack patterns. Less than 60% of the population consumed three meals a day for the three days surveyed in the 1977 NFCS. As the number of meals decreased, the number of snacks consumed tended to increase. The chances of consuming 85% or more of the RDA increased as the number of snacks increased.

Diet quality reflects food availability and cost. Respondents of a nationwide survey conducted by Woman's Day magazine indicated that inflation threatens nutritional concerns (Anonymous, 1980). While food cost may not have risen as much as the cost of other commodities, food is viewed as a flexible expenditure that can be manipulated to compensate for other cost increases.

Per capita food expenditure is remarkably similar across income brackets (Gallo and Boehm, 1979; Raunikar, 1981a; USDA, 1980a). Food cost accounted for about 40% of the income for those earning $5,000 annually. Those earning more than $15,000 spent more actual dollars for food but a smaller percentage of their income, about 10-14%, than those earning less than $15,000. Food expenditure is lowest in the South, about 8% less than the national average (USDA, 1980a).

Per capita weekly food expenditures of $14.99-$16.36 and $8.42 were reported by USDA (1980) and the Bureau of Labor Statistics (Gallo and Boehm, 1979), respectively. The Bureau of Labor Statistics data do not include the value of food produced at home and are not adjusted for inflation. Per capita expenditure in Georgia averaged $11.56 during spring of 1980 (Raunikar, 1981a). USDA (1980b) reported that couples spent about $40 per week on food in June of 1980.

An income elasticity of 0.36 has been reported for total food cost. The income elasticity for food-at-home expenditure increased with household size; the reverse was true for food-away-from-home. On the average, the income elasticity for food-away-from-home is 0.85, i.e., each 10% increase in income is paralleled by an 8.5% increase in the expenditure for food-away-from-home (Salathe, 1979). The elasticities for particular food groups are negative for some groups but positive for others, indicating changes in purchasing patterns with changes in income.

Georgia consumers spent 81.9% of their total food dollars for food-at-home. Meats, poultry, and fish accounted for 27.7% of the total; fruits and vegetables were second at 14.1%. Milk products were the third largest expenditure at 11.6%, followed by cereal and bakery products at 10.8%. The next largest expenditure was for beverages--5.7%; all other foods and food-away-from-home comprised the remainder. Food-away-from-home expenditures have continued to rise (Rizek, 1981; Bunting, 1979) and they accounted for 23.8% of the total in 1977. Southern households spent less, about 21%. Those with annual incomes above $20,000 spent about 29% of the total food dollar on food-away-from-home. The average amount spent per person per event was $2.04 (Rizek and Peterkin, 1979).

Food-away-from-home expenditures were highest for small families, Caucasians, and those ages 22-40. More than 50% of young adults eat both lunch and dinner away from home once a week (NRA, 1981). The cost difference between home-prepared and some "fast foods" may be too little to justify the food preparation time for busy people (Matsumoto, 1979), particularly for those who lack preparation skills.

Summary

The characteristics and influences of food-related behavior among young couples have not been investigated, although young couples are the initial family unit. The young couple stage is a time of pattern formation. The patterns formed will affect the functioning and the welfare of the family now and in the future.

The food purchased and used within a household is influenced by the preferences, acceptances, resources, and situational variables of each family member. Thus, many researchers have questioned the validity and reliability of data gathered on the family from the wife alone. Few attempts have been made to concurrently measure husbands' and wives' food-related opinions and practices although recent sociological changes obviously have weakened the wife-mother's role as the family's "gatekeeper" for food.

III. METHODS

Respondents

The population was defined as young (less than 35 years), childless couples, married after July 1, 1979 and residing in the Knoxville area as independent social units. No respondents were previously married.

In February, March, and April of 1981, letters explaining the study (Appendix A), consent forms, and preliminary recruitment forms (Appendix B) were sent to approximately 2,100 perspective respondents identified through marriage license records, 60 area churches, a newspaper advertisement, and personal referrals. Many letters were returned because post-marriage addresses listed on marriage license records were incomplete. Attempts were made to locate new addresses for each undeliverable contact letter. A total of 183 undeliverable letters could not be re-sent. Initially, 77 couples volunteered. Of these, 70 were interviewed; two couples moved out of the area, two did not keep interview appointments, and three more declined to participate.

Data Collection

Data were collected in March, April, and May of 1981. Attempts to enlarge the sample were curtailed in June to avoid the influence of seasonal differences in food availability. Interviews were conducted at the participants' convenience in their homes by the investigator or a trained interviewer.

The interview consisted of two parts. During one part the interviewer explained the forms that were to be completed by the couple together over the next four weeks. These included food diaries (records of food expenditures and guest meals) and questionnaires on backgrounds, shopping-budgeting practices, and food expenditure adjustments. Written instructions also were provided. Postage-paid envelopes were provided to return these instruments.

The second part of the interview was the administration of separate but identical questionnaires to each husband and each wife to gather data on individual food-related knowledge, opinions, and perceptions. Instructions against conferring and the presence of the interviewer ensured independent responses from each spouse. While the husband and wife completed these forms, the interviewer also recorded data on the food preparation and storage facilities.

Telephone calls were made to couples whose food diaries and forms were not returned on schedule. In some cases, personal letters also were sent.

Instruments

A preliminary recruitment form and 11 instruments were developed to collect information on the major variable areas outlined in the conceptual model (Figure 1, page 5), i.e., socio-cultural, cognitive-affective, situational, and food acceptance. The instruments were pilot tested in the fall of 1980 with 20 couples, 10 of whom had some academic background in foods and nutrition. Revisions were made to reduce ambiguity and instrument length. The instruments that were used to gather

information on the couple are explained first, then those that were completed by each husband and wife separately are described.

Preliminary Recruitment Form

The preliminary recruitment form (Appendix B) was used to eliminate couples who volunteered but did not fit the criteria for sample selection. Information was collected on both spouses' ages and status as students. Originally the number of couples in which one spouse or both was a full-time student was to be limited to 20% of the sample. Low participation response prevented this.

Information on vegetable likes and dislikes also was collected on the preliminary recruitment form. However, these data were not analyzed for this study.

Socio-Cultural

Via the socio-cultural instrument ("Information About You," Appendix C), data were collected on each spouse's area of childhood residence, education level, occupation, allocations of time to various activities, food avoidances, and prior meal planning practices. Data pertaining to the couple were gathered on estimated total income and expenses, interactions before marriage, present meal planning practices, and the use of home-preserved foods. A financial worksheet (Appendix C) was developed to help couples accurately and consistently estimate income and expenses. The couple was asked to complete the socio-cultural form together during the first week of the study and to return it with their first week's food diary.

Frequencies were generated on the data to characterize the sample and to screen the data for further analyses. A social status value for each couple was calculated using Hollingshead's (1976) four-factor index. The index weights both spouses' educational and occupational levels and was thought to be more appropriate for young couples' life-styles than the traditional two-factor method which incorporates only the husband's factors. If only one spouse worked, the two-factor method was used; the working spouse's factors were incorporated.

A familiarity index was calculated by summing the responses to questions about interactions before marriage (questions 9, 10, and 11; Appendix C). A higher index indicated couples who had known each other longer or were engaged a longer time than those with a lower index. The correlation between the familiarity index and the perceptions of the effect of marriage and the spouse on food habits was determined.

Facilities

During the interview data were collected by the interviewer on the type and amount of food preparation and storage facilities of each couple (Appendix D). The data were summarized by frequencies and used as descriptive data.

Shopping-Budgeting Practices

The 23 items included in the shopping-budgeting practices index (Appendix E) were derived from Cooperative Extension and other USDA materials (Peterkin, 1976; Peterkin and Cromwell, 1977; USDA, 1976a, 1976b) and from other research schedules (Market Research Corporation, 1977; Stubbs et al., 1972). Suggestions from department faculty and

students also were considered. Items included pertained to planning, budgeting, types and amounts of food purchased, time of shopping, information sources, coupons, and trading stamps.

The couple was asked to complete the shopping-budgeting instrument together to obtain a consensus because either or both spouses may do the grocery shopping. The form was returned with the first week's food diary.

Values of 3, 2, and 1 were assigned to the responses "Usually," "Sometimes," and "Rarely or never," respectively. The scale was reversed for the eleventh and fourteenth items because these are negative practices. To calculate the shopping-budgeting index, scores for items 1-19 were summed. Items 20-23 were used for descriptive purposes only because the benefit of these practices could be negative or positive, depending on other factors. The index was adjusted for missing values by adding the couple's mean value for each missing item. A greater frequency of positive practices was reflected in a higher final index value.

Food Expenditure Adjustment

Couples were asked how they would adjust their food buying when food prices increased or the money spent on food must be reduced or controlled. The purpose of this instrument (Appendix F) was to gain insight into food priorities and possible changes in food purchase patterns.

Six possible adjustment actions and 13 categories of food were listed in matrix form. Couples were asked to choose the action that best described what they would do for each of the 13 food categories. Couples were asked to complete the form during the third week that they

kept a food diary. It was hoped that this would minimize any possible effect on actual purchases and that couples would be more aware of food prices and their food purchase patterns after keeping the food diaries for two weeks. The percentages of couples who chose each option were determined. As this was not a longitudinal study, the projections could not be compared to actual practices.

Food Diaries

Four weekly diaries were used by each couple to record detailed information on the type, amount, and cost of food purchased; the total money spent on each shopping trip; who shopped; and the place shopped (Appendix G). Where and how much were spent for food-away-from-home were recorded on the "Food-Away-From-Home" form (Appendix H). The number of times that the couple ate as guests of or served food to others and the number of market units of food given or received were recorded on the "Guest Meal and Gift Food" form (Appendix I). The diaries were modified from those developed and used by Axelson (1979).

The foods purchased for at-home consumption were originally classified by the number of market units and amount spent into 24 groups (Table 41, Appendix J). Twenty-three of the food groups were mutually exclusive. The convenience group (Appendix J) was a composite of all items from the ready-prepared group and other foods with some preparation steps completed. No bread items were included in the convenience group because of lack of agreement among professionals as to item classification. The amount spent on food that was not identified by type was placed in a group termed "unspecified." This amount was included when the total average per week food expenditure was calculated.

Within each of the 24 groups, foods were subdivided into high-, medium-, and low-price food categories. These categories were based on the prices of approximately 900 food items during March and May of 1981 at a nationally-owned supermarket in Knoxville, Tennessee. Prices of fresh meats and produce were recorded also in April 1981. A typical serving size or unit size was assigned to each item. Most serving sizes used were those reported by Axelson (1979); others were based on amounts listed in standard references (AHEA, 1975; USDA, 1978; Adams, 1975). Items that were not priced per serving usually were priced per ounce. For each food group, the range of prices per serving or unit was divided into equal thirds to determine the high-, medium-, and low-price categories (Table 42, Appendix K) (Axelson, 1979; Lau et al., 1979).

The average amount spent per week and the percentage of high-, medium-, and low-price market units purchased in each food group per week were calculated for data from couples who completed two or more diaries. The 24 original groups were collapsed into 10 groups prior to analysis with multiple regression. The 10 groups are: beverages, grain products, milk products, meats and meat substitutes, fruits, vegetables, sugars and sweets (desserts), convenience foods, prepared foods, and all other foods.

Frequencies were calculated for data on the guest meals and snacks given or received, and for food-away-from-home. Total dollars spent per week for three types of eating establishments were determined. A restaurant was classified by the diversity of menu offerings, permanent or disposable tableware, the type of service, the availability of beverage refills, and the restaurant's own classification (Appendix L). The

categories were fast-food, cafeteria-style, and full-service eating establishments.

The guest meal and gift food record data were used to calculate two sociability indices based on the number of person-events given or received. A person-event consisted of one person participating in one food event (meal or snack). Therefore, if a couple ate as the guests of relatives or friends, this constituted two person-events.

Average weekly expenditures were calculated for all food-away-from-home, all food purchased for at-home consumption, and each of the 24 subgroups and 10 major food groups. The percentage of market units purchased in the three price categories also was determined. These values were used as dependent variables of purchasing patterns.

Food-Related Attitudes

To investigate relevant food-related attitude parameters, the value-attitude-belief (VAB) statements in Appendix M were compiled based on work by several investigators of food-related cognitive and affective domains (Axelson, 1979; Bayton, 1966; Calkins, 1979; Carruth and Anderson, 1977; Fewster et al., 1973; Foley et al., 1979; Lau et al., 1979; Market Research Corporation, 1977; Schutz et al., 1975; Schutz et al., 1977; Sims, 1978a, 1978b; Steelman, 1976; Stubbs et al., 1972; and Yetley, 1974). The statements were selected to represent six parameters that were thought to underly food selection, i.e., economy, convenience/time, familiarity, sociability, aesthetics, and nutrition/health. Additional statements (numbers 22, 30, 53, 59, 82, 89) were included to measure perceived effect of the spouse and marriage on food habits. Statements 22, 30, and 82 were summed to form an index

pertaining to each spouse's perception of whether or not their personal food habits had changed since marriage and because of the spouse. Statement 88 was correlated with knowledge of food preparation and buying.

An original set of 107 statements was evaluated for construct validity and unidimensionality by the investigator's doctoral committee. The set was reduced to 89 statements following pilot testing and factor analysis. Statements that were considered ambiguous or confusing, had responses polarized toward one scale end, and/or had factor loading of less than 0.400 were eliminated.

To score an item, each respondent placed a slash across a 90-mm line anchored at each end by "strongly agree" or "strongly disagree." A small dot was placed at the line's center to indicate the position for "neither agree nor disagree." The undifferentiated scale allowed respondents to gauge the intensity of a response to the stimulus (item), avoided the limitations of five or seven categories, and provided a quasi-interval scale for factor analysis. The responses were scored into discrete 5-mm intervals; the range of possible scores was 0-90. Missing values were assigned a predicted value calculated by regression across all statements.

Factor analysis was used to identify the attitude parameters. Principal component analysis and Varimax orthogonal rotation of the factor matrix were used. The number of factors was held to ten. Items which loaded at less than 0.3500 were eliminated and the procedure was repeated. Items that loaded at 0.400 or more in the second factoring were used to interpret and label factors. A respondent factor score or

index for each factor was calculated by multiplying the factor loading of each statement in the factor by the respondent's score and summing. The difference between husbands and wives factor scores was checked by a paired t-test.

Food Preparation and Buying Knowledge

The 25-item, multiple choice questionnaire on basic food preparation and buying (Appendix N) was developed to evaluate knowledge. Popular cookbooks (Rombauer and Becker, 1973; General Mills, 1969), basic food science texts (Kansas State University, 1965; Kinder, 1973; Vail et al., 1978), Expanded Food and Nutrition Education Program materials (USDA, 1976a), and the opinions of food and nutrition professionals were used to derive the content. Generally, questions were focused on measurement skills, terminology, function and use of basic ingredients, cost comparisons by product form, and preparation techniques related to products that (1) have ready-prepared counterparts, (2) are meat substitutes or extenders, (3) are cheaper cuts of meat, and (4) are commonly frozen for home use.

Forty questions were submitted to a national panel of 24 university faculty and Extension food and nutrition specialists who judged content validity. Questions that were answered incorrectly by two or more of the panel were eliminated. The questions also were pilot tested. Questions that were answered correctly by 95% or more of the pilot test participants were dropped. Questions were reworded on the basis of suggestions from both the national panel and pilot test groups.

Difficulty, discrimination, and reliability indices were calculated (Nie et al., 1975; Wright, 1981). Scores were determined by summing the

number of correct responses. The statistical difference between husbands' and wives' scores were assessed. The score was correlated with value-attitude-belief statement 88 on perceptions of food preparation skills.

Decision and Task Allocation Perceptions

Spouses' perceptions of who decides and who performs basic household activities (Appendix O) were investigated. The questionnaire was modified from those of Lovingood and Firebaugh (1978) and Centers et al. (1971). They adapted Blood and Wolfe's (1960) original method. Items regarding insurance, child care, vacation plans, and doctor choices were eliminated; food-related areas were expanded.

The words "I" and "spouse" were substituted in the scale category descriptors for "husband" and "wife." Rapoport (1964) theorized that during the transition of the early marriage stage, husbands and wives rely on traditional roles until a personal household decision-making/ task structure is evolved. The terms "I" and "spouse" were used to reduce possible gender or role bias which might be elicited with the terms "husband" or "wife" and to increase the respondent's personal identification with the stimulus (item).

The responses were scored from 5 to 1. A score of 5 represented a husband-dominated item; a score of 1 was given a wife-dominated item. Thus, if a husband checked the category "I always decide," it was scored 5. If the wife checked the category "I always decide," it was scored 1. The middle response category was assigned a score of 3. It was used for decisions or tasks that were perceived as being decided together or equally, i.e., about the same number of times by either spouse.

The perceptions were classified into four categories according to the mean sum of item scores and the number of items checked as decided together or equally. The four categories and the score ranges of each were: husband-dominated (3.51-5.00), wife-dominated (1.00-2.49), syncratic (2.50-3.50 and 50% or more of the items scored 3), and autonomic (2.50-3.50 and less than 50% of the items scored 3). Mean response scores for each item and across items by all husbands and wives also were calculated. Separate analyses were conducted for food-related and non-food-related decisions and task groups. The statistical differences were checked with the Wilcoxen test.

Meal Practices

A questionnaire was developed to examine the effect of marriage on husbands' and wives' meal and snack practices (Appendix P). Respondents estimated the frequency of each activity listed. The definition of meal or snack was left to the respondent.

Frequencies were generated for husbands' and wives' responses and the Wilcoxen test was applied to examine the difference between the spouses and between the past and present practices.

Data Reduction and Analysis

Frequency distributions were generated for descriptive purposes. Means and standard deviations were calculated for ratio or interval data. Differences between husbands' and wives' responses were checked by paired t-tests or Spearman's rank correlation. SAS (Barr et al., 1979) was used

for most analyses. SPSS (Nie et al., 1975) was used for non-parametric analyses.

Pearson product moment correlations between all variables were checked to detect multicollinearity before variables were chosen for regression models. Stepwise general linear regression models were used to identify indicator variables for the average weekly expenditure, average number of market units, average cost per market unit, and percentage of the food dollar for ten major food groups. Indicator variables had to have a partial F value of 0.15 to be included in a model.

Although some indicator values were technically only ordinal-level (decision and tasks values, estimated income and expenditures, attitude indices), ordinal-level measurements, particularly social-psychological, can be treated as interval-level if caution is applied in interpretation of results (Kerlinger, 1973).

IV. RESULTS AND DISCUSSION

Socio-Cultural Characteristics

The socio-cultural characteristics of the husbands and wives who completed at least one food diary are summarized in Table 1. Most of the respondents (at least 70%) were aged 22-29 years, had resided in the South during childhood, and had completed at least four years of college. All respondents except one classified themselves as Caucasian. Occupationally, 79% of the husbands and 67% of the wives were in the upper four levels as shown in Table 1. Approximately 84% of the husbands and 59% of the wives worked full-time. The majority of those who worked were paid twice a month. Both spouses were students in five couples; in 20 couples one spouse was a full-time student.

Over 50% of the respondents were in the upper quartile of the possible social status value range of 16-66. The values were calculated on the basis of both spouses' education and occupations and ranged from 27 to 66 (Hollingshead, 1976). The socio-cultural characteristics indicate that the respondents who completed diaries were primarily well-educated professionals. Although this sample as a group may be better educated than average, the trend for today's young adults to have more education than preceding generations, and thus the educational base to enter high-level jobs, should be kept in mind.

Table 2 is a summary of interactions before marriage. Approximately 70% of the spouses reported that they knew each other at least 1.5 years before marriage. About 60% of the sample reported eating at least 6-8

Table 1--Socio-cultural characteristics of husbands and wives

Characteristic	Husbands		Wives	
	N	%	N	%
Age				
Less than 22	4	7.5	9	16.9
22-25	23	43.4	32	60.3
26-29	21	39.6	11	20.8
30-33	4	7.5	0	0.0
34-35	1	1.9	0	0.0
Missing data	0		1	
Childhood residency				
Rocky Mts.	1	1.9	----	----
Midwest	4	7.5	3	5.7
South	42	79.2	41	77.4
Mid-Atlantic	1	1.9	2	3.8
More than one area	5	9.4	7	13.2
Education				
1-7 years	1	1.9	----	----
Junior high school	----	----	----	----
Some high school	----	----	----	----
Completed high school	1	1.9	2	3.8
Some college or specialized training	14	26.4	12	22.6
Completed college or university	23	43.4	27	50.9
Graduate or professional training	14	26.4	12	22.6
Occupational level				
Executives, professionals	13	27.1	3	6.1
Administrators, professionals	7	14.6	8	16.3
Managers, professionals	9	18.8	15	30.6
Semi-professionals, technicians	9	18.8	7	14.3
Sales and clerical workers	3	6.2	4	8.2
Craftsmen, skilled workers	3	6.2	1	2.0
Semi-skilled workers	2	4.2	1	2.0
Unemployed	2	4.2	10	20.4
Missing data	5		4	
Hours employed per week				
More than 40	17	33.3	15	28.8
31-40	26	51.0	20	38.5
21-30	1	2.0	1	1.9
Less than 20	7	13.7	16	30.8
Missing data	2		1	

Table 2--Interactions before marriage

Interaction	Couples N	Couples %
Months acquainted before marriage		
Less than 6	2	3.8
6-12	6	11.3
12-18	8	15.1
18-24		
24-30	7	13.2
More than 30	22	41.5
Months engaged		
Less than 6	21	39.6
6-12	25	47.2
12-18	3	5.7
18-24	2	3.8
24-30	2	3.8
More than 30	----	----
Meals per week eaten together regularly before marriage		
0-2	6	11.5
3-5	15	28.8
6-8	11	21.2
9-11	13	25.0
12-14	1	1.9
15 or more	6	11.5

meals per week together before marriage. The possible range of the familiarity (before marriage) index was 3-17; about 60% of the sample had an index value of 9 or more, indicating a potential for extensive familiarization of the spouses with each other's food habits (Table 40, Appendix C).

More wives than husbands had prepared some or all of their food before marriage (Table 3). About 30% of the husbands and 40% of the wives reported that most of their food before marriage was procured through other sources. Husbands ate out or bought ready-to-eat foods more than did wives. Many of the respondents thus did not do a great deal of food preparation just prior to marriage. Approximately 48% of the sample had been married less than nine months. The other couples were married nine to 18 months at the time of the interview.

Cognitive-Affective Variables

Values, Attitudes, and Beliefs

Ten interpretable attitude dimensions (indices) emerged from factor analysis of the responses to the food-related value-attitude-belief statements. The factors were labeled aesthetics-pleasure (Table 4), convenience (Table 5), nutrition (Table 6), familiarity (Table 7), economy (Table 8), "natural-health" foods (Table 9), food preparation skills and time (Table 10), marriage-spouse influence (Table 11), utility (Table 12), and food-away-from-home (Table 13). It should be noted that some factors contain both positively and negatively loaded statements. The negative loadings of certain variables attests to the negative association of that variable with the dimension. The clear

Table 3--Food preparation and procurement by husbands and wives[a] before marriage

Category	Husbands		Wives	
	N	%	N	%
I purchased and prepared most of the food I ate.	9	18.4	16	30.8
I purchased and prepared some of the food I ate.	15	30.6	15	28.8
Someone else (mother, relative, friend) prepared most of the food I ate.	11	22.4	16	30.8
Most of my food was obtained by eating out or buying ready-to-eat foods.	14	28.6	5	9.6
Missing data	4	----	1	----

[a]N = 53.

Table 4--Aesthetics-pleasure attitude statements[a]

Statement	Factor loading
The better a food looks, the better it tastes.	0.693
Attractive color and texture combinations in foods are important to me.	0.688
The food I eat must be attractive and flavorful.	0.641
A good way to gain recognition from friends is to be a good cook.	0.613
It is pleasing to me when meals contain foods of different colors and textures.	0.579
I feel it is important to prepare something special when entertaining.	0.573
I enjoy entertaining.	0.431
Planning meals ahead makes it possible to use time more efficiently.	0.430[b]

[a]N = 140 respondents.

[b]Statement also loaded on another factor.

Table 5--Convenience attitude statements[a]

Statement	Factor loading
I think that the new convenience foods are great.	0.813
The use of convenience foods takes much of the drudgery out of meal preparation and cleanup.	0.714
I wish that there were more convenience foods available.	0.695
The use of convenience foods saves time needed for other activities.	0.664
I will not hesitate to serve commercially prepared foods to guests.	0.609
Commercially prepared foods today are just as good as homemade foods.	0.593
We sometimes enjoy T.V. dinners.	0.522
Being able to prepare foods "from scratch" rather than from mixes is important to me.	-0.431[b]

[a]N = 140 respondents.

[b]Statement also loaded on another factor.

Table 6--Nutrition attitude statements[a]

Statement	Factor loading
Today food has so many vitamins and minerals added that people don't have to worry about their nutrition.	0.719
As long as proper weight is maintained, a person doesn't have to worry about nutrition.	0.702
People who drink milk don't have to worry about their nutrition.	0.622
The foods eaten will have little effect on the future health of an individual.	0.620
Nutrition is important and a person should not be careless about it.	-0.611
Eating meals with my spouse is important to me.	-0.522
I think it is important to plan a food budget and stick to it.	-0.517
Planning meals ahead makes it possible to use time more efficiently.	-0.410[b]

[a]N = 140 respondents.

[b]Statement also loaded on another factor.

Table 7--Familiarity attitude statements[a]

Statement	Factor loading
I prefer to eat food that is prepared like it was when I was growing up.	0.731
We enjoy trying out new recipes.	-0.663
I enjoy trying foods that are not familiar to me.	-0.662
I like to eat the foods that I am used to eating.	0.657
I prefer vegetables that are cooked to be tender-crisp rather than soft in texture.	-0.571
The foods that I like best are those that I learned to eat when I was growing up.	0.571
I don't like casseroles or similar mixtures of food.	0.525

[a]N = 140 respondents.

Table 8--Economy attitude statements[a]

Statement	Factor loading
We choose the foods we do mainly on the basis of cost.	0.761
Food cost limits the variety of foods we eat.	0.730
Money is the thing we consider most when planning our food.	0.713
We would choose very different foods than the ones that we do if we could afford them.	0.652
A good way to save is to buy primarily those foods on sale at lower prices.	0.490
We will eat some foods even if they are not our favorites because they are more economical.	0.450
Food quality is more important to us than food cost alone.	-0.401

[a]N = 140 respondents.

Table 9--"Natural-health" foods attitude statements[a]

Statement	Factor loading
The manufacturers of "health foods" are more concerned about the nutritional quality of foods than are those who manufacture "regular foods."	0.765
Manufacturers of "health foods" are more concerned about consumer safety than are those who manufacture "regular foods."	0.710
I prefer "well-done" rather than "medium" or "rare" meat.	0.599
"Natural" or "health foods" are not worth the cost.	-0.583
Eating food that is similar to that which my friends eat is important to me.	0.458

[a]N = 140 respondents.

Table 10--Food preparation skills and time attitude statements[a]

Statement	Factor loading
I like to spend time preparing food.	0.811
I think I have a variety of food preparation skills and can prepare most any type of food.	0.711
Knowing I can prepare meals that require much time and skill is a source of great personal pride to me.	0.710
Food preparation takes more skill than I thought it would before I was married.	-0.504
Being able to prepare foods "from scratch" rather than from mixes is important to me.	0.496[b]
Food preparation takes more time than I thought it would before I was married.	-0.440

[a] $N = 140$ respondents.

[b] Statement also loaded on another factor.

Table 11--Marriage-spouse influence attitude statements[a]

Statement	Factor loading
I am learning to eat more vegetables than I did before I was married.	0.739
I am learning to eat a larger variety of foods now that I am married.	0.715
My spouse enjoys trying foods that are not familiar to him/her.	0.514
My spouse has had a great deal of influence on the food that I eat.	0.445

[a]N = 140 respondents.

Table 12--Utility attitude statements[a]

Statement	Factor loading
Food can be plain as long as there is plenty of it.	0.669
Tough meat is acceptable if the flavor is good.	0.579
We would rather do without than buy poor-looking fruits and vegetables.	-0.575
I could eat the same thing every day.	0.546
I enjoy entertaining.	-0.422[b]

[a]N = 140 respondents.

[b]Statement also loaded on another factor.

Table 13--Food-away-from-home attitude statements[a]

Statement	Factor loading
Food purchased at fast food places is more expensive than the same kind of food prepared at home.	0.502
Eating out is too expensive for us to do often.	0.473
When we get together with friends, we prefer "potluck" meals rather than eating out, because potluck meals cost less.	0.468
When I eat out, I want food that is special.	0.445

[a]N = 140 respondents.

emergence of many interpretable factors indicates that several dimensions may be operational influences on the food-related behavior of young couples. The relative importance of any one dimension probably is determined situationally. The early emergence of a factor related to food aesthetics implies that taste, appearance, texture, and creativity with food are important to young couples to a stronger degree than perhaps economic considerations or familiarity. Convenience, the second dimension to emerge, indicates a priority for ease and time-saving as well as quality with regard to food. Separate nutrition and "natural-health" food dimensions and the loadings of the statements of each index indicates the distinction that young adults make between the two dimensions. Sims (1978a) and Calkins (1979) reported similar results from research with young adults in which only statements specifically related to nutrition and health were used.

Husbands' index scores differed significantly from the wives' ($p \leq 0.001$) on aesthetics-pleasure, food preparation skills and time, and utility factors. This is not surprising because the aesthetics-pleasure and the utility dimensions appear to be antithetical in content and food preparation tends to be wife-dominated. Examination of the direction of differences indicates that aesthetics seem to be more important to women while for men "food can be plain as long as there is plenty of it," Wives more than husbands tended to agree with the positively-loaded statements included in the food preparation skills and time factor and disagree with the negatively-loaded statements. Means, standard deviations, and paired t-test results for each attitude statement are given in Table 43, Appendix M. Results of the paired t-tests

should be viewed with caution due to the multiple comparisons made and the questionable existence of normal distribution on some responses.

In general, the dimensions which emerge are similar to those proposed or identified by others (Bayton, 1966; Axelson, 1979; Lau et al., 1979; Steelman, 1976). Another dimension, sociability, was projected to emerge but did not. Bayton (1977), Steelman (1976), and Raeburn et al. (1979) proposed dimensions related to social status and sociability; Axelson (1979) and Schutz et al. (1975, 1977) isolated such factors. In this sample, sociability or social status statements appear to be linked to other dimensions such as aesthetics-pleasure and food-away-from-home. The lack of a separate social factor may be linked to the emphasis and regard for individual, casual lifestyles and the limited time that the majority of the sample had been married. Because this sample was highly educated and tended to have professional positions, the need to attain greater social status may be lower than would be found in another sample.

The difference between husbands' and wives' perceptions of their adequacy of food preparation skills (statement 88) was not significant (Table 44, Appendix M). Wives agreed with statement 88 more and had a smaller standard deviation than did husbands. Neither was there a significant difference between husbands' and wives' marriage index (statements 22, 30, and 82; Table 44, Appendix M). The mean values indicate that the majority did not find the spouse to be an inhibiting influence on the variety of food eaten. Husbands slightly more than wives tended to agree that they were eating a larger variety of foods and that the spouse had had a great deal of influence on the foods they ate.

Food Preparation and Buying Knowledge

Frequencies of responses to each food preparation and buying question and item analysis results are listed in Tables 46 and 47, respectively, Appendix N. Several questions (3, 4, 10, 12, 18, 21, and 22) had discrimination values outside the recommended range of 0.3-0.7 (Gronlund, 1968), but only one (question 22) was judged sufficiently poor to warrant dropping responses from the final scoring. Cronbach's alpha for reliability of the questionnaire was 0.66 (Nie et al., 1975).

The mean score for wives was 64.3% with a standard deviation of 14.7. For husbands the mean score was 49.6% with a standard deviation of 19.7. Husbands' scores differed ($p < 0.001$) from wives' scores. More wives than husbands correctly answered all questions except 4, indicating that at least with respect to the content of this questionnaire, wives had more knowledge about food preparation and buying than did husbands. This result is not surprising; it does lend credibility to the resource theory, i.e., that decisions or tasks are assumed by the spouse with the greatest resources for processing those decisions and tasks (Wheeler and Arvey, 1981). Even during the early years of marriage, wives apparently have more resources than do husbands with regard to food preparation.

Food Avoidances

The most frequently listed reason for avoiding a food was a dislike for the taste, texture, or smell of a food, i.e., preference (Table 14). Many of the people whose responses were classified as "psychological" or "perceived to be unhealthy" listed sugar as the food they avoided. Only one respondent of the sample who completed diaries was a vegetarian.

Table 14--Reasons cited by husbands and wives for avoiding particular foods

Reason for avoidance	Number of times cited[a]	
	Husbands	Wives
Religious (organized doctrine)	1	2
Philosophical (ecological, ethical, political)	--	--
Vegetarian	1	2
Preference (taste, smell, texture)	23	18
Economical	1	--
Weight control	3	3
Allergies, therapeutic diets	2	9
Psychological, perceived personal physical effects	6	12
Perceived to be unhealthy (lack of nutrients, general negative effects)	7	13
Other	2	--

[a]N = 35 couples in which at least one spouse reported a food avoidance.

Situational Variables

Economic

The estimated fixed and variable monthly expenses are listed in Tables 15 and 16, respectively. Housing, transportation, and education expenses ranged from $0 to $400+ per month (Table 15). Most of the variable expenses, except medical care and other eeucation, ranged over a wide variety of categories (Table 16). Even among a fairly homogeneous sample, socio-culturally, economic patterns appear to have considerable diversity. Of interest is the fact that more than 30% of the sample reported saving nothing each month. This may be attributable to the number of students included in the sample and limited length of marriage.

The frequencies of responses to the shopping-budgeting questionnaire items are reported in Table 17. From a possible range of 19-57, the actual range of the index scores was 34-54 with a median of 45. Approximately 50% of the sample fell into the upper third of the possible range. While the majority indicated that they used unit pricing and compared prices among brands, 58.5% indicated they would not buy foods "not necessarily our favorite" just because the food was more economical. This may be a reflection of the importance of the aesthetics-pleasure dimension and the relative affluence of the group. Approximately 32% reported that they rarely or never planned the amount to spend for food and 40% did not follow a budget. For about one-third, then, economic planning is not usual, although other responses indicate that "wise" practices are being implemented. Other than grocery lists and coupon collection, the majority of these young couples appear to make food decisions during or after shopping. Implications are that increased

Table 15--Estimated fixed monthly expenses of young couples[a]

Item	Expenditure, $									
	0	1-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400	+ 400
	% of couples									
Housing	1.9	----	1.9	15.4	21.2	19.2	17.3	9.6	5.8	7.9
Household operation	----	13.7	51.0	29.4	2.0	3.9	----	----	----	----
Transportation	----	11.5	21.2	17.3	19.2	15.4	7.7	1.9	1.9	3.8
Insurance	----	30.8	40.4	26.9	----	----	----	----	1.9	----
Education	46.0	26.0	8.0	10.0	2.0	2.0	4.0	----	----	2.0

[a]N = 51.

Table 16--Estimated variable monthly expenses of young couples[a]

Item	Expenditure, $									
	0	1-25	26-50	1-75	76-100	101-125	126-150	151-175	176-200	+201
	% of couples									
Food away from home	----	25.5	27.5	17.6	11.8	5.9	9.8	2.0	----	----
Food at home	----	2.0	2.0	7.8	25.5	13.7	21.6	11.7	15.7	----
Clothing	5.9	43.1	25.5	13.7	7.8	2.0	2.0	----	----	----
Medical care	5.9	76.5	9.8	5.9	2.0	----	----	----	----	----
Recreation	2.0	49.0	27.5	9.8	3.9	3.9	3.9	----	----	----
Other education	26.5	65.3	6.1	2.0	----	----	----	----	----	----
Savings	31.4	7.8	5.9	11.8	3.9	9.8	3.9	2.0	7.8	15.7

[a]N = 51.

Table 17--Shopping-budgeting practices of young couples[a]

Practice	Usually	Sometimes	Rarely or never
	--------- % of couples ---------		
Use the information on labels to help make decisions about the nutritive value of food.	18.9	56.6	24.5
Purchase foods in amounts that we can use without waste or spoilage.	94.3	5.7	0.0
Plan an amount to spend for food each week or month.	47.2	20.8	32.1
Buy foods in quantity and store when this will result in a savings.	34.0	56.6	9.4
Use unit pricing to determine which brand or size is most economical.	79.2	20.8	0.0
Buy fresh fruits and vegetables in season when the price is lower.	77.4	17.0	5.7
Make or adjust meal plans in the store after seeing what the current prices are.	34.0	52.8	13.2
Buy foods that are not necessarily our favorite because they are more economical.	1.9	39.6	58.5
Write out a complete grocery list before shopping.	67.9	22.6	9.4
Collect coupons for products that we normally use.	60.4	30.2	9.4
Buy foods according to what appeals to me (us) while in the store and not particularly by price.	5.7	71.7	22.6
Plan meals before shopping to use foods that we have seen or heard advertised at special prices.	30.2	41.5	28.3

Table 17--Continued

Practice	Usually	Sometimes	Rarely or never
	--------- % of couples ---------		
Buy a quality or form of a food with the intended use in mind.	77.4	22.6	0.0
Buy foods we like without attention to expense.	1.9	67.9	30.2
Consider the amount of lean, fat, and bone when buying meat.[b]	86.3	9.8	3.9
Follow a pre-planned budget.	35.8	24.5	39.6
Shop when not hungry.	60.4	37.7	1.9
Try to do the grocery shopping when it won't be necessary to rush.	69.8	26.4	3.8
Compare prices among brands.[c]	86.5	13.5	0.0
Save and redeem trading stamps.[d]	35.8	15.1	49.1
Choose a grocery store specifically because trading stamps are offered.[d]	7.5	20.8	71.7
Collect and use coupons for products we've not tried before.[d]	11.3	50.9	37.7
Shop at more than one store to take advantage of money-saving specials.[d]	13.2	37.7	49.1

[a] N = 53.

[b] N = 53.

[c] N = 51.

[d] Not included in index.

information on how to compare costs in the grocery store would be more useful economically to young couples than menu planning tips. Additional support for this implication was the comparison of the actual number of store brands and national brands purchased by the respondents in this study. More national brands were purchased than were store brands ($p \leq 0.05$).

Food Expenditure Adjustment

The percentages of couples selecting each of the six options for projected adjustments of food purchases in 13 food groups are listed in Table 18. The food groups most likely to be "cut out temporarily" were snacks, desserts, and eating out. Milk products was the food group with the largest percentage of couples indicating that no changes would be made. The food groups with the largest percentages under the option "reduce the total spent" were meats, eating out, and non-alcoholic beverages. Meats, fresh and processed fruits and vegetables were food groups in which couples were most likely to spend about the same amount of money but for less expensive items. Only meat substitutes had a large percentage (31%) of couples indicating they would buy more of these items to replace others. A large percentage of couples (45%) said they did not use convenience main dishes; 39% used no alcoholic beverages.

Eliminating or cutting down purchases of "extra foods" such as desserts or snack items, the substitution of lower price meats or meat substitutes, and the maintenance of milk products are sound food purchase adjustments, economically and nutritionally. Young couples may know what actions are appropriate but whether or not they know what

Table 18--Food price adjustments of young couples[a] in percent choosing each action[b]

Food group	Actions					
	Make no changes	Cut out temporarily	Reduce the total amount spent for this group	Buy less expensive foods within the group, but spend about the same amount-	Buy more to replace other items	This doesn't apply because we don't use these foods
Meats, poultry, fish	10.4	6.3	43.7	33.3	2.1	4.2
Meat substitutes (cheese, beans, eggs, nuts)	33.3	4.2	22.9	8.3	31.3	0.0
Milk products	65.3	4.1	20.4	8.1	0.0	2.0
Fresh fruits and vegetables	18.4	24.5	28.6	20.4	6.1	2.0
Canned or frozen fruits and vegetables	38.8	8.2	18.4	18.4	8.2	8.2
Bread and cereal products	5.0	8.2	24.5	14.3	2.0	0.0
Beverages, non-alcoholic (excluding milk)	31.3	22.9	33.3	8.3	0.0	4.2
Beverages, alcoholic	6.1	38.8	14.3	2.0	0.0	38.8
Convenience main dishes (frozen pizza, dinner mixes, T.V. dinners, canned stew, etc.)	10.2	24.5	16.3	0.0	2.0	44.9
Snack foods	6.1	63.3	22.4	0.1	0.0	8.2
Desserts	8.2	61.2	18.4	2.0	0.0	10.2
Other foods (gelatin, pickles, syrups, oils, sauces, etc.)	39.6	18.7	29.2	12.5	0.0	0.0
Eating out	10.2	49.0	38.8	2.0	0.0	0.0

[a] N = 50.

[b] Directions: When food prices increase or when the money spent on food must be reduced or controlled (maybe to meet other expenses), it is necessary to make adjustments in food buying. Listed below (above) are some actions that can be taken. Please check the box that best describes the changes you make in each major food area when you must adjust food buying.

particular food choices would maximize the effectiveness of a chosen action is not known.

Personal and Social

Frequencies and means of responses of spouses to household decision-making and task items are listed in Tables 19 and 20, respectively. Only one decision, car care, and three tasks were clearly ascribed to husbands, i.e., had means greater than 3.5. In general, the means for husbands were higher than those of wives indicating that spouses tended to ascribe more power to themselves than to their spouses. While 21 of the means for husbands fell within the range of 2.5-3.5, only 14 of the wives' means fell within this range. Husbands generally classified more food-related decisions and tasks as being made equally or together than did wives. Across the sample, household activities tend to be assumed by the wife. Within the sample, however, deviations occur as can be noted by examining the classification of the husbands and wives into the four decision-making/task categories: husband-dominated, wife-dominated, syncratic, and autonomous (Table 21).

The food-related decision-making patterns of most husbands and wives were syncratic or wife-dominated; the dominant task patterns were autonomous or wife-dominated. The dominant non-food-related decision pattern definitely was syncratic while a division of labor existed when tasks were performed. Among these young couples decision-making tended to be perceived as conducted together but more tasks were performed by a single spouse than were done together. There is much more variety with regard to food-related patterns than with non-food-related. Men clearly participated in food-related decisions and tasks more than has been

Table 19--Husbands' and wives' perceptions of who makes household decisions

Decision	(5) Husband always decides	(4) Husband decides more than wife	(3) Decided equally or together	(2) Wife decides more than husband	(1) Wife always decides	Means	N
	%						
Food decisions							
What to fix for breakfast							
Husbands	11.59	20.29	40.58	26.09	1.45	3.14	69
Wives	2.86	22.86	41.43	31.43	1.43	2.94	70
What to fix for dinner							
Husbands	-----	7.14	35.71	42.86	14.29	2.36	70
Wives	-----	5.71	25.71	54.29	14.29	2.23	70
What foods to serve to guests							
Husbands	-----	13.04	33.33	40.58	13.04	2.46	69
Wives	-----	5.71	28.57	48.57	17.14	2.23	70
When to shop for groceries							
Husbands	4.29	4.29	48.57	28.57	14.29	2.56	70
Wives	-----	5.71	41.43	22.86	30.00	2.23	70
Where to shop for groceries							
Husbands	5.71	4.29	42.86	28.57	18.57	2.50	70
Wives	-----	2.86	52.86	10.00	34.29	2.24	70
How much to spend for food							
Husbands	7.25	11.59	53.62	18.84	8.70	2.90	69
Wives	1.43	10.00	57.14	18.57	12.86	2.69	70
What foods to purchase							
Husbands	1.43	5.71	47.14	35.71	10.00	2.53	70
Wives	-----	5.71	31.43	51.43	11.43	2.31	70
When to eat out together							
Husbands	2.86	20.00	70.00	7.14	-----	3.19	70
Wives	-----	14.29	82.86	2.86	-----	3.11	70

Table 19--Continued

Decision	(5) Husband always decides	(4) Husband decides more than wife	(3) Decided equally or together	(2) Wife decides more than husband	(1) Wife always decides	Means	N
	%						
Where to eat out together							
Husbands	-----	20.00	70.00	10.00	-----	3.10	70
Wives	-----	8.57	84.29	7.14	-----	3.01	70
What meats to eat							
Husbands	1.45	7.25	55.07	31.88	4.35	2.70	69
Wives	1.43	7.14	42.86	35.71	12.86	2.49	70
What vegetables to eat							
Husbands	-----	12.86	45.71	37.14	4.29	2.67	70
Wives	-----	11.43	30.00	48.57	10.00	2.43	70
What snacks to eat							
Husbands	5.71	31.43	47.14	15.71	-----	3.27	70
Wives	2.86	18.57	51.43	22.86	4.29	2.93	70
When to have meals							
Husbands	-----	10.00	62.86	27.14	-----	2.83	70
Wives	-----	11.43	50.00	35.71	2.86	2.70	70
How food will be prepared							
Husbands	1.43	10.00	17.14	54.29	17.14	2.24	70
Wives	1.43	7.14	11.43	58.57	21.43	2.09	70
Non-food decisions							
How to decorate our home							
Husbands	-----	7.14	37.14	45.71	10.00	2.41	70
Wives	-----	2.86	45.71	40.00	11.43	2.40	70

Table 19--Continued

Decision	(5) Husband always decides	(4) Husband decides more than wife	(3) Decided equally or together	(2) Wife decides more than husband	(1) Wife always decides	Means	N
	%						
When and how to do the laundry							
Husbands[b]	2.90	2.90	18.84	44.93	30.43	2.03	69
Wives	2.86	2.86	25.71	35.71	32.86	2.07	70
How to budget the money							
Husbands	8.82	22.06	51.47	14.71	2.94	3.19	68
Wives	5.71	17.14	55.71	12.86	8.57	2.99	70
What activities (movies, sports, church) to do together outside the home							
Husbands	-----	20.00	78.57	1.43	-----	3.19	70
Wives	-----	11.43	82.86	5.71	-----	3.06	70
When and how to clean our home							
Husbands	-----	5.71	27.14	50.00	17.14	2.21	70
Wives	-----	0.00	18.84	57.97	23.19	1.96	69
When to get together with friends							
Husbands	-----	15.71	74.29	10.00	-----	3.06	70
Wives	1.45	11.59	75.36	11.59	-----	3.03	69
When the car needs maintenance							
Husbands	43.48	46.38	7.25	2.90	-----	4.30	69
Wives[b]	36.23	39.13	21.74	1.45	1.45	4.07	69
What T.V. shows to watch							
Husbands	1.43	27.14	61.43	10.00	-----	3.20	70
Wives	1.43	18.57	77.14	2.86	-----	3.19	70

Table 20--Husbands' and wives' perceptions of who does household tasks

Task	(5) Husband always does this	(4) Husband does this more than wife	(3) Both do this equally	(2) Wife does this more than husband	(1) Wife always does this	Means	N
	%						
Food tasks							
Prepare breakfast							
Husbands	12.31	16.92	27.69	40.00	3.08	2.95	69
Wives	10.14	13.04	23.19	33.33	20.29	2.59	69
Prepare evening meal							
Husbands	1.52	7.58	10.61	56.06	24.24	2.06	66
Wives	2.90	7.25	8.70	53.62	27.54	2.04	69
Shop for groceries							
Husbands	3.03	-----	62.12	25.76	9.09	2.62	66
Wives	1.45	2.90	43.48	33.33	18.84	2.35	69
Prepare food when having guests							
Husbands	3.03	9.09	27.27	34.85	25.76	2.29	66
Wives	-----	5.80	20.29	37.68	36.23	1.96	69
Set the table							
Husbands	-----	13.64	31.82	46.97	7.58	2.52	66
Wives	-----	7.25	34.78	34.78	23.19	2.26	69
Do the evening dishes							
Husbands	1.54	15.38	21.54	47.69	13.85	2.43	65
Wives	4.35	14.49	23.19	40.58	17.39	2.48	69
Dispose of the garbage							
Husbands	24.24	48.48	15.15	9.09	3.03	3.82	66
Wives	26.09	40.58	23.19	10.14	-----	3.83	69

Table 20--Continued

Task	(5) Husband always does this	(4) Husband does this more than wife	(3) Both do this equally	(2) Wife does this more than husband	(1) Wife always does this	Means	N
	%						
Non-food tasks							
Do the laundry							
Husbands	3.08	6.15	29.23	40.00	21.54	2.29	65
Wives	2.90	2.90	28.99	36.23	28.99	2.14	69
Decorate the home							
Husbands	-----	7.58	36.36	43.94	12.12	2.39	66
Wives	-----	4.35	37.68	34.78	23.19	2.23	69
Carry the checkbook							
Husbands	4.62	15.38	33.85	32.31	13.85	2.65	65
Wives	1.45	13.04	33.33	17.39	34.78	2.29	69
Write checks to pay bills							
Husbands	22.73	24.24	24.24	19.70	9.09	3.32	65
Wives	14.49	18.84	26.09	26.09	14.49	2.93	69
Clean the house							
Husbands	-----	4.55	37.88	54.55	3.03	2.44	66
Wives	-----	1.45	40.58	52.17	5.80	2.38	69
Initiate "get-togethers" with friends							
Husbands	-----	10.61	77.27	12.12	-----	2.98	65
Wives[d]	1.47	17.65	58.82	20.59	1.47	2.97	68
Make entertainment arrangements							
Husbands	1.56	23.44	60.94	14.06	-----	3.12	64
Wives	-----	17.39	56.52	23.19	2.90	2.88	69

Table 20--Continued

Task	(5) Husband always does this	(4) Husband does this more than wife	(3) Both do this equally	(2) Wife does this more than husband	(1) Wife always does this	Means	N
	%						
Take care of the car							
Husbands	58.33	30.00	8.33	3.33	0.00	4.43	60
Wives	50.00	35.29	13.24	-----	1.47	4.32	68
Make minor household repairs							
Husbands	29.23	47.69	21.54	1.54	-----	4.05	65
Wives	21.74	50.72	26.09	-----	1.45	3.91	69

Table 21--Classification of respondents'[a] perceptions and mean score for decisions and tasks

Item	Husbands	Wives	P
DECISIONS			
Food-related			
Husband-dominated	5.71%	2.86%	
Wife-dominated	25.71%	41.43%	
Syncratic	50.00%	42.86%	
Autonomous	18.57%	12.86%	
Mean ± s.d.	2.75 ± 0.48	2.54 ± 0.48	0.001
Non-food-related			
Husband-dominated	2.86%	2.86%	
Wife-dominated	-----	5.71%	
Syncratic	94.29%	90.00%	
Autonomous	2.86%	1.43%	
Mean ± s.d.	2.95 ± 0.26	2.84 ± 0.25	0.003
TASKS			
Food-related			
Husband-dominated	4.29%	2.86%	
Wife-dominated	38.57%	51.43%	
Syncratic	11.43%	12.86%	
Autonomous	40.00%	31.43%	
Mean ± s.d.	2.67 ± 0.48	2.50 ± 0.52	0.001
Non-food-related			
Husband-dominated	11.43%	5.71%	
Wife-dominated	7.14%	14.29%	
Syncratic	-----	-----	
Autonomous	75.71%	78.57%	
Mean ± s.d.	3.06 ± 0.39	2.72 ± 0.30	0.001

[a] $65 \leq N \leq 70$.

previously reported in other studies with samples of different composition (Centers et al., 1971; Lovingood and Firebaugh, 1978; Wheeler and Arvey, 1981).

The sociability indices (total number of person-events given and received per week) and a breakdown of these are presented in Table 22. An average of 1.54 person-events per week was given and about 2.94 were received. One couple was removed from analysis because the large number of meals incurred while living with parents for a week was not typical of their normal independent living pattern.

The mean difference in the number of person-events prepared by husbands and wives was significant ($p \leq 0.001$); the difference in the number of person-events received was not. The range in values for the indices shows much variation in social patterns. Some couples appear to share meals often with others; other couples rarely do.

Husbands were most likely to receive meals from relatives or others (not necessarily friends), probably in the form of business lunches. All sources, i.e., friends, relatives, or others, were equally likely sources for wives' received person-events. Relatives were the most common source of the guest meals the couple received when they were together. Couples were more likely to receive meals from than to prepare meals for relatives. For this sample, family ties apparently were fairly strong during these early months of marriage.

Resources

The income levels of the sample varied from less than $600 per month to more than $2400 per month (Table 23). Three couples had less than $800 per month income. Approximately 50% had more than $1600 per

Table 22--Sociability indices (average number[a] of person-events of food given or received per week)[b]

Item	Mean ± s.d.	Minimum	Maximum
Total given	1.54 ± 1.42	0.00	5.25
Husband	0.09[c] ± 0.26	0.00	1.25
Wife	1.11[c] ± 1.37	0.00	5.25
Both	0.28 ± 0.58	0.00	2.25
Total received	2.94 ± 2.15	0.00	8.50
Husband	0.39[d] ± 0.78	0.00	3.50
Wife	0.29[d] ± 0.49	0.00	2.00
Both	2.25 ± 1.86	0.00	8.00
Market units of food received	1.52 ± 2.31	0.00	11.00

[a]Meals and snacks reported in "person-events," i.e., 2 person/occasion = 2 "person-events."

[b]N = 55.

[c]Significant difference between the number given by husbands and wives.

[d]Non-significant difference between the number received by husbands and wives.

Table 23--Total monthly income of young couples[a] before taxes

Level of income	N	% of couples
Less than $800	3	5.8
$801-1000	4	7.7
$1001-1200	2	3.8
$1201-1400	5	9.6
$1401-1600	12	23.1
$1601-1800	10	19.2
$1801-2000	5	9.6
$2001-2200	1	1.9
$2201-2400	4	7.7
More than $2400	6	11.5
Missing data	1	

[a]N = 52.

month, or an annual income of about $19,200 before taxes. The average income of Southern husband-wife households, both spouses working, was $23,833 in 1978. The overall mean per capita income in the South in 1979 was $8,728 (Bureau of the Census, 1980).

The average allocations of time by husbands and wives for work, food preparation, personal care, home care, and recreation differed by more than 1.5 hours (Table 24). The difference in work hours may be artificial because fewer wives than husbands worked outside the home. The differences in food preparation and home care indicate that wives devoted a greater number of hours to these activities.

The majority of the couples interviewed had an average size stove and oven (Table 25). A little over 50% had large refrigerators with separate freezer compartments. Except for two, the rest of the sample had medium refrigerators. Only five couples owned freezers, twice as many had microwaves, and about 40% had dishwashers. The amount of counter-top area and storage space varied considerably because dwellings ranged from a one-room hotel accommodation with no permanent kitchen facilities to new homes with abundant space.

Over 80% of the sample used no home-grown food; 92% had no meat stored. Nine couples (15%) reported using at least 1 pint of home-grown vegetables per week, but only two couples reported using more than 3 pints. The amount of home-grown food used was not considered large enough to warrant removing these couples from analysis of the food expenditures.

Table 24--Means of time allocated to various activities by husbands[a] and wives[b]

Activity	Hours per week	
	Husbands	Wives
Shopping for food	1.27	1.72
Eating	10.82	9.92
Food preparation and cleanup	4.94	10.36
Personal care	6.69	8.46
Sleeping	51.69	52.78
Work or profession or school	43.39	39.78
Home care	4.14	6.22
Religious, civic activities	3.10	3.90
Exercise	3.43	2.65
Recreation, leisure, social activities	20.42	18.73

[a] N = 49.

[b] N = 50.

Table 25--Food preparation and storage facilities of young couples[a]

Facility	Range of numbers	Average number/ household
Stove and oven:		
Efficiency (22 in. wide)	7	
Average (30 in. wide)	61	
Large (two ovens)	1	
Microwave	10	
Convection	1	
Counter-top area, sq. ft.:		
Less than 10	14	
8-10	19	
More than 10	20	
Dishwasher	31	
Refrigerator:		
Small	2	
Medium	32	
Large	38	
Freezer units:		
Inside refrigerator	35	
Outside refrigerator	35	
Small	1	
Medium	2	
Large	2	
Pantry	19	
Drawers	0-11	4.4
Cabinets:		
Small	0-11	4.2
Medium	0-13	5.1
Large	0-14	4.3

[a]N = 70 couples, but not all totals equal 70 because some couples had more than one facility, while one couple had no facilities.

Food Acceptance

Food-Away-From-Home

The average amount spent per week for food-away-from-home was $19.03 and the average number of person-events (including snacks) was 8.83 (Table 26). The average amount spent per person-event was thus $2.16. Purchasing foods for others was a relatively rare occurrence.

There was considerable variance in the expenditure patterns as indicated by the standard deviations, which often exceed the mean in actual value. Eating out is apparently a major part of some couples' food consumption patterns, but relatively minor for others. The small average cost per event for husbands' and wives' separate meal events (about $0.71) suggests that these couples perceive that the cost of commercially-prepared food is acceptable as was suggested by Matsumoto (1979). The small average cost per event can be attributed to the number of snacks purchased.

Food-At-Home

Couples averaged 2.43 shopping trips per week at an average of 2.37 stores (Table 27). Wives' average number of trips and average dollars spent per trip exceeded husbands' ($p \leq 0.05$). The average dollars spent when both spouses shopped together was higher than when either spouse shopped alone ($p \leq 0.05$).

The average expenditure per week for all trips was $30.67. It should be noted that these totals included all items purchased, including both food and non-consumables. The average amount spent for food alone was $26.74.

Table 26--Average number of person-events and dollars spent per week for food-away-from-home by young couples

Who purchased[a]	# person-events ± s.d.	$ spent ± s.d.	% of total
Husband			
Fast-food	0.67 ± 0.90	1.30 ± 1.71	
Cafeteria	0.36 ± 0.83	0.79 ± 2.21	
Full-service	0.36 ± 0.76	1.02 ± 1.91	
Total meals	1.40 ± 1.40	3.10 ± 3.45	15.79
Snacks	1.16 ± 1.65	0.71 ± 1.10	6.60
Wife			
Fast-food	0.52 ± 0.99	0.98 ± 1.73	
Cafeteria	0.55 ± 1.06	0.90 ± 1.75	
Full-service	0.35 ± 0.60	1.21 ± 2.31	
Total meals	1.42 ± 1.66	3.09 ± 3.99	13.60
Snacks	1.36 ± 1.77	0.72 ± 1.09	5.21
Both			
Fast-food	0.53 ± 0.56	2.72 ± 2.92	
Cafeteria	0.14 ± 0.31	0.82 ± 1.92	
Full-service	0.56 ± 0.57	6.17 ± 7.03	
Total meals	2.42 ± 1.93	9.67 ± 8.03	50.49
Snacks	0.86 ± 0.94	0.97 ± 1.36	4.71
Other			
Fast-food	0.07 ± 0.18	0.13 ± 0.35	
Cafeteria	0.01 ± 0.10	0.05 ± 0.42	
Full-service	0.08 ± 0.28	0.53 ± 1.99	
Total meals	0.17 ± 0.38	0.77 ± 2.11	3.23
Snacks	0.06 ± 0.19	0.08 ± 0.31	0.31
Overall total	8.83 ± 5.96	19.03 ± 13.83	

[a]N = 55; both = when couple ate together, not separately; other = food purchased by couple but consumed by another, reimbursements excluded.

Table 27--Average number of shopping trips and dollars spent per week by young couples[a]

Event and who performed event	Mean ± s.d.	Range
Shopping trips per week		
Husband	0.65 ± 0.75	0.00- 3.75
Wife	0.97 ± 0.90	0.00- 4.00
Both	0.80 ± 0.74	0.00- 3.50
Total	2.43 ± 1.17	0.50- 5.50
Dollars spent per trip		
Husband	4.87 ± 8.78	0.00-48.88
Wife	10.73 ± 10.09	0.00-37.00
Both	15.07 ± 11.02	0.00-46.45
Total	30.67 ± 10.43	3.27-57.73
Dollars for food	26.74 ± 9.23	
Number of different stores shopped per week	2.37 ± 1.13	0.50- 5.50

[a]N = 55.

The average number and percentage of market units purchased in each of the 24 food subgroups and the amount spent for each are presented in Table 28. This information is summarized into 10 major food groups in Table 29. The highest average per week expenditure was for meat and meat substitutes; milk product expenditure was the next highest. The least amount spent per week for was sweets. The majority of meat items purchased were in the low-price category. Legumes, poultry, processed meats, and egg purchases contributed to this (Table 29). The purchases of fresh beef, poultry, and pork items tended to be high-, medium-, and low-priced, respectively. Milk product purchases were primarily in the medium-price category. The largest percentage of fruit and vegetable purchases were in the low-price category. Fresh fruits were more likely to be purchased in this category than processed fruits. The majority of both fresh and processed vegetable purchases were low-priced. Bread and flour product purchases were primarily in the low-price category; rice and pasta purchases were usually medium-price items. The largest percentages of purchases in other foods and sweets were in the low-price category. Prepared meal items and convenience purchases were evenly distributed across all categories.

The largest percentage of the at-home food dollar was 25.48% spent for meat and meat substitutes (Table 30). The largest percentages of this were beef, processed meats, and pork, respectively (Table 31). Milk products and beverages expenditures accounted for the next largest percentages, 12.56% and 11.74% respectively. Although convenience foods expenditure appears to be the second largest, it should be kept in mind that this is a composite group which includes items accounted for in

Table 28--Average[a] market units purchased and dollars spent per week for low-, medium-, and high-price categories of 24 subgroups of food

Subgroup	Low	Medium	High	Total[b]
Appetizers/salty snacks				
Number, market units	0.16	0.17	0.43	0.76
%, market units	24.88	24.00	51.06	
Dollars spent	0.12	0.19	0.57	0.89
Beverages, non-alcoholic				
Number, market units	0.82	1.30	0.79	2.98
%, market units	29.99	44.67	23.93	
Dollars spent	0.59	0.99	0.74	2.32
Beverages, alcoholic				
Number, market units	0.00	0.00	0.30	0.30
%, market units	0.00	0.00	100.00	
Dollars spent	0.00	0.00	0.84	0.84
Breads/flour products				
Number, market units	1.62	0.81	0.32	2.76
%, market units	56.33	31.43	12.02	
Dollars spent	0.97	0.70	0.39	2.06
Cheese				
Number, market units	0.10	0.14	0.54	0.78
%, market units	10.46	24.75	64.79	
Dollars spent	0.15	0.37	1.10	1.54
Condiments/baking supplies				
Number, market units	1.31	0.37	0.52	2.19
%, market units	61.04	14.96	24.00	
Dollars spent	0.56	0.21	0.37	1.14
Desserts				
Number, market units	0.45	0.23	0.28	0.97
%, market units	36.31	27.57	34.43	
Dollars spent	0.23	0.29	0.32	0.85
Fats/oils				
Number, market units	0.36	0.14	0.03	0.53
%, market units	67.80	28.10	4.10	
Dollars spent	0.30	0.15	0.07	0.53
Jams/jellies/sugars				
Number, market units	0.76	0.15	0.11	1.03
%, market units	56.66	28.73	15.61	
Dollars spent	0.31	0.11	0.12	0.54
Milk products				
Number, market units	0.34	2.11	0.76	3.21
%, market units	11.79	58.80	29.41	
Dollars spent	0.24	1.16	0.65	2.05
Prepared meal items				
Number, market units	0.58	0.48	0.54	1.60
%, market units	36.09	31.20	32.91	
Dollars spent	0.41	0.34	0.43	1.18

Table 28--Continued

Subgroup	Low	Medium	High	Total[b]
Legumes				
Number, market units	0.07	0.19	0.18	0.44
%, market units	20.36	34.39	45.25	
Dollars spent	0.04	0.12	0.22	0.38
Rice/pasta				
Number, market units	0.10	0.24	0.05	0.38
%, market units	25.01	58.30	16.69	
Dollars spent	0.06	0.16	0.05	0.27
Fruit, fresh				
Number, market units	1.77	0.34	0.40	2.51
%, market units	62.18	15.26	22.56	
Dollars spent	0.66	0.22	0.36	1.23
Fruit, processed				
Number, market units	0.25	0.23	0.20	0.67
%, market units	25.81	35.62	38.57	
Dollars spent	0.14	0.15	0.19	0.48
Vegetables, fresh				
Number, market units	1.91	0.56	0.45	2.92
%, market units	62.88	21.29	15.84	
Dollars spent	0.92	0.32	0.45	1.70
Vegetables, processed				
Number, market units	1.32	0.44	0.42	2.18
%, market units	57.47	16.92	25.61	
Dollars spent	0.58	0.29	0.41	1.27
Beef, fresh				
Number, market units	0.32	0.48	0.43	1.23
%, market units	28.02	41.00	30.98	
Dollars spent	0.39	0.88	1.10	2.37
Poultry, fresh				
Number, market units	0.42	0.39	0.13	0.92
%, market units	29.70	48.39	22.23	
Dollars spent	0.23	0.45	0.22	0.91
Pork, fresh				
Number, market units	0.24	0.22	0.18	0.63
%, market units	42.01	27.00	30.99	
Dollars spent	0.31	0.30	0.33	0.94
Other meats, fresh				
Number, market units	0.00	0.15	0.01	0.16
%, market units	0.00	71.43	28.57	
Dollars spent	0.00	0.26	0.05	0.31
Meats, frozen				
Number, market units	0.01	0.16	0.07	0.24
%, market units	6.67	54.08	39.26	
Dollars spent	0.02	0.18	0.17	0.37

Table 28--Continued

Subgroup	Low	Medium	High	Total[b]
Meats, processed				
Number, market units	0.61	0.71	0.07	1.39
%, market units	46.46	47.46	6.08	
Dollars spent	0.50	0.87	0.17	1.54
Eggs				
Number, market units	0.54	0.00	0.00	0.54
%, market units	100.00	0.00	0.00	
Dollars spent	0.40	0.00	0.00	0.40
Convenience				
Number, market units	1.43	1.12	1.12	3.61
%, market units	36.24	30.53	33.21	
Dollars spent	1.01	1.29	1.30	3.13

[a]N = 54.

[b]May vary slightly due to rounding.

Table 29--Average[a] market units purchased and dollars spent per week for low-, medium-, and high-price categories of 10 major groups of food

Group	Low	Medium	High	Total
Beverages				
Number, market units	0.82	1.30	1.10	3.28
%, market units	27.44	39.99	31.27	
Dollars spent	0.69	0.99	1.59	3.17
Grain products				
Number, market units	1.72	1.05	0.36	3.14
%, market units	53.10	34.16	12.55	
Dollars spent	1.03	0.86	0.44	2.33
Milk products				
Number, market units	0.44	2.25	1.30	3.98
%, market units	11.15	50.40	38.45	
Dollars spent	0.40	1.53	1.76	3.59
Fruits				
Number, market units	2.02	0.57	0.60	3.19
%, market units	55.30	21.14	23.55	
Dollars spent	0.79	0.37	0.55	1.71
Vegetables				
Number, market units	3.23	1.00	0.87	5.10
%, market units	61.46	19.24	19.30	
Dollars spent	1.50	0.61	0.86	2.97
Meat/meat substitutes				
Number, market units	2.20	2.29	1.07	5.54
%, market units	42.40	39.29	18.61	
Dollars spent	1.88	3.08	2.25	7.22
Sweets (desserts, sugars)				
Number, market units	1.21	0.38	0.40	2.00
%, market units	48.73	28.08	24.92	
Dollars spent	0.54	0.40	0.44	1.38
Other foods				
Number, market units	1.83	0.67	0.98	3.48
%, market units	52.43	19.69	27.86	
Dollars spent	0.98	0.55	1.02	2.56
Prepared meal items				
Number, market units	0.58	0.48	0.54	1.60
%, market units	36.08	31.20	32.91	
Dollars spent	0.41	0.34	0.43	1.18
Convenience products				
Number, market units	1.43	1.09	1.08	3.61
%, market units	36.24	30.53	33.21	
Dollars spent	1.01	1.30	1.29	3.13

[a]N = 54.

Table 30--Percentages of food dollars to 10 major groups of food, total food-at-home, and total food-away-from-home

Group	Mean ± s.d.	Minimum	Maximum
Beverages	11.74 ± 6.74	0.00	28.24
Grain products	8.99 ± 3.28	3.07	20.28
Milk products	14.43 ± 6.84	2.73	44.19
Fruit	6.48 ± 4.81	0.00	20.99
Vegetables	10.84 ± 5.02	0.00	20.81
Meat/meat substitutes	25.48 ± 10.91	0.00	55.41
Sweets (desserts, sugars)	5.66 ± 4.32	0.00	25.64
Other foods	9.67 ± 5.32	0.00	23.90
Prepared meal items	4.75 ± 5.53	0.00	27.27
Convenience foods	12.56 ± 11.37	0.00	70.30
Total food-at-home	61.51 ± 20.52	18.68	100.00
Total food-away-from-home	38.49 ± 20.52	0.00	81.32

Table 31--Percentages of food dollars spent on 24 subgroups of food by young couples[a]

Subgroup	Mean	s.d.	Minimum	Maximum
Appetizers/salty snacks	3.49	3.53	0.00	17.22
Beverages, non-alcoholic	8.63	5.36	0.00	22.19
Beverages, alcoholic	3.11	5.24	0.00	19.42
Breads/flour products	8.07	3.31	2.54	20.28
Cheese	6.07	3.86	0.00	14.33
Condiments/baking supplies	4.28	3.32	0.00	16.71
Desserts	3.50	3.62	0.00	16.77
Fats/oils	1.90	2.03	0.00	9.19
Jams/jellies/sugars	2.16	2.33	0.00	8.88
Milk products	8.36	5.73	0.00	31.56
Prepared meal items	4.75	5.53	0.00	27.27
Legumes	1.34	1.68	0.00	5.72
Rice/pasta	0.91	1.05	0.00	3.78
Fruit, fresh	4.78	3.99	0.00	15.83
Fruit, processed	1.70	2.03	0.00	9.87
Vegetables, fresh	6.27	4.55	0.00	18.91
Vegetables, processed	4.57	3.03	0.00	10.87
Beef, fresh	8.65	7.22	0.00	30.40
Pork, fresh	3.31	3.02	0.00	11.01
Poultry, fresh	3.17	3.55	0.00	14.69
Other meats, fresh	0.84	3.66	0.00	26.16
Meats, frozen	1.16	2.94	0.00	18.67
Meats, processed	5.51	4.60	0.00	21.32

Table 31--Continued

Subgroup	Mean	s.d.	Minimum	Maximum
Eggs	1.50	1.28	0.00	5.42
Convenience	12.56	11.37	0.00	70.30

[a]N = 55.

other groups. Prepared meal items, primarily main dish foods, accounted for the lowest portion (47.5%) of the food dollar. The proportion of the food dollar spent on other foods (9.67%) exceeded those spent for fruits (6.48%), sweets (5.66%), and grain products (8.99%). Clearly the total food expenditure can vary considerably based on the amount spent for these "extra foods." The percentages of the food dollar spent on the 24 subgroups of food are given in Table 31. Together, sweets, other foods, and prepared meal items account for almost 20% of the food dollar. The emphasis young couples place on aesthetics and convenience (attitude dimensions) may account for these expenditures.

This distribution of the percentages of the food dollar varies considerably from those reported for other Southern families (Raunikar, 1981b) of the total dollars spent for food-at-home. Georgia families spent 38.6% for meats and meat substitutes, 12.9% for milk products, 11.8% for grain products, 8.7% for vegetables, 7.8% for fruits, 6.4% for beverages, and the remainder, about 13.9%, for all other foods.

The average weekly per capita expenditure for food-at-home was $11.45; for food-away-from-home the average weekly per capita expenditure was $2.19. Even considering that the Georgia data were collected in October-December 1980, the percentages and amounts are quite different. The Georgia families spent about 16% of the total food expenditure for food-away-from-home; this sample spent about 38%. This difference could cause considerable shifts in the distribution of the food dollar. About 62% of the total amount spent by young couples for food was for food-at-home. This percentage is considerably lower than that spent by other Southern families (Raunikar, 1981b).

Meal Practices

Before marriage, the percentages of husbands who ate meals most days were greater than the percentages of wives, but the percentages for snacks were virtually the same (Table 32). Husbands consumed breakfast significantly ($p \leq 0.05$) more often than did wives. About 37% of the husbands and 47% of the wives reported that they ate breakfast three to four times per month or less. There were no significant differences between husbands' and wives' present frequencies of meal consumption. There were no significant differences between husbands before marriage and present frequencies of meals or snacks consumed. Wives, however, consumed all meals, but not snacks, significantly more often after marriage than before ($p \leq 0.05$). For wives, then, marriage had a positive influence on the frequency of meal consumption.

Variables Associated With Food Expenditure

The regression summaries for expenditures for all food-at-home and food-away-from-home are presented in Table 33. Tables 34-37 are summaries of the regression models for average dollars spent per week, average number of market units purchased per week, average cost per market unit, and the percentages of the food dollar spent for the ten major groups of food.

Fifty-one independent variables were entered into each regression including 17 measurements on the couple and 17 on each spouse. Included were five socio-cultural variables (spouses' education levels, couple social status, husband's age, and before-marriage familiarity), 11 cognitive-affective variables for each spouse (10 attitude indices and the food preparation and buying knowledge score), 14 situational

Table 32--Previous and present meal and snack practices of husbands[a] and wives[a]

Item	% Responses										Number/ no answer	
	All or most days		3-4 days/week		3-4 times/month		Once/month or less		Never			
	Husbands	Wives	Husbands	Wives	Husbands	Wives	Husbands	Wives	Husbands	Wives	Husbands	Wives
Breakfast												
Before marriage	44.8	23.5	17.9	29.4	29.8	32.4	6.0	11.8	1.5	2.9	1	1
Now	39.4	32.4	21.2	33.8	30.3	26.5	7.6	7.4	1.5	----	2	1
Noon meal												
Before marriage	79.1	70.6	19.4	20.6	1.5	5.9	----	1.5	----	1.5	1	1
Now	81.5	79.4	10.8	16.2	7.7	4.4	----	----	----	----	8	1
Evening meal												
Before marriage	88.1	80.9	11.9	17.6	----	1.5	----		----		1	1
Now	95.4	97.1	1.5	1.5	3.0	1.5	----	----	----	----	2	1
Snacks												
Before marriage	55.4	55.9	32.3	25.0	9.2	17.7	1.5	1.5	1.5	----	3	1
Now	43.8	45.6	40.6	35.3	14.01	17.6	1.6	1.5	----	----	4	1
Meals purchased away from home												
Breakfast	6.0	12.3	6.0	13.8	16.4	3.9	49.2	2.5	22.4	1.0	1	1
Noon meal	19.4	17.9	26.9	20.9	43.3	34.3	9.0	20.9	1.5	6.0	1	2
Evening meal	----	5.9	6.0	10.3	76.1	67.6	17.9	16.2	----		1	1
Meals eaten with spouse												
Breakfast	19.7	26.9	21.2	10.4	40.9	38.8	12.1	19.4	6.1	4.5	2	2
Noon meal	3.0	1.5	20.9	10.4	56.7	59.7	16.4	14.9	3.0	13.4	1	2
Evening meal	89.6	86.8	6.0	10.3	4.5	2.9	----	----	----	----	1	1
Guests to home for meals												
Breakfast	----	----	----	----	1.5	1.5	46.3	30.9	52.2	67.6	1	1
Noon meal	----	----	----	----	3.0	1.5	64.2	58.8	32.8	39.7	1	1
Evening meal	----	1.5	----	----	64.2	44.1	32.8	52.9	3.0	1.5	1	1

[a]N = 68.

Table 33--Regression coefficients and probabilities for independent variables of total expenditures and percentages for food purchased by young couples[a]

Variables	b values	Prob. > F
Total $ for all food (R^2 = 0.76)		
Intercept	6.636	
Economy index, husband (H)	5.827	0.0011
Utility index (H)	-3.805	0.0087
Score, food prep., wife (W)	0.233	0.0297
Income	0.951	0.0059
Estimated (Est.) $ for housing	-1.913	0.0083
Est. $ for transportation	-1.763	0.0100
Est. $ for food-at-home	1.685	0.0115
Est. $ for food-away-from-home	2.551	0.0023
Est. $ saved	-1.256	0.0037
Time, shopping (H)	3.620	0.0081
Time, food prep. (H)	1.532	0.0001
Person-events, given	4.662	0.0003
Person-events, received	3.261	0.0357
Food-at-home, total $ (R^2 = 0.67)		
Intercept	39.397	
Marriage-spouse index (H)	2.189	0.0364
Utility index (H)	-2.207	0.0408
Food prep. skills index (W)	2.643	0.0189
Status	-0.461	0.0009
Income	1.048	0.0001
Est. $ for transportation	-1.073	0.0235
Est. $ for food-at-home	2.080	0.0001
Est. $ for food-away-from-home	-2.270	0.0004
Food-away-from-home, total $ (R^2 = 0.76)		
Intercept	-46.511	
Convenience index (H)	3.020	0.0197
Economy index (H)	6.490	0.0001
Marriage-spouse index (H)	-2.243	0.0655
Utility index (H)	-2.514	0.0485
"Natural-health" foods index (W)	-3.208	0.0565
Food tasks (W)	18.146	0.0001
Est. $ for housing	-1.025	0.0471
Est. $ for transportation	-1.161	0.0520
Est. $ for food-away-from-home	4.672	0.0001
Time, food prep. (W)	0.559	0.0315
Person-events, given	4.084	0.0001
Food-away-from-home, total number of meals and snacks (R^2 = 0.58)		
Intercept	0.669	
Familiarity index (H)	1.548	0.0165

Table 33--Continued

Variables	b values	Prob. > F
"Natural-health" foods index (H)	1.423	0.0274
Familiarity index (W)	-3.277	0.0002
Food tasks (H)	2.831	0.0373
Education (H)	-2.640	0.0055
Status	0.192	0.0636
Est. $ for food-away-from-home	1.281	0.0008
% of $, food-at-home ($R^2$ = 0.57)		
Intercept	124.700	
Convenience index (H)	-5.002	0.0466
Economy index (H)	-6.430	0.0239
Marriage-spouse index (H)	5.384	0.0139
Food tasks (W)	-18.190	0.0004
Income	0.849	0.0516
Est. $ for food-away-from-home	-6.532	0.0001
% of $, food-away-from-home ($R^2$ = 0.57)		
Intercept	-24.700	
Convenience index (H)	5.001	0.0466
Economy index (H)	6.430	0.0239
Marriage-spouse index (H)	-5.384	0.0139
Food tasks (W)	18.190	0.0004
Income	-0.849	0.0516
Est. $ for food-away-from-home	6.532	0.0001

[a]N = 46.

Table 34--Regression coefficients and probabilities of independent variables for average dollars spent per week by young couples[a] on 10 major food groups

Food groups and variables	b values	Prob. > F
Beverages (R^2 = 0.87)		
Intercept index	6.517	
Convenience index, husband (H)	0.420	0.0232
Nutrition index (H)	0.570	0.0028
Familiarity index (H)	-0.525	0.0017
Utility index (H)	-0.846	0.0001
Familiarity index, wife (W)	0.664	0.0005
Food prep. skills index (W)	0.865	0.0001
Utility index (W)	0.441	0.0314
Shopping-budgeting practices index	-0.105	0.0079
Status	-0.048	0.0323
Income	0.164	0.0001
Estimated (Est.) $ for transportation	-0.327	0.0003
Est. $ for recreation	0.409	0.0006
Time, rec.-leisure (W)	-0.043	0.0063
Person-events, given	0.547	0.0002
Person-events, received	0.577	0.0055
Shopping trips/week	8.585	0.0001
Grain products (R^2 = 0.72)		
Intercept	0.490	
Food decisions (H)	0.555	0.0280
Food tasks (W)	-0.998	0.0002
Score, food prep. (W)	0.050	0.0001
Est. $ for food-at-home	0.114	0.0205
Est. $ for food-away-from-home	-0.173	0.0195
Est. $ for recreation	-0.189	0.0393
Est. $ for other variable expenses	-0.200	0.0027
Time, shopping (H)	0.300	0.0041
Time, food prep. (W)	-0.050	0.0337
Time, rec.-leisure (W)	0.024	0.0119
Person-events, given	0.183	0.0362
Milk products (R^2 = 0.20)		
Intercept	0.880	
Score, food prep. (W)	0.034	0.0132
Time, rec.-leisure	0.039	0.0440
Fruit (R^2 = 0.63)		
Intercept	-5.027	
Food prep. skills index (H)	-0.434	0.0013
Score, food prep. (W)	0.033	0.0017
Education (W)	0.834	0.0001
Before marriage familiarity	-0.119	0.0389

Table 34--Continued

Food groups and variables	b values	Prob. > F
Time, shopping (H)	0.445	0.0009
Husband's age	0.000[b]	0.0048
Vegetables (R^2 = 0.81)		
Intercept	1.606	
Aesthetics-pleasure index (H)	0.409	0.0067
Nutrition index (H)	-0.365	0.0054
Utility index (H)	-0.314	0.0380
Familiarity index (W)	-0.929	0.0001
Score, food prep. (W)	0.053	0.0001
Education (H)	-0.761	0.0001
Est. $ for housing	0.159	0.0114
Est. $ for food-at-home	0.311	0.0001
Est. $ for food-away-from-home	-0.169	0.0347
Est. $ for other variable expenses	-0.161	0.0487
Time, food prep. (H)	0.118	0.0012
Meat/meat substitutes (R^2 = 0.45)		
Intercept	5.107	
Marriage-spouse index (H)	0.983	0.0502
Food prep. skills index (W)	1.849	0.0018
Food decisions (W)	3.347	0.0207
Food tasks (H)	-3.350	0.0072
Est. $ for food-at-home	0.571	0.0147
Est. $ for food-away-from-home	-0.521	0.0616
Sweets (R^2 = 0.72)		
Intercept	-0.213	
Nutrition index (H)	0.238	0.0070
Aesthetics-pleasure index (W)	-0.220	0.0210
Food-away-from-home index (W)	-0.174	0.0334
Score, food prep. (H)	-0.016	0.0004
Income	0.038	0.0316
Est. $ for household operation	0.226	0.0111
Est. $ for food-at-home	0.118	0.0103
Est. $ for food-away-from-home	-0.174	0.0009
Husband's age	0.000[b]	0.0006
Person-events given	0.209	0.0032
Shopping trips	2.991	0.0007
Other foods (R^2 = 0.64)		
Intercept	5.429	
"Nutrition-health" index (H)	-0.524	0.0062
Marriage-spouse index	0.710	0.0011
Food-away-from-home index (H)	-0.480	0.0306
Aesthetics-pleasure index (W)	0.680	0.0052

Table 34--Continued

Food groups and variables	b values	Prob. > F
Convenience index (W)	-0.537	0.0037
Nutrition index (W)	0.641	0.0032
Score, food prep. (W)	-0.026	0.0903
Est. $ for transportation	-0.151	0.0692
Est. $ for education	-0.150	0.0657
Time, rec.-leisure (H)	-0.035	0.0218
Person-events, given	0.325	0.0248
Prepared foods (R^2 = 0.67)		
Intercept	4.473	
Convenience index (H)	0.423	0.0041
Nutrition index (W)	-0.525	0.0013
Education (H)	-0.412	0.0031
Before marriage familiarity	-0.190	0.0013
Time, shopping (H)	0.377	0.0028
Person-events, given	0.206	0.0401
Convenience products (R^2 = 0.76)		
Intercept	3.837	
Familiarity index (H)	-0.357	0.0466
Food prep. skills index (H)	-0.894	0.0001
Nutrition index (W)	-0.575	0.0300
Food decisions (H)	2.086	0.0002
Food tasks (H)	-1.510	0.0105
Education level (H)	-1.088	0.0001
Est. $ for housing	0.338	0.0002
Time, shopping for food (W)	0.694	0.0003
Person-events, received	0.629	0.0072

[a]N = 45.

[b]b value < 0.001.

Table 35--Regression coefficients and probabilities of independent variables for the average number of market units purchased per week by young couples[a] in 10 major food groups

Food groups and variables	b values	Prob. > F
Beverages (R^2 = 0.67)		
Intercept	4.354	
Nutrition index, husband (H)	0.320	0.1431
Convenience index, wife (W)	0.290	0.1486
Nutrition index (W)	-0.840	0.0021
Food decisions (H)	2.118	0.0005
Food tasks (H)	-2.532	0.0001
Estimated (Est.) $ for recreation	0.308	0.0364
Before marriage familiarity	-0.244	0.0099
Time, shopping (W)	0.577	0.0048
Person-events, received	0.884	0.0007
Grain products (R^2 = 0.75)		
Intercept	3.078	
Marriage-spouse index (H)	0.437	0.0017
Food decisions (H)	0.855	0.0034
Food tasks (W)	-1.456	0.0001
Score, food prep. (W)	0.039	0.0002
Est. $ for food-away-from-home	-0.300	0.0001
Est. $ for other variable expenses	-0.313	0.0001
Time, shopping (W)	0.272	0.0234
Time, food prep. (W)	-0.088	0.0024
Time, rec.-leisure (W)	0.056	0.0001
Milk products (R^2 = 0.54)		
Intercept	1.989	
Food prep. skills index (H)	-0.979	0.0010
Food-away-from-home index (H)	-1.020	0.0035
Aesthetics-pleasure index (W)	-0.650	0.0406
Familiarity index (W)	-0.640	0.0333
Score, food prep. (H)	0.041	0.0069
Est. $ for recreation	-0.352	0.0463
Est. $ for other variable expenses	0.672	0.0001
Fruit (R^2 = 0.73)		
Intercept	-14.046	
Food prep. skills index (H)	-0.777	0.0080
Convenience index (W)	0.545	0.0375
"Natural-health" foods index (W)	0.584	0.0272
Score, food prep. (H)	0.026	0.0726
Score, food prep. (W)	0.072	0.0006
Education (W)	1.764	0.0001
Est. $ for transportation	-0.363	0.0031
Time, shopping (H)	0.954	0.0002

Table 35--Continued

Food groups and variables	b values	Prob. > F
Husband's age	0.000[b]	0.0246
Shopping trips/week	4.966	0.0338
Vegetables (R^2 = 0.81)		
Intercept	3.882	
Marriage-spouse index (H)	0.560	0.0516
Utility index (H)	-0.778	0.0035
Aesthetics-pleasure index (W)	0.765	0.0142
Familiarity index (W)	-0.789	0.0050
Food-away-from-home index (W)	0.513	0.0311
Score, food prep. (W)	0.065	0.0018
Education (W)	-0.813	0.0164
Est. $ for transportation	-0.383	0.0011
Est. $ for food-at-home	0.307	0.0054
Est. $ for other variable expenses	-0.452	0.0032
Time, food prep. (H)	0.328	0.0001
Time, rec.-leisure (W)	0.046	0.0358
Meat/meat substitutes (R^2 = 0.60)		
Intercept	3.218	
Aesthetics-pleasure index (W)	1.229	0.0023
Food prep. skills index (W)	0.912	0.0130
Utility index (W)	-0.837	0.0228
Est. $ for food-at-home	0.630	0.0002
Est. $ for food-away-from-home	-0.449	0.0191
Est. $ for other variable expenses	-0.557	0.0116
Time, rec.-leisure (H)	-0.125	0.0112
Time, rec.-leisure (W)	0.237	0.0001
Person-events, given	-1.117	0.0005
Sweets (R^2 = 0.33)		
Intercept	4.138	
Marriage-spouse index (H)	-0.308	0.0568
Nutrition index (W)	0.541	0.0048
Education (H)	-0.556	0.0011
Income	0.081	0.0133
Other foods (R^2 = 0.30)		
Intercept	2.501	
Marriage-spouse index (H)	0.758	0.0055
Person-events, given	0.672	0.0032
Prepared foods (R^2 = 0.75)		
Intercept	4.959	
Convenience index (H)	0.635	0.0006
Nutrition index (H)	0.643	0.0001

Table 35--Continued

Food groups and variables	b values	Prob. > F
Familiarity index (H)	-0.565	0.0003
Marriage-spouse index (H)	-0.371	0.0180
Food prep. skills index (W)	0.510	0.0034
Education (H)	-0.747	0.0001
Est. $ for housing	0.234	0.0017
Est. $ for transportation	-0.241	0.0025
Person-events, given	0.349	0.0046
Person-events, received	0.564	0.0018
Convenience foods (R^2 = 0.74)		
Intercept	30.025	
Nutrition index (H)	0.835	0.0011
Marriage-spouse index (H)	0.910	0.0019
Utility index (H)	0.677	0.0175
Nutrition index (W)	-1.063	0.0012
Marriage-spouse index (W)	1.239	0.0001
Shopping-budgeting practices	-0.257	0.0002
Score, food prep. (H)	-0.073	0.0001
Education (W)	-1.397	0.0001
Est. $ for food-away-from-home	-0.500	0.0013
Time, food prep. (W)	-0.147	0.0203

[a]N = 45.

[b]b value < 0.001.

Table 36--Regression coefficients and probabilities of independent variables for the average cost per market unit in 10 major food groups purchased by young couples[a]

Food groups and variables	b values	Prob. > F
Beverages (R^2 = 0.49)		
Intercept	2.625	
Aesthetics-pleasure index, wife (W)	0.204	0.0189
Convenience index (W)	0.176	0.0180
Score, food prep. (W)	-0.012	0.0345
Estimated (Est.) $ for recreation	-0.122	0.0158
Shopping trips/week	-1.578	0.0200
Grain products (R^2 = 0.78)		
Intercept	2.024	
Aesthetics-pleasure index, husband (H)	0.203	0.0001
"Natural-health" foods index (H)	-0.118	0.0042
Utility index (H)	0.096	0.0312
Nutrition index (W)	-0.365	0.0001
Familiarity index (W)	-0.085	0.0440
Food prep. skills index (W)	-0.138	0.0034
Utility index (W)	-0.120	0.0136
Food-away-from-home (W)	-0.148	0.0002
Score, food prep. (H)	-0.006	0.0066
Est. $ for household operation	-0.163	0.0006
Est. $ for food-at-home	-0.044	0.0175
Est. $ saved	0.024	0.0403
Time, rec.-leisure	0.012	0.0008
Milk products (R^2 = 0.83)		
Intercept	-0.310	
Familiarity index (H)	-0.052	0.0401
Food prep. skills index (H)	-0.134	0.0001
Food-away-from-home index (H)	-0.177	0.0001
Nutrition index (W)	-0.091	0.0061
Economy index (W)	0.053	0.0469
Food tasks (H)	0.138	0.0309
Score, food prep. (W)	-0.007	0.0013
Education (H)	0.253	0.0001
Est. $ for recreation	-0.104	0.0001
Est. $ for other variable expenses	0.046	0.0082
Time, rec.-leisure (H)	0.010	0.0001
Person-events, received	-0.120	0.0003
Fruit (R^2 = 0.88)		
Intercept	-1.317	
Aesthetics-pleasure index (H)	-0.110	0.0199
Familiarity index (H)	-0.152	0.0029
Food prep. skills index (H)	-0.120	0.0221
Convenience index (W)	0.269	0.0001

Table 36--Continued

Food groups and variables	b values	Prob. > F
Familiarity index (W)	0.232	0.0001
Food prep. skills index (W)	-0.114	0.0222
Marriage-spouse index (W)	-0.226	0.0002
Food decisions (H)	-0.399	0.0009
Food tasks (W)	0.325	0.0101
Shopping-budgeting practices	0.050	0.0001
Score, food prep. (H)	0.019	0.0001
Income	0.023	0.0127
Est. $ for expenses	-0.120	0.0001
Time, shopping (H)	0.084	0.0464
Person-events, received	-0.155	0.0092
Person-events, given	1.532	0.0019
Vegetables (R^2 = 0.81)		
Intercept	-1.018	
Convenience index (H)	-0.476	0.0001
Familiarity index (H)	0.188	0.0178
Aesthetics-pleasure index (W)	0.370	0.0002
Convenience index (W)	0.539	0.0001
Familiarity index (W)	0.318	0.0016
Food prep. skills index (W)	-0.575	0.0001
Education (W)	0.558	0.0001
Est. $ saved	-0.068	0.0055
Time, food prep. (W)	0.044	0.0116
Husband's age	-0.001	0.0144
Person-events, given	-0.285	0.0001
Person-events, received	0.298	0.0020
Meat/meat substitutes (R^2 = 0.51)		
Intercept	0.766	
Nutrition index (H)	0.067	0.0118
Food-away-from-home index (H)	0.118	0.0013
Convenience index (W)	0.055	0.0505
Economy index (W)	0.052	0.0716
Est. $ for food-away-from-home	-0.035	0.0221
Est. $ saved	0.028	0.0006
Sweets (R^2 = 0.68)		
Intercept	4.144	
Aesthetics-pleasure index (H)	0.294	0.0001
Familiarity index (W)	-0.190	0.0160
Marriage-spouse index (W)	-0.244	0.0001
Education (H)	-0.264	0.0005
Est. $ for household expenses	-0.157	0.0094
Est. $ for food-away-from-home	-0.123	0.0011

Table 36--Continued

Food groups and variables	b values	Prob. > F
Time, rec.-leisure (H)	0.011	0.0384
Time, shopping (W)	-0.250	0.0001
Other foods (R^2 = 0.70)		
Intercept	0.624	
Nutrition index (H)	-0.208	0.0057
"Natural-health" foods index (H)	0.172	0.0154
Utility index (H)	0.355	0.0001
Familiarity index (W)	-0.190	0.0149
Economy index (W)	0.325	0.0001
Food prep. skills index (W)	0.206	0.0075
Food-away-from-home index (W)	0.224	0.0012
Est. $ for transportation	0.136	0.0002
Husband's age	0.00C[b]	0.0124
Prepared foods (R^2 = 0.21)		
Intercept	2.309	
Food-away-from-home index (H)	-0.334	0.0369
"Natural-health" foods index (W)	-0.283	0.0831
Est. $ for food-away-from-home	-0.224	0.0070
Convenience foods (R^2 = 0.84)		
Intercept	3.985	
Economy index (H)	-0.199	0.0006
"Natural-health" foods index (H)	0.248	0.0001
Utility index (H)	0.155	0.0004
Food-away-from-home index (H)	-0.184	0.0005
Nutrition index (W)	0.133	0.0061
Familiarity index (W)	-0.290	0.0001
"Natural-health" foods index (W)	-0.262	0.0001
Food tasks (W)	-0.483	0.0001
Education (H)	-0.237	0.0001
Est. $ for transportation	0.159	0.0001
Est. $ for food-at-home	-0.052	0.0056
Est. $ for food-away-from-home	-0.231	0.0001
Est. $ saved	0.049	0.0001
Est. $ for recreation	0.080	0.0269
Time, rec.-leisure (H)	0.017	0.0001
Time, shopping (W)	-0.261	0.0001

[a] N = 43.

[b] b value < 0.001.

Table 37--Regression coefficients and probabilities for independent variables for the percentage of food dollars spent by young couples[a] on 10 major food groups

Food groups and variables	b values	Prob. > F
Beverages (R^2 = 0.60)		
Intercept	30.721	
Nutrition index, wife (W)	-1.745	0.0222
Shopping-budgeting practices	-0.416	0.0054
Estimated (Est.) $ for housing	-1.262	0.0003
Est. $ for household expenses	1.357	0.0361
Est. $ for recreation	2.101	0.0001
Before marriage familiarity	-0.808	0.0056
Shopping trips/week	12.979	0.0276
Grain products (R^2 = 0.38)		
Intercept	2.659	
Food tasks, husband (H)	1.699	0.0484
Education (H)	0.864	0.0134
Est. $ for recreation	-0.899	0.0006
Time, food prep. (H)	-0.306	0.0066
Milk products (R^2 = 0.84)		
Intercept	-0.715	
Aesthetics-pleasure index (H)	-1.398	0.0325
Convenience index (H)	-3.672	0.0001
Familiarity index (H)	2.397	0.0001
Economy index (H)	2.322	0.0021
Utility index (H)	2.672	0.0001
Aesthetics-pleasure index (W)	-4.130	0.0001
Economy index (W)	-1.201	0.0273
Food prep. skills index (W)	-2.662	0.0001
Food-away-from-home index (W)	-1.763	0.0011
Education (H)	3.269	0.0001
Est. $ for household expenses	-1.110	0.0459
Est. $ for education	1.072	0.0006
Est. $ saved	-0.722	0.0001
Est. $ for other variable expenses	0.909	0.0048
Fruit (R^2 = 0.76)		
Intercept	-4.914	
Food prep. skills index (H)	-1.730	0.0001
Food-away-from-home index (H)	-1.329	0.0046
Food prep. skills index (W)	-1.127	0.0105
Utility index (W)	0.969	0.0340
Food-away-from-home index (W)	1.292	0.0011
Mean food decisions (H)	-2.002	0.0324
Mean food tasks (W)	1.715	0.0722
Education (W)	2.157	0.0003

Table 37--Continued

Food groups and variables	b values	Prob. > F
Husband's age	0.000[b]	0.0083
Person-events, given	-0.626	0.0431
Vegetables (R^2 = 0.83)		
Intercept	14.992	
Aesthetics-pleasure index (H)	0.851	0.0405
Nutrition index (H)	-1.326	0.0013
Familiarity index (H)	-0.893	0.0159
Aesthetics-pleasure index (W)	1.273	0.0150
Familiarity index (W)	-2.631	0.0001
Food prep. skills index (W)	1.088	0.0132
Score, food prep. (W)	0.067	0.0427
Education (W)	-1.947	0.0005
Est. $ for other variable expenses	-0.607	0.0113
Time, food prep. (H)	0.547	0.0001
Time, rec.-leisure (H)	0.134	0.0003
Time, shopping (W)	-0.917	0.0174
Person-events, received	-1.386	0.0030
Meat/meat substitutes (R^2 = 0.39)		
Intercept	11.355	
Aesthetics-pleasure index (W)	3.051	0.0562
Nutrition index (W)	3.474	0.0470
Food prep. skills index (W)	4.957	0.0027
Shopping-budgeting practices	0.673	0.0467
Education (W)	-3.232	0.0655
Sweets (R^2 = 0.57)		
Intercept	1.996	
Aesthetics-pleasure index (W)	-1.405	0.0003
Food prep. skills index (W)	-1.308	0.0008
Score, food prep. (H)	-0.054	0.0035
Status	0.094	0.0373
Est. $ for housing	-0.422	0.0168
Est. $ for transportation	0.467	0.0043
Est. $ for household expenses	0.919	0.0120
Est. $ for food-away-from-home	-0.384	0.0400
Husband's age	0.000[b]	0.0513
Other foods (R^2 = 0.46)		
Intercept	12.429	
Economy index (H)	-1.475	0.0530
Aesthetics-pleasure index (W)	3.068	0.0001
Nutrition index (W)	2.468	0.0020
Est. $ for education	-0.890	0.0059
Time, shopping (H)	-1.085	0.0525

Table 37--Continued

Food groups and variables	b values	Prob. > F
Prepared foods (R^2 = 0.64)		
Intercept	33.609	
Aesthetics-pleasure index (H)	1.265	0.0471
Convenience index (W)	1.405	0.0100
Nutrition index (W)	-2.314	0.0018
Score, food prep. (W)	-0.140	0.0014
Education (W)	-1.743	0.0248
Est. $ for housing	-0.581	0.0235
Before marriage familiarity	-0.699	0.0059
Convenience foods (R^2 = 0.70)		
Intercept	38.409	
Nutrition index (H)	2.329	0.0005
Nutrition index (W)	-3.859	0.0001
Food-away-from-home index (W)	-1.379	0.0348
Score, food prep. (H)	-0.084	0.0216
Score, food prep. (W)	-0.179	0.0008
Education (W)	-2.588	0.0064
Time, food prep. (H)	0.398	0.0259

[a]N = 45.

[b]b value < 0.001.

variables (nine estimated expenditures, income, number of shopping trips per week, shopping-budgeting practices index, and the person-events given or received, i.e., the sociability indices), and five situational variables for each spouse (decisions and tasks mean scores and the estimated times devoted to shopping, food preparation, and recreation-leisure activities).

All possible linear equations without interactions were examined. Models were chosen which maximized the R-square with the minimum number of significant or near significant ($p \leq 0.05$) variables. Regression coefficients and the partial F values of the independent variables are listed for each model.

Total Food Expenditures and Percentages

Husbands' attitude indices (Table 33, page 97) occurred more frequently than did wives' as indicator variables of the average dollars spent for food. Husbands' marriage-spouse index was associated with at-home expenditure and the percentages of dollars for food-at-home and food-away-from-home. Husbands' utility index entered all three total expenditure models but did not enter the percentages models. The amount spent for food thus tended to decrease when husbands' utility index rose, i.e., when regard for food as "just something to eat" increased. Husbands' convenience and economy indices emerged in the models for total spent for food-away-from-home. Husbands' economy index also was entered into the models for total dollars spent for all food and the percentages for food-at-home and food-away-from-home.

Wives' indices for food preparation, "natural-health" foods, and familiarity entered the models for the average weekly dollars for

food-at-home and food-away-from-home, and the model for the average number of meals and snacks away-from-home per week. Wives' food-related tasks mean was an indicator of the percentages models; husbands' food tasks means entered the model for the average number of food-away-from-home events.

Person-events given and received were both indicator variables for the average expenditure for all food, suggesting that couples who socialized tended to spend more for food than did those couples who socialized less.

Income emerged as an indicator for the average spent for all food, food-at-home, and the percentages of the food dollars, but did not enter the models pertaining to food-away-from-home expenditure or events. Transportation and housing were negative indicators of food-away-from-home and total expenditures. Transportation also was a negative indicator for food-at-home expenditures. Status also entered the food-at-home model and the food-away-from-home events model. Socio-cultural variables may be satisfactory indicators for overall expenditure, but less satisfactory for indicating particular purchasing patterns.

The possible relationships of independent variables to food expenditure become clearer when the results of the models presented in Tables 34-37 are summarized. Both cognitive-affective and situational variables appear to be operational influences on the expenditures for each food group, although the importance of each type of variable is relative to the particular dependent variable. Both husbands' and wives' food-related parameters also are important.

The frequent indicator variables for beverage expenditure were the nutrition and/or convenience attitude indices of husbands or wives, the estimated expenditure for recreation, the shopping-budgeting practices index, the number of shopping trips per week, and before-marriage familiarity. More husbands' than wives' attitude indices were indicators of the average dollars spent per week for beverages (Table 34), but overall, more wives' indices than husbands' were associated with all aspects of beverage expenditure. As the wives' convenience index and estimated recreation expenditure increases, the amount spent on beverage tended to increase (Table 35); the average market unit cost decreased (Table 36), i.e., the couples bought more but less-expensive items. Also, beverages are an important part of recreation behavior. As the shopping-budgeting practices index dropped, the percentage of the food dollars (Table 37) and amount spent for beverages increased (Table 34).

Over 70% of the variance in grain expenditure for average amount spent (Table 34), average number of market units purchased (Table 35), and average cost per market unit (Table 36) could be accounted for in the models selected. Situational variables were the prevalent indicators for the average amount spent and number of market units purchased; attitude indices were indicators of the average cost per market unit. The mean of husbands' perception of food-related decisions was a positive indicator; wives' food-related tasks mean was a negative indicator. Estimated expenditures (except that for food-at-home) were negative indicators, i.e., as other expenses increased, couples tended to buy less grain products. This was coupled with a positive association between wives' food preparation knowledge and grain products expenditure.

Attitude indices were important indicators of the average cost per market unit for grain products. Husbands' aesthetics-pleasure and utility indices were positive indicators, but husbands' "natural-health" foods index was not. Wives' familiarity, food preparation skills, and utility indices all were negative indicators. As familiar, plain food was preferred, and as more was known about food preparation, more less-expensive grain products were used.

More variance could be explained in the average cost per market unit (Table 36) and the percentage of the food dollar (Table 37) for milk products models than could be explained in the models for average dollars spent (Table 34) or the number of market units purchased (Table 35). Husbands' and wives' economy index, wives' aesthetics-pleasure index and food preparation score, husbands' familiarity, food-away-from-home, and food preparation skills indices, and the estimated expenditure for other variable expenses were indicator variables. The number of market units purchased (Table 35) and the percentage spent on milk products (Table 37) appear to decrease with an increase in the wives' aesthetics-pleasure index. An increase in the husbands' familiarity index is associated with an increase in the percentage of the food dollar spent on milk and a decreased cost per market unit. However, as wives' familiarity increased, the number of market units decreased. Husbands may consume more milk products than wives. Couples who are more adventuresome with food may use other beverages and less milk products than couples who prefer familiar food. As estimated variable expenses increased so did the percentage spent for milk. It was previously indicated (Table 18, page 68) that milk products was the food group

which would tend to be left unchanged when food expenditures must be adjusted to control or reduce cost. Proportionally then, milk products could share a greater share of the total food dollar when couples try to reduce total food cost.

The number of market units of milk products dropped with increases in the husbands' food-away-from-home and food preparation indices, and with the wives' food preparation knowledge score. These variables also may be associated with couples who are more adventuresome with food and therefore more apt to explore a greater variety (of less common foods) or spend more money on them than couples who are less adventuresome.

Fruit expenditure was negatively related to the husbands' and wives' food preparation indices and positively influenced by food preparation knowledge scores. Some speculations about this idiosyncrasy can be made. Perhaps as the perception of food preparation as an enjoyable and creative activity increases, other foods which replace some fruit are prepared. However, couples who know more about food preparation may also know more about nutrition and the importance of fruit in the diet. Husbands' shopping time, wives' education, wives' convenience index, and food-related decisions and tasks means also appeared positively related to fruit expenditure. Maybe as husbands participate more in the food procurement, decision, and preparation process, fruit expenditure increases.

Indicators of vegetable expenditure (Tables 34-37, pages 97-108) were husbands' and wives' aesthetics-pleasure and familiarity indices. The effects of these indices are opposite, i.e., vegetable expenditure tends to increase with higher aesthetics-pleasure scores, but decrease

with higher familiarity scores. Couples who prefer familiar food have lower vegetable expenditure, which may reflect a limited variety or lower-cost vegetables used. Wives' food preparation knowledge score also is positively associated with vegetable expenditure, as is wives' food preparation index. Apparently, the more couples knew about food and food preparation and enjoyed the aesthetics or creative aspects of food, the more likely they were to use vegetables. Husbands' nutrition index, surprisingly, is not associated with increased expenditure, but husbands' time devoted to food preparation is. Estimated other variable expenses and wives' education tend to be negatively associated.

Meat and meat substitutes expenditure had few cognitive-affective indicators and the amount of variance accounted for in the models was lower than for other food groups. The model for the percentage of food dollars spent for meat and meat substitutes (Table 37, page 108) was particularly weak. Because of the large number of subgroups included in the meat and meat substitutes expenditure, the effect of particular variables probably was blurred. Wives' aesthetics-pleasure and preparation indices and the estimated food-at-home expenditure tended to be positively associated with meat expenditure. Estimated food-away-from-home expenditure was negatively associated; thus, as the amount spent (or thought to be spent) on food-away-from-home increased, the amount spent for meat and meat substitutes decreased. Because the largest percentage of the food dollar is spent on meat, the increased food-away-from-home expenditure could be expected to be associated with a decrease in meat expenditure.

The models for the average dollars spent (Table 34, page 99) and average market unit cost of sweets (Table 36, page 105) were stronger than those for the number of market units purchased (Table 35, page 102) and percentage of the food dollar spent for sweets (Table 37, page 108). Husbands' aesthetics-pleasure index, estimated food-away-from-home, and income were positive indicators of sweets expenditure. Wives' aesthetics-pleasure index, husbands' food preparation knowledge score, and estimated housing expenditure were negative indicators. Sweets may be more important to husbands for whom the taste, smell, or texture of food are important, but less important to wives who also have this characteristic. Increased income can mean more available money for less essential foods like sweets; increased housing expenditure could mean less available money.

The expenditure for other foods (appetizers, fats, condiments, baking supplies) was indicated by husbands' and wives' nutrition indices, husbands' "natural-health" foods and marriage-spouse indices, and wives' aesthetics-pleasure index (Tables 34-37, pages 99-108). Estimated expenditure for transportation and person-events given were situational indicators. The relationships are not clear, but husbands' nutrition index appeared to be positively related to the number of market units purchased (Table 35, page 102) and negatively related to the average cost per market unit (Table 36, page 105). Wives' nutrition index was positively related to the percentage of food dollars spent for other foods (Table 37, page 108). Husbands' "natural-health" foods and marriage-spouse indices were negatively related to other food expenditure. Wives' aesthetics-pleasure index was positively related to the percentage

but not to the average dollars spent for other foods. This suggests that when wives'appreciated the aesthetic qualities of food, other foods were important regardless of the total amount spent for food. The number of person-events given was positively related to the average dollars spent per week and market units purchased, possibly because appetizers and snacks are included in this group. The relationship of estimated transportation expenditure may be similar to that noted before for housing or is spurious.

The expenditure for prepared foods and convenience foods (Tables 34-37, pages 99-108) are interesting to compare because the latter comprises many of the items included in the former. The pattern of indicator variables for the two groups is not particularly similar, indicating that expenditures for convenience foods may have more and different influences than are operational when primarily main dish items (prepared meal items) are considered. The convenience group is broader and possibly affords a clearer picture of the overall importance of convenience products to young couples.

The nutrition index of both husbands and wives was the most frequent cognitive-affective indicator for both prepared and convenience foods. Husbands' nutrition index was positively related to prepared and convenience food expenditure; wives' index was negatively related. When nutrition is considered important, wives may not favor convenience foods, but husbands may be more apt to consider food in general to be important and therefore choose these foods because they are easy means of obtaining food other than snacks. This is supported by the positive relation between the husbands' time for food preparation and the average

dollars spent for convenience foods. Husbands' and wives' attitude indices on convenience entered into the models chosen for prepared foods but not in those of convenience foods. They were positively related to prepared foods expenditure. Some foods in the convenience group may not be considered to be convenience items by young couples. Husbands' and wives' food preparation scores were negative indicators for expenditures in both groups.

The food-away-from-home index and estimated expenditure of food-away-from-home tended to be negative indicators when entered into models for either food group. Food-away-from-home is an alternate form of convenience; increased expenditure for one may decrease the need for expenditure for the other.

Wives' shopping time positively related to the average dollars spent for convenience foods (Table 34, page 99) but negatively related to the average cost per market unit (Table 36, page 105). Person-events given emerged as a positive indicator in the models of expenditure for prepared foods; person-events received was a positive indicator of average dollars spent for convenience foods. Husbands' and wives' education levels were negative indicators of both expenditures. As education increased, the tendency to use prepared or convenience foods decreased.

Over all food groups, the indicators that emerged in the fewest models or the fewest number of times were the economy, "natural-health" foods, and marriage-spouse indices; the estimated expenditures for household operation and education; income; status; before-marriage familiarity;

the number of shopping trips; the food-related decisions and tasks means; and the shopping-budgeting practices index.

The aesthetics-pleasure, nutrition, food preparation skills and time, and food-away-from-home indices were those that emerged most often in the chosen models. The number of times husbands' and wives' indices appeared in the models was similar. Wives' food preparation knowledge scores entered more models than did husbands'. Husbands' and wives' food-related decisions and tasks means, times, and education levels also emerged in the models similar numbers of times, but in different food groups. Husbands' education was an indicator of milk products and sweets expenditures; wives' education was an indicator of fruit and vegetables expenditures.

Estimated expenditures for food-away-from-home and food-at-home were the most common estimations to enter models although other variable expenses was a common indicator for the expenditures for grain products, milk products, and vegetables. In general, estimated expenditures were negative indicators of food expenditures. One exception to this was the association between recreation expense and beverage expenditure. Person-events given did not emerge in models for grain products or convenience foods but was an important indicator for other foods and prepared meal items expenditures. Person-events received was not included in four models, i.e., grain products, meat and meat substitutes, sweets, and other foods; it emerged twice as an indicator of expenditures for beverages and vegetables.

Hypotheses

Hypotheses 1

Hypothesis 1 was supported with regard to differences in expenditure according to income group. Couples above or below the group median ($1600) differed significantly in the average weekly dollars spent for all at-home food and meat and meat substitutes, and in the proportion of the food dollar spent for meat and meat substitutes, prepared meal items, and convenience foods. There was no difference, however, in the total amount spent for food. Income also correlated positively with the average expenditure for food-at-home ($p \leq 0.08$) but not with food-away-from-home ($p \leq 0.55$). There was no significant difference ($p \leq 0.05$) in either the number of person-events or average amount spent per week for food-away-from-home based on young couples' social status values. Correlations between status and these values also were not significant.

Hypothesis 2

Hypothesis 2 was not supported. There were no significant differences ($p \leq 0.05$) in the food-away-from-home or convenience foods expenditures or average number of market units purchased of convenience foods based on whether or not both spouses worked full-time. Because about 40% of the couples had one spouse as a student, similar time constraints between the two groups may have existed. Hours devoted to study replaced hours devoted to work.

Hypothesis 3

The hypothesized association between food preparation knowledge and convenience food expenditure was supported with regard to the wife but

not with regard to the husband. As either husbands' or wives' scores for food preparation knowledge increased, the tendency to purchase convenience foods decreased. This suggests that among these young couples, husbands' food preparation and buying knowledge (resources) can be an important influence of the types and amounts of at least some food expenditures.

The percentage of the food dollar spent for convenience foods and the average number of market units purchased per week correlated negatively ($p \leq 0.05$) with both spouses' scores on food preparation and buying knowledge. Husbands' scores also correlated negatively with the average weekly expenditure for convenience foods; the correlation of wives' scores with this expenditure approached significance ($p \leq 0.06$).

Hypothesis 4

The significant relationships between husbands' and wives' attitude indices and average weekly dollars spent for ten food groups are summarized in Table 38. All wives' attitude indices except food-away-from-home correlated with some food expenditure. Six of the husbands' indices (convenience, familiarity, food preparation skills and time, marriage-spouse influence, utility, and food-away-from-home) correlated with food expenditures. Husbands' attitude indices for aesthetics-pleasure, nutrition, economy, and "natural-health" foods did not. All expenditures except those for milk and sweets were correlated with at least one attitude index.

Table 39 is a summary of significant relationships between husbands' and wives' attitude indices and the percentage of the food dollar spent for various groups. All of the wives' indices except nutrition, economy,

Table 38--Significant correlations[a] of husbands'[b] and wives'[b] attitude indices with the total food expenditures

Attitude index	Food groups											
	Total food-at-home	Total food-away-from-home	Beverages	Grain products	Milk products	Fruits	Vegetables	Meat/meat substitutes	Sweets	Other foods	Prepared foods	Convenience foods
Aesthetics-pleasure										W[c]		
Convenience					-W	-W					H,[c]-W[c]	H,-W
Nutrition												
Familiarity							-H,[c]-W				W	
Economy		-W										W
"Natural-health" foods		-W										
Food preparation skills and time		H,-W		W		-H		W				
Marriage-spouse	H			W			H			H		
Utility	-H		-H			W	-H					
Food-away-from-home				-H								-H

[a] $p \leq 0.05$.

[b] $N = 55$.

[c] W = correlation between wives' index scores and food group, -W = negative correlation, H = correlation between husbands' index scores and food group, -H = negative correlation.

Table 39--Significant correlations[a] of husbands'[b] and wives'[b] attitude indices with the percentages of the food dollars spent

Attitude index	Food groups										
	Total food-at-home[c]	Beverages	Grain products	Milk products	Fruits	Vegetables	Meat/meat substitutes	Sweets	Other foods	Prepared foods	Convenience foods
Aesthetics-pleasure		-W		-W							-W
Convenience											H,W
Nutrition											
Familiarity	W	W				-H,-W					-W
Economy											
"Natural-health" foods	W										
Food preparation skills and time	-H,W										
Marriage-spouse				-H		H					
Utility					W						
Food-away-from-home											-W

[a] $P < 0.05$.

[b] $N = 55$.

[c] Also significant correlations for % food-away-from-home, direction of correlation reversed.

and marriage-spouse influence correlated with some percentage. Four of the husbands' indices (convenience, familiarity, food preparation skills and time, and marriage-spouse influence) correlated with five of the percentages of food expenditure. The percentages for grain products, meat and meat substitutes, other foods, and prepared meal items were not correlated with any index of either spouse.

Generally, there were fewer correlations of attitude indices with percentages spent than with the dollars spent for the food groups. Grain products, meat and meat substitutes, and other foods were groups for which expenditures correlated with some indices but percentages did not. There was only one correlation of either the economy index or nutrition index with any food cost or percentage (wives' economy index with prepared foods expenditure). Possibly, economy and nutrition indices related to particular food selections rather than particular food groups. The emergence of nutrition in many of the regression models indicates that the influence of the nutrition dimension is interactive with other variables. The attitude statements included in the indices may fail to accurately gauge the cognitive, affective, or behavioral components of the attitude dimension.

The hypothesis was supported. Food purchasing patterns did vary with differences in both of the spouses' attitudes. Both correlations and regressions support this.

Hypothesis 5

Using regression models, the main effects of husbands' attitude indices and the interactive effects of the husbands' attitude indices with classification of the husbands' participation in food-related

tasks were examined. The classifications were treated as dummy variables. Task classification, rather than decision-making classification, was selected because it represented husbands' actual involvement with food procurement, preparation, and clean-up. The attitude factors included were aesthetics-pleasure, convenience, nutrition, economy, food preparation skills and time, utility, and food-away-from-home. These factors were frequent indicators for expenditures of the major groups of food, or the amount spent for food-at-home and food-away-from-home. The average dollars spent per week for beverages, grain products, fruits, vegetables, meat and meat substitutes, convenience foods, food-at-home, and food-away-from-home were chosen as the dependent variables.

The interaction between husbands' attitude index and task classification contributed significantly ($p \leq 0.05$) to the variance in expenditure in four models. The attitude index and dependent expenditures were: nutrition index on vegetable expenditure, economy index on food-at-home expenditure, food preparation skills and time index on food-away-from-home expenditure, and food-away-from-home index on convenience foods expenditure. The exact nature of the influence of husbands' task classification was difficult to interpret, but some generalizations could be made. The associations between certain indices and the average dollars spent per week on vegetables, convenience foods, at-home and away-from-home foods were dependent on husbands' task classification.

There was a negative relationship between the interactions of the nutrition index with task classification and vegetable expenditure. When husbands' task classification was autonomous, the decreased expenditure for vegetables was significantly different ($p \leq 0.05$) from that

which occurred among those classified as husband-dominated. Although the interaction between the economy index and task classification is significant for dollars spent for food-at-home, the effects are overlapping and no particular class is significantly different. The increased amount spent on food-away-from-home associated with an increase in husbands' food preparation skills and time index was significantly higher among those classified as syncratic for food-related tasks. The positive relationship between the average weekly expenditure for convenience foods and the husbands' food-away-from-home index was significantly different among all task classification groups.

Hypothesis 6

The perception of spouses' influence on food patterns did not relate to the number of meals shared prior to marriage for either husbands or wives. This perception then may not be related to the opportunity to share food experiences before marriage but may occur because of the initial difference in diet or the willingness of one spouse to adjust personal preferences to achieve diet compatibility. Spouses whose food patterns were very different would have greater potential for change than spouses who had similar food preferences initially, regardless of the number of meals shared prior to marriage. The hypothesis was not supported.

V. SUMMARY AND CONCLUSIONS

Summary

Socio-cultural, cognitive-affective, and situational variables affecting the food-related behavior of young, childless, Southern couples were explored. Seventy young couples were interviewed. Approximately 70% of the respondents were college-educated professionals, aged 22-27 years, who had grown up in the South. In about 40% of the couples, one spouse was a student. The median income level of the group was $1600 per month. About 50% of the sample had been married less than nine months, the remainder less than 18 months.

Husbands and wives completed questionnaires on food-related values-attitudes-beliefs, food preparation and buying knowledge, meal and snack practices, and household decision-making and task differentiation. Information was gathered also on each spouse's before-marriage food procurement, food avoidances, and allocations of time to various activities. Couples also supplied information on situational variables including estimated fixed and variable expenses, prior and present meal planning practices, the number of times food was served to guests or received from others, shopping-budgeting practices, projected food expenditure adjustments, and food storage and preparation facilities. Food purchasing information supplied by 55 of the couples included the number of food shopping trips and the types and amounts of food purchased for the household. In addition, these couples also indicated times and locations of and amounts spent for eating occasions away from home.

Husbands' and wives' food-related decisions and tasks were more apt to be shared than were non-food-related decisions and tasks. Food preparation tended to be wife-dominated but less so than previously reported in studies of older respondents.

About 50% of the sample had a shopping-budgeting index score in the upper third of the possible range. Responses to the projected food expenditure adjustments questionnaire also indicated that the sample was aware of wise budgeting and nutrition practices. However, other responses indicated that many couples did not plan or follow food budgets and that many food decisions were made while shopping.

On the average, 2.94 meals and snacks were received per week, primarily from relatives. In contrast, 1.54 meals and snacks were given by young couples. Sociability did not emerge as a separate attitude dimension and possibly is less important to young couples than to others. The number of meals and snacks given or received was not a strong indicator of food expenditures in general.

Ten attitude dimensions were isolated using principal component factor analysis. Both husbands' and wives' attitude indices and food preparation knowledge scores were found to be indicators of the average weekly food expenditure, average cost per market unit, and percentages of the food dollar for ten major food groups. Multiple regression was used to identify such indicators of food expenditures.

The aesthetics-pleasure, nutrition, and convenience dimensions were common indicators of food expenditures; the economy and "natural-health" foods dimensions were not. Estimated expenditures for items other than food tended to be negatively related to expenditures for food. One

exception was the positive relationship between estimated recreation expenditure and beverage expenditure. The variables did operate independently; interactive effects were evident in the analyses.

Couples averaged 2.43 shopping trips per week and spent $26.74 on average for food-at-home. Of the at-home food expenditure, 25.5% was for meat and meat substitutes, 12.6% for milk products, 11.7% for other beverages, 10.8% for vegetables, 9% for grain products, and 6.5% for fruit. The percentage allotted to all other food groups was for convenience products which, as a separate, composite group, made up 12.6% of the food dollar. These percentages varied considerably from those recently reported for other Southern families (Raunikar, 1981b). Convenience food expenditure was negatively correlated with both husbands' and wives' food preparation knowledge scores. The average weekly expenditure for food-away-from-home was $19.03 for 8.83 meals and snacks. There was considerable variation in food-away-from-home consumption patterns. The difference in the number of meals and snacks purchased by husbands and wives was not significant. About 38% of the food dollar was spent for food-away-from-home and about 62% for food-at-home.

The frequency of meal consumption before marriage was higher among husbands than among wives, but snack consumption was virtually the same for both. Wives consumed significantly more meals after marriage than before.

Conclusions and Implications

Among young couples, husbands may participate more in food-related decisions and tasks than is typical of husbands in later family life

stages. Although wives still devote more time to food preparation and tend to do more food shopping than do husbands, husbands' food preparation knowledge and attitudes are important influences of the type and amounts of foods purchased for the household. The wife is not really the "gatekeeper" of the couple's diet.

Food and nutrition education programs aimed at young couples should be directed toward both spouses. Because both spouses eat out frequently, particularly at lunch, caloric and nutrition information about "fast foods" would be helpful to those interested in getting the most nutrition for their money. Information on easy-to-prepare, portable lunches might be useful also.

Aesthetics-pleasure and convenience aspects of food are two dimensions that are important to young couples, more so to many than economy or other factors. Usual ingredients simply prepared in unusual ways, or creative use of some ready-prepared food items, probably would be ideas that young couples would be more likely to implement than meal-budgeting tips.

Educated young couples tend to shop several times a week and make many food choices while shopping rather than specifically deciding on items beforehand. Because they are learning about brands and products, information on comparing product relative costs might be helpful. Hints on organizing shopping time and trips also could be effective.

As the importance of the aesthetics-pleasure dimension increases, there is a tendency for vegetable expenditure to be increased and milk product expenditure to be decreased among young couples. The reverse effect is the trend when familiarity of food is an important dimension.

Nutrition education efforts designed to increase familiarity with more types of vegetables and to emphasize the aesthetic-pleasurable and nutritional qualities of milk would be appropriate goals in programs or materials targeted at young adults.

The food consumption and use patterns of young couples differ from those of either single young adults or families with children. Both cognitive-affective and situational variables are important indicators of food expenditures. The influence of either type of variable is dependent on the effect of the other and varies with food group. The high percentage of the food dollar spent for food-away-from-home and the distribution of the food dollar suggest that young couples probably will have to make some major adjustments in food expenditure patterns when they begin to have children.

Limitations and Recommendations

This sample of young couples was small and consisted primarily of well-educated professionals, all of whom resided in the Knoxville area. Generalizations of the results to populations of less-educated young adults of those in other geographic areas should be limited. The duration and involvement of the study may have discouraged some potential participants. Respondents were asked to record their food purchases for four weeks. In light of the results, two weeks of food purchase records probably would be sufficient in future studies, and perhaps preferrable if participation of more young couples is elicited.

A number of Knoxville area supermarkets have installed universal product code readers. Brand name and item price are automatically

recorded on the supermarket receipt. Although more data reduction was required of the researcher, recording was simplified for the young couples when they turned in these receipts rather than wrote down their purchases. Accuracy in reporting may also have been increased because no items were forgotten or eliminated because of fatigue.

Vegetable expenditure clearly varied with differences in attitudes and practices. Given the importance of vegetables in nutritional quality and caloric balance of the diet, further exploration of these and other variables would be desirable and warranted. Meat expenditure should be investigated by subgroups, i.e., red meats, poultry, fish and seafood, and meat substitutes, to avoid the masking effect that occurred when these groups were combined.

The meal practices and shopping-budgeting practices data might have been more useful and meaningful if they had been collected in the "raw" form. Respondents had difficulty choosing between some classifications and comparisons of the responses to other data would have been facilitated by metric measurement. Respondents could have been asked what percentage of the time they used a particular shopping-budgeting practice. This could have been done as quickly as reading and completing the questionnaire in the interview setting.

The relationship of food purchases to the nutritional quality of husbands' and wives' diets was not explored in this research. This will, however, be examined as additional analyses of other data collected from these couples continues. This remains an important area for further study if relationships among cognitive-affective and situational variables, food acceptances, and consumer welfare are to be understood.

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APPENDIX A

ATTACHMENT 1

THE UNIVERSITY OF TENNESSEE
KNOXVILLE 37916
COLLEGE OF HOME ECONOMICS

DEPARTMENT OF FOOD SCIENCE, NUTRITION
AND FOOD SYSTEMS ADMINISTRATION

FOOD SCIENCE (615) 974-5445
NUTRITION (615) 974-3491
FOOD SYSTEMS
ADMINISTRATION (615) 974-5445

Dear Newly-Married Couple:

As you are probably aware, food cost is a major part of the budgeting challenge that today's young couples face as they try to meet expenses, save, and still have enough money for things that they enjoy. We in the Department of Nutrition and Food Sciences and the Agricultural Experiment Station at the University of Tennessee are studying the attitudes and practices that new husbands and wives have concerning food and food prices and how these combine to affect the food that they buy and eat.

We would like to invite you to be a participant in our study. As a participant you will be interviewed and asked to complete several questionnaires and food purchase records. The interview will be set up at your convenience and take about one hour. The food purchase records and other questionnaires will be explained during the interview and will then be completed over a four-week period and returned to us in postage-paid envelopes.

We think that you will find the study to be fun and interesting. We also think that it may help you to evaluate your own budgeting and food-buying habits.

If you are willing to assist us in this project, please complete the enclosed form, sign the consent form, and mail to us in the enclosed envelope. You will be notified within three weeks if you are selected to participate in the study.

Sincerely,

Diane Corley
Graduate Research
Assistant

Marjorie P. Penfield
Associate Professor

Jean D. Skinner
Assistant
Professor

APPENDIX B

1-81

PRELIMINARY FORM

FOOD HABITS OF YOUNG COUPLES

Husband's age _____ Wife's age _____ Date of Marriage _____

1. Have either of you been married before? Yes _____ No _____

2. Is anyone living with you and sharing the household food? Yes _____ No _____

3. (Wife) Are you pregnant? Yes _____ No _____

If you answered "yes" to question 1, 2, or 3, there is no need to answer further questions. We thank you for your interest. We are limiting our study to households of first-marriage couples only (no children or others who share food in the home).

IF YOU ARE ELIGIBLE AND WILLING TO PARTICIPATE IN THIS STUDY, PLEASE RETURN THIS FORM AND THE CONSENT FORM (OVER) IN THE ENVELOPE ADDRESSED TO THE RESEARCHERS.

THANK YOU!

4. Will either of you be a full- or part-time student in the next 3 months?
Yes _____ No _____ If yes, please list the number of credits you'll take.

Husband _____ Wife _____

5. HUSBAND -- Please list the 5 vegetables you like the most and the 5 you like the least in the spaces below.

Like most		Like least	
	_____		_____
	_____		_____
	_____		_____
	_____		_____
	_____		_____

6. WIFE -- Please list the 5 vegetables you like the most and the 5 you like the least in the spaces below.

Like most		Like least	
	_____		_____
	_____		_____
	_____		_____
	_____		_____
	_____		_____

I would like to call you in the next few weeks to discuss the study and set up a time to meet with you. Would you please indicate some specific times of the day when it would be convenient to call you?

Morning _____ Afternoon _____ Evening _____

Home phone number _____-_____

When would it be convenient to meet with you as a couple, i.e. both husband and wife together, to explain the study and complete some questionnaires? Please check the times when you could possibly meet.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Morning							
Afternoon							
Evening							

Name _____

Home Address _____

Consent Form for Participation in Project of
Food-Related Behavior of Young Couples

We understand that on the basis of the information provided on this preliminary form that we may be selected to participate in an in-depth study of factors related to the food habits of young couples.

We understand that if we are selected to participate in this study and agree to do so, we will be asked to complete questionnaires regarding our food-related attitudes and practices, sociodemographic characteristics and diaries on food purchases.

We have been informed to our satisfaction as to the nature of the project and understand that we have the right to ask questions regarding each activity at any time.

We understand that we may withdraw from the study at any time.

We understand that all information is strictly confidential and will be published in summary form only.

We understand that this study is being conducted in the Department of Nutrition and Food Sciences, College of Home Economics, University of Tennessee, Knoxville 37916 (974-3491 or 974-5445) by Ms. Diane Corley, Dr. Marjorie Penfield and Dr. Jean Skinner

Signed (husband _____

Signed (wife) _____

Date _____

APPENDIX C

AES-519-K-3
DTC/MPP-JDS
9-80

1-8

INFORMATION ABOUT YOU

INSTRUCTIONS: Please complete this form together as a couple. Check the appropriate answer for each section or write in the information requested. If you are unsure of some answers, give your best estimate. Remember--all information you give is strictly confidential.

QUESTIONS??? Please feel free to call us if you have any questions. Diane Corley, 974-3491 or (home) 584-0253; Dr. Marjorie Penfield, 974-5445.

PLEASE RETURN THIS FORM WITH YOUR FIRST WEEK'S DIARY. THANK YOU!!!

1. In which states did you live during most of your childhood?
   Husband _____ 9
   Wife _____ 10

2. To which group do you belong?

	Husband	Wife	
American Indian			
Black			11
Hispanic			
Oriental			
White			12
Other (specify) _____			

3. Check the highest level of schooling you completed.

	Husband	Wife	
1-7 years			
Junior high school			13
Some high school			
Completed high school			
Some college or specialized training			
Completed college or university (4 years)			14
Graduate or professional training			

4. What is your type of work or occupation? If you have more than one job, please describe each and give an estimate of the number of hours you spend at each. _____

   Husband _____ 15

   _____

   Wife _____ 16

   _____

17-18

5. How many hours per week are you employed outside the home?

Hours per week	Husband	Wife	
Not employed			
Less than 10			19
10-20			
21-30			
31-40			20
41-50			
More than 50			

6. During the average week, about how much time do you spend in each of the following activities? If you do two or more things at the same time, please include the time under the activity that takes priority. These do not have to add up to 168 hours.

Activity	Hours per week: Husband		Wife	
Shopping for food		22-23		43-44
Eating		24-25		45-46
Food preparation & cleanup		26-27		47-48
Personal care		28-29		49-50
Sleeping		30-31		51-52
Work or profession or school		32-33		53-54
Home care		34-35		55-56
Religious, civic activities		36-37		57-58
Exercise		38-39		59-60
Recreation, leisure, social activities		40-41		61-62

7. What is your total monthly income before taxes? (Combine husband's and wife's salaries, plus include any other income from rent, stocks, sales, etc.)

Less than $500		$1501 - 1600		
$501 - 600		$1601 - 1700		
$601 - 700		$1701 - 1800		
$701 - 800		$1801 - 1900		64-65
$801 - 900		$1901 - 2000		
$901 - 1000		$2001 - 2100		
$1001 - 1100		$2101 - 2200		
$1101 - 1200		$2201 - 2300		
$1200 - 1300		$2301 - 2400		
$1301 - 1400		$2401 - 2500		
$1401 - 1500		More than $2500		

8. Young couples are faced with the challenge of designing a budget that works for them. We want to know how much young couples must spend each month on some basic or fixed expenses and how they allocate what money is left over. We have provided a work sheet and some suggestions to help you calculate your expenses. Read and use the worksheet carefully, then indicate your answers below. The letters in parantheses ( ) correspond to the worksheet.

FIXED EXPENSES
Dollars per month

	$0	$1 - 50	$ 51 - 100	$101 - 150	$151 - 200	$201 - 250	$251 - 300	$301 - 350	$351 - 400	$401 - 450	$451 - 500	More than $500	
Housing (B)													67-68
Transportation (C)													69-70
Household operation (D)													71-72
Insurance (E)													73-74
Education (F)													75-76
Other expenses (G)													77-78
Amount left for other expenses (I)													79-80

OTHER EXPENSES
Dollars per month

	$0	$1 - 25	$ 26 - 50	$ 51 - 76	$ 76 - 100	$101 - 125	$126 - 150	$151 - 175	$176 - 200	$201 - 250	More than $250	
Food at home (J)												9-10
Food away from home (K)												11-12
Clothing (L)												13-14
Medical care (M)												15-16
Savings (N)												17-18
Recreation (O)												19-20
Other education (P)												21-22
Other: _____ (Q)												23-24

	less than 6 months	6-12 months	12-18 months	18-24 months	24-30 months	More than 30 months	
9. How long did you know each other before you married?	:	:	:	:	:		26
10. How long were you engaged?	:	:	:	:	:		27

Meals eaten together per week

	more than 17	15-17	12-14	9-11	6-8	3-5	0-2	
11. About how many meals per week did you eat together regularly before you were married?	:	:	:	:	:	:		28

12. Some people avoid certain foods for particular reasons (for example: allergies, vegetarianism, health belief). Please list any foods you avoid regularly and list the reasons why you do not eat the food.

Husband

Foods You Avoid	Reasons	
		29
		30
		31

Wife

		33
		34
		35

13. Which statement best describes your present meal planning behavior?

_____	Plan meals right before preparing them	37 _____
_____	Plan meals about a day ahead	38 _____
_____	Plan meals <u>after</u> grocery shopping but several days ahead	39 _____
_____	Plan meals several days ahead and <u>before</u> grocery shopping	40 _____
_____	Other - please describe: _____	41 _____

14. For the following questions, place a check in your column (H for husbands; W for wives) beside the appropriate statement.

Which sentence <u>best</u> describes your food preparation before you were married?

H	W		
___	___	I purchased and prepared most of the food I ate.	_____ 43
___	___	I purchased and prepared some of the food I ate.	
___	___	Someone else (mother, relative, friend) prepared most of the food I ate.	_____ 44
___	___	Most of my food was obtained by eating out or buying ready-to-eat foods.	

	yes	no	
15. Did you can or freeze foods for use this fall and winter:	_____	_____	_____ 46
Please estimate how many pints of these foods you will use each week during the four weeks of this study.			47_____
Fruits_____ Vegetables_____Other_____			48_____

	yes	no	
16. Do you have a large quantity of meat stored (for example, a side of beef, meat from hunting, fish from fishing) that will allow you to purchase less meat in the next four weeks?	_____	_____	
If yes, please estimate how many pounds of this stored meat you will use each week. _____			_____ 49

	yes	no	
17. Do you receive food stamps?	_____	_____	If yes, how many dollars worth do you typically receive each month? $_____ _____ 50-52

18. How often are you paid?

H	W		
___	___	Once a week	_____ 53
___	___	About twice a week	
___	___	Once a month	_____ 54
___	___	Other, specify _____	

Table 40--Before-marriage index[a] of young couples[b]

Index score	Frequency	%
3	1	1.89
5	2	3.77
6	3	5.66
7	3	5.66
8	7	13.21
9	17	32.08
10	3	5.66
11	7	13.21
12	2	3.77
13	4	7.55
14	4	7.55

[a]Items included months acquainted before marriage, months engaged, and meals shared. Possible range 3-17, low-high = less-more acquaintance.

[b]N = 53.

APPENDIX D

AES
519-K-13
DTC/MPP/JDS

FOOD STORAGE AND PREPARATION FACILITIES

		approximate size	
Storage			
Refrigerator:	small, square	24 X 24 X 24 in.	_____
	medium	28 X 52 X 24 in.	_____
	large	32 X 60 X 24 in.	_____
Freezer:	refrigerator unit, inside		_____
	refrigerator unit, outside		_____
	small	6 cu. ft.	_____
	medium	9-12 cu. ft.	_____
	large	more than 12 cu. ft.	_____
Drawers			# _____
Cabinets:	small	12 X 18 X 12 in.	# _____
	average	22 X 18 X 12 in.	# _____
	large	30 X 18 X 12 in.	# _____
	pantry		_____
Cooking/Preparation			
Stove and oven:	efficiency	22 X 36 X 24 in.	_____
	average	30 X 36 X 24 in.	_____
	large (2 ovens)		_____
Microwave			_____
Convection			_____
Counter-top:	small area	4 sq. ft. (2' X 2')	_____
	medium area	6-8 sq. ft.	_____
	large area	more than 8 sq. ft.	_____

APPENDIX E

1-8

SHOPPING AND BUDGETING PRACTICES

Please complete this section together as a couple. Place a check under the term that best describes how often you do each of the following:

	Usually	Sometimes	Rarely or never	
Use the information on labels to help make decisions about the nutritive value of food.				10
Purchase foods in amounts that we can use without waste or spoilage.				11
Plan an amount to spend for food each week or month.				12
Buy foods in quantity and store when this will result in a savings.				13
Use unit pricing to determine which brand or size is most economical.				14
Buy fresh fruits and vegetables in season when the price is lower.				15
Make or adjust meal plans in the store after seeing what the current prices are.				16
Buy foods that are not necessarily our favorite because they are more economical.				17
Write out a complete grocery list before shopping.				18
Collect coupons for products that we normally use.				19
Buy foods according to what appeals to me (us) while in the store and not particularly by price.				20
Plan meals before shopping to use foods that we have seen or heard advertised at special prices.				21
Buy a quality or form of a food with the intended use in mind.				22

	Usually	Sometimes	Rarely or never	
Buy foods we like without attention to expense.	_____	_____	_____	24
Consider the amount of lean, fat, and bone when buying meat.	_____	_____	_____	25
Follow a pre-planned food budget.	_____	_____	_____	26
Shop when not hungry.	_____	_____	_____	27
Try to do the grocery shopping when it won't be necessary to rush.	_____	_____	_____	28
Compare prices among brands.	_____	_____	_____	29
Save and redeem trading stamps.	_____	_____	_____	30
Choose a grocery store specifically because trading stamps are offered.	_____	_____	_____	31
Collect and use coupons for products we've not tried before.	_____	_____	_____	32
Shop at more than one store to take advantage of money-saving specials.	_____	_____	_____	33

APPENDIX F

When food prices increase or when the money spent on food must be reduced or controlled (maybe to meet other expenses) it is necessary to make adjustments in food buying. Listed below are some actions that can be taken. Please check the box that best describes the changes you make in each major food area when you must adjust food buying.

	Make no changes	Cut out temporarily	Reduce the total amount spent for this group	Buy less expensive foods within the group, but spend about the same amount	Buy more to replace other items	This doesn't apply because we don't use these foods
Meats, poultry, fish						
Meat substitutes (cheese, beans, eggs, nuts)						
Milk products						
Fresh fruits and vegetables						
Canned or frozen fruits and vegetables						
Bread and cereal products						
Beverages, non-alcoholic (excluding milk)						
Beverages, alcoholic						
Convenience main dishes (frozen pizza, dinner mixes, TV dinners, canned stew, etc.)						
Snack foods						
Desserts						
Other foods (gelatin, pickles, syrups, oils, sauces, etc.)						
Eating out						

What specific foods would you cut out or down when you feel you must make some adjustments to maintain or cut food costs?

APPENDIX G

FOOD DIARIES

Your FOOD DIARIES are IMPORTANT, whether you purchase few or many foods. We would like you to complete a food diary for each of the next four weeks. AT THE END OF EACH WEEK, RETURN YOUR COMPLETED DIARIES TO US IN THE ENVELOPE PROVIDED. If you have any questions, please call us! Diane Corley, 974-3491; evenings, 584-0253 or Dr. Marjorie Penfield, 974-5445.

WHEN TO REPORT:

Record all your food purchases, guest meals and food gifts immediately. You'll remember more accurately that way.

HOW TO REPORT:

SHOPPING TRIP RECORD

Each time food is purchased for the household, record when and where the shopping was done and who did it. Record the total amount spent and the amount of tax for all items purchased at the grocery store, including non-food items.

FOOD PURCHASE RECORDS

Report all food items, including beverages, purchased and brought into your home. Do not record pet foods. Do not record foods and beverages on hand when you begin the project. A sample is attached.

FOOD PURCHASED AWAY FROM HOME RECORD

Both husbands and wives report:
Meals and snacks purchased and eaten away from home. This includes food prepared by restaurants, fast-food places, etc. whether eaten where purchased or elsewhere.
Foods purchased by you for others.

FOOD I ATE TODAY RECORD

Each spouse should complete a form (green by husband; yellow by wife). Please complete it on the designated day; the day will be different each week. A sample form is attached.

GUEST MEALS AND GIFT FOOD RECORD REPORT

Meals and snacks served to guests in your home.
Food prepared by you for others, i.e. gifts, food for someone ill, etc.
Meals when you or your spouse are guests of others, including meals purchased by an employer or business associate for you.
Food given to you.
Lunches, picnics, dishes for pot-luck meals, etc. that are made in your home, carried and consumed elsewhere are not considered meals away from home because the food has already been recorded when purchased.

SHOPPING TRIP RECORD

DIARY #_____ WEEK OF_____

Trip number	Date	Who shopped	Store name and location	Total amount spent	Tax		
EXAMPLE:							
1	Nov.3	Husband	Kroger, Chapman Hwy.	$25.44	$1.44		

FOOD PURCHASE RECORD

DIARY NO._____ WEEK OF_____

Store trip No.	Item	Brand	Form when purchased				Quantity		Price as shown on package	Total cost (quantity X price)
			Fresh	Frozen	Canned	Other	Number of packages or items	Weight or size of each package		

APPENDIX H

AES-519-K-3
DTC/MPP/JDS
10-80

FOOD PURCHASED AWAY FROM HOME _____

DIARY #_____ WEEK_____

Food and Beverages Prepared and Purchased Away from Home Include food you buy that is prepared and purchased away from home. The foods may be purchased at a restaurant, deli, fast-food place or cafeteria or from a vending machine. The food may be for yourself, your spouse, or others (NO NAMES PLEASE!).

Date	Time	Place of purchase (Be specific)	Check one		Eaten by (Check)			Total cost
			Meal	Snack	Husband	Wife	Other	

If you need more space for recording, please continue on the back of this page.

APPENDIX I

AES-519-K-3
DTC/MPP/JDS
1-80

GUEST MEAL AND GIFT FOOD RECORD _____

DIARY #_____ WEEK_____

Food Prepared for Others Include meals, snacks or gifts of food prepared by you or your spouse for others (list as relative, friend, business associate, etc. - NO NAMES PLEASE!)

Date	Prepared by (Check) Husband	Wife	Both	What (Check) Meal	Snack	Gift	For whom	For how many

Times You Ate as the Guest of Someone Else

Date	Husband	(Check) Wife	Both	Meal or snack (check)	With whom

Gifts of Food Received by You

Date	Food received	Amount	From Whom

If you need more space for recording please continue on the back of this page.

APPENDIX J

Table 41--Servings or units per market unit and the number of foods priced within each food subgroup.

Item	Market unit	Servings or units/ market unit	Number of food items priced
APPETIZERS, SALTY SNACKS			
Crackers	16 oz	16	19
Chips	9 oz	9	9
Nuts	8 oz	8	9
Popcorn	16 oz	16	0
Wheat nuts	7 oz	7	0
BEVERAGES			
Non-alcoholic			
Breakfast drinks (instant)	18 oz	32	2
Carbonated drinks	32 oz	4	10
Coffee	16 oz	60	6
Coffee (instant)	4 oz	60	6
Coffee, specialty (instant)	8 oz	20	2
Fruit beverage mixes			
sweetened	6 oz	8	5
unsweetened	0.25 oz	8	2
Fruit drinks (bottled/canned)	32 oz	5	12
Fruit drinks (frozen)	12 oz	8	5
Fruit juices (bottled/canned)	32 oz	5	15
Fruit juices (frozen)	12 oz	8	9
Hot chocolate mixes	16 oz	16	8
Tea	16 oz	60	1
Tea bags	4 oz	48	4
Tea (instant)	3 oz	120	7
Tea mixes (instant)	12 oz	24	4
Vegetable juices	32 oz	5	8
Water (bottled)	32 oz	4	0
Alcoholic			
Beer	6-12 oz	9	3
Liquor	16 oz	16	0
Wine	1 liter	8	0
FLOUR PRODUCTS, BREADS, CEREALS			
Flour Products			
Corn meal and corn meal mixes	5 lbs	80	5
Crumbs, cornflake	10 oz	10	1
Crumbs, cracker	13 oz	13	1
Flour	5 lbs	80	8

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Muffin/biscuit mixes	7 oz	7	3
Pancake mixes	32 oz	4	1
Pie crust mixes	11 oz	11	2
Roll mixes	14 oz	14	1
Breads			
Bagels	12 oz	6	0
Biscuits (canned)	12 oz	6	4
Breads	16 oz	12	11
Bread dough (frozen)	5 lbs	60	1
Breadsticks	6 oz	6	0
Chow mein noodles	5 oz	3	1
Croutons	6 oz	6	0
Doughnuts	16 oz/doz	12	3
French toast (frozen)	14 oz	7	2
Hamburger/hot dog buns	8 buns	8	4
Muffins, cake and English	9 oz	6	5
Pie crust (two)	11 oz	11	1
Rice noodles	3 oz	4	1
Rolls	16 oz	12	4
Rolls (canned)	12 oz	6	2
Rolls, sweet	10 oz	8	3
Taco/tostado shells	10 shells	10	3
Toaster treats	12 oz	6	2
Tortillas (frozen or refrigerated)	8 oz	3	1
Waffles (frozen)	10 oz	3	4
Cereals			
Breakfast bars	9-11 oz	6	4
Cereals	10-13 oz	12	42
Cream of wheat, farina	12-16 oz	12	3
Grits	12 oz	12	2
Instant breakfast	7.5 oz	6	2
Oats (instant)	10 oz	10	2
Oats (regular)	18 oz	18	4
Wheat germ	10 oz	10	1
CHEESE			
Cheese, ripened or processed	16 oz	16	21
Cottage cheese, ricotta	12 oz	3	6

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
CONDIMENTS, BAKING SUPPLIES			
Bacon bits	1.5 oz	1.5	0
Baking chocolate	8 oz	8	1
Baking powder/soda	16 oz	16	0
Barbecue sauce	18 oz	18	1
Brown gravy sauce	12 oz	12	1
Chili and taco sauces	8 oz	8	5
Cocktail sauce	12 oz	12	0
Cocoa	8 oz	8	1
Coconut	8 oz	8	1
Hot sauce	2 oz	2	1
Ketchup	14 oz	14	2
Lemon juice	16 oz	16	1
Mayonnaise/salad dressing	16 oz	16	3
Mustard	9 oz	9	4
Olives	6 oz	6	4
Onions, french-fried	3 oz	3	0
Peppers	12 oz	12	2
Pickles	12 oz	12	12
Relishes	10 oz	10	6
Salad dressings	8 oz	8	15
Salad dressing mixes	1 oz	1	0
Salt	16 oz	16	0
Sandwich spreads	16 oz	16	2
Sauces (dried)	.75-1.25 oz	1	3
Shake 'n Bake	5 oz	5	1
Soy sauce	5 oz	5	1
Spices	1 oz	1	0
Steak sauces	5 oz	5	2
Sweet and sour sauce	5 oz	5	1
Tapioca	8 oz	8	0
Tartar sauce	9 oz	9	2
Tomato paste	6 oz	6	1
Tomato puree	10 oz	10	1
Tomato sauces	8 oz	8	4
Vinegar	16 oz	16	0
Worcestershire sauce	5 oz	5	1
Yeast	0.84 oz	3	0
DESSERTS			
Brownies	13 oz	5	1
Brownie mixes	15 oz	15	2

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Cake flour	32 oz	32	1
Cake mixes	18 oz	18	9
Cakes	11-22 oz	8	12
Candy	16 oz	16	0
Cheese cake (frozen)	17 oz	6	1
Cheese cake mix	10.5 oz	8	1
Chocolate bits	8 oz	8	2
Cobblers	26 oz	3	1
Cookie dough (refrigerated)	18 oz	18	2
Cookie mix	18 oz	18	1
Cookies	12 oz	12	52
Cream pie mix	15.5 oz	6	0
Cupcakes	11 oz	6	2
Frosting mixes/spreads	15 oz	15	2
Gelatin dessert	3 oz	4	2
Pastries	12 oz	6	3
Pies	32 oz	6	4
Pudding (canned)	20 oz	4	2
Pudding mix	3.25 oz	4	5
Shortcakes	4 oz	4	1
Turnover pies/tarts	12 oz	6	2
FATS, OILS			
Butter	16 oz	16	3
Lard	4 lbs	64	1
Margarine	16 oz	16	11
Olive oil	16 oz	16	1
Shortening	3 lbs	48	4
Vegetable oil	24 oz	24	13
Vegetable sprays	9 oz	9	0
JAMS, JELLIES, SUGAR, SYRUPS			
Apple butter	28 oz	28	2
Artificial sweeteners	1.7 oz	16	3
Hershey's syrup	16 oz	16	1
Honey	16 oz	16	3
Jams/preserves	12 oz	12	8
Jellies	10 oz	10	4
Molasses	12 oz	12	1
Sorghum	12 oz	12	0
Sugar (brown)	1 oz	16	1
Sugar (granulated)	1 lb	16	4

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Sugar (powdered)	1 lb	16	1
Syrups	12 oz	12	10
MILK, MILK PRODUCTS			
Condensed sweetened milk	15 oz	3	1
Dairy dessert (frozen)	1/2 gal	12	1
Dips	8 oz	8	3
Evaporated milk	13 oz	3	3
Half and half	16 oz	16	1
Ice cream/milk	1/2 gal	12	6
Ice cream sandwiches	12 bars	12	1
Milks	1 qt	4	11
Non-dairy creamer	10 oz	10	0
Nonfat dry milk (instant)	32 oz	32	4
Sherbets	1 qt	6	2
Sour cream	8 oz	8	1
Whipped topping (frozen)	9 oz	9	2
Whipped topping mix	3 oz	8	2
Whipping cream	8 oz	8	1
Yogurt	8 oz	2	2
Yogurt (frozen)	1 qt	6	1
PREPARED MEAL ITEMS			
Beef stew (canned)	24 oz	3	2
Bouillon cubes	3.25 oz	25	1
Canneloni, ravioli, spaghetti (canned)	15 oz	2	2
Chicken, fried (frozen)	32 oz	6	3
Chili (canned)	16.5 oz	2	2
Chow meins, oriental	16 oz	3	2
Cooking bags	5 oz	1	0
Cup-of-lunch	3 oz	2	2
Cup-of-soup	4 oz	4	2
Entrees, single serving (canned)	7.5 oz	1	3
Main dishes (boxed)	7-8 oz	4	7
Main dishes (frozen)	10-12 oz	2	8
Meats (frozen, prepared)	32 oz	6	4
Pizza (frozen)	9-13 oz	2	4
Pot pies	8 oz	1	4
Soups (canned)	10-11 oz	3	22
Soups (dried)	2-3 oz	6	0

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Soup starter	7 oz	7	0
Stuffing mixes	6 oz	6	2
Tamales, enchiladas	14 oz	2	2
Tuna/hamburger helpers	7-8 oz	4-5	4
T.V. dinners	10-15 oz	1	16
BEANS			
Beans (canned)	16 oz	4	18
Beans (dried)	16 oz	16	9
Peanut butter	12 oz	12	3
Tofu	16 oz	4	0
RICE, PASTA			
Rice	16 oz	16	10
Rice (canned)	15 oz	3	2
Pasta	16 oz	8	16
FRUITS			
Fresh			
Apples	1 lb	3	3
Apricots	1 lb	5	*
Bananas	1 lb	3	1
Blueberries	1 lb	4	*
Cantaloupe	1	4	*
Cherries	1 lb	3	1
Cranberries	1 lb	6	*
Grapefruit	1 lb	2	2
Grapes	1 lb	3	3
Honeydew melon	1	6	1
Lemons	1 lb	3	1
Limes	1 lb	3	1
Mango	1 lb	1	*
Nectarines	1 lb	3	*
Oranges	1 lb	2	2
Papaya	1	2	*
Peaches	1 lb	4	*
Pears	1 lb	4	1
Pineapple	1	6	*
Plums	1 lb	7	2
Raspberries	1 pt	3	*
Strawberries	1 pt	3	*

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Tangerines, tangelos	1	3	*
Watermelon	2 lbs	1	*
Canned			
Apples	16 oz	3	4
Applesauce	16 oz	3	2
Apricots	16 oz	3	4
Blackberries	16 oz	4	1
Cherries	16 oz	3	2
Chunky fruit	16 oz	3	1
Cranberry sauce	16 oz	4	2
Fruit cocktail	16 oz	3	2
Grapefruit	16 oz	3	2
Mandarin oranges	16 oz	3	2
Peaches	16 oz	3	5
Pears	16 oz	3	1
Pie filling	22 oz	6	6
Pineapple	20 oz	4	6
Pumpkin	16 oz	6	1
Purple plums	16 oz	3	2
Frozen			
Apples	16 oz	3	0
Blueberries	16 oz	5	1
Cherries, dark sweet	16 oz	3.5	1
Mixed fruit	16 oz	5	1
Raspberries	16 oz	3	1
Rhubarb	16 oz	5	1
Strawberries	16 oz	3	1
Dried	8 oz	4	0
VEGETABLES			
Fresh			
Artichokes	1	1	*
Asparagus spears	1 lb	4	*
Avocado	1	2	1
Broccoli	1 bunch	6	1
Brussels sprouts	1 lb	6	*
Beets	1 lb	4	*
Cabbage	1 lb	5	2
Cantaloupe	1	4	*
Carrots	1 lb	5	2

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Cauliflower	1 head	4	1
Celery	1 bunch	6	2
Celery hearts	1 lb	5	1
Cole slaw	8 oz	8	*
Corn	3 ears	3	*
Cucumbers	1	3	1
Eggplant	1 lb	4	1
Endive	1 lb	6	1
Green beans	1 lb	5	2
Kale	1 lb	6	*
Lettuce, head	1 head	4	1
Lettuce, Boston	1 head	4	1
Lettuce, fresh leaf	1 lb	6	1
Lettuce, red leaf	1 lb	6	1
Lettuce, Romaine	1 lb	6	1
Lima beans	1 lb	3	*
Mushrooms	1 lb	3	1
Mustard greens	1 lb	6	*
Okra	1 lb	4	*
Onions, green	1 lb	6	1
Onions, red	1 lb	6	1
Onions, white	1 lb	6	1
Onions, yellow	1 lb	6	1
Parsley	1 bunch	4	0
Peas, black-eyed	1 lb	2	*
Peas, English	1 lb	2	*
Peas, snow	1 lb	4	0
Peppers	1	2	1
Potatoes, bulk	10 lbs	30	1
Potatoes, Idaho	1 lb	3	1
Potatoes, new	1 lb	3	1
Potatoes, red	1 lb	3	1
Potatoes, sweet	1 lb	3	1
Pumpkin	1 lb	2	*
Radishes	6 oz	6	1
Rutabagas	1 lb	4	*
Spinach	1 lb	6	*
Squash, acorn	1 lb	2	1
Squash, butternut	1 lb	2	*
Squash, white	1 lb	3	*
Squash, yellow	1 lb	3	1
Tomatoes, cherry	1 pt	3	*
Tomatoes	1 lb	5	2
Turnip greens	1 lb	6	*

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Turnips	1 lb	3	*
Zucchini	1 lb	3	1
Canned or instant			
Asparagus spears	14.5 oz	3	1
Bamboo shoots	8 oz	4	1
Bean sprouts	16 oz	4	1
Beets	16 oz	3	5
Butter beans	16 oz	3	2
Carrots	16 oz	3	3
Carrots and peas	16 oz	3	1
Chinese vegetables	16 oz	3	1
Chop suey vegetables	16 oz	3	1
Corn, whole kernel	17 oz	3	3
Corn, cream style	17 oz	3	3
Green and shelled beans	16 oz	3	1
Green beans	16 oz	3	5
Hearts of artichokes	14 oz	4	1
Hearts of celery	16 oz	4	1
Hominy	14.5 oz	3	2
Lima beans	16 oz	3	1
Mixed bean salad	17.5 oz	3	1
Mixed chinese vegetables	16 oz	3	1
Mixed vegetables	17 oz	3	1
Mushrooms	2.5 oz	3	4
Mustard greens	15 oz	3	1
Okra	15.5 oz	3	1
Okra, tomatoes, corn	15.5 oz	3	1
Onions	16 oz	3	1
Peas	17 oz	3	6
Peas, black-eyed	15 oz	3	1
Peas, crowder	17 oz	3	1
Pickled beets	16 oz	3	2
Pimentos	4 oz	4	2
Potatoes	16 oz	3	0
Potatoes (instant)	16 oz	24	9
Potato salad	16 oz	3	1
Red cabbage	16 oz	4	1
Sauerkraut	16 oz	3	1
Speckled beans	15 oz	3	1
Spinach	15 oz	3	1
Squash	16 oz	3	1
Tomatoes	16 oz	3	2
Turnip greens	15 oz	3	1

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Water chestnuts	8 oz	4	1
Yams	17 oz	3	1
Zucchini	16 oz	3	1
Frozen			
Artichoke hearts	9 oz	3	0
Asparagus spears	10 oz	3	1
Black-eyed peas	10 oz	3	2
Broccoli spears	10 oz	3	5
Brussels sprouts	10 oz	4	4
Cauliflower	10 oz	3	3
Corn	10 oz	3	5
Corn on cob	16 oz	4	3
Eggplant sticks	7 oz	2	1
Ethnic mixes (Danish, Hawaiian, etc.)	10 oz	4	2
Green beans	10 oz	3	2
Hush puppies	16 oz	4	2
Lima beans	10 oz	3	3
Mixed vegetables	10 oz	3	3
Mushrooms	6 oz	3	1
Mustard greens	10 oz	3	1
Okra	10 oz	3	3
Onion rings	16 oz	4	2
Onions (chopped)	12 oz	12	0
Peas	10 oz	3	4
Peas and carrots	10 oz	4	1
Peas, black-eyed	10 oz	3	2
Peas, crowder	10 oz	3	1
Peas, snow	10 oz	3	0
Potatoes au gratin	11.5 oz	2	1
Potatoes, candied sweet	12 oz	2	1
Potatoes, french-fried	32 oz	8	5
Potatoes, hash browns, tots	32 oz	8	3
Potatoes, stuffed	10 oz	2	2
Rice originals	11 oz	3	1
Spinach	10 oz	3	1
Squash	10 oz	3	0
Turnip greens	10 oz	3	1

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
MEAT, MEAT SUBSTITUTES			
Beef, fresh			
Beef and hydrated vegetable protein	1 lb	4	1
Chuck blade roast	1 lb	2	1
Chuck blade steak	1 lb	2	1
Chuck short ribs	1 lb	1	1
Corned beef brisket	1 lb	2	1
Cubed steak	1 lb	4	1
Flank steak	1 lb	4	1
Ground beef	1 lb	4	1
Ground beef chuck	1 lb	4	1
Kidney	1 lb	4	0
Loin filet mignon	1 lb	3	0
Loin porterhouse steak	1 lb	2	1
Loin sirloin steak	1 lb	3	1
Loin strip steak	1 lb	3	1
Loin T-bone	1 lb	2	1
Loin tenderloin roast	1 lb	3	1
Plate spareribs	1 lb	1	1
Pot roast	1 lb	2	1
Rib-eye steak	1 lb	3	1
Round bottom roast	1 lb	3	1
Round bottom steak	1 lb	2	1
Round rump roast or heel	1 lb	3	1
Round steak	1 lb	3	1
Round steak (boneless)	1 lb	4	1
Round tip roast	1 lb	3	1
Round tip steak	1 lb	3	1
Round top roast	1 lb	3	1
Round top steak	1 lb	3	1
Sausage	1 lb	3	1
Spareribs, shortribs	1 lb	1	1
Stew meat	1 lb	3	1
Poultry, fresh			
Broiler halves, no giblets	1 lb	2	1
Chicken livers	1 lb	4	1
Fryer breast quarters	1 lb	2	1
Fryer breasts	1 lb	4	1
Fryer breasts (boneless)	1 lb	4	1
Fryer, cut up	1 lb	2	1
Fryer, cut up country-style	1 lb	2	1

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Fryer parts, mixed	1 lb	2	1
Fryer necks	1 lb	2	1
Fryer thighs	1 lb	2	1
Fryer, whole	1 lb	2	1
Turkey leg/thigh	1 lb	2	1
Turkey, whole prime	1 lb	1	1
Pork, fresh			
Bacon	1 lb	8	4
Bacon and pork sausage	1 lb	4	1
Country sausage links	12 oz	3	1
Country sausage patties	12 oz	3	1
Ham (boneless)	1 lb	3	1
Ham, whole, country style	1 lb	3	1
Ham, whole, water added	1 lb	3	1
Loin assorted chops	1 lb	2	1
Breakfast or thin chops	1 lb	2	1
Centerloin chops	1 lb	3	1
Loin sirloin cutlets	1 lb	4	1
Loin tenderloin	1 lb	4	0
Roast	1 lb	3	1
Shoulder or picnic ham	1 lb	2	1
Sausage biscuits	8 oz	3	1
Sausage, pork	1 lb	4	1
Sausage, whole hog	1 lb	4	1
Spareribs	1 lb	1	1
Veal, fresh			
Loin chops	1 lb	3	1
Leg heel roast	1 lb	3	1
Leg sirloin steak	1 lb	3	1
Lamb, fresh			
Chops, shoulder	1 lb	2	1
Leg	1 lb	2	1
Roast, shoulder blade	1 lb	2	1
Beef, frozen			
Barbeque beef	1 lb	4	1
Liver, calf	1 lb	4	1
Patties, beef	1 lb	4	1

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Pork, frozen			
Barbeque pork	1 lb	4	1
Sausage links	1 lb	4	0
Sausage patties	1 lb	4	0
Poultry, frozen			
Duckling	1 lb	2	0
Frying chicken livers	1 lb	4	0
Frying chicken split breast with ribs	1 lb	2	1
Rock cornish game hen	1 lb	1	1
Turkey, young	1 lb	2	1
Turkey breast, young	1 lb	3	1
Turkey breast (boneless)	1 lb	4	0
Fish/seafood, frozen			
Clams, fried	5 oz	1	0
Clams, stuffed	15 oz	3	1
Cod fillets	1 lb	3	0
Crab, deviled	7 oz	1	1
Fillet, french-fried	11.5 oz	3	1
Fish sticks	1 lb	3	1
Fish kabobs	1 lb	4	1
Flounder fillets	1 lb	3	1
Haddock fillets	1 lb	3	1
Lobster tails	1 lb	1	1
Ocean snacks	8 oz	2	1
Oysters, breaded	10 oz	2	1
Perch fillets	1 lb	3	1
Rock lobster tails	8 oz	1	1
Scallops	7 oz	1	1
Seafood croquettes	1 lb	4	0
Shrimp, boiling	8 oz	2	1
Shrimp, breaded butterfly	1 lb	3	1
Shrimp, breaded fantail	1 lb	3	1
Shrimp sticks	1 lb	3	1
Snow crab	1 lb	1	1
Sole fillets	1 lb	3	1
Trout (boneless)	1 lb	3	1
Canned or Processed Meats			
Beef (dried)	2.5 oz	2	1
Canadian bacon	6 oz	4	1
Chicken barbeque	10.5 oz	2	1

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Chicken, boned	5-6 oz	2	1
Chicken, whole	2 lbs	3	1
Clams, chowder	4 oz	1	0
Clams, minced	7.5 oz	2	1
Corned beef	12 oz	4	1
Corned beef, sliced and smoked	3 oz	2	1
Crab meat, white	6.5 oz	2	1
Franks and weiners	1 lb	5	5
Franks, beef	1 lb	5	1
Franks, imitation	1 lb	5	1
Franks, smoked	1 lb	5	1
Ham, canned	1 lb	3	2
Ham, country, sliced	1 lb	3	1
Ham, cured, sliced	1 lb	3	1
Ham, canned, chunk	7 oz	2	1
Mackeral	15 oz	4	1
Meat spreads: Chicken, Deviled ham, Ham salad, Tuna salad	4.75 oz	2	1
Oysters, smoked	5 oz	2	1
Pigs feet	9 oz	2	1
Pork with brown gravy	12 oz	2	1
Potted meat	3.5 oz	2	1
Roast beef	4.75 oz	2	1
Roast beef with gravy	12 oz	2	1
Salisbury steak with mushroom gravy	12.5 oz	2	1
Salmon, pink	1 lb	4	1
Salmon, sockeye red	7 oz	2	1
Sandwich meats: Bologna, Bologna, beef, Ham, chopped, Ham, sliced and smoked, Honey loaf, Kosher pastrami, Liver cheese, Luncheon loaf, Old-fashioned loaf, Olive loaf, Pepper loaf	8 oz	3	17

Table 41--Continued

Item	Market unit	Servings or units/ market unit	Number of food items priced
Pickle and pimento loaf			
Pickle loaf			
Salami			
Souse			
Spiced luncheon loaf			
Summer sausage			
Sardines	3.75 oz	2	1
Sausage, Italian	12 oz	3	1
Sausage, Kielbasa or Polish	1 lb	4	1
Sausage, Vienna	4 oz	2	1
Shrimp	4 oz	1	1
Spam	12 oz	4	1
Smoky links	12 oz	3	1
Tofu	1 lb	4	0
Tuna	6.25 oz	2	5
Turkey, boned	5-6 oz	2	1
EGGS	1 doz	12	4

*Priced when available or in season.

CLASSIFICATION OF CONVENIENCE[a] FOODS

PREPARED MEAL ITEMS

Main dishes, boxed
- Egg noodles
- Lasagna
- Macaroni and cheese
- "Instant" lunches
- Spaghetti
- Taco dinner mixes
- Hamburger/tuna "helpers"

Main dishes, canned
- Canneloni
- Chicken 'n dumplings
- Chili
- Chop suey
- Chow mein
- Enchiladas
- Individual servings (Hormel)
- Macaroni and cheese
- Meat sandwich spreads
- Ravioli
- Sloppy joe mix
- Spaghetti
- Stew
- Tamales
- "Instant" lunches

Main dishes, frozen
- Breakfasts
- Burritos
- Crepes
- Chow mein, chop suey, etc.
- "Cooking bags"
- Eggrolls
- Enchiladas
- Frozen dinners
- Macaroni and cheese
- Quiche
- Pot pies
- Spaghetti
- Stroganoff, etc. (Stouffer's)
- "Torpedo" sandwiches

Meats, frozen or prepared
- Barbeques
- Beef patties, slices
- Breaded meats, fish, seafood
- Chicken, fried
- Fish sticks, portions
- Meat entrees (Salisbury steak, beef patties with gravy, etc.)
- Sausage biscuits
- Turkey rolls

Pizza, mixes or frozen
Soups
Spaghetti sauces

BEVERAGES

Cocoa mixes
Coffee, instant or specialties
Tea, instant or mixes

DELI ITEMS (except breads)

DESSERTS

Baked items (frozen or fresh)
- Brownies
- Cakes
- Cookies
- Pies

Mixes
- Brownies
- Cakes
- Cookies
- Pie crust

Frostings
Pies
Puddings (mixes or canned)
Turnovers
Whipped toppings

FLOUR/GRAIN PRODUCTS

Baking mixes (Bisquick, etc.)
- Biscuits
- Cake
- Cookie
- Cornmeal
- Muffin
- Pancake
- Quick breads

Biscuits, refrigerator
Coating mixes
Cereal or cracker crumbs
Cereals, instant hot
French toast, frozen
Hushpuppies
Muffins, frozen, fresh-baked
Rice, instant/canned
Stuffing mixes
Streusels/coffee cake mixes
Toaster treats

FRUIT

Baked or fried apples
Fruit desserts, frozen
Pie fillings

MILK AND MILK PRODUCTS

Cheese, shredded
Cheese, spreads
Instant breakfast

VEGETABLES

Bake 'n serve vegetables (Green Giant)
Breaded vegetables
Candied yams
Eggplant sticks
Onion rings

Potatoes
- Au gratin
- Dried mixes (mashed, sour cream, etc.)
- French fries
- Hashbrowns
- Potato salad
- Stuffed
- Tater tots

Refried beans
Three-bean salad
Vegetable dishes (Stouffer's)
Zucchini sticks

OTHER FOODS

Gravy mixes
Seasoning mixes

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[a]Convenience foods are those foods that are partially or completely prepared, except for heating, before consumer purchase, excluding:

Plain canned or frozen fruits
Plain canned or frozen vegetables
Fruit or vegetable juices
Fruit drink mixes
Gelatin mixes
Yeast bread products.

APPENDIX K

Table 42--Low-, medium-, and high-price categories[a] of food

Food groups	Price per serving or ounce ($)		
	High	Medium	Low
Appetizers	0.120↑	0.075-0.199	0.074↓
Bread and biscuits	0.150↑	0.080-0.149	0.079↓
Cereals	0.100↑	0.070-0.099	0.069↓
Cookies	0.125↑	0.075-0.124	0.074↓
Flour and flour products	0.050↑	0.030-0.049	0.029↓
Pasta, rice	0.120↑	0.075-0.119	0.074↓
Legumes	0.120↑	0.075-0.119	0.074↓
Beer, coffee, tea, colas	0.166↑	0.086-0.165	0.085↓
Canned fruit beverages	0.166↑	0.086-0.165	0.085↓
Frozen fruit juices	0.166↑	0.086-0.165	0.085↓
Canned fruits and vegetables	0.220↑	0.170-0.219	0.169↓
Frozen fruits and vegetables	0.220↑	0.170-0.219	0.169↓
Produce	0.220↑	0.170-0.219	0.169↓
Condiments, sauces	0.100↑	0.070-0.099	0.069↓
Jellies, jams, sugars, syrups	0.070↑	0.040-0.069	0.039↓
Pickles	0.100↑	0.070-0.099	0.069↓
Fats and oils	0.085↑	0.050-0.084	0.049↓
Canned and luncheon meats	0.700↑	0.360-0.699	0.359↓
Fresh meats	0.700↑	0.360-0.699	0.359↓
Frozen meats	0.700↑	0.360-0.699	0.359↓
Eggs	0.700↑	0.360-0.699	0.359↓
Milk and milk products	0.150↑	0.110-0.149	0.109↓
Cheese	0.150↑	0.110-0.149	0.109↓
Desserts and puddings	0.250↑	0.150-0.249	0.149↓
Frozen dinners and main dishes	1.00 ↑	0.500-0.999	0.499↓
Soups	0.120↑	0.080-0.119	0.079↓
Main meals and international	1.00 ↑	0.500-0.999	0.499↓

[a]Based on April, May 1981 food prices.

APPENDIX L

CLASSIFICATION OF RESTAURANTS AS CAFETERIA,

FAST FOOD, OR FULL-SERVICE

Cafeterias, self-service

Best Italian Restaurant
Business/industry cafeterias

Duff's

Edward's

High school cafeterias
Hospital cafeterias

Mabel's Cafeteria (Ag Campus)
Millers Westown Snack Shop
Morrison's

Rafters
Ramsey's

S&S
S&W
Smokey's

Western Sizzlin'
Western Steer
Wright's

Fast foods

Arby's

Brylen's Deli
Buddy's Barbeque
Burger King
Burger Queen/Druthers

Captain D's
Colonel's Deli

Dairy Queen
Danver's
Domino's Pizza
Dunkin Donuts

Economy Health Foods Snack Bar

Famous Recipe Chicken (Alcoa)

Handy Dandy Deli
Harb's Deli and Market
Hardee's
Hoagie Hut

Kentucky Fried Chicken
Krispy Kreme Donuts
Krystal

Long John Silver's

McDonalds
Mr. Gatti's

Paul's Deli

Red Fry Deli

Smoky Mountain Market
Sub Shop
Sub Station

Taco Bell
Taco Maker
Taco Rancho

Wendy's
White Store Deli
Woody's Market
Wuv's

Full-service

Alley Restaurant
Antonio's
Arthur's

Bahou Restaurant
Bahou Container
Big Ed's Pizza (Oak Ridge)
Bistro at the Bijou
Brass Rail

Casa Gallardo
China Inn
Charlie's Place
China Palace (Marietta, GA)
China Palace (Oak Ridge)
Circle R Restaurant
Copper Cellar
Cracker Barrel

Darryl's

Eula's

Fiesta Cantina
411 Restaurant

Golden Dragon
Golden River
Gondolier (Clinton)

Half Shell House
Happy Palace
Harold's Deli
Helma's
Houlihan's (Atlanta, GA)
House of Chan
Hungry Fisherman

Inskip Grill

Jerry's
Johnny's

L&N
Las Callandras
Lines Coffee Shop
Lord Lindsay's
Los Charros

Mack's Deli
Mr. Steak
Millers Laurel Room

The Orangery
Open Kitchen

Penny's Westown Restaurant
Proffitt's Westown Skylight Restaurant
Pizza Hut
Pizza Inn
Perolas
Pero's
Perros Cafe

Quarterback Club

Real Peking
Red Lobster
Regas
Regas on Seventeenth
Robbie's Pancake House
Roman Room
Ruby Tuesday

Salad Bar
Sam and Andy's
Seafood Inn (Washington, DC)
Shoney's
Silo
Soup Kitchen
Southern Grill
Steak and Egg
Swenson's

TGI Friday's
Torch
Town and Country

Union Cafe
United American Bank Dining Room

Varsity Inn
Village
Volador Room

Waffle House
Walgreen's

APPENDIX M

Table 43--Food-related values, attitudes, and beliefs of young couples[a]

Item	Means ± s.d.		P[b]
	Husbands	Wives	
1. When we get together with friends, we prefer "potluck" meals rather than eating out, because potluck meals cost less.	42.93 ± 19.85	45.71 ± 17.76	0.363
2. Entertaining by giving dinner parties is an excellent way to gain status among friends.	31.50 ± 23.66	28.79 ± 21.73	0.443
3. We will eat some foods even if they are not our favorites because they are more economical.	45.37 ± 23.59	41.71 ± 24.32	0.334
4. Commercially prepared foods today are just as good as homemade foods.	25.43 ± 20.07	20.93 ± 19.88	0.160
5. My spouse enjoys entertaining.	64.00 ± 16.37	64.79 ± 18.13	0.785
6. You can save by shopping for food at more than one store.	54.21 ± 24.13	47.04 ± 22.02	0.066
7. The foods eaten will have little effect on the future health of an individual.	12.86 ± 17.29	14.29 ± 20.63	0.669
8. I think it is important to plan a food budget and stick to it.	56.00 ± 19.77	58.64 ± 20.32	0.364
9. I like to eat the foods that I am used to eating.	54.79 ± 18.87	47.71 ± 20.41	0.026

Table 43--Continued

Item	Means ± s.d. Husbands	Means ± s.d. Wives	p[b]
10. Nutrition is important and a person should not be careless about it.	74.50 ± 13.52	75.50 ± 15.95	0.700
11. The use of convenience foods takes much of the drudgery out of meal preparation and clean-up.	53.00 ± 23.37	50.21 ± 24.01	0.428
12. I do not consider dinner to be a meal if meat is not served.	32.50 ± 30.26	23.57 ± 23.49	0.021
13. It would embarrass me to serve certain foods to my guests.	36.79 ± 24.95	39.70 ± 27.09	0.466
14. I prefer to eat food that is prepared like it was when I was growing up.	44.43 ± 19.37	42.50 ± 21.12	0.555
15. As long as proper weight is maintained, a person doesn't have to worry about nutrition.	12.71 ± 13.32	9.50 ± 12.72	0.126
16. Convenience foods are too expensive to use regularly.	55.71 ± 20.73	53.75 ± 24.90	0.565
17. An important recreation for us is eating out with friends.	46.64 ± 21.34	44.50 ± 21.71	0.518
18. Being able to prepare foods "from scratch" rather than from mixes is important to me.	50.07 ± 23.34	61.71 ± 23.92	0.001

Table 43--Continued

Item	Means ± s.d.		p^b
	Husbands	Wives	
19. I think that the new convenience foods are great.	39.77 ± 22.65	37.71 ± 22.95	0.483
20. A good way to gain recognition from friends is to be a good cook.	47.43 ± 22.13	51.50 ± 20.63	0.179
21. I do not consider dinner to be a meal if a hot food is not served.	32.86 ± 26.71	25.29 ± 23.92	0.029
22. I would probably eat a larger variety of foods it it weren't for my spouse.	18.71 ± 19.85	28.86 ± 31.31	0.026
23. We would choose very different foods than the ones that we do if we could afford them.	36.11 ± 23.09	36.29 ± 23.59	0.960
24. We would rather do without than buy poor-looking fruits and vegetables.	60.29 ± 20.83	60.36 ± 25.08	0.984
25. I like having guests for dinner.	64.71 ± 17.38	67.00 ± 21.22	0.449
26. I don't like casseroles or similar mixtures of food.	24.36 ± 24.17	15.79 ± 18.25	0.019
27. Food preparation takes more skill than I thought it would before I was married.	33.71 ± 23.49	31.79 ± 26.74	0.596
28. The use of convenience foods saves time needed for other activities.	51.07 ± 18.16	49.86 ± 23.98	0.696

Table 43--Continued

Item	Means ± s.d.		P[b]
	Husbands	Wives	
29. I think that it is important to have meals with friends quite often.	47.57 ± 17.61	49.34 ± 20.65	0.562
30. My spouse has had a great deal of influence on the food that I eat.	56.43 ± 22.09	48.68 ± 21.84	0.064
31. Food purchased at fast food places is more expensive than the same kind of food prepared at home.	68.57 ± 20.16	68.85 ± 19.28	0.928
32. Today food has so many vitamins and minerals added that people don't have to worry about their nutrition.	15.93 ± 16.77	12.71 ± 14.08	0.234
33. I like to spend time preparing food.	45.64 ± 26.13	58.57 ± 24.48	0.008
34. People who drink milk don't have to worry about their nutrition.	14.86 ± 18.98	12.71 ± 12.00	0.411
35. Modern processing removes most of the vitamins and minerals from our foods.	52.07 ± 22.19	54.29 ± 18.62	0.462
36. Food can be plain as long as there is plenty of it.	37.29 ± 22.36	31.13 ± 21.27	0.113
37. Money is the thing we consider most when planning our food.	41.94 ± 23.22	44.21 ± 20.90	0.481

Table 43--Continued

Item	Means ± s.d. Husbands	Means ± s.d. Wives	P[b]
38. Knowing I can prepare meals that require much time and skill is a source of great personal pride to me.	51.29 ± 25.55	59.14 ± 23.61	0.073
39. Eating food that is similar to that which my friends eat is important to me.	20.86 ± 19.37	21.71 ± 15.65	0.752
40. It is pleasing to me when meals contain foods of different colors and textures.	48.93 ± 21.67	62.29 ± 19.80	0.001
41. The taste of food is more important than the cost of food.	50.12 ± 19.89	52.71 ± 20.26	0.442
42. Planning meals ahead makes it possible to use time more efficiently.	66.64 ± 17.08	71.00 ± 15.34	0.113
43. Most food additives are safe when used according to government regulations.	43.98 ± 24.37	43.07 ± 22.24	0.799
44. National brand foods are better than store brand foods.	31.29 ± 19.57	34.56 ± 19.43	0.266
45. Eating out is too expensive for us to do often.	59.28 ± 19.23	54.14 ± 24.55	0.143
46. When I eat out, I want food that is special.	55.14 ± 19.85	58.36 ± 21.05	0.299

Table 43--Continued

Item	Means ± s.d.		p[b]
	Husbands	Wives	
47. A good way to save is to buy primarily those foods on sale at lower prices.	52.57 ± 21.95	58.36 ± 19.22	0.074
48. We sometimes enjoy T.V. dinners.	21.21 ± 23.57	12.21 ± 19.79	0.001
49. Time is the thing we consider most when planning our food.	34.86 ± 20.75	35.29 ± 22.74	0.905
50. "Natural" or "health foods" are not worth the cost.	50.43 ± 25.77	46.86 ± 24.72	0.350
51. We enjoy trying out new recipes.	68.14 ± 16.53	68.57 ± 15.49	0.847
52. One should serve expensive, not just "everyday foods" to guests.	32.21 ± 20.12	27.50 ± 20.28	0.107
53. Eating meals with my spouse is important to me.	71.21 ± 18.35	76.21 ± 16.05	0.068
54. I wish that there were more convenience foods available.	33.36 ± 18.70	31.64 ± 19.35	0.449
55. The better a food looks, the better it tastes.	39.64 ± 23.41	43.53 ± 22.23	0.303
56. Food preparation takes more time than I thought it would before I was married.	36.49 ± 22.88	32.57 ± 26.03	0.278

Table 43--Continued

Item	Means ± s.d.		p[b]
	Husbands	Wives	
57. Attractive color and texture combinations in foods are important to me.	44.43 ± 21.17	61.36 ± 20.32	0.001
58. The manufacturers of "health foods" are more concerned about the nutritional quality of foods than are those who manufacture "regular foods."	45.64 ± 20.61	38.64 ± 22.82	0.043
59. I am learning to eat more vegetables than I did before I was married.	46.93 ± 25.36	36.57 ± 26.23	0.030
60. A special sale on food is just a "come-on" to get you to shop at a store.	52.86 ± 20.84	41.71 ± 18.06	0.001
61. We are willing to buy foods of lower quality if they are less expensive.	33.94 ± 18.85	34.07 ± 20.44	0.965
62. I eat only because it's a necessity.	20.79 ± 21.53	20.93 ± 19.34	0.964
63. The foods that I like best are those that I learned to eat when I was growing up.	47.00 ± 20.98	46.64 ± 24.93	0.927
64. Manufacturers of "health foods" are more concerned about consumer safety than are those who manufacture "regular foods."	41.00 ± 24.34	35.71 ± 21.05	0.153
65. We like to eat out with friends so no one has the fuss of meal preparation.	33.57 ± 18.58	37.50 ± 20.53	0.174

Table 43--Continued

Item	Means ± s.d.		p[b]
	Husbands	Wives	
66. Weight control is a primary consideration in the foods that I choose to eat.	33.71 ± 23.97	45.43 ± 23.01	0.002
67. I feel it is important to prepare something special when entertaining.	52.07 ± 21.43	59.21 ± 19.90	0.022
68. We choose the foods we do mainly on the basis of cost.	42.71 ± 20.88	46.29 ± 20.03	0.269
69. Convenience foods usually cost more than similar foods prepared from "scratch."	58.95 ± 21.06	59.00 ± 22.84	0.990
70. Tough meat is acceptable if the flavor is good.	37.07 ± 23.02	28.36 ± 21.70	0.005
71. Most food processors are more interested in profit than in the nutritional quality of the food they produce.	59.42 ± 19.16	55.36 ± 18.16	0.142
72. I could eat the same thing every day.	30.00 ± 22.07	19.21 ± 17.17	0.001
73. Food quality is more important to us than food cost alone.	62.64 ± 17.46	61.86 ± 16.47	0.710
74. The food I eat must be attractive and flavorful.	49.64 ± 19.95	64.14 ± 14.19	0.001
75. I will not hesitate to serve commercially prepared foods to guests.	47.00 ± 21.47	39.43 ± 24.84	0.028

Table 43--Continued

Item	Means ± s.d. Husbands	Means ± s.d. Wives	p[b]
76. Food additives are necessary to ensure a varied, safe food supply.	45.22 ± 21.05	43.86 ± 22.33	0.695
77. I enjoy trying foods that are not familiar to me.	62.18 ± 20.22	66.64 ± 18.59	0.204
78. When I go out to eat, I prefer places that offer unlimited quantities of food.	40.15 ± 20.16	38.00 ± 20.82	0.450
79. I think eating out is worth additional cost.	48.78 ± 16.37	55.21 ± 15.87	0.020
80. I enjoy entertaining.	60.53 ± 17.60	67.67 ± 19.31	0.006
81. Food cost limits the variety of foods we eat.	49.04 ± 22.44	48.79 ± 24.49	0.938
82. I am learning to eat a larger variety of foods now that I am married.	55.22 ± 20.29	46.40 ± 24.79	0.024
83. My spouse enjoys trying foods that are not familiar to him/her.	57.81 ± 21.36	55.21 ± 25.01	0.518
84. I prefer "well-done" rather than "medium" or "rare" meat.	27.36 ± 28.89	27.43 ± 29.98	0.989
85. I am quite satisfied with my weight.	48.09 ± 24.00	41.58 ± 25.12	0.090
86. I prefer vegetables that are cooked to be tender-crisp rather than soft in texture.	57.38 ± 24.68	61.43 ± 23.47	0.213

Table 43--Continued

Item	Means ± s.d.		P[b]
	Husbands	Wives	
87. We seldom serve refreshments to guests.	21.13 ± 18.97	18.14 ± 19.75	0.352
88. I think I have a variety of food preparation skills and can prepare most any type of food.	47.93 ± 27.66	55.77 ± 22.97	0.087
89. I have had a great deal of influence on the food that my spouse eats.	52.19 ± 17.76	56.07 ± 19.56	0.293

[a]N = 70.

[b]Paired t-test probability levels.

Table 44--Wilcoxen rank difference test of husbands' and wives' marriage-spouse influence and food preparation indices

Index (statements)	- Ranks mean	+ Ranks mean	P (2-tailed)
Marriage/spouse influence (No. 22) (No. 30) (No. 82)	31.64	33.61	0.508
Food preparation (No. 88)	27.12	37.25	0.130

Table 45--Significant correlations[a] between husbands'[b] and wives'[b] attitude indices

Attitude Index (Wife)	Attitude Index (Husband) 1	2	3	4	5	6	7	8	9	10
1. Aesthetics-pleasure	*							*		
2. Convenience		*								
3. Nutrition	*			*						
4. Familiarity				*						
5. Economy					*		*			
6. "Natural-health" foods										
7. Food preparation skills and time										
8. Marriage-spouse										
9. Utility									*	
10. Food-away-from-home		*					*			

[a] $P \leq 0.05$.

[b] $N = 55$.

APPENDIX N

Table 46--Food preparation and buying questionnaire and responses of husbands[a] and wives[a]

% Responses[a,b]		
Husbands	Wives	Question[c]
		1. One tablespoon equals
49	20	a. 2 teaspoons.
23	53	b. 3 teaspoons.
10	20	c. 4 teaspoons.
19	7	d. I'm not sure.
		2. One half of 3/4 cup equals
12	9	a. 1/3 cup.
33	50	b. 1/4 cup + 2 tablespoons.
1	11	c. 8 tablespoons.
54	30	d. I'm not sure.
		3. A marinade is
90	94	a. a mixture of oil and either vinegar or wine used for flavoring and tenderizing foods.
0	1	b. a term to describe frying food lightly.
0	0	c. specially shaped dish for baking and serving seafood.
10	4	d. I'm not sure.
		4. Of the following, the green beans that cost least per serving are
33	27	a. fresh green beans at 55¢/lb. (16 oz.).
4	3	b. frozen green beans at 40¢/9 oz. package.
60	63	c. canned green beans at 45¢/16 oz. can.
3	7	d. I'm not sure.
		5. A recommended method for cooking fresh vegetables such as carrots or potatoes is
9	7	a. place the whole vegetables in a pan with enough boiling water to cover, cook without a lid until very soft and rinse.
17	14	b. dice into very small pieces, place in a pan with enough boiling water to cover and cook until tender.
46	73	c. cut into equal-sized pieces (about 1"), place in a pan containing 1 inch of boiling water, cover the pan and cook until tender.
29	6	d. I'm not sure.

Table 46--Continued

% Responses[a,b]		Question[c]
Husbands	Wives	
		6. A convenience food that usually is less expensive than its homemade counterpart is
11	9	a. frozen beef patties with gravy.
57	63	b. frozen orange juice.
1	6	c. frozen corn souffle.
30	23	d. I'm not sure.
		7. A recommended method for preparing dried beans is
70	76	a. soak them overnight in 2-3 times as much water as beans, bring to a boil and simmer until tender.
3	3	b. add 3-4 times as much water as beans, bring to a boil, boil rapidly for about an hour, and cook until tender.
6	9	c. add just enough water to cover the beans, bring to a boil, and simmer gently until tender.
21	13	d. I'm not sure.
		8. A spice sometimes used in desserts or sweet doughs is
20	20	a. marjoram.
6	3	b. paprika.
26	51	c. cloves.
49	26	d. I'm not sure.
		9. A mixture of 2 tablespoons flour, 2 tablespoons margarine and 1 cup milk is used to make
3	1	a. a dessert pudding.
47	79	b. a sauce for vegetables or base for casseroles.
7	4	c. a basting for meat to be roasted.
43	16	d. I'm not sure.
		10. Baking powder or soda is used in cakes, breads, or pancakes to
0	1	a. make the product tender.
3	0	b. give a special flavor.
84	94	c. cause the product to rise.
13	4	d. I'm not sure.

Table 46--Continued

% Responses[a,b]		Question[c]
Husbands	Wives	
		11. To make tender biscuits from scratch, you should mix the ingredients
47	77	a. about 20 strokes with a fork, then knead lightly.
3	3	b. one minute with a mixer at the lowest speed.
4	0	c. two minutes with a mixer at medium speed.
46	20	d. I'm not sure.
		12. A cake is ready to take out of the oven when
89	99	a. a toothpick inserted in the center comes out clean
1	1	b. a small imprint remains when the cake is touched.
4	0	c. the surface turns brown.
6	0	d. I'm not sure.
		13. Braising meat requires
30	46	a. addition of liquid and use of a covered container.
14	7	b. an outdoor grill and hot coals.
9	9	c. a special sauce added several hours before cooking.
47	39	d. I'm not sure.
		14. Of the following, the most economical buy is
10	10	a. cubed steak at $2.80/lb.
57	64	b. chicken thighs at $1.20/lb.
16	9	c. pork spareribs at $1.10/lb.
17	17	d. I'm not sure.
		15. A cup of regular rice should be
20	6	a. rinsed well and cooked in 1 cup water.
10	16	b. not rinsed and cooked in 1 cup water.
46	57	c. not rinsed and cooked in 2 cups water.
25	21	d. I'm not sure.
		16. Oil used for deep-fat frying
6	9	a. should never be re-used.
4	4	b. may be suitable for re-use if allowed to cool uncovered overnight before storing.
69	77	c. may be suitable for re-use if strained and stored covered soon after use.
21	10	d. I'm not sure.

Table 46--Continued

% Responses[a,b]		Question[c]
Husbands	Wives	
		17. Vegetables and gravy left from dinner should be
30	31	a. cooled at room temperature, then refrigerated.
3	1	b. thrown away because they have been held at room temperature and are not safe.
53	59	c. cooled only in the refrigerator; used within a few days.
14	9	d. I'm not sure.
		18. Which of the following substitutions could be made without further adjustments in a cookie recipe?
24	30	a. 1/4 cup of reconstituted dry milk for 1/4 cup fresh milk.
20	26	b. 1/2 cup oil for 1/2 cup shortening.
11	21	c. 1 cup honey for 1 cup sugar.
44	23	d. I'm not sure.
		19. A recommended method for preparing a hard-cooked egg is to place the egg in a pan, cover with cold water, bring water to a boil, then
64	53	a. boil for 10 minutes and cool immediately.
16	21	b. simmer for 10 minutes and cool immediately.
4	16	c. simmer for 20 minutes and cool immediately.
16	10	d. I'm not sure.
		20. To freeze fresh green beans,
16	7	a. wash, drain, package, and freeze.
40	64	b. wash, blanch, drain, cool, package, and freeze.
19	20	c. wash, cook until tender, drain, cool, package, and freeze.
26	9	d. I'm not sure.
		21. To prevent browning of fresh apple slices that will be held for several hours,
47	79	a. sprinkle with lemon juice.
1	6	b. sprinkle with sugar.
10	3	c. slice, cover and refrigerate.
41	13	d. I'm not sure.

Table 46--Continued

% Responses[a,b]		
Husbands	Wives	Question[c]
		22. The cooking time for a frozen vegetable compared to that for its fresh counterpart
49	69	a. usually is shorter.
6	9	b. usually is the same.
30	11	c. usually is longer.
16	11	d. I'm not sure.
		23. The term "natural" on a food label means
46	56	a. little; the term can be applied to many foods.
3	0	b. that the food is government-inspected for purity.
41	34	c. that the food has no chemicals.
10	10	d. I'm not sure.
		24. Ground beef can be stored for up to 6 months in the freezer if
10	17	a. left in the store wrapper.
7	3	b. wrapped in ordinary waxed paper.
59	69	c. wrapped in a double thickness of aluminum foil.
23	11	d. I'm not sure.
		25. An appropriate way to prepare chuck roast is
14	0	a. broiling.
1	1	b. grilling.
63	87	c. cooking with a small amount of water in a covered pan.
21	11	d. I'm not sure.

[a] N = 70.

[b] % <> 100 due to rounding.

[c] Correct answer underlined.

Table 47--Difficulty and discrimination of food preparation and buying knowledge items

Item	Difficulty	Discrimination
Q1	0.621	0.568
Q2	0.586	0.622
Q3	0.079	0.243
Q4	0.700	0.162
Q5	0.407	0.568
Q6	0.400	0.459
Q7	0.271	0.514
Q8	0.614	0.730
Q9	0.371	0.676
Q10	0.107	0.270
Q11	0.379	0.595
Q12	0.064	0.162
Q13	0.621	0.432
Q14	0.393	0.459
Q15	0.486	0.649
Q16	0.279	0.432
Q17	0.443	0.351
Q18	0.729	0.270
Q19	0.814	0.270
Q20	0.479	0.676
Q21	0.371	0.757
Q22	0.929	0.081
Q23	0.493	0.432

Table 47--Continued

Item	Difficulty	Discrimination
Q24	0.364	0.432
Q25	0.250	0.541

APPENDIX O

AES 519-K-3
DTC/MPP-JDS
12/80

1-8

DECISIONS

In every marriage, somebody has to decide such things as where to live and so on. Many couples talk things over first, but the final decision may be made by the husband or wife. We would like to know who decides each of the following. If a statement does not apply (for example, if you do not have a car) check "Doesn't Apply". Check the appropriate column for <u>each</u> task. AGAIN, PLEASE DO NOT CONSULT WITH YOUR SPOUSE.

Who decides?	I always decide	I decide more than my spouse	We decide equally or together	My spouse decides more than I do	My spouse always decides	
1. what to fix for breakfast						10
2. what to fix for dinner						11
3. what foods to serve to guests						12
4. when to shop for groceries						13
5. where to shop for groceries						14
6. how much to spend for food						15
7. what foods to purchase						16
8. when to eat-out together						17
9. where to eat-out together						18
10. what meats to eat						19
11. what vegetables to eat						20
12. what snacks to eat						21

	I always decide	I decide more than my spouse	We decide equally or together	My spouse decides more than I do	My spouse always decides	
13. when to have meals						23
14. how food will be prepared						24
15. how to decorate our home						25
16. when and how to do the laundry						26
17. how to budget the money						27
18. what activities (movies, sports, church) to do together outside the home						28
19. when and how to clean our home						29
20. when to get together with friends						30
21. when the car needs maintenance						31
22. what T.V. shows to watch						32

TASKS _____

Some routine tasks must be accomplished in daily living. In your household who does the tasks that are listed below? Check the appropriate column for each task.

	I always do this	I do this more than my spouse	We both do this equally	My spouse does this more than I do	My spouse always does this	
1. Prepare breakfast						34
2. Prepare evening meal						35
3. Shop for groceries						36
4. Prepare food when having guests						37
5. Carry the checkbook						38
6. Decorate the home						39
7. Set the table						40
8. Do the evening dishes						41
9. Dispose of the garbage						42
10. Do the laundry						43
11. Write checks to pay bills						44
12. Clean the house						45
13. Initiate "get-togethers" with friends						46
14. Make entertainment arrangements						47
15. Make minor household repairs						48
16. Take care of the car						49

APPENDIX P

AES-519-K-3
DTC/MPP/JDS
1-81

MEAL PRACTICES

Please place a check under the term that best answers each question.

	Every or most days	3-4 days a week	3-4 times a month	Once a month or less	Never	
1. How often do you eat each of these now?						
Breakfast						9
Noon meal						10
Evening meal						11
Snacks						12
2. How often did you eat each of these meals before you were married?						
Breakfast						14
Noon meal						15
Evening meal						16
Snacks						17
3. How often do you purchase each of these meals away from home?						
Breakfast						19
Noon meal						20
Evening meal						21
4. How often do you eat each of these meals with your spouse?						
Breakfast						22
Noon meal						23
Evening meal						24
5. How often do you have guests to your home for each of these meals?						
Breakfast						25
Noon meal						26
Evening meal						27

VITA

Diane S. Traver is the daughter of G. Richard and Betty Traver. She grew up on Singlpine Farms, the Traver centennial farm, in Ingham County, Michigan. She attended a one-room country school until 1960. She was graduated from Dansville Agricultural School in 1967. In 1971 she received a Bachelor of Science degree in Home Economics Education from the College of Human Ecology, Michigan State University.

From 1971-1976 she held various positions: program consultant for the Dairy Council of Michigan; project director of the Nutrition Program for the Elderly in Culpeper, Virginia; and city 4-H Extension Agent, Charlottesville, Virginia. In 1977, she received a graduate teaching assistantship at The University of Tennessee, College of Home Economics and began graduate study in food science and nutrition. Her Master of Science degree was awarded in 1978. She continued graduate study as a food science graduate research assistant at UT. She also became a registered dietitian and worked as a microwave consultant during this time. In 1982, she received her doctorate from The University of Tennessee.

Diane is a member of the Institute of Food Technologists, Society for Nutrition Education, American Dietetic Association, Omicron Nu, and Phi Tau Sigma. She has accepted a position as assistant professor in the Human Nutrition and Food Management Department and Extension at The Ohio State University, Columbus, Ohio.